

DESERT VALLEY COMPANY MONOFILL EXPANSION PROJECT, CELL 4

DRAFT ENVIRONMENTAL IMPACT REPORT VOL. 1

SCH NO. 2019120605

GPA#18-0004/ ZC#18-0005/ IS#18
CUP AMENDMENT #18-0020
WATER WELL CUP #21-0002

July 2021



Prepared for:
County of Imperial, Planning & Development Services Dept.



Prepared by:
BRG Consulting, Inc.

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DRAFT
ENVIRONMENTAL IMPACT REPORT
VOL. 1

DESERT VALLEY COMPANY
MONOFILL EXPANSION PROJECT, CELL 4

SCH No. 2019120605

GPA#18-0004/ ZC#18-0005/IS#18-0020
CUP Amendment #18-0025
Water Well CUP #21-0002

Prepared for
IMPERIAL COUNTY
PLANNING & DEVELOPMENT SERVICES
801 MAIN STREET
EL CENTRO, CALIFORNIA 92243



Prepared by
BRG Consulting
304 Ivy Street
San Diego, CA 95825
Telephone: (619) 298-7127

July 2021

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Appendix M	Noise Report
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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ACEC	Area of Critical Environmental Concern
ADT	Average Daily Trips
APCD	Air pollution control district
APE	Area of Potential Effect
APN	Assessor's Parcel Number
APS	Alternate Planning Strategy
AQAP	Air Quality Attainment Plan
ASTM	American Society for Testing and Materials
ATC	Authority to Construct
BA	Biological Assessment
BAU	Business as usual
BG	Bare Ground
BLM	Bureau of Land Management
BMP	Best Management Practice
BO	Biological Opinion
B.P.	before present
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
Cal/OSHA	California Occupational Safety and Health Administration
CalEEMod	California Emissions Estimator Model
CalEnergy	CalEnergy Operating Corporation
CalEPA	California Environmental Protection Agency
CALFIRE	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
Cal-IPC	California Invasive Plant Council
CalRecycle	California Department of Resources Recycling and Recovery
CARB	California Air Resources Board
CAT	Climate Action Team
CCR	California Code of Regulations
CDCA	California Desert Conservation Area
CDFW	California Department of Fish and Wildlife
CDMG	California Department of Conservation, Division of Mine and Geology
CDPH	California Department of Public Health

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ACRONYMS AND ABBREVIATIONS

CDPH	California Department of Public Health
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CFS	cubic feet per second
CGS	California Geological Survey
CH ₄	Methane
CHP	California Highway Patrol
CIWMB	California Integrated Waste Management Board
CNDDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CO	Carbon monoxide
CO	Conference Opinion
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
COC	Contaminants of Concern
COSE	Conservation and Open Space Element
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CSHE	Circulation and Scenic Highways Element
CSSC	California Species of Special Concern
CUP	Conditional Use Permit
CUPA	Certified United Program Agency
CWA	Clean Water Act
CWA	Clean Water Act
CY	Cubic yards
dB	Decibels
dBA	A-weighted sound pressure level
DEIR	Draft Environmental Impact Report

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ACRONYMS AND ABBREVIATIONS

DPW	Department of Public Works
DTSC	Department of Toxic Substance Control
DV	Developed
DVC	Desert Valley Company
DVCM	Desert Valley Monofill Company
DWR	Department of Water Resources
EIR	Environmental Impact Report
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESA	Endangered Species Act of 1973
ESA	Environmental Site Assessment
FGC	Fish and Game Code
FMMP	Farmland Mapping & Monitoring Program
FTA	Federal Transit Administration
GHG	Greenhouse gases
GPA	General Plan Amendment
GSP	Groundwater sustainability plan
GWP	Global warming potential
H ₂ S	Hydrogen Sulfide
HDPE	High-Density Polyethylene
HFCs	Hydrofluorocarbons
HMBP	Hazardous Materials Business Plan
HRP	Habitat Restoration Plan
HUD	Housing and Urban Development
I-8	Interstate 8
ICAPCD	Imperial County Air Pollution Control District
ICPDS	Imperial County Planning & Development Services Department
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
ITP	Incidental Take Permit

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ACRONYMS AND ABBREVIATIONS

JCP	Joint Contingency Plan
LCFS	Low Carbon Fuel Standard
LCRS	leachate collection and removal system
Ldn	Day-Night Average Level
LEA	Local Enforcement Agency
Leq	Equivalent continuous sound level
LOS	Level of Service
LUE	Land Use Element
MBTA	Migratory Bird Treaty Act
MBTA	Migratory Bird Treaty Act
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Program
MMT	Million metric tons
MND	Mitigated Negative Declaration
MOU	Memorandum of Understanding
mph	miles per hour
MPO	Metropolitan Planning Organizations
MT	Metric tons
N ₂ O	Nitrous oxides
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NE	Noise Element
NO ₂	Nitrogen dioxide
NOA	Notice of Availability
NOC	Notice of Completion
NOI	Notice of Intent
NOP	Notice of Preparation
NORM	Naturally Occurring Radioactive Materials
NOx	Oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act

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ACRONYMS AND ABBREVIATIONS

NRHP	National Register of Historic Place	
O ₃	Ozone	
OEHHA	Office of Environmental Health Hazard Assessment	
OHV	off-highway vehicle	
OPR	Office of Planning and Research	
OSHA	United States Occupational Safety and Health Administration	
Pb	Lead	
PCB	polychlorinated biphenyls	
PCE	passenger car equivalent	
PFCs	perfluorocarbons	
PGA	peak ground acceleration	
PI	Principal Investigator	
PM	Particulate matter	
PM _{2.5}	particulates less than 2.5 microns in diameter	
PM ₁₀	Particulate matter 10 micrometers or less in diameter	
PMP	probable maximum precipitation	
ppm	Parts per million	
PRC	Public Resource Code	
PRMMP	Paleontological Resource Mitigation and Monitoring Plan	
Project	Desert Valley Company Monofill Expansion Project, Cell 4	
psf	per square foot	
PTC	Permit to Construct	
PTO	Permit to Operate	
PVC	polyvinyl chloride	
RCRA	Resource Conservation and Recovery Act	
REC	Recognized Environmental Concern	
RMS	Root mean squared	
ROG	reactive organic gas	
RPS	Renewables Portfolio Standard	
RTP	Regional Transportation Plan	
RWQCB	Regional Water Quality Control Board	
SB	Senate Bill	

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ACRONYMS AND ABBREVIATIONS

SCH	State Clearinghouse Number
SCS	Sustainable Communities Strategy
SDNHM	San Diego Natural History Museum
SF ₆	sulfur hexafluoride
SIP	State Implementation Plan
SLCP	short-lived climate pollutants
SO ₂	Sulfur dioxide
SO _x	Oxides of sulfur
SPSE	Seismic and Public Safety Element, County of Imperial
SPSE	Seismic and Public Safety Element
SR-111	State Route 111
SR-86	State Route 86
SSC	Species of Special Concern
STP	shovel test pits
Strategy	Flat-tailed Horned Lizard Rangewide Management Strategy
SVP	Society of Vertebrate Paleontology
SWF	Solid Waste Facility
SWFP	Solid Waste Facility Permit
SWMF	Solid Waste Management Facility
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	California State Water Resources Control Board
SWRCB	State Water Resources Control Board
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
TENORM	Technologically Enhanced Naturally Occurring Radioactive Materials
TNW	Traditional Navigable Water
USACE	U.S. Army Corps of Engineers
USACE	U.S. Army Corps of Engineers
USC	United States Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey

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ACRONYMS AND ABBREVIATIONS

UV	ultraviolet
VdB	vibration decibels
VEC	Vapor Encroachment Condition
VESM	Vapor Encroachment Screening Matrix
VMT	Vehicle miles traveled
WDPP	Wind Dispersal Prevention Program
WDR	Waste Discharge Requirement
WEAP	Worker Environmental Awareness Program
WPLT	Western Pluvial Lakes Tradition
WUS	Waters of the U.S.
ZC	Zone Change
ZNE	Zero Net Energy

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1.0 EXECUTIVE SUMMARY

This Environmental Impact Report (EIR) has been prepared for the Desert Valley Company Monofil Expansion Project, Cell 4; located in Brawley, California. This document analyzes the potential environmental effects associated with implementation of the project (including direct and indirect impacts, secondary impacts, and cumulative effects).

1.1 Purpose and Scope of the Environmental Impact Report

This Environmental Impact Report (EIR) has been prepared for the Imperial County Planning and Development Services Department (ICPDSD), with the County of Imperial (County) acting as the lead agency under California Environmental Quality Act (CEQA) Guidelines Sections 15050 and 15367, to analyze the potential environmental effects associated with implementation of the proposed Desert Valley Company Monofil Expansion Project, Cell 4.

An EIR is a public informational document used in the planning and decision-making process. The purpose of the EIR is to demonstrate that the County has made a good faith effort at disclosing the potential for the project to result in significant impacts to the physical environment. As such, the EIR does not consider potential fiscal impacts, cost-benefit assessment, or social impacts. Nor does the EIR present recommendations to the decision-making bodies for approval or denial of the project based on the environmental findings. Rather, the EIR is intended to provide additional information about the project when, if, and at which time it is reviewed and considered by the County in its discretionary decision-making.

This EIR provides decision-makers, public agencies, and the public in general with detailed information about the potential significant adverse environmental impacts of the proposed Desert Valley Company Monofil Expansion Project, Cell 4. By recognizing the environmental impacts of the proposed project, decisionmakers will have a better understanding of the physical and environmental changes that would accompany the project should it be approved. The EIR includes recommended mitigation measures which, when implemented, would provide the lead agency with ways to substantially lessen or avoid significant effects of the project on the environment, whenever feasible. Alternatives to the proposed project are presented to evaluate alternative development scenarios that can further reduce or avoid significant impacts associated with the project.

In accordance with Section 15082 of the CEQA Guidelines, the County prepared and distributed a Notice of Preparation (NOP) for the proposed project that was circulated for public review on December 26, 2019. The NOP comment period is intended to notify responsible agencies, trustee agencies, and the public that the County, acting as the lead agency, was going to prepare an EIR. The scope of the analysis for this EIR was determined by the County as a result of initial project review and consideration of agency and public comments received in response to the NOP. A copy of the NOP and comments received during the public comment period are included in Appendix A-1 to this EIR.

The County will consider the information in the EIR, public and agency comments on the EIR, and testimony at public hearings in their decision-making process. As a legislative action, the final decision to approve, conditionally approve, or deny the proposed project is made by the Board of Supervisors. Other discretionary actions, approvals and permits are described in Chapter 4.0, Project Description.

1.2. Project Location and Setting

The Project site is located at 3301 West Highway 86 in the city of Brawley in Imperial County (Assessor's Parcel Number [APN] 019-100-004-001). Imperial County is bordered on the north by Riverside County, the west by San Diego County, the east by the Arizona border, and the south by the United States/Mexican border. The proposed project site for Cell 4 is located immediately adjacent the existing DVM to the west. The existing Desert Valley Company Monofill facilities are located on 181.5 acres of land, near the southwest corner of the Salton Sea, southwest of Highway 86 and northwest of the cities of Westmorland and Brawley. The Project site is similar to the existing DVM. The site and surrounding areas contain limited man-made disturbances, such as the Kane Springs Jeep Trail, which crosses Section 29 northeast of Section 33, and a power transmission line and maintenance road crossing Sections 27, 28 and 34, less than a mile from Section 33. No other man-made features are evident in the immediately adjacent sections to the existing DVM or future Cell 4 expansion site. The most significant development in the area is State Route 86, which is located to the north and east of the facility.

1.3. Project Objectives

Specific objectives developed for the Project are as follows:

- Maintain and expand cost-effective disposal for Cal Energy's geothermal facility operations beyond 2025;
- Minimize haul distances for waste collection vehicles to reduce traffic, air quality, energy, and climate change impacts by providing up to 2.6 million cubic yards of additional waste disposal capacity at the Desert Valley Company Monofill;
- Utilize existing disposal facilities to minimize land use conflicts and impacts to the environment;
- Minimize the negative impacts of solid waste disposal at the expanded monofill through an environmentally sound operation that incorporates modern engineering and design techniques.

1.4. Project Synopsis

The Desert Valley Company Monofill (DVCM or Monofill) is an active Class II Solid Waste Management Facility used for the disposal of certain geothermal non-hazardous waste streams and byproducts generated by CalEnergy Operating Corporation's (CalEnergy) geothermal power plant operations in Imperial County, California. The Desert Valley Company Monofill facilities are

located on 181.5 acres of private land at 3301 West State Route 86 in Brawley, near the southwest corner of the Salton Sea, southwest of Highway 86 and northwest of the cities of Westmorland and Brawley. The Monofill is permitted under Solid Waste Facility (SWF) Permit No. 13-AA-0022 ⁽¹⁾; Conditional Use Permit (CUP) No. 05-0020 ⁽²⁾; and Waste Discharge Requirements (WDR) R7-2016-0016 ⁽³⁾.

The Project proposes the expansion of the existing Monofill with the addition of a new waste storage Cell 4 and associated facilities. No change in the daily (750 tons per day) volumes of waste accepted at the facility, as identified in the SWF permit, is proposed; however, the location of the disposal cells and length of the disposal period would be extended to account for the estimated lifespan of the proposed Cell 4. The existing monofill is projected to reach capacity in 2025. The proposed expansion would increase the disposal capacity of the monofill by 2.6 million cubic yards (CY) and extend its operational life to approximately 2080.

In addition to modifications of the above referenced permits, the Project also requires an Imperial County General Plan Amendment and Zoning Change at the Project site to change the General Plan land use designation of Recreation/Open Space to Special Purpose Facility (SPF) and change the current S-2 (Open Space/Preservation) Zoning to M-2 (Medium Industrial) zoning. Additionally, a new water well CUP would also be required to provide a new groundwater well for use during construction and operation of the expansion and for the capping and closure of existing Cell 3. No modification to the daily or annual volumes of waste accepted at the facility, as identified in the solid waste facility permit, is proposed; however, the location of the disposal site and length of the disposal period would be extended to account for the estimated lifespan of the proposed Cell 4.

1.5. Summary of Significant Impacts and Mitigation Measures

Based on the analysis contained in Chapter 5 of this EIR, the proposed Desert Valley Monofil Expansion, Cell 4 Project would result in the potential for significant impacts to air quality, biological resources, cultural resources, paleontological resources, hydrology and water quality, and tribal cultural resources. Mitigation measures have been identified which would reduce impacts to all resources to below a level of significance.

Table 1-1 summarizes the potential environmental impacts of the Desert Valley Monofil Expansion, Cell 4 Project by impact area. It also provides a summary of the mitigation measures proposed to avoid or reduce significant adverse impacts and the level of significance after mitigation.

¹ Issued by the Imperial County Public Health Department, Division of Environmental Health (DEH) in 2020 (as modified). DEH is the Local Enforcement Agency (LEA) for the California Dept. of Resources, Recycling and Recovery (CalRecycle)

² Issued by the Imperial County Planning and Development Services Department in December 2005 (as modified).

³ Issued the California Regional Water Quality Control Board, Colorado River Basin Region 7 (as modified).

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
5.1 Air Quality			
Impact 5.1-1: Conflict with or obstruct implementation of the applicable air quality plan.	Less than Significant.	<p>MM AQ-1: Prepare and Implement Dust Control Plan</p> <p>Prior to commencing construction, the Applicant shall be required to submit a Dust Control Plan to the ICAPCD for approval. The Dust Control Plan will identify all sources of PM10 emissions and associated mitigation measures during the construction and operational phases (see Rule 801 F.2). The Applicant shall submit a “Construction Notification Form” to the ICAPCD 10 days prior to the commencement of any earthmoving activity. The Dust Control Plan submitted to the ICAPCD shall meet all applicable requirements for control of fugitive dust emissions, including the following measures designed to achieve the no greater than 20-percent opacity performance standard for dust control and address the following parameters:</p> <ul style="list-style-type: none"> • All disturbed areas, including bulk material storage that is not being actively used, shall be effectively stabilized; and visible emissions shall be limited to no greater than 20-percent opacity for dust emissions by using water, chemical stabilizers, dust suppressants, tarps or other suitable material, such as vegetative groundcover. Bulk material is defined as earth, rock, silt, sediment, and other organic and/or inorganic material consisting of or containing particulate matter with 5 percent or greater silt content. For modeling purposes, it was assumed that watering would occur twice daily. • All on-site unpaved roads segments or areas used for hauling materials shall be effectively stabilized. Visible emissions shall be limited to no greater than 20 percent opacity for dust 	Less than Significant.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>emissions by restricting vehicle access, paving, application of chemical stabilizers, dust suppressants and/or watering.</p> <ul style="list-style-type: none"> • The transport of bulk materials on public roads shall be completely covered, unless 6 inches of freeboard space from the top of the container is maintained with no spillage and loss of bulk material. In addition, the cargo compartment of all haul trucks shall be cleaned and/or washed at the delivery site after removal of bulk material, prior to using the trucks to haul material on public roadways. • All track-out or carry-out on paved public roads, which includes bulk materials that adhere to the exterior surfaces of motor vehicles and/or equipment (including tires) that may then fall onto the pavement, shall be cleaned at the end of each workday or immediately when mud or dirt extends a cumulative distance of 50 linear feet or more onto a paved road within an urban area. • Movement of bulk material handling or transfer shall be stabilized prior to handling or at points of transfer with application of sufficient water, chemical stabilizers, or by sheltering or enclosing the operation and transfer line except where such material or activity is exempted from stabilization by the rules of ICAPCD. <p>MM AQ-2: NOx Emission Controls</p> <p>The Applicant shall implement all applicable standard measures for construction combustion equipment for the reduction of excess NOx emissions as contained in the Imperial County CEQA Air Quality Handbook and associated regulations. These measures include:</p>	

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> • Use alternative-fueled or catalyst-equipped diesel construction equipment, including all off-road and portable diesel-powered equipment. • Minimize idling time, either by shutting equipment off when not in use or reducing the time of idling to five minutes at a maximum. • Limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use. Replace fossil-fueled equipment with electrically driven equivalents (assuming powered by a portable generator set and are available, cost effective, and capable of performing the task in an effective, timely manner). • Curtail construction during periods of high ambient 1 pollutant concentrations; this may include ceasing construction activity during the peak hour of vehicular traffic on adjacent roadways. • Implement activity management (e.g., rescheduling activities to avoid overlap of construction phases, which would reduce short-term impacts). 	
Impact 5.1-2: Cumulatively considerable net increase of 1 any criteria pollutant.	Potentially Significant.	MM AQ-1 and MM AQ-2	Less than Significant.
Impact 5.1-3: Other emissions, such as odors that adversely affect a substantial number of people.	Less than Significant.	None.	Less than Significant.
Impact 5.1-4: Exposure of sensitive receptors to substantial pollutant concentrations.	Less than Significant.	None.	Less than Significant.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
5.2 Biological Resources			
Impact 5.2-1: Substantial effect on candidate, sensitive, or special status species.	Potentially Significant.	<p>MM BIO-1a: Mitigation of Impacts to flat-tailed horned lizards, Palm Springs pocket mouse, and their habitat.</p> <p>Prior to the initiation of any ground disturbances and the issuance of grading permits for Cells 4A or 4B, a Capture/Relocation Plan for flat-tailed horned lizard shall be prepared by a qualified biologist. The plan shall include preconstruction survey and monitoring methods, capture and relocation methods, and suitable relocation areas. The plan may include additional protection measures during construction including:</p> <ul style="list-style-type: none"> • Creating areas of land or small paths/culverts between project facilities for wildlife movement, • Installing silt fencing around work areas to prevent migration of adjacent wildlife into impact areas, • Installing pitfall traps in spring/summer/fall to trap any individuals that remain on the site for removal from work areas), and/or • Biological monitoring during construction to inspect fencing and pitfall traps and relocate wildlife species out of harm’s way, if required <p>The plan shall be approved by CDFW and the County of Imperial (or an agency delegated to oversee this program).</p> <p>Prior to Construction, a Capture/Relocation Plan for Palm Springs pocket mouse shall be prepared by a qualified biologist. The plan shall include preconstruction survey and monitoring methods, capture methods, and suitable relocation areas. The plan may include additional protection measures during construction including:</p>	Less than Significant.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> • Creating areas of land or small paths/culverts between project facilities for wildlife movement, • Installing silt fencing around work areas to prevent migration of adjacent wildlife into impact areas, • Implementing vegetation removal and initial ground disturbance activities between September and December if possible, avoiding the peak breeding season (March to May), and limiting activity as much as possible during the rest of the breeding season (January to February and June to August) to allow dispersing juveniles to potentially move out of the impact area, and/or biological monitoring during construction to inspect fencing, if required. • The plan shall be approved by CDFW and the County of Imperial (or an agency delegated by the department to oversee this program). <p>An environmental training program shall be developed and presented to all crew members prior to the beginning of all project construction. (See MM BIO-5)</p> <p>A biological monitor shall be present prior to initiation of ground disturbing activities to demark limit of disturbance boundaries. Flagging and/or staking will be used to clearly define the work area boundaries and avoid impacts to adjacent native communities. The biological monitor will conduct preconstruction sweeps and inspect compliance with project measures. If a sensitive species is found, the species shall be relocated out of harm’s way according to the capture/relocation plan.</p> <p>Any mortalities shall be reported to the agencies and County of Imperial. A final monitoring report will be submitted to CDFW and</p>	

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>County of Imperial. The annual report shall include a summary of preconstruction surveys, measures were effective.</p> <p>A qualified biologist shall work with construction crews to determine access routes that will avoid native habitat and burrows as much as feasible. Furthermore, during construction activities, the biological monitor shall ensure that connected, native habitat with sandy soils are avoided and remain intact to the greatest extent possible. If vegetation removal cannot be avoided, clearing of habitat shall be avoided during the peak breeding season (March to May), and activity shall be limited as much as possible during the rest of the breeding season (January to February and June to 10 August).</p> <p>MM BIO-1b Burrowing Owl Preconstruction Surveys</p> <p>While the 2019 Burrowing Owl Survey concluded that this species is absent from the project area, given the phased approach for construction of Cells 4A and 4B, Burrowing Owl Preconstruction Surveys will be required.</p> <p>Pre-construction focused surveys for the burrowing owl shall be conducted, pursuant to the CDFW 2012 Staff Report on Burrowing Owl Mitigation (Staff Report), no less than 3 days prior to the start of initial ground disturbing activities for Cells 4A and Cell 4B, respectively, to ensure no portion of the construction footprint is being utilized by western burrowing owls. The survey shall be conducted by an experienced and qualified biologist, knowledgeable with the species. In conformance with federal and State regulations regarding the protection of raptors, surveys for burrowing owls shall be conducted in conformance with the California Staff Report’s protocols, or updated guidelines as they become available.</p>	

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>If burrowing owls are detected on site, no ground-disturbing activities will be permitted within 656 feet of an occupied burrow during the breeding season (February 1 to August 31), unless otherwise authorized by CDFW. During the nonbreeding season (September 1 to January 31), ground-disturbing work can proceed near active burrows as long as the work occurs no closer than 165 feet from the burrow. Depending on the level of disturbance, a smaller buffer may be established in consultation with CDFW.</p> <p>If avoidance of active burrows is infeasible during the nonbreeding season, then, before breeding behavior is exhibited and after the burrow is confirmed empty by site surveillance and/or scoping, a qualified biologist shall implement a passive relocation program in accordance with Appendix E (i.e., Example Components for Burrowing Owl Artificial Burrow and Exclusion Plans) of the 2012 Staff Report. Passive relocation consists of excluding burrowing owls from occupied burrows by closing or collapsing the burrows and providing suitable artificial burrows nearby for the excluded burrowing owls.</p> <p>Where required buffering will not be feasible, passive relocation is an option in consultation with CDFW, but it is preferred to install appropriate artificial burrows (in accordance with the negotiated Plan) and then let the owls decide whether they would like to abandon the existing burrow. Only burrows that are in danger by construction shall be collapsed if at all possible.</p> <p>A Burrowing Owl Relocation Plan will be prepared and approved by CDFW prior to commencement of burrowing owl exclusion activities if this method of mitigation is required. The plan will detail the procedures of the passive relocation effort, the location of constructed</p>	

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>replacement burrows, design of replacement burrows, and post relocation monitoring requirements.</p> <p>MM BIO-2: Mitigation of Impacts to Le Conte Thrasher, Nesting Birds and Breeding Birds</p> <p>While the 2019 surveys concluded that Le Conte Thrasher is absent from the project area, given the phased approach for construction of Cells 4A and 4B, Preconstruction Surveys will be required.</p> <p>Prior to onsite any site disturbance (i.e., mobilization, staging, grading or construction) the Applicant shall retain a County qualified biologist to conduct pre-construction surveys for nesting birds and Le Conte Thrasher in all areas within 500 feet of construction activities to comply with CDFW Code 3503 and 3503.5 and the Migratory Bird Treaty Act. Surveys for raptors shall be conducted for all areas from February 1 to August 15.</p> <p>The survey shall occur no more than 7 days prior to initiation of proposed Project activities, and any occupied passerine and/or raptor nests occurring within or adjacent to the proposed Project area shall be delineated. Additional follow-up surveys may be required by the resource agencies and the County of Imperial.</p> <p>If breeding birds with active nests are found prior to or during construction, a biological monitor shall establish a 300-foot buffer around the nest for ground-based construction activities (or within a buffer determined by the avian biologist). In all cases, the buffer zone shall be sufficient in size to prevent impacts to the nest and no activities will be allowed within the buffer(s) until the young have fledged from the nest or the nest fails.</p>	

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>Once nesting has ceased, the buffer may be removed. A nesting bird survey report shall be provided to the County of Imperial within 30 days of survey completion.</p> <p>If active Le Conte’s Thrasher nests are located on the project site or within a 500-foot buffer, then a 500-foot no-work buffer will be established around the nest during the Le Conte’s thrasher breeding season until it is no longer active.</p> <p>MM BIO-3: Mitigation of Impacts to Creosote Bush Scrub, Creosote Bush – Honey Mesquite Scrub, Rigid Spineflower – Hairy Desert Sunflower Sparsely Vegetated Desert Pavement Alliance, and Riparian Habitat (Tamarisk – Honey Mesquite – Four Wing Saltbush Scrub)</p> <p>Prior to construction, a qualified restoration specialist shall evaluate the habitats within the areas to be temporarily disturbed/impacted to determine if habitat restoration is possible. Habitat restoration may not be possible given prevailing winds and the potential inoculation of additional invasive species from adjacent areas.</p> <p>If the specialist determines restoration is possible, then a Habitat Restoration Plan (HRP) for the temporarily impacted area shall be prepared. The plan shall include sufficient detail to address all aspects of the restoration effort (further site evaluation, site preparation, planting, maintenance, and monitoring to determine success (i.e., plant survival, etc.) and additional maintenance needs. In general restoration of temporarily impacted areas involves recontouring the land, decompaction, replacing the topsoil (if collected), planting seed and/or container stock, maintaining (i.e., weeding, replacement). Locations within Section 27, adjacent to the Project site and under the</p>	

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>control of the Applicant, will be used for off-site restoration, if on-site restoration is not feasible.</p> <p>MM BIO-4: Mitigation of Impacts to Jurisdictional Waters</p> <ul style="list-style-type: none"> • Permanent impacts to all jurisdictional resources shall be compensated through a combination of habitat creation (i.e., establishment), enhancement, preservation, and/or and restoration at a minimum of a 1:1 ratio or as required by the permitting agencies. Any creation, enhancement, preservation, and/or restoration effort shall be implemented pursuant to an HRP, which shall include success criteria and monitoring specifications, and shall be submitted to and reviewed/approved by the California Dept. of Fish and Game and the County of Imperial Planning and Development Services Department (permitting agencies). A habitat restoration specialist will be designated and approved by the permitting agencies and will determine the most appropriate method of restoration. • Temporarily impacted drainage features shall be recontoured to preconstruction conditions. Temporary impacts shall be restored sufficient to compensate for the impact to the satisfaction of the permitting agencies (depending on the location of the impact). If restoration of temporary impact areas is not possible to the satisfaction of the appropriate agency, the temporary impact shall be considered a permanent impact and compensated accordingly. • A biological monitor shall be present prior to initiation of ground disturbing activities to demark limit of disturbance boundaries. Flagging and/or staking will be used to clearly define the work area boundaries and avoid impacts to adjacent drainage features. 	

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> • Erosion protection and sediment control BMPs would be implemented in compliance with the General Construction General Permit and the Stormwater Pollution Prevention Plan (SWPPP). • Graded areas would be stabilized to promote infiltration and reduce run-off potential. • Any excess soil would be spread on site outside of jurisdictional drainages. <p>MM BIO-5: Prepare and Implement a Worker Environmental Awareness Program (WEAP).</p> <p>The Applicant shall prepare and implement a project-specific Worker Environmental Awareness Program (WEAP) to educate on-site workers about the Proposed Project’s sensitive environmental issues. The WEAP shall be presented by the lead biologist or a biological monitor to all personnel on-site during the construction phase(s). If the WEAP presentation is recorded on video, it may be presented by any competent project personnel. Throughout the duration of construction, the Applicant shall be responsible for ensuring that all on-site project personnel receive this training prior to beginning work. A construction worker may work in the field along with a WEAP-trained crew for up to 5 days prior to attending the WEAP training. The Applicant shall maintain a list of all personnel who have completed the WEAP training. This list shall be provided to the County ICPDSD personnel upon request.</p> <p>The WEAP shall consist of a training presentation, with supporting written materials provided to all participants. At least 60 days prior to the start of ground-disturbing activities, the Applicant shall submit the WEAP presentation and associated materials to the County</p>	

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>ICPDSD for review and approval in consultation with the USFWS and CDFW.</p> <p>The WEAP training shall include, at minimum:</p> <ul style="list-style-type: none"> • Overview of the federal and state Endangered Species Acts, Migratory Bird Treaty Act, and the consequences of non-compliance with these acts. • Overview of the project mitigation and biological permit requirements, and the consequences of non-compliance with these requirements. • Sensitive biological resources on the project site and adjacent areas, including nesting birds, special-status plants and wildlife and sensitive habitats known or likely to occur on the project site, project requirements for protecting these resources, and the consequences of non-compliance. • Construction restrictions such as limited operating periods, Environmentally Sensitive Areas (ESAs), and buffers and associated restrictions, and other restrictions such as no grading areas, flagging or signage designations, and consequences of non-compliance. • Avoidance of invasive weed introductions onto the project site and surrounding areas, and description of the project’s weed control plan and associated compliance requirements for workers on the site. • Function, responsibilities, and authority of biological and environmental monitors and how they interact with construction crews. 	

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> • Requirement to remain within authorized work areas and on approved roads, with examples of the flagging and signage used to designate these areas and roads, and the consequences of non-compliance. • Procedure for obtaining clearance from a biological monitor to enter a work site and begin work (including moving equipment), and the requirement to wait for that clearance. • Nest buffers and associated restrictions and the consequences of non-compliance. Procedure and time frame for halting work and removing equipment when a new buffer is established. Discussion of nest deterrents. • Explanation that wildlife must not be harmed or harassed. What to do and who to contact if dead, injured, or entrapped animals are encountered. • General safety protocols such as hazardous substance spill prevention, containment, and cleanup measures; fire prevention and protection measures; designated smoking areas (if any) and cigarette disposal; safety hazards that may be caused by plants and animals. • Project requirements that have resulted in repeated compliance issues on other recent transmission line projects, such as dust control, speed limits, track out (dirt or mud tracked from access roads or work sites onto paved public roads or other areas), personal protective equipment (PPE), work hours, working prior to clearance, and waste containment and disposal. 	

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> • Printed training materials, including photographs and brief descriptions of all special status plants and animals that may be encountered on the project, including behavior, ecology, sensitivity to human activities, legal protection, penalties for violations, reporting requirements, and protection measures • Contact information for construction management, and contractor environmental personnel, and who to contact with questions. • Training acknowledgment form to be signed by each worker indicating that they understand and will abide by the guidelines, and a hardhat sticker so WEAP attendance may be easily verified in the field. <p>WEAP Lite. An abbreviated version of WEAP training (“WEAP lite”) may be used for individuals who are exclusively delivery drivers or visitors to the project site, and will be provided by a qualified project biologist, biological monitor, or environmental field staff prior to those individuals entering or working on the project.</p> <p>Short-term visitors (total of 5 days or less per year) to the project site who will be riding with and in the company of WEAP-trained project personnel for the entire duration of their visit(s) are not required to attend WEAP or WEAP lite training. WEAP lite presentations shall be tailored to delivery/concrete truck drivers and visitors as well as the situation and emphasize project requirements that are relevant to those individuals and that situation.</p>	

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>WEAP Refreshers. Biological monitors or environmental field staff will periodically present brief WEAP refresher presentations at tailboards to help construction crews and other personnel maintain awareness of environmental sensitivities and requirements. A 5- to 10-minute informal talk will be presented at each of the project’s main contractor/ subcontractor tailboards at least once a week.</p> <p>When a contractor or subcontractor resumes work after a long break, a biological monitor or environmental field staff will provide an extended WEAP refresher presentation (10-20 minutes) at each of the contractor/subcontractor tailboards on the first day back to work.</p>	
Impact 5.2-2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	Potentially Significant.	MM BIO-1 through MM BIO-5.	Less than Significant.
Impact 5.2-3: Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	Potentially Significant.	MM BIO-1 through MM BIO-5.	Less than Significant.
Impact 5.2-4: Interfere substantially with movement of any native resident or migratory fish / wildlife species, wildlife corridors, or impede the use of native wildlife nursery sites.	No impact.	None.	No Impact.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 5.2-5: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	Potentially Significant.	MM BIO-1 through MM BIO-5.	Less than Significant.
5.3 CULTURAL RESOURCES			
Impact 5.3-1: Cause a substantial adverse change in the significance of an historical resource pursuant to Section 15064.5.	Potentially Significant.	<p>MM CUL-1: Cultural Resources Construction Monitor</p> <p>A cultural resources monitor shall be present during all initial excavation or other earth-moving activities associated with construction of Cell 4A and Cell 4B and ancillary improvements. The monitoring shall consist of the full-time presence of a Qualified Archaeologist who meets or exceeds the Secretary of the Interior Professional Qualifications Standards as an archaeologist and a TCA (traditionally and culturally affiliated) Native American Monitor.</p> <p>The Applicant shall immediately notify the Imperial County Planning and Development Services Department if any undocumented and/or buried prehistoric or historic resource is uncovered. All construction must stop in the vicinity of the find until the find can be evaluated for its eligibility for listing in the CRHR. The cultural resources monitor shall have the authority to halt construction activity in the immediate vicinity of the encountered historic resource for a sufficient interval of time to allow avoidance or recovery of the encountered historic resources and shall also have the authority to redirect construction equipment in the event that any cultural resource is inadvertently encountered. All cultural resources are assumed to be eligible for the CRHR until determined otherwise by the monitor. Work will not resume in the area of the discovery until authorized by the monitor.</p>	No Impact.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>MM CUL-2: Delineate Environmentally Sensitive Areas</p> <p>Prior to the construction permit issuance, the Applicant shall delineate on a confidential copy of project plans provided to the County, Environmentally Sensitive Areas (ESAs). ESAs will encompass the site boundary of two sites deemed significant under CEQA (CA-IMP-6141 and CA-IMP-6145) plus a 200-foot buffer around the site(s). ESAs shall be staked and/or flagged in a conspicuous manner. To ensure the integrity of these areas from unauthorized disturbance or collection, the delineated areas shall not be labeled with regard to the specific type of cultural resource identified as sensitive. Spot checking by a qualified archaeologist shall be completed throughout construction to ensure ESAs are not entered. If it is necessary for the Project to encroach on any ESA, full time monitoring by a qualified archaeologist, who is approved by the County, will be required to ensure there are no impacts to the archaeological site. If avoidance is not an option, then a data recovery program shall be undertaken.</p>	
		<p>MM CUL-3: Data Recovery Program</p> <p>The Project was designed to avoid and preserve archaeological resources in place where possible. Where avoidance and preservation is not possible, data recovery shall occur. Prior to excavation, a data recovery plan must be prepared that makes provision for adequately recovering the scientifically consequential information from and about the historical resource. Data recovery includes the documentation, recordation, and removal of the archeological deposit from a project site in a manner consistent with professional (and regulatory) standards. It also includes the subsequent inventorying,</p>	

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		cataloguing, analysis, identification, dating, interpretation of the artifacts and “ecofacts” & the production of a report of findings.	
Impact 5.3-2: Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.	Potentially Significant.	MM CUL-1, CUL-2, and CUL-3	Less Than Significant.
Impact 5.3-3: Disturb any human remains, including those interred outside of formal cemeteries.	Potentially Significant.	<p>MM CUL-4: Unanticipated Discovery – Human Remains</p> <p>In the event that evidence of human remains is discovered during construction, construction activities within 200 feet of the discovery will be halted or diverted and the Imperial County Coroner will be notified (Section 7050.5 of the Health and Safety Code).</p> <p>If the Coroner determines that the remains are Native American, the Coroner will notify the NAHC, which will designate a most likely descendant (MLD) for the project (Section 5097.98 of the PRC). The designated MLD then has 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains (AB 2641). If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (Section 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (Section 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a document with the county in which the property is located (AB 2641).</p>	Less Than Significant.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
5.4 Geology and Soils			
Impact 5.4-1: Substantial adverse effects from the rupture of a known earthquake fault.	Less Than Significant.	None.	Less Than Significant.
Impact 5.4-2: Substantial adverse effects from strong seismic ground shaking.	Potentially Significant.	<p>MM GEO-1: Reduce Effects of Groundshaking</p> <p>Prior to issuance of construction permits, the design-level geotechnical investigations shall be conducted and shall include site-specific seismic analyses to evaluate ground accelerations for design of project components. Based on these findings, project structure designs shall be modified/strengthened to:</p> <ul style="list-style-type: none"> • Comply with all California Code of Regulations, Title 27, and the Regional Water Quality Control Board (RWQCB) and County of Imperial standards regarding the nature, location, and construction of proposed facilities, including, but not limited to Section 20370, which requires all Class II waste disposal facilities to be designed to withstand the maximum credible earthquake (MCE) without damage to the foundation or to the structures which control leachate, surface drainage, or erosion, or gas. • Incorporate peak ground acceleration loading values of 0.905 g unless a site-specific seismic hazard analysis provides a different value of PGA or modified recommendations are provided by the geotechnical consultant. • Incorporate all measures deemed appropriate by the geotechnical engineer. Prior to the issuance of building permits, additional analysis of the project site shall be conducted to evaluate potential impacts associated with repeatable high ground acceleration, localized liquefaction potential, expansive and 	Less Than Significant.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>reactive soils, and wind generated erosion. Mitigation measures derived from these analyses may include the following types of requirements:</p> <ul style="list-style-type: none"> - Overexcavation of unsuitable base materials and replacement with approved and properly compacted structural fill - Use of moisture, chemical, engineering, and/or drainage methods to control expansive behavior of underlying clay soil, if appropriate - Use of non-steel or coated (usually polyethylene encasement) conduits, sulfate resistant cement, or other protective materials in areas of corrosive soils - Appropriate design of fill slopes associated with berms, storage/disposal facilities, building pads, etc., to minimize the potential for seismically-induced landsliding. This may include measures such as establishing maximum slope grades and the use of stabilizing materials or buttressing - Proper design of surface and subsurface drainage devices. Initiation of settlement monitoring if appropriate - Appropriate design, location, and construction of erosion control methods and devices - Scarification and recompaction of the native soils in all fill areas to reduce erosion potential - Identification of appropriate wind erosion mitigation measures (if necessary) such as the use of chemical or physical stabilizers, appropriate operating schedules, etc. 	
Impact 5.4-3: Substantial adverse effects from seismic-related ground failure, including liquefaction.	Less Than Significant.	No significant effects related to liquefaction and dynamic settlement are anticipated due to the depth to groundwater and the seismicity of	Less Than Significant.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		the Salton Trough. However, in the event that localized loose granular cohesionless materials (e.g., in alluvial washes) are encountered during final design, implementation of MM-GEO-1 will reduce impacts to below a level of significance.	
Impact 5.4-4 Substantial adverse effects from landslides.	Less Than Significant.	None.	Less Than Significant.
Impact 5.4-5: Substantial soil erosion or the loss of topsoil.	Potentially Significant.	MM-GEO-1 MM AIR-1	Less Than Significant.
Impact 5.4-6: Landslides, lateral spreading, subsidence, liquefaction or collapse.	Less Than Significant.	MM-GEO-1	Less Than Significant.
Impact 5.4-7: Substantial risks to life or property due to expansive soil.	Less Than Significant.	None.	Less Than Significant.
Impact 5.4-8: Direct or indirect destruction of a unique paleontological resource, site or unique geologic feature.	Potentially Significant.	<p>MM PAL-1: Retain Qualified Project Paleontologist</p> <p>Prior to the start of ground disturbance for the construction of 4A and prior to the start of ground disturbance for Cell 4B, a qualified paleontologist shall be retained by the Applicant to serve as the Project Paleontologist. The qualifications of the Project Paleontologist shall be submitted to the ICPDSD for approval. This individual shall have the following qualifications:</p> <ul style="list-style-type: none"> • Professional instruction in a field of paleontology relevant to the work proposed (vertebrate, invertebrate, trace, paleobotany, etc.), obtained through: • Formal education resulting in a graduate degree from an accredited institution in paleontology, or in geology, biology, botany, zoology or anthropology if the major emphasis is in paleontology; or 	Less Than Significant.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> • Equivalent paleontological training and experience including at least 24 months under the guidance of a professional paleontologist who meets qualification; and • Demonstrated experience in collecting, analyzing, and reporting paleontological data; • Demonstrated experience in planning, equipping, staffing, organizing, and supervising crews; • Demonstrated experience in carrying paleontological projects to completion as evidenced by completion and/or publication of theses, research reports, scientific papers and similar documents. <p>The Project Paleontologist will serve as the Principal Investigator and is responsible for the performance of all other personnel. This person is also the contact person for the Applicant and the ICPDSD.</p> <p>Additional Paleontological Staff – The Project Paleontologist may obtain the services of Paleontological Field Agents, Field Monitors, and Field Assistants, if needed, to assist in mitigation, monitoring, and curation activities.</p> <p>MM PAL-2: Provide Paleontological Environmental Awareness Training</p> <p>The Applicant will provide worker’s environmental awareness training on paleontological resources protection as part of its Worker Environmental Awareness Program (WEAP) required under Mitigation Measure BIO-5 - Prepare and implement a Worker Environmental Awareness Program. This training may be administered by the Project Paleontologist as a stand-alone training or included as part of the overall worker’s environmental awareness training. At a minimum, the training shall include the following:</p>	

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> • Types of fossils that could occur at the project site; • Types of lithologies in which the fossils could be preserved; • Procedures that shall be followed in the event of a fossil discovery; and • Penalties for disturbing paleontological resources. <p>MM PAL-3: Prepare and Implement a Paleontological Resource Mitigation and Monitoring Plan</p> <p>Prior to the start of construction of Cell 4A, the Applicant shall submit a Paleontological Mitigation and Monitoring Plan (PRMMP) for the project to the ICPDSD for review and approval. The PRMMP shall be prepared and implemented during the construction of Cell 4A and Cell 4B under the direction of the Project Paleontologist and shall address and incorporate mitigation measures PAL-1, PAL-3 and PAL-4. The PRMMP shall be based on Society of Vertebrate Paleontology (SVP) assessment and mitigation guidelines and meet all regulatory requirements. A monitoring plan indicates the avoidance or treatments recommended for the area of the proposed disturbance and must at a minimum address the following:</p> <ul style="list-style-type: none"> • Identification and mapping of impact areas of high paleontological sensitivity that will be monitored during construction; • A coordination strategy to ensure that a qualified paleontologist will conduct monitoring at the appropriate locations at the appropriate intensity; • The significance criteria to be used to determine which resources will be avoided or recovered for their data potential; 	

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> • Procedures for the discovery, recovery, preparation, and analysis of paleontological resources encountered during construction, in accordance with standards for recovery established by the SVP; • Provisions for verification that the Applicant has an agreement with a recognized museum repository for the disposition of any recovered fossils • Specifications that all paleontological work undertaken shall be carried out by qualified paleontologists; • Description of monitoring reports that will be prepared which shall include daily logs, monthly reports, and a final monitoring report with an itemized list of specimens found to be submitted to the ICPDSD, the Applicant and the designated repository within 90 days of the completion of monitoring; • The implementation sequence and the estimated time frames needed to accomplish all project-related tasks during the ground-disturbance phases; and • Person(s) expected to perform each of the tasks, and their responsibilities, shall be identified. • All impact-avoidance measures (such as flagging or fencing) to prohibit or otherwise restrict access to sensitive resource areas that are to be avoided (if any) during ground disturbance/ construction shall be described. Any areas where these measures are to be implemented shall be identified. The description shall address how these measures would be implemented prior to the start of ground disturbance and how long they would be needed to protect the resources from project-related impacts. 	

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>MM PAL-4: Paleontological Monitoring</p> <p>The Applicant shall continuously comply with the following during all ground disturbing activities during the project:</p> <ul style="list-style-type: none"> • Areas within the Project work areas with high paleontological sensitivity shall be plotted on the main project map and all ground disturbing activity in these areas shall be monitored on a full-time basis by an ICPDSD approved Paleontological Field Agent who will work under the supervision of the paleontologist and principal investigator. • The level of effort and intensity for monitoring shall be modified as needed by the Project Paleontologist, based on the sediment types, depths, and distributions observed. • Project activities shall be diverted when data recovery of significant fossils is warranted, as determined by the Project Paleontologist. Monitoring shall be conducted as follows: • Monitoring of ground disturbance shall consist of the surface collection of visible vertebrate and significant invertebrate fossils within the project site. Upon discovery of paleontological resources by paleontologists or construction personnel, work in the immediate area of the find shall be halted and diverted and the Project Paleontologist shall be notified. Once the find has been inspected and a preliminary assessment has been made, the Project Paleontologist will notify the Applicant. The Applicant will notify the ICPDSD of the discovery within 24 hours. • Recovered specimens shall be prepared to a point of identification and curated into a repository with retrievable storage. 	

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> • All significant fossil specimens recovered from the Project site shall be treated (prepared, identified, curated, and catalogued) in accordance with the designated repository requirements. • Samples shall be submitted to a laboratory, acceptable to the designated repository, for identification, dating, and microfossil and pollen analysis. • Upon completion of the monitoring efforts, • Within 90 days of the completion of monitoring effort(s), monitoring reports will be prepared and submitted to the ICPDSD, the Applicant and the designated repository. 	
5.5 Greenhouse Gas Emissions			
Impact 5.5-1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	Less Than Significant.	None.	Less Than Significant.
Impact 5.5-2: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	Less Than Significant.	None.	Less Than Significant.
5.6 Hazards and hazardous materials			
Impact 5.5-1: Create a significant hazard through the routine transport, use, or disposal of hazardous materials.	Less Than Significant.	None.	Less Than Significant.
Impact 5.5-2: Create a significant hazard through release of hazardous materials into the environment.	Less Than Significant.	None.	Less Than Significant.
Impact 5.5-3: Located on a site which is included on a list of hazardous materials sites.	No Impact.	None.	No Impact.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 5.5-4: Expose people or structures to a significant risk of loss, injury or death involving wildland fires?	Less Than Significant.	None.	Less Than Significant.
5.7 Hydrology/Water Quality			
Impact 5.7-1: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality.	Potentially Significant.	<p>MM HWQ-1: Water Quality Monitoring for Iron</p> <p>The Applicant shall monitor for iron in qualifying storm events at Cell 4 after initiation of the Project, as required under the Industrial General Permit. If iron concentrations exceed the annual numeric action level for two successive years, DVC shall implement an investigation program that consists of the following:</p> <ul style="list-style-type: none"> • Analyze the stormwater samples for both total and dissolved iron. <p style="margin-left: 40px;">If the stormwater analysis indicates that the iron is primarily in suspended (i.e. total iron result) form, then additional BMPs shall be installed to minimize the amount of fine sediment present in the qualifying storm event samples, and the I-SWPPP shall be revised accordingly.</p> <p style="margin-left: 40px;">If the stormwater analysis indicates that the iron is primarily dissolved, then DVC shall conduct the following additional testing:</p> • Analyze soils samples for soluble iron using a deionized water leach (e.g. DI- WET). Samples shall be collected from the stormwater swale within the facility boundary, from the liner/cap material at the perimeter of Cell 4, from the stormwater diversion berm installed along the south and west sides of Cell 4, and from the waste material. 	Less Than Significant.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>Based on the results of the additional testing, DVC shall propose measures to minimize stormwater contact with the specific soil or waste medium that is leaching iron. These measures may include use of a different soil material, where applicable, or covering of the source soils with soils that do not leach iron. These measures shall be submitted to the County and to the Regional Water Quality Control Board for review and approval before implementation.</p> <p>To assist the County in verifying compliance with Mitigation Measure H-1, the qualifying storm event sampling results shall be submitted for review to the State Water Resources Control Board’s Storm Water Multiple Application and Report Tracking System (SMARTS) and to the County Department of Environmental Health, and the Planning and Development Services Department.</p> <p>The actions required under this mitigation measure would be in addition to, but could supplement, any requirements for Exceedance Response Actions associated with the Industrial General Stormwater Permit (IGP).</p>	
Impact 5.7-2: Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	Less Than Significant.	None.	Less Than Significant.
Impact 5.7-3: Substantial alteration of the existing drainage pattern which would result in:	Less Than Significant.	None.	Less Than Significant.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
a) substantial erosion or siltation on- or off-site; b) flooding on- or off-site; c) substantial increase of surface runoff; d) exceedance of stormwater drainage system capacity; e) impede or redirect flood flows.			
Impact 5.7-4: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Less Than Significant.	None.	Less Than Significant.
5.8 Land Use and Planning			
Impact 5.8-1: Physically divide an established community.	No Impact.	None.	No Impact.
Impact 5.8-2: 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.	Less Than Significant.	None.	Less Than Significant.
5.9 Noise			
Impact 5.9-1: Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project.	Less Than Significant.	None.	Less Than Significant.
Impact 5.9-2: Result in generation of excessive ground borne vibration or ground borne noise levels.	Less Than Significant.	None.	Less Than Significant.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
5.10 TRANSPORTATION/TRAFFIC			
Impact 5.10-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.	Less Than Significant.	None.	Less Than Significant.
Impact 5.10-2: Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).	Less Than Significant.	None.	Less Than Significant.
Impact 5.10-3: Substantially increase hazards due to a geometric design feature or incompatible uses.	Less Than Significant.	None.	Less Than Significant.
Impact 5.10-4: Result in inadequate emergency access.	No Impact.	None.	No Impact.
5.11 Tribal Cultural Resources			
Impact 5.11-1: Cause a substantial adverse change in the significance of a tribal cultural resource.	Potentially Significant.	MM CUL-1 through 4.	Less Than Significant.
Impact 5.11-2: Cause a substantial adverse change in the significance of a tribal cultural resource.	Potentially Significant.	MM CUL-1 through 4.	Less Than Significant.
5.12 Utilities and Service Systems			
Impact 5.12-1: 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?	Potentially Significant.	MM AQ-1 and MM AQ-2 MM BIO-1 through 5 MM CUL-1 through 4 MM PAL-1 through 4 MM HWQ-1	Less Than Significant.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 5.12-2: Have sufficient water supplies to serve the project.	Less Than Significant.	None.	Less Than Significant.
Impact 5.12-3: 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.	None.	No Impact.
Impact 5.12-4: 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.	None.	Less Than Significant.
Impact 5.12-5: Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.	No Impact.	None.	No Impact.

1.6. Effects Not Found To Be Significant

Several environmental topics were found to be less than significant without mitigation including aesthetics, agriculture and forestry resources, energy, mineral resources, population and housing, public services, recreation, and wildfires. These topics are described in Chapter 8.0, Effects Not Found to be Significant.

1.7. Areas Of Controversy

Pursuant to CEQA Section 15123(b)(2), an EIR shall identify areas of controversy known to the lead agency, including issues raised by the agencies, and the public, and issues to be resolved. The NOP for the EIR was distributed on December 26, 2019. The 35-day public review and comment period began on December 26, 2019, and a scoping meeting was held on January 9, 2020. Public comments were received on the NOP that reflect controversy on several environmental issues.

Issues of controversy raised include concerns related to hazardous materials, biological resources, and hydrology and water quality. The NOP and comment letters received are included in this EIR as Appendix A-1.

1.8. Issues to Be Resolved by the Decision-Making Body

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR contain issues to be resolved, which includes the choice among alternatives and whether or how to mitigate significant impacts. The following major issues are to be resolved:

- Determine whether the EIR adequately describes the environmental impacts of the proposed Project;
- Choose among the Project alternatives;
- Determine whether the recommended mitigation measures should be adopted or modified; and
- Determine whether additional mitigation measures need to be applied to the proposed Project.

1.9 Summary of Alternatives

The Alternatives section (Chapter 9.0) of this EIR focuses on alternatives capable of avoiding or substantially lessening any of the significant effects of the Project, even if the alternatives would impede, to some degree, the attainment of project objectives. This chapter also includes a discussion of alternatives which were considered but rejected, including: Modified Footprint to Avoid Cultural Impacts, Reduced Waste Generate – Operational Modifications to Geothermal Plants, and Additional Compaction to Reduce Required Footprint. These three alternatives were eliminated from further consideration due to a lack of meeting most of the project objectives and will not be discussed further here. The Alternatives section discusses the three (3) project alternatives that were determined to represent the range of reasonable alternatives to the Project that have the potential to

feasibly attain most of the basic Project objectives, but which may avoid or substantially lessen one or more the Project's significant effects. A brief summary is provided below.

1.9.1. No Project/No Expansion Alternative (Alternative 1)

Under this alternative, the Proposed Project would not occur, and the monofill would not be expanded to provide a new Cell 4. Operations of the monofill would continue as authorized under the existing conditional use permit, solid waste facility permit and waste discharge report. Permitted non-hazardous geothermal waste from CalEnergy geothermal plants would continue to be disposed of within Cell 3, until its capacity is reached in January 2025. After that Cell 3 would be closed in compliance with the Preliminary Closure and Post Closure Maintenance Plan. Once Cell 3 reaches capacity, the landfill cap will be installed, which will require four to six months to complete. All structures involved in the security, monitoring and maintenance and all existing environmental control (vadose zone monitoring wells, groundwater monitoring wells, ambient air monitoring stations, etc.) will remain in place during the post-closure period and will be maintained in accordance with the approved Closure Plan.

Implementation of the No Project Alternative would avoid environmental impacts to biological resources, cultural and tribal resources, geology/soils (paleontological resources); and hydrology and water quality. However, the No Project Alternative could also result in greater long-term impacts associated with air quality, GHG emissions and traffic/transportation due to the increased waste haul route which be significant impacts. The No Project Alternative would not satisfy any of the Project objectives.

1.9.2 Alternative Project Site (Section 27) (Alternative 2)

Under this alternative, the Proposed Project would be developed at an alternative site, Section 27. Section 27, a site owned by CalEnergy, was considered as an alternate candidate location for Cell 4 of the Desert Valley Company Monofill. During the siting process, both Sections 27 and 33 were screened for multiple factors, including geology, biology, drainage, cultural resources, access, groundwater, water supply, location, and operations, to assess their viability as a future landfill site. One candidate site in each Section was identified for possible development. After review, the candidate site in Section 33 was selected as the preferred location. Development of the Project in Section 27 would likely result in a greater impact on scenic views from Highway 86, increased storm runoff flow rates, higher operational costs, and would likely be classified as a new facility, requiring additional permitting. The candidate site in Section 27 is not considered a feasible alternative for development for the aesthetic, economic, and environmental reasons. Under this alternative, the Project objectives would still be met.

1.9.3 Reduced Footprint Alternative (Alternative 3)

This alternative evaluated the environmental impact of developing only half of the area of the proposed expansion. Cell 4 is proposed to be developed in two phases, as Cell 4A and Cell 4B; this alternative would allow for development, use and closure of either Cell 4A or Cell 4B, but not both.

Under Alternative 3, Reduced Footprint Alternative, the same expansion of the monofill would occur as described for the proposed Project; however, it would only include the construction of one waste disposal cell, either Cell 4A or 4B. As a result, there would be less site disturbance compared to the proposed Project. Other features of the proposed project (water use, chemical use, etc.) would be reduced proportionally. All environmental protection features described in Chapter 4.0 would be similar to those of the proposed Project. The Reduced Footprint Alternative would reduce impacts associated with air quality, biological resources, cultural resources, geology, hydrology and water quality, traffic and transportation, utilities and GHGs, when compared to the proposed Project. The Reduced Project Alternative would have equivalent or no impacts associated with land use and planning and noise when compared to the proposed Project. Therefore, the Reduced Project Alternative would slightly reduce impacts in most environmental issue areas as compared to the proposed Project. The Reduced Project Alternative would meet all project objectives to a slightly lesser degree than the proposed Project. Because the alternative would be approximately half the size of the proposed Project, it would only provide half of the waste disposal capacity and therefore only half of the lifespan of the Proposed Project.

1.9.4 Environmentally Superior Alternative

Section 15126.6(e)(2) of the CEQA Guidelines states that if the No Project Alternative is the environmentally superior alternative, the EIR shall also identify an environmentally superior alternative from among the other alternatives. The context of an environmentally superior alternative is based on consideration of several factors, including the project's objectives and the ability to fulfill the goals while reducing potential impacts to the environment.

Table ES-2 summarizes the potential impacts of the alternatives evaluated as compared to the potential impacts of the Project. As shown in **ES-2**, Alternative 1 (No Project/No Expansion Alternative), would be environmentally superior to the proposed Project for 7 resource areas analyzed in the EIR. As required by CEQA, the next environmentally superior alternative is Alternative 3 (Reduced Footprint) Alternative. Therefore, Alternative 3 would be environmentally superior to the proposed Project under 3 resource areas and environmentally similar to the Project under 6 resource areas. However, Alternative 3 would not substantially lessen the significant air quality, biological, paleontological or hydrological resource effects of the Project; therefore, decision-makers are not obliged by CEQA to select this alternative.

TABLE ES-2 SUMMARY OF ALTERNATIVES COMPARED TO THE PROPOSED PROJECT

Environmental Resource	Proposed Project	No Project/ No Expansion (Alternative 1)	Alternative Project Site (Alternative 2)	Reduced Footprint Alternative (Alternative 3)
1. Air Quality	LTS-MM	SI / -	LTS-MM / =	LTS-MM / -
2. Biological Resources	LTS-MM	NI / +	LTS-MM / +	LTS-MM / -
3. Cultural Resources	LTS-MM	NI / +	LTS-MM / =	LTS-MM / -
4. Geology and Soils	LTS-MM	NI / +	LTS-MM / =	LTS-MM / -
5. Greenhouse Gas Emissions	LTS	SU / -	LTS / =	LTS / -
6. Hazards and Hazardous Materials	LTS	NI / +	LTS / =	LTS / =
7. Hydrology/Water Quality	LTS-MM	NI / +	LTS-MM / =	LTS-MM / =
8. Land Use and Planning	LTS	NI / +	LTS / =	LTS / =
9. Noise	LTS	NI / +	LTS / =	LTS / =
10. Traffic/ Transportation	LTS	SU / -	LTS / =	LTS / =
11. Tribal Cultural Resources	LTS-MM	NI / +	LTS-MM / =	LTS-MM / -
12. Utilities and Service Systems	LTS-MM	NI / +	LTS-MM / +	LTS / =
TOTALS		+ 7 - 3 = 0	+ 2 - 0 = 10	+ 0 - 6 = 6
Meets Most of the Basic Project Objectives?	Yes	No	Yes	Yes

Notes:

NI Finding of no environmental impact

LTS Finding of less than significant environmental impact

LTS-MM Finding of less than significant environmental impact with mitigation measure(s)

SU Finding of significant and unmitigable impact

+ Alternative is superior (reduced impacts compared) to the proposed Project

- Alternative is inferior (greater impacts compared) to the proposed Project

= Alternative is environmentally similar to the proposed Project or there is not enough information to make a superior or inferior determination.

2.0 INTRODUCTION

2.1. Purpose of the Environmental Impact Report

The Desert Valley Company Monofill Expansion Project (Project) proposes to expand the existing Desert Valley Company Monofill (DVCM) by adding a new waste disposal cell (referred to herein as Cell 4). To accommodate the proposed expansion, the Project will amend its Conditional Use Permit (CUP) No. 05-200; amend its Solid Waste Facility (SWF) Permit No. 13-AA-0022; and amend its Waste Discharge Requirement (WDR) R7-2016-0016 to increase the permitted facility boundary, disposal area, capacity and lifespan of the Class II monofill. DVCM is also seeking a Water Well CUP No (#21-0002) for a new on-site well.

The Imperial County Planning and Development Services Department (ICPDSD) has determined that an Environmental Impact Report (EIR) must be prepared for this project.

This Draft EIR was prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq); the State CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, Section 15000 et. Seq); the County of Imperial CEQA Regulations (County of Imperial, 2017); and the California Department of Resources, Recycling and Recovery's (CalRecycle) Disposal Facility Outline for Environmental Review Documents (CalRecycle, 2018).

The County of Imperial (County) is the lead agency for the environmental review of the Desert Valley Company Monofill Expansion Project, Cell 4 (Project) and has the principal responsibility for approving the Project. This Draft EIR assesses the expected environmental impacts resulting from approval of the Project.

2.1.1. Type of EIR

An Initial Study was prepared (Appendix A-2) which determined that the proposed Project may have a significant effect on the environment, and that an EIR would be appropriate for providing the necessary environmental documentation. According to CEQA Section 15065, an EIR is deemed appropriate for a particular proposal where there is substantial evidence, in light of the whole record, that any of the following conditions may occur:

- The proposal has the potential to substantially degrade quality of the environment.
- The proposal has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.
- The proposal has possible environmental effects that are individually limited but cumulatively considerable.
- The proposal could cause direct or indirect adverse effects on human beings.

A Project-level EIR will be prepared for the Project. The EIR will examine the environmental impacts of a specific development project, focus on the changes in the environment that would result from the development of the Project, and will examine all phases of the Project including planning, construction, operation, and closure and post-closure activities.

2.1.2. Purpose of the EIR

This EIR is an informational document intended for use by the County decision-makers and members of the general public in evaluating the potential environmental effects of the proposed Project. This EIR includes discussion on the potential environmental impacts of the proposed Project; mitigation measures to reduce any significant impacts; the level of significance of impacts with and without mitigation; any unavoidable adverse impacts that cannot be mitigated; significant cumulative impacts when taken into consideration with past, present, and reasonably foreseeable future projects; and reasonable and feasible project alternatives that would avoid or reduce significant environmental impacts.

CEQA requires an EIR to reflect the independent judgment of the lead agency. A Draft EIR is circulated for review by responsible agencies, trustee agencies, other public agencies, special districts, organizations, citizen groups, and individual members of the public (collectively referred to as interested parties). As defined in Sections 15050 and 15367 of the State CEQA Guidelines, the lead agency is the public agency that has the principal responsibility for carrying out or approving a project; a responsible agency has discretionary approval over certain project aspects; and a trustee agency has discretionary approval or jurisdiction by law over natural resources affected by a project.

2.2. Issues to be Resolved

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR contain issues to be resolved, which includes the choice among alternatives and whether or how to mitigate significant impacts. The following major issues are to be resolved:

- Determine whether the EIR adequately describes the environmental impacts of the proposed Project;
- Choose among the Project alternatives;
- Determine whether the recommended mitigation measures should be adopted or modified; and
- Determine whether additional mitigation measures need to be applied to the proposed Project.

2.3. Definitions of Key Terms

The terms listed below are defined to assist reviewers in understanding this EIR. Additional definitions of terms are listed in CEQA Article 20 Sections 15350 to 15387.

- **Project** means the whole of an action that has the potential to result in a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment.
- **Environment** means the physical conditions that exist in the area and would be affected by the proposed Project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. The area involved is that in which significant direct or indirect impacts would occur as a result of the proposed Project. The environment includes both natural and man-made (artificial) conditions.
- **Impacts** analyzed under CEQA must be related to a physical change. Impacts are:
 - Direct or primary impacts that would be caused by a project and would occur at the same time and place; or
 - Indirect or secondary impacts that would be caused by a project and would be later in time or further removed in distance, but that would still be reasonably foreseeable. Indirect or secondary impacts may include growth-inducing impacts and other impacts related to induced changes in the pattern of land use, population density, growth rate, or related effects on air and water and other natural systems, including ecosystems.
- **Significant Impact on the Environment** means a substantial, or potentially substantial, adverse change in any of the physical conditions in the area affected by the proposed Project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. An economic or social change by itself is not considered a significant impact on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.
- **Mitigation** consists of measures that avoid or substantially reduce the proposed Project's significant environmental impacts by:
 - Avoiding the impact altogether by not taking a certain action or parts of an action;
 - Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
 - Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment;
 - Reducing or eliminating the impact over time through preservation and maintenance operations during the life of the action; or
 - Compensating for the impact by replacing or providing substitute resources or environments, including through permanent protection of such resources in the form of conservation easements.
- **Cumulative impact** refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.
 - The individual impacts may be changes resulting from a single project or separate projects.

- The cumulative impact from several projects is the change in the environment which results from the incremental impact of the proposed Project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period.

This EIR uses a variety of terms to describe the level of significance of adverse impacts. These terms are defined as follows:

- A designation of “No Impact” indicates no adverse changes to the environment are expected.
- A “Less than Significant Impact” will not cause a substantial adverse change to the environment.
- A “Less than Significant Impact with Mitigation Incorporated” avoids a substantial adverse impact on the environment through adoption of mitigation measures.
- A “Significant and Unavoidable Impact” is a substantial adverse effect on the environment that cannot be reduced to a less than significant level even with the implementation of feasible mitigation measures.

2.4. Agency Roles and Responsibilities

The Project would require permits and approvals from various federal, state and local regulatory agencies. The agencies are identified below.

2.4.1. Lead Agency

The County of Imperial (County) is the lead agency for the environmental review of the Desert Valley Company Monofill Expansion Project, Cell 4. The County will be required to consider an amendment to CUP No. 05-0020, a Water Well CUP No. 21-002, a General Plan amendment, and Zone Change. The amendment would allow modification of the CUP to authorize construction, operation, closure and post-closure maintenance of a new waste storage cell. The General Plan Amendment (GPA) would change the land use designation on approximately 458.5 acres from Recreational/Open Space to “Special Purpose Facility.” The Zone Change would change the zoning from S-2 (Open Space/Preservation) to M-2 (Medium Industrial). The County will also be responsible for certification of the EIR.

2.4.2. Responsible and Trustee Agencies

Projects or actions undertaken by the lead agency, in this case the Imperial County Planning and Development Services Department, may require subsequent oversight, approvals, or permits from other public agencies in order to be implemented. Other such agencies are referred to as responsible agencies and trustee agencies. Pursuant to §15381 and §15386 of the CEQA Guidelines, as amended, responsible agencies and trustee agencies are defined as follows:

- A responsible agency is a public agency that proposes to carry out or approve a project, for which a lead agency is preparing or has prepared an EIR or Negative Declaration. For the purposes of CEQA, the term responsible agency includes all public agencies other than the lead agency that have discretionary approval power over the project (§15381).
- A trustee agency is a state agency having jurisdiction by law over natural resources affected by a project that are held in trust for the people of the State of California (§15386).

The Project may require permits or approvals from various agencies for the facility and activities that constitute the project including but are not limited to the following:

State

- California Dept. of Fish & Wildlife (CDFW)
- California Dept. of Public Health
- California Regional Water Quality Control Board, Region 7
- State Water Resources Control Board

Regional and Local

- Imperial County Public Health
- Imperial County Air Pollution Control District (ICAPCD)
- Imperial County Environmental Health Services Division (Local Enforcement Agency (LEA) for CalRecycle)
- Imperial County Public Works Department

The approvals anticipated to be required from the lead agency, trustee agencies, and/or responsible agencies are listed in **Table 4-2**.

2.5. Environmental Review Process

CEQA establishes mechanisms whereby the public and affected public agencies can be informed about the nature of the project being proposed and the extent and types of impacts that the proposed Project and its alternatives would have on the environment should the proposed Project or alternatives be implemented. The CEQA review process allows interested parties to share expertise, discuss the analyses, check for accuracy, detect omissions, discover public concerns, and solicit mitigation measures and alternatives capable of avoiding or reducing the significant effects of a project, while still attaining most of the basic objectives of the proposed Project.

The CEQA process for this EIR includes:

- Preparation of an Initial Study which determined that the proposed Project requires preparation of an EIR;
- Filing and distribution of the Notice of Preparation;
- Holding a CEQA public agency scoping meeting;
- Preparation of the Draft EIR;
- Release of the Draft EIR for public review;
- Preparation and release of the Final EIR, including responses to comments on the Draft EIR.

2.5.1. Notice of Preparation and Initial Study

In accordance with Section 15082 of the CEQA Guidelines, the ICPDSD issued a Notice of Preparation (NOP) of an EIR for the Project and an accompanying Initial Study (SCH# 2019120605) (Appendices A-1 and A-2, respectively). The NOP was published in the Imperial Valley Press newspaper on December 26, 2019, and was submitted to federal, state, and local agencies and other interested parties for a 35-day public review period beginning on December 27, 2019, and ending on January 31, 2020.

In response to the NOP, the County received comment letters from the following agencies: Governor's Office of Planning and Research (State Clearinghouse and Planning Unit); CalRecycle; CDFW, and the Native American Heritage Commission (NAHC). **Table 2-2** summarizes written comments received during the public scoping process.

2.5.2. Public Scoping Meeting

One public scoping meeting was held by the County of Imperial to solicit input from governmental agencies, non-governmental organizations, and the public regarding the proposed Project, alternatives, mitigation measures, and environmental impacts to be analyzed in the EIR. The meeting was held on Thursday, January 9, 2020, at 6:00 p.m. in the County Administrative Center, Board Chambers, El Centro, California. No members of the public attended the scoping meeting and no oral and/or written comments were received. Copies of the Scoping Meeting Materials are presented in Appendix B.

TABLE 2-1. SUMMARY OF PUBLIC SCOPING COMMENTS

Comment Summary	Where Comment Is Addressed
GOVERNOR'S OFFICE OF PLANNING AND RESEARCH (STATE CLEARINGHOUSE AND PLANNING UNIT) – DECEMBER 24, 2019	
<ul style="list-style-type: none"> • Confirmed filing of NOP and identified the state - level review period as December 24, 2019, through January 31, 2020. 	Chapter 2.0, Introduction

TABLE 2-1. SUMMARY OF PUBLIC SCOPING COMMENTS

Comment Summary	Where Comment Is Addressed
CALIFORNIA DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY (CALRECYCLE) – JANUARY 27, 2020	
<ul style="list-style-type: none"> The Draft EIR (DEIR) project description should be clear on the total expansion acreage and the acreage of the expanded disposal footprint. 	Chapter 4.0, Project Description
<ul style="list-style-type: none"> Other Public Agencies Whose Approval is Required – the California Department of Public Health (CDPH) should also be listed since the materials received include materials that are considered NORM and possibly TENORM, which may require an exemption or license from CDPH. NORM and TENORM are not subject to the regulatory authority of CalRecycle and LEAs and are instead regulated by CDPH. 	<ul style="list-style-type: none"> Chapter 3.0, Project Background Chapter 4.0, Project Description Section 5.6, Hazards and Hazardous Materials
<ul style="list-style-type: none"> Any changes from the elevations in the SWFP should be included in the project description and analyzed in the DEIR. 	<ul style="list-style-type: none"> Chapter 4.0, Project Description Section 5.4, Geology and Soils Chapter 8.0, Environmental Effects Found Not To Be Significant
<ul style="list-style-type: none"> All operational activity hours should be identified and analyzed in the DEIR. 	<ul style="list-style-type: none"> Chapter 4.0, Project Description Section 5.9, Noise Section 5.10, Traffic and Transportation
<ul style="list-style-type: none"> DEIR should include a discussion and analysis of potential impacts from receipt and handling of NORM/TENORM, including radiation monitoring and maximum radiation levels in the waste stream. Any potentially significant impacts should be analyzed in the DEIR. 	<ul style="list-style-type: none"> Chapter 4.0, Project Description Section 5.6, Hazards and Hazardous Materials
<ul style="list-style-type: none"> The Imperial County Environmental Health Services is the LEA for Imperial County and responsible for providing regulatory oversight of solid waste handling and disposal activities. Please contact the LEA, Jorge Perez, at 442.265.1888 to discuss potential solid waste permitting requirements. 	Comment noted.

TABLE 2-1. SUMMARY OF PUBLIC SCOPING COMMENTS

Comment Summary	Where Comment Is Addressed
NATIVE AMERICAN HERITAGE COMMISSION (NAHC) – DECEMBER 24, 2019	
<ul style="list-style-type: none"> Assembly Bill 52 (AB 52) applies to any project for which an NOP, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015. 	<ul style="list-style-type: none"> Section 5.3, Cultural Resources Section 5.11, Tribal Cultural Resources AB-52 Consultation Letters and Responses (App. H-2)
<ul style="list-style-type: none"> NAHC recommends that lead agencies consult with California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the Project. 	<ul style="list-style-type: none"> Section 5.3, Cultural Resources Section 5.11, Tribal Cultural Resources AB-52 Consultation Letters and Responses (App. H-2) SB-18 Consultation Letters and Responses (App. H-3)
<ul style="list-style-type: none"> Both Senate Bill (SB 18) and AB 52 have tribal consultation requirements. 	<ul style="list-style-type: none"> Section 5.3, Cultural Resources Section 5.11, Tribal Cultural Resources AB-52 Consultation Letters and Responses (App. H-2) SB-18 Consultation Letters and Responses (App. H-3)
CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE – JANUARY 29, 2020	
<ul style="list-style-type: none"> Include an assessment of various habitat types located within the Project footprint, and a map that identifies the location of each. 	Section 5.2, Biological Resources
<ul style="list-style-type: none"> Include a general biological inventory of the fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present within each habitat type onsite and within adjacent areas that could be affected by the Project. 	Section 5.2, Biological Resources
<ul style="list-style-type: none"> Conduct a complete, recent inventory of rare, threatened, endangered, and other sensitive species located within the Project footprint and within offsite areas with the potential to be affected, including California Species of Special Concern (CSSC) and California Fully Protected Species. Species to be addressed should include all those which meet the CEQA definition. 	Section 5.2, Biological Resources
<ul style="list-style-type: none"> CDFW generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years. Some aspects of the proposed Project may 	Comment noted

TABLE 2-1. SUMMARY OF PUBLIC SCOPING COMMENTS

Comment Summary	Where Comment Is Addressed
warrant periodic updated surveys for certain sensitive taxa, particularly if the Project is proposed to occur over a protracted time frame, or in phases, or if surveys are completed during periods of drought.	
<ul style="list-style-type: none"> • CDFW recommends that the County follow the recommendations and guidelines provided in the Staff Report on Burrowing Owl Mitigation. 	Comment noted.
<ul style="list-style-type: none"> • CDFW recommends that the County review the Flat-tailed Horned Lizard Rangewide Management Strategy and that the DEIR be developed in accord with all relevant sections. 	Section 5.2, Biological Resources
<ul style="list-style-type: none"> • Conduct a thorough, recent, floristic-based assessment of special status plants and natural communities, following CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (see https://www.wildlife.ca.gov/Conservation/Plants). 	<ul style="list-style-type: none"> • Section 5.2, Biological Resources • Biological Technical Report (App. G-1) • Rare Plant Survey, Section 33 (App. G-3)
<ul style="list-style-type: none"> • Include information on the regional setting, with special emphasis on resources that are rare or unique to the region. 	Section 5.2, Biological Resources
<ul style="list-style-type: none"> • Conduct a full accounting of all open space and mitigation/conservation lands within and adjacent to the Project. 	Section 5.2, Biological Resources
<ul style="list-style-type: none"> • Conduct an assessment of potential impacts of the Project to groundwater-dependent ecosystems within the Ocotillo-Clark Valley Groundwater Basin. • CDFW is particularly concerned that the Project may result in potential impacts to San Felipe Creek, a groundwater-dependent ecosystem that is located four miles from the Project site. San Felipe Creek is identified by the USFWS as Designated Critical Habitat for the state- and federally-endangered desert pupfish (<i>Cyprinodon macularius</i>), and the creek contains one of the few remaining populations of desert pupfish in a totally natural environment. 	Section 5.2, Biological Resources
<ul style="list-style-type: none"> • The groundwater hydrology of this groundwater basin is not well understood. Therefore, CDFW recommends that the DEIR thoroughly analyze proposed impacts of installation of the proposed 	Section 5.7, Hydrology/ Water Quality

TABLE 2-1. SUMMARY OF PUBLIC SCOPING COMMENTS

Comment Summary	Where Comment Is Addressed
<p>groundwater well within the Ocotillo-Clark Valley Groundwater Basin.</p>	
<ul style="list-style-type: none"> • The DEIR should provide a thorough discussion of the direct, indirect, and cumulative impacts expected to adversely affect biological resources and include the following: <ul style="list-style-type: none"> – A discussion of potential impacts from lighting, noise, human activity (e.g., recreation), defensible space, and wildlife-human interactions created by zoning of development projects or other Project activities adjacent to natural areas, exotic and/or invasive species, and drainage; – Project-related changes on drainage patterns and water quality within, upstream, and downstream of the Project site, including volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and – Post-Project fate of runoff from the Project site. 	<ul style="list-style-type: none"> • Section 5.2, Biological Resources • Section 5.7, Hydrology/ Water Quality
<ul style="list-style-type: none"> – A discussion of potential indirect Project impacts on biological resources, including resources in areas adjacent to the Project footprint, such as nearby public lands (e.g., National Forests, State Parks, etc.), open space, adjacent natural habitats, riparian ecosystems, wildlife corridors, and any designated and/or proposed reserve or mitigation lands (e.g., preserved lands associated with a Natural Community Conservation Plan, or other conserved lands). 	<p>Section 5.2, Biological Resources</p>
<ul style="list-style-type: none"> – An evaluation of impacts to adjacent open space lands from construction, long-term operations and maintenance. 	<ul style="list-style-type: none"> • Section 5.1, Air Quality • Section 5.2, Biological Resources • Section 5.8, Noise
<ul style="list-style-type: none"> – A cumulative effects analysis developed as described under CEQA Guidelines section 15130. Please include all potential direct and indirect project-related impacts to riparian areas, wetlands, vernal pools, alluvial fan habitats, wildlife corridors or wildlife movement areas, aquatic habitats, sensitive species and other sensitive habitats, open lands, open space, and adjacent natural habitats in the cumulative effects’ analysis. 	<ul style="list-style-type: none"> • Section 5.2. Biological Resources • Chapter 7 Summary of Cumulative Impacts

TABLE 2-1. SUMMARY OF PUBLIC SCOPING COMMENTS

Comment Summary	Where Comment Is Addressed
<p><u>Alternatives Analysis</u></p> <ul style="list-style-type: none"> • CDFW recommends the DEIR describe and analyze a range of reasonable alternatives to the Project would "feasibly attain most of the basic objectives of the Project," and would avoid or substantially lessen any of the Project's significant effects. • The alternatives analysis should also evaluate a "no project" alternative 	<p>Section 9.0, Alternatives</p>
<p><u>Mitigation Measures for Project Impacts to Biological Resources</u></p> <ul style="list-style-type: none"> • DEIR should identify mitigation measures and alternatives that are appropriate and adequate to avoid or minimize potential impacts, to the extent feasible. • The DEIR should assess all direct, indirect, and cumulative impacts that are expected to occur. 	<p>Section 5.2, Biological Resources</p>
<p><u>Fully Protected Species:</u></p> <ul style="list-style-type: none"> • Project activities described in the DEIR should be designed to completely avoid any fully protected species that have the potential to be present within or adjacent to the Project area. • DEIR should analyze potential adverse impacts to fully protected species due to habitat modification, loss of foraging habitat, and/or interruption of migratory and breeding behaviors. • Lead Agency should include in the analysis how appropriate avoidance, minimization, and mitigation measures will reduce indirect impacts to fully protected species. 	<p>Section 5.2, Biological Resources</p>
<p><u>Sensitive Plant Communities:</u></p> <ul style="list-style-type: none"> • CDFW considers sensitive plant communities to be imperiled habitats having both local and regional significance. Plant communities, with a statewide ranking of S-1, S-2, S-3, and S-4 should be considered sensitive and declining at the local and regional level. The DEIR should include measures to fully avoid and otherwise protect sensitive plant communities from Project-related direct and indirect impacts. 	<p>Section 5.2, Biological Resources</p>

TABLE 2-1. SUMMARY OF PUBLIC SCOPING COMMENTS

Comment Summary	Where Comment Is Addressed
<p><u>California Species of Special Concern (CSSC):</u></p> <ul style="list-style-type: none"> CSSCs should be considered during the environmental review process. CSSC that have the potential or have been documented to occur within or adjacent to the Project area, include flat-tailed horned lizard, burrowing owl, Le Conte's thrasher, and Palm Springs pocket mouse. 	Section 5.2, Biological Resources
<p><u>Mitigation:</u></p> <ul style="list-style-type: none"> CDFW considers adverse Project-related impacts to sensitive species and habitats to be significant and the DEIR should include mitigation measures for adverse impacts to local and regional ecosystems. 	Section 5.2, Biological Resources
<ul style="list-style-type: none"> Mitigation measures should emphasize avoidance and reduction of Project impacts. 	Section 5.2, Biological Resources
<ul style="list-style-type: none"> For unavoidable impacts, on-site habitat restoration and/or enhancement, and preservation should be evaluated and discussed in detail. Where on-site habitat preservation is not available, off-site land acquisition, management, and preservation should be evaluated and discussed in detail. 	Section 5.2, Biological Resources
<ul style="list-style-type: none"> The DEIR should include measures to perpetually protect the targeted habitat values within mitigation areas from direct and indirect adverse impacts to offset Project-induced qualitative and quantitative losses of biological values. Specific issues that should be addressed include access restrictions, land dedications, long-term monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc. 	Section 5.2, Biological Resources
<ul style="list-style-type: none"> If sensitive species and/or their habitat may be impacted from the Project, CDFW recommends the inclusion of specific mitigation in the DEIR. 	Section 5.2, Biological Resources

TABLE 2-1. SUMMARY OF PUBLIC SCOPING COMMENTS

Comment Summary	Where Comment Is Addressed
<ul style="list-style-type: none"> CDFW recommends that the DEIR specify mitigation that is roughly proportional to the level of impacts, in accordance with the provisions of CEQA (CEQA Guidelines, §§ 15126.4(a)(4)(B), 15064, 15065, and 16355). The mitigation should provide long-term conservation value for the suite of species and habitat being impacted. Furthermore, in order for mitigation measures to be effective, they need to be specific, enforceable, and feasible actions that will improve environmental conditions. 	Section 5.2, Biological Resources
<p><u>Habitat Revegetation/Restoration Plans:</u></p> <ul style="list-style-type: none"> Plans for restoration and revegetation should be prepared by persons with expertise in southern California ecosystems and native plant restoration techniques. Plans should identify the assumptions used in their development. 	Biological Technical Report (App. G-1)
<ul style="list-style-type: none"> Monitoring of restoration areas should extend across a sufficient time frame to ensure that the new habitat is established, self-sustaining, and capable of surviving drought. CDFW recommends that local onsite propagules from the Project area and nearby vicinity be collected and used for restoration purposes. 	Biological Technical Report (App. G-1)
<p><u>Nesting Birds and Migratory Bird Treaty Act:</u></p> <ul style="list-style-type: none"> CDFW recommends that the DEIR include the results of avian surveys, as well as specific avoidance and minimization measures to ensure that impacts to nesting birds do not occur. 	Section 5.2, Biological Resources
<ul style="list-style-type: none"> The DEIR should also include specific avoidance and minimization measures that will be implemented should a nest be located within the Project site. 	Section 5.2, Biological Resources
<ul style="list-style-type: none"> If pre-construction surveys are proposed in the DEIR, the CDFW recommends that they be required no more than three (3) days prior to vegetation clearing or ground disturbance activities, as instances of nesting could be missed if surveys are conducted sooner. 	Section 5.2, Biological Resources

TABLE 2-1. SUMMARY OF PUBLIC SCOPING COMMENTS

Comment Summary	Where Comment Is Addressed
<p><u>Moving out of Harm's Way:</u></p> <ul style="list-style-type: none"> To avoid direct mortality, CDFW recommends that the lead agency condition the DEIR to require that a CDFW-approved qualified biologist be retained to be onsite prior to and during all ground-and habitat-disturbing activities to move out of harm's way special status species or other wildlife of low or limited mobility that would otherwise be injured or killed from Project-related activities. 	<p>Comment noted.</p>
<ul style="list-style-type: none"> Movement of wildlife out of harm's way should be limited to only those individuals that would otherwise be injured or killed, and individuals should be moved only as far as necessary to ensure their safety (i.e., CDFW does not recommend relocation to other areas). 	<p>Comment noted.</p>
<ul style="list-style-type: none"> Temporary relocation of onsite wildlife does not constitute effective mitigation for the purposes of offsetting Project impacts associated with habitat loss. 	<p>Comment noted.</p>
<p><u>Translocation of Species:</u></p> <ul style="list-style-type: none"> CDFW generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species as studies have shown that these efforts are experimental in nature and largely unsuccessful. 	<p>Comment noted.</p>
<p><u>California Endangered Species Act (CESA)</u></p> <ul style="list-style-type: none"> CDFW recommends that a CESA Incidental Take Permit (ITP) be obtained if the Project has the potential to result in "take" of State-listed CESA species, either through construction or over the life of the Project. 	<p>Comment noted.</p>
<ul style="list-style-type: none"> CDFW recommends that the DEIR address all Project impacts to listed species and include a mitigation monitoring and reporting program that will meet the requirements of CESA. 	<p>Section 5.2, Biological Resources</p>

TABLE 2-1. SUMMARY OF PUBLIC SCOPING COMMENTS

Comment Summary	Where Comment Is Addressed
<p><u>Lake and Streambed Alteration Program</u></p> <ul style="list-style-type: none"> Based on review of material submitted with the NOP and review of aerial photography at least two drainage features traverse the site. It is likely that the Project applicant will need to notify CDFW per Fish and Game Code Section 1602 prior to commencing any activity that may substantially divert or obstruct the natural flow of any river, stream or lake; substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or deposit debris, waste or other materials that could pass into any river, stream or lake. Early consultation with CDFW is recommended. 	<ul style="list-style-type: none"> Chapter 4.0, Project Description Section 5.2, Biological Resources

2.5.3. Public Notice/Review of Draft EIR Review

The Draft EIR will be circulated to the California State Clearinghouse, responsible and trustee agencies, and interested parties for a 50-day public review period (45-day minimum per CEQA, plus five days per County of Imperial CEQA Guidelines). The Draft EIR will also be made available for review online at the ICPDSD website: <http://www.icpds.com>.

Hard copies will also be available at the at the County of Imperial Planning and Development Services Department, 801 Main Street, El Centro, California 92243.

All public comments on the Draft EIR should be directed to Diana Robinson, DianaRobinson@co.imperial.ca.us, Imperial County Planning and Development Services Department, 801 Main Street, El Centro, California 92243.

The public review and comment period starts on July 26, 2021 and ends on September 14, 2021. Comments received during the public review period of the Draft EIR will be reviewed and responded to in the Final EIR. The Final EIR will then be reviewed by the Imperial County Planning Commission and Board of Supervisors as a part of the procedures to certify the EIR.

2.5.4. Certification of Final EIR/Project Consideration

The County of Imperial Planning Commission (Commission) will consider the Final EIR and make its recommendation to the Board of Supervisors (Board) regarding the Project. If, in the exercise of its independent judgment and review, the finds that the Final EIR is “adequate and complete,” the Board may certify the Final EIR at a public hearing. The “rule of adequacy” generally holds that the Final EIR can be certified if it shows a good faith effort at full disclosure of environmental

information and provides sufficient analysis to allow decisions to be made regarding the Project in contemplation of its environmental consequences.

Upon review and consideration of the Final EIR, the Board may take action to approve, revise, or reject the Project. A decision to approve the Project would be accompanied by written findings in accordance with CEQA Guidelines, Section 15091, and, if applicable, Section 15093. A Mitigation Monitoring and Reporting Plan (MMRP), as described below, would also be adopted for mitigation measures that have been incorporated into or imposed upon the Projects to reduce or avoid significant impacts to the environment. The MMRP would be designed to ensure that these measures are carried out during project implementation.

2.5.5. Mitigation Monitoring And Reporting Program

Section 21086.1 of CEQA requires that public agencies adopt a program for monitoring mitigation measures or conditions of project approval that reduce or eliminate significant impacts to the environment. As such, the County has prepared an MMRP for the proposed. The MMRP will be submitted to approving agencies along with the Final EIR prior to considering the Projects for approval. Any mitigation measures adopted by the Planning Commission (or Board of Supervisors) as conditions for approval of the Project will be included in the MMRP to track and verify compliance.

2.6. Intended Uses of the EIR

An EIR is an informational document used to inform public agency decision makers and the general public of the significant environmental effects of a project, identify possible ways to mitigate or avoid the significant effects, and describe a range of reasonable alternatives to the project that could feasibly attain most of the basic objectives of the project while substantially lessening or avoiding any of the significant environmental impacts. Public agencies are required to consider the information presented in the EIR when determining whether to approve a project. The EIR is intended to provide documentation pursuant to CEQA to cover all local, regional, and state permits and approvals which may be needed or are desirable in order to implement the proposed Project.

2.7. EIR Content and Organization

This Draft EIR includes all applicable information required by Article 9 of the CEQA Guidelines (Sections 15120-15130). **Table 2-2** contains a list of sections required under CEQA, along with a reference to the chapter in which they can be found in this document.

TABLE 2-2 REQUIRED EIR CONTENTS

Requirement (CEQA Section)	Location in EIR
Table of Contents (Section 15122)	Table of Contents
Summary (Section 15123)	Chapter 1
Project Description (Section 15124)	Chapter 4
Environmental Setting (Section 15125)	Chapter 5, (Sections 5.1 through 5.12)
Significant Environmental Effects of Proposed Project (Section 15126.2(a))	Chapter 1; Chapter 5
Unavoidable Significant Environmental Impacts (Section 15126.2(b))	Chapter 1; Chapter 6
Significant Irreversible Environmental Changes (Section 15126.2(c))	Chapter 1; Chapter 6
Growth Inducing Impacts (Section 15126.2(d))	Chapter 1; Chapter 6
Mitigation Measures (Section 15126(e) and Section 15126.4)	Chapter 1; Chapter 5
Cumulative Impacts (Section 15130)	Chapter 1; Chapter 7
Alternatives to Project (Section 15126.6(f))	Chapter 6
Effects Found not to be Significant (Section 15128)	Chapter 1; Chapter 8
Organizations and Persons Contacted/List of Preparers (Section 15129)	Chapter 9

The content and organization of this EIR are in accordance with the most recent guidelines and amendments to CEQA and the State CEQA Guidelines. Technical studies have been summarized within individual environmental analysis sections and/or summary sections. Full technical studies have been included in the appendices to this EIR (see Volume 2 of the EIR) and are available for review during the public comment period.

This EIR has been organized in the following manner:

- **Chapter 1.0, Executive Summary** is provided at the beginning of the EIR that outlines the conclusions of the environmental analysis and a summary of the proposed Project as compared to the alternatives analyzed in this EIR. The Executive Summary also includes a table summarizing all identified environmental impacts, along with the associated mitigation measures proposed to reduce or avoid each impact.
- **Chapter 2.0, Introduction**, provides an overview of the EIR, introducing the proposed Project, applicable environmental review procedures, and format of the EIR.
- **Chapter 3.0, Project Background**, provides complete description of the proposed Project's background.

- **Chapter 4.0, Project Description**, provides a description of the proposed Project, including its objectives, location (regional and local), general environmental setting, identification of discretionary actions and interested parties, and a list of cumulative projects. The setting discussion also addresses the relevant planning documents and existing land use designations of the Project site.
- **Chapter 5.0, Environmental Analysis**, provides a detailed impact analysis for each environmental issue, cumulative impacts and required mitigation measures, as applicable, that would result with project implementation.
- **Chapter 6.0, Analysis of Long Term Effects**, addresses significant unavoidable impacts of the proposed Project, including those that can be mitigated but not reduced to below a level of significance; significant irreversible environmental changes that would result from the proposed Project, including the use of nonrenewable resources; and growth inducement.
- **Chapter 7.0, Cumulative Effects**, addresses the potential cumulative impacts associated with the proposed Project and other existing, approved, and proposed development in the area.
- **Chapter 8.0, Environmental Effects Found Not to Be Significant**, provides, for each environmental parameter analyzed, a description of the thresholds used to determine if a significant impact would occur; the methodology to identify and evaluate the potential impacts of the proposed Project; the existing environmental setting; the potential adverse and beneficial effects of the proposed Project; the level of impact significance before mitigation; the mitigation measures for the proposed Project; and, the level of significance of the adverse impacts of the proposed Project after mitigation is incorporated.
- **Chapter 9.0, Alternatives**, provides a description and evaluation of alternatives to the proposed Project. This section addresses the mandatory “No Project” alternative, as well as development alternatives that would reduce or avoid the proposed Project’s significant impacts.
- **Chapter 10.0, Preparers**, identifies persons involved in the preparation of this EIR and/or those contacted during preparation of this EIR who provided information or data incorporated into the document.
- **Chapter 11.0, References**, provides a list of informational sources and technical reports utilized in preparation of the EIR.
- **Appendices** provide information and/or relevant technical studies in support of the environmental analysis contained in this EIR.

Environmental issues evaluated in Chapter 5.0 of this EIR include:

- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Traffic and Transportation
- Tribal Cultural Resources
- Utilities and Service Systems

Approach To Analysis

CEQA Guidelines §15125(a) addresses how a lead agency should establish the baseline conditions against which potential environmental impacts of a project are measured, as follows:

An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or, if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant.

CEQA case law provides guidance as to the appropriate baseline for existing, permitted, facilities seeking modifications to permitted operations or activities. In *Fairview Neighbors v. County of Ventura* ([2d Dist. 1999] 70 Cal. App. 4th 238 [82 Cal. Rptr.2d 436]) the Court ruled that for an existing, permitted facility that was seeking a permit for a new or revised aspect of its operation, where the facility's previously permitted operations had previously undergone environmental review, the appropriate baseline should be the existing permitted operations, rather than the level of operations actually occurring at the time of the notice of preparation. In accordance with this decision, the design, operations, and environmental controls described in the 2015 SWFP and other current permits, based on the 1990 FEIR, as well as other applicable permits that have undergone separate environmental review, constitute the operational baseline against which potential impacts of the Project are measured in this EIR.

Each environmental issue area in Chapter 5.0 contains a description of the following:

- The physical environmental setting as it existed at the time the Notice of Preparation was published along with the DVCM's existing permitted operations. The environmental setting constitutes the baseline physical conditions against which the County determines whether an impact is considered significant and adverse;
- The regulatory framework governing each issue;

- The threshold(s) of significance determined to be appropriate by the County pursuant to Section 15064.7 of the CEQA Guidelines;
- The methodology used in identifying and considering the issues;
- An evaluation of the project-specific impacts and identification of mitigation measures for each environmental parameter for which the proposed Project may result in potentially significant adverse impacts;
- A determination of the level of significance after mitigation measures are implemented. If significant unavoidable adverse impacts are identified (i.e., significant adverse impacts which cannot be mitigated or that remain significant even after mitigation is incorporated), it will be necessary for the County of Imperial to determine if the benefits from implementing the proposed Project outweigh the unavoidable adverse effects and adopt a Statement of Overriding Considerations.; and,
- The identification of any residual significant impacts following mitigation.

Environmental issues discussed in Chapter 8.0, Environmental Effects Found Not to Be Significant, include:

- Aesthetics
- Agriculture and Forestry Resources
- Energy
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Wildfires

2.8. Incorporation By Reference

This EIR relies upon previously adopted regional and statewide plans and programs, agency standards, and background studies in its analysis, such as the County of Imperial General Plan, Title 9 Land Use Ordinance; Noise Abatement and Control Ordinance, Imperial County Air Pollution Control District's CEQA Air Quality Handbook. Whenever existing environmental documentation or previously prepared documents and studies are used in the preparation of the DEIR, the information is summarized for the convenience of the reader and incorporated by reference. In addition, each section which relies upon previously adopted plans, programs, environmental documentation and background studies notes how it specifically relates to the proposed Project and that the information has been reconfirmed. In accordance with the CEQA Guidelines, Section 15150(b), the documents referenced in the EIR will be made available to the public for inspection at the County upon request. In addition, referenced documents and other sources used in preparation of the EIR are identified in Chapter 11.0 (References).

Technical studies and reports prepared for the proposed Project are included in the Appendices of and are considered part of the EIR.

3.0 EXISTING FACILITIES AND OPERATIONS

3.1 Project Location

The Desert Valley Company Monofill (DVCM or Monofill) is an active Class II Solid Waste Management Facility (SWMF) used for the disposal of certain geothermal non-hazardous waste streams and byproducts generated by CalEnergy Operating Corporation's (CalEnergy) geothermal power plant operations in Imperial County, California (**Figure 3-1, Regional Location**). The Desert Valley Company Monofill facilities are located on 181.5 acres of private land at 3301 West State Route 86 in Brawley, near the southwest corner of the Salton Sea, southwest of Highway 86 and northwest of the cities of Westmorland and Brawley (**Figure 3-2, Project Location**).

3.2 Project Background

3.2.1 History of the Desert Valley Company Monofill

The DVC owns and operates the Desert Valley Company Monofill. The DVC is a wholly owned subsidiary of the CalEnergy Operating Corporation located at 7030 Gentry Road, Calipatria, CA 92233. Both the DVC and CalEnergy are owned by Magma Power Company.

The Monofill is a Class II Solid Waste Management Facility (SWMF) used for the disposal of nonhazardous "filter cake" solids from geothermal brine used for power generation at geothermal facilities in Imperial County owned and operated by CalEnergy. Other minor waste streams accepted at the monofill facility are byproducts of the handling of filter cake or waste streams from the development of geothermal wells. These minor waste streams include- drilling mud materials, geothermal contaminated soils and materials, and plastic liners from transporting filter cake. The Monofill is permitted under Solid Waste Facility (SWF) Permit No. 13-AA-0022 ⁽¹⁾; Conditional Use Permit (CUP) No. 05-0020 ⁽²⁾; and Waste Discharge Requirements (WDR) R7-2016-0016 ⁽³⁾.

The Desert Valley Company Monofill, which began operations in May 1991, has three (3) storage/disposal cells (Cell 1, Cell 2 and Cell 3). The total site occupies 181.5 acres, of which approximately 68 acres (the total permitted area) is enclosed by fencing which surrounds the landfill operating area. A total of 28.9 acres of the site is permitted for disposal operations. Cells 1, 2 and the tie-in area in between the cells were closed in 2008 and a permanent cap was constructed. Construction of Cell 3 began in the summer of 2004 and was completed in June 2005. With a design capacity of approximately 1.3 million cubic yards (cy), Cell 3 is the only active cell currently

¹ Issued by the Imperial County Public Health Department, Division of Environmental Health (DEH) in 2020 (as modified). DEH is the Local Enforcement Agency (LEA) for the California Dept. of Resources, Recycling and Recovery (CalRecycle)

² Issued by the Imperial County Planning and Development Services Department in December 2005 (as modified).

³ Issued the California Regional Water Quality Control Board, Colorado River Basin Region 7 (as modified).

receiving waste. The maximum permitted elevation of Cell 3 is 59 feet below mean sea level (bmsl) with a maximum sub grade depth of 39 feet below ground surface (bgs).

3.2.2. Previous Environmental Review

In 1990, an Environmental Impact Report (SCH No. 89032206) for the Desert Valley Monofill Facility was prepared for Cells 1 and 2, encompassing an area of 160 acres. In 2002, a Negative Declaration was prepared for the expansion of the M-2 Zone to allow for construction of Cell 3 and to increase annual tonnage to facilitate current and future geothermal plant waste (SCH No. 2002121138). An Addendum to the Final Environmental Impact Report for the Desert Valley Company Monofill Facility (SCH No. 89032206) was prepared to allow use of alternative truck routes for deliveries to the monofill along with the use of an alternative truck scale at 701 North Sorenson Avenue in Calipatria, California. As of 2020, Cell 3 had a remaining capacity of 590,546 cubic yards and a remaining lifespan of 7.8 years (Desert Valley Company, 2020). Based on current projections Cell 3 will reach capacity in 2027.

Existing improvements at the Monofill are listed on **Table 3-1**.

TABLE 3-1: EXISTING MONOFILL IMPROVEMENTS

Monofill Cells 1, 2 and 3 (a)	Meteorology Collection Station
Private single-lane road from Highway 86/SR-86	Four (4) Air Quality Total Particulate Sampling Stations
Office and Administration Building	Six (6) Vadose Zone Monitoring Wells
Two (2) Leachate Ponds for Cells 1 and 2	Six (6) Radon Monitoring Probes In Cells 1 and 2 (b)
One (1) Leachate Pond for Cell 3	Pole Gate at Entrance on Highway 86/SR-86
Equipment Storage Building	Manual Gate At Monofill Fence
On-site Septic Tank /Leach Field	Fuel Tank (Aboveground)
One (1) Water Well (c)	Hazardous Material Storage Containment Structure
Two (2) Aboveground Water Storage Tanks	Chain-Link Fencing (d)
Eleven (11) Groundwater Monitoring Wells	

Notes:

- (a) Cells 1 and 2 Closed in May 2008. Cell 3 is the only active cell currently receiving waste.
- (b) Six additional radon monitoring probes are planned for Cell 3 upon closure.
- (c) Provides non-potable water to the office/administrative building. Also used for mixing the soil stabilizer.
- (d) Chain-link fencing surrounds the entire monofill facility

3.3. Current Operations

As identified in CUP No. 05-0020 and SWFP Permit No. 13-AA-0022, the waste stream accepted at the Monofill is limited to geothermal filter cake, drilling mud materials and cuttings, soils containing geothermal materials, and incidental plastic sheeting used as truckbed liners by the waste transport trucks. These materials contain a number of substances including arsenic, salts, metals, and organic hydrocarbons and Naturally Occurring Radioactive Materials (NORM)⁽⁴⁾. No municipal solid waste is accepted at the Monofill and it is not open for public and/or commercial use at any time. The permitted hours and days of operation are 6:00 AM to 6:00 PM, Monday through Sunday. The volume of non-hazardous wastes that can be received is limited to a maximum of 750 tons per day and 273,750 tons annually in accordance with the current CUP and SWFP. Information regarding the existing regulatory permits and plans that govern Monofill operations are shown in **Table 3-2**.

3.3.1. Site Access

The DVM is accessed from Highway 86/SR-86 by all vehicles entering and leaving the facility. A maximum of 38 waste transporting vehicles per day are allowed in accordance with the CUP, SWF, and WDR Permits. The private single lane road between Highway 86/SR-86 and the DVM facility is approximately 1.25 miles in length, is asphalt surfaced, and runs south from State highway to the facility. The following signs are posted at the entrance of the DVM:

- Entrance sign which states “Warning: All Vehicles Shall Remain on Designated Roadways”
- Proposition 65 Warning Sign
- Facility identification sign - “Desert Valley Company”

3.3.2. Ancillary Facilities (Buildings, Fencing, Leachate Ponds)

Existing facilities at the Monofill are presented on **Figure 3-3, Existing Monofill**. Ancillary facilities include three leachate storage ponds; two of which are located north of closed Cells 1 and 2, and one used by Cell 3 that is located between Cell 3 and closed Cells 1 and 2 (See **Figure 3-3, Existing Monofill**). The Monofill also includes a covered and lighted employee parking area as well as a single-story office/administration building and an equipment storage building just inside the fence in the northeast corner of the site. The administrative building is equipped with a cellular telephone system.

Additional facilities include one water well, two (2) 5,000-gallon above ground water storage tanks; a 1,000-gallon above ground diesel fuel storage tank; and a 90-gallon used lubricating oil above ground storage tank.

⁴ The Monofill operates in conformance with a “Radiation Monitoring Plan”, that requires monitoring of workers stationed at the site to ensure that they are not subject to any impacts from radiation.

TABLE 3-2. EXISTING REGULATORY PERMITS, LICENSES AND PLANS

Permit	Number	Issuing Agency
Conditional Use Permit	05-0020	Imperial County Planning and Development Services
Water Well Conditional Use Permit	05-0020	Imperial County Planning and Development Services
Solid Waste Facility (SWF) Permit	13-AA-0022	Imperial County Public Health Department
Authority to Construct & Permit to Operate	2120 B-3	Imperial County Air Pollution Control District
National Pollution Discharge Elimination System General Permit	CAS000001	State Water Resource Control Board
Waste Discharge Requirements (WDR)	R7-2016-0016	Regional Water Quality Control Board, Region 7
License	Number	Issuing Agency
Radioactive Material License ⁽²⁾	5663-13	California Department of Public Health
Plan Document	Number	Issuing Agency
Certified Unified Program Certificate ⁽¹⁾	FA0000598	Department of Toxic Substances Control (DTSC) – Certified Unified Program Agency (CUPA)
Hazardous Material Business Plan	N/A	Department of Toxic Substances Control – Certified Unified Program Agency (CUPA)
Employee Training Plan	SWF Permit No. 13-AA-0022	Imperial County Public Health Department
Operation Plan		
Joint Technical Document		
Preliminary Closure and Post-Closure Plan Cell 3		
Stormwater Pollution Prevention Plan	CAS000001	California State Water Resources Control Board

Notes

- (1) Identifies DVM's hazardous waste generator class (less than one ton)
(2) Authorizes the use of Americium-241 for use at the monofill as components of gauges, CPN International Division of InstroTek, Inc., Models MC or 500 series, for determination of moisture/density in engineering materials.

CUPA: Certified Unified Program Agency, For Imperial Valley

ICPDSD: Imperial County Planning and Development Services Department.

DTSC: Department of Toxic Substances Control

SWPF: Solid Waste Permit Facility

Source: CalEnergy, 2018. (Appendix C-1).

3.3.3. Water and Wastewater Facilities

The office/administration building contains an employee lavatory, changing, and shower facilities. Sewage and wastewater from these facilities are routed to an on-site septic tank and leach field that handles the disposal of sanitary waste generated by site personnel. Drinking water for on-site personnel and for sanitary use at the office/administration building is provided by a water delivery service and stored in the aboveground water storage tank described above. Non-potable water for

dust control, and for mixing the acrylic polymer stabilization/sealant for use on the monofill working surface is obtained from the on-site well. In accordance with CUP#05-0020, the well is 4-inches in diameter and is permitted to use up to 8.5 acre-feet per year.

3.3.4. Personnel and Equipment

The Monofill currently employs eight (8) full-time staff, including but not limited to a Supervisor, Site Coordinator, Senior Monofill Technician II and Monofill Technician. Equipment used at the DVM is listed below.

TABLE 3-3: EQUIPMENT IN USE AT THE MONOFILL

Equipment	Count	Use
Water Truck	1	Dust control and daily soil seal cover
Front Loader	1	Operations
Polaris Ranger	1	Site use
Pickup Truck	2	Site use
Hauling Trucks	6	Transporting filter cake & other geothermal wastes

3.3.5. Landfill Operations

As identified in CUP No. 05-0020 and SWFP Permit No. 13-AA-0022, the Monofill's permitted hours and days of operation are 6:00 AM to 6:00 PM, Monday through Sunday during daylight hours. The facility receives nonhazardous waste streams associated with geothermal energy production from four (4) CalEnergy facilities in the Salton Sea Known Geothermal Resources Area: Elmore, Leathers, Salton Sea 1, and Salton Sea 2. Waste streams associated with the geothermal facilities consist of geothermal filter cake, drilling mud materials, geothermal contaminated soils and materials, and plastic liners used to line the truck trailers that are used to transport the waste to the DVM. These materials contain a number of substances including arsenic, salts, metals, and organic hydrocarbons and Naturally Occurring Radioactive Materials (NORM)⁽⁵⁾. No municipal solid waste is accepted at the Monofill and it is not open for public and/or commercial use. The volume of non-hazardous wastes that can be received is limited to a maximum of 750 tons per day and 273,750 tons annually in accordance with the current CUP and SWFP.

Information on the CalEnergy geothermal plants that use the monofill for waste disposal, including the volumes of geothermal waste shipped to the monofill daily, is presented on **Table 3-4**. The chemical composition of typical filter cakes produced at this plants is provided on **Table 3-5**.

⁵ The monofill operates in conformance with a "Radiation Monitoring Plan", that requires monitoring of workers stationed at the site to ensure that they are not subject to any impacts from radiation.

TABLE 3-4. CALENERGY GEOTHERMAL PLANTS, FILTER CAKE GENERATION/DISPOSAL RATES

CalEnergy Power Plant	Filter Cake Generation Rate (tons/day)	Number of Production Wells	Brine Production Flow, nominal (Klbs/hr)	Number of Turbines	Gross Electric Generation (MW)
Region 1	150	7	15,800	7	197.3
Region 2	72	6	8,200	4	75.5
Elmore	40	4	4,000	1	35.8
Leathers	40	5	4,500	1	35.8
TOTAL	302	22	32,500	13	344.4

Source: CalEnergy, 2018. (Appendix C-1).

TABLE 3-5. TYPICAL FILTER CAKE COMPOSITION

Major Elements	Probable Compound	Percentage
PSilicon (Amorphous)	(SiO ₂ + Silicates)	62
Iron	(Fe ₃ O ₄ + FeSiO ₄)	15
Barium	(BaSO ₄ + BaCl ₂)	4
Calcium	(CaSO ₄ + CaCO ₃)	3
Minor Components	Probable Compound	(ppm)
Sodium	(NaCl)	6,000
Strontium	(SrSO ₄)	6,000
Manganese	(MnSO ₄)	3,500
Potassium	(KCl)	1,300
Arsenic	(As ₂ S ₃ + FeAs ₂)	300
Copper	(CuS)	250
Zinc	(ZnS)	130
Trace Components	Probable Compound	(ppm)
Lead	(PbS)	30
Antimony	(Sb ₂ S ₃)	10
Beryllium	(BeS)	10
Cobalt	(CoS ₂)	4
Nickel	(NiS)	1.5
Chromium	(CrS)	1
Silver	(Ag ₂ S)	0.4
Cadmium	(CdS)	0.2

Notes: ppm = parts per million.

Source: CalEnergy, 2018. (Appendix C-1).

Truck Haul Routes

Truck haul routes used to transport the waste stream to the monofill are described on **Table 3-6** and depicted on **Figure 3-4, Designated Haul Routes**. Filter cake transport trailers are weighed using scales located at the CalEnergy plants and are then delivered to the DVM by truck. The covered loads are transported from the Salton Sea area, via a designated truck haul route (Designated Route A) that includes Sinclair Road, Gentry Road, Bowles Road, Lack Road and State Routes 78 / 86 and the Monofill Access Road. The use of alternate truck routes for deliveries to the DVM is authorized under the existing permits and Alternate Routes “B” and “C” include Forrester Road and Bannister Road.

In the event CalEnergy Scales are out-of-service, scales at the Double Eagle Scale and Fuel company, located at 701 N Sorensen Ave, Calipatria, can be used. Under this scenario, trucks would use the Alternate Route For Weighing Trailers to access the DVM. As shown on **Table 3-6**, the one way distance of the haul routes from the geothermal plants to the monofill range from 28 to 38 miles in length.

TABLE 3-6. EXISTING TRUCK HAUL ROUTES

Designated Route “A”	Alternate Route “B”	Alternate Route “C”	Alternate Route for Weighing Trailers (Double Eagle Scale & Fuel Inc.) ^{(1) (2)}
Haul Routes			
<ul style="list-style-type: none"> • Sinclair Road • Gentry Road • Bowles Road • Lack Road • State Routes 78 & 86 • Monofill Access Road 	<ul style="list-style-type: none"> • Sinclair Road • Gentry Road • Forrester Road • Bannister Road • Lack Road • State Routes 78 & 86 • Monofill Access Road 	<ul style="list-style-type: none"> • Sinclair Road • Gentry Road • Bowles Road • Bannister Road • Lack Road • State Routes 78 & 86 • Monofill Access Road 	<ul style="list-style-type: none"> • Gentry Road • Sinclair Road • State Route 111 • Eddins Road • Gentry • Bowles • Lack Road • State Routes 78 & 86 • Monofill Access Road
Travel Distance (One Way)			
28 miles	30 miles	27 miles	38 miles

Notes:

(1) Double Eagle Scale & Fuel, Inc. is located at 701 N Sorensen Ave, Calipatria, CA.

(2) DVCN would use this route to weigh filter cake trailers in the event CalEnergy scales at the Region 2 Geothermal Power Plant are out of service.

Source: County of Imperial, 2008a.

In 2017, the number of daily truck deliveries ranged from a low of six (6) to a maximum of 38 per day; each with an approximate filter cake load capacity of less than 25 tons. Daily tonnage averages 250 tons per day and cannot exceed 750 tons per day.

Waste Acceptance, Hazardous Screening, and Placement Procedures

Prior to being transported to the Monofill, all waste materials are analyzed by a California Certified Laboratory to document the non-hazardous designation of the material. The results of the analyses are submitted to the Imperial County Health Services and the Regional Water Quality Control Board, Region 7, in a monthly report.

Trucks arriving at the Monofill are inspected prior to off-loading. Each load of waste that is transported to the Monofill is accompanied by a numbered non-hazardous waste data form. The “generators” portion of the data form is completed, signed, and dated by the power plant authorized agent or representative. The “transporters” portion of the data form is completed by the transporter. A permanent weigh station located in front of the Region 2 Geothermal Power Plant is used for weighing materials conveyed to the Monofill.

Each truck, prior to traveling to the Monofill, is weighed, and the weight is recorded on a weight slip that is given to the Monofill operator upon arrival. The weight information is entered into a computer-based log system. The Monofill operator monitors the total weight of materials received on a daily basis to ensure compliance with permitted limits. The Monofill operator also inspects the waste to ensure that it is acceptable (i.e., geothermal mud, filtercake). Because all waste material received for disposal must be dry, each load is inspected and sampled for free liquids by Monofill personnel using the paint filter test (EPA Method 9095). If the waste material fails, it is considered too wet for disposal and is returned to the source for further drying.

Once the waste is accepted, the trucks are cleared for access to the operational cell and offloaded. The transporter is directed to stay inside the truck with the windows closed while inside the Monofill unless required to release the tailgate for unloading.

Trucks are unloaded of filtercake and then tarped at all times, except when being filled or emptied, to prevent any filtercake residue from exiting the transport trucks. Plastic liners are used as necessary to prevent filtercake residue from remaining in the truck. After unloading, the truck moves away from the off-loaded material and is inspected to ensure that materials are not tracked from the Monofill area. Wastes are unloaded as close to the “toe” of the working face as possible. Movement of the discharged waste to the compaction area is accomplished by the front-end loader.

Typically, wastes are placed in “loose lifts” (less than two feet, with average of about 8 inches) and then compacted directly after unloading. To prevent damage to the liner system, no hard or sharp edged objects are allowed to be placed within five (5) feet of the landfill bottom or sides. No liquid,

special or hazardous waste is accepted at the Monofill Facility. After the transport truck is unloaded, the loader spreads and compacts the material.

Subsequent to off-loading of each truck, the Monofill operator completes the “disposer” section of the data form and gives one (1) copy to the truck driver for delivery back to the CalEnergy environmental department. The completed data form is retained at the Monofill office.

The disposal record and non-hazardous data forms are available for inspection and review by representatives of the Regional Board, CalRecycle, and LEA at any time during normal business hours. Monthly and quarterly reports are, and will continue to be prepared and submitted to the Regional Board and LEA containing all information as required by CUP, SWFP and WDR.

3.3.6. Daily Cover

At the end of the day, spread and compacted material is sprayed with an acrylic polymer soil sealant compound to stabilize the surface and protect against wind erosion.

3.4. Environmental Controls

Numerous environmental controls, as required under the current operating permits, are implemented at the monofill to reduce and/ or avoid adverse effects.

3.4.1. Subsurface Barrier/Liner

Cell 3 has a subsurface barrier that consists of two (2) clay liners and two (2) synthetic liners. With one exception, Cell 3 was designed with the Class I standard design of the original Cells 1 and 2 whenever possible, including the use of native clay, compacted clay, and two polyethylene liners with a primary and secondary leachate collection system. The exception is that Cell 3 was constructed using a geosynthetic clay liner below the primary and secondary containment liners as approved by all governing agencies. Below are the various constructed layers of Cell 3 from the bottom disposal surface downward to native soils:

- Two (2) feet of native soil layer (liner protection from disposal equipment) or 40 mil High-density polyethylene (HDPE) ultraviolet (UV) cover over geofabric.
- Leachate Collection Recovery System – HDPE Geogrid bonded with 8 oz Geofabric.
- Primary Liner – 80 mil High Density Polyethylene Geomembrane.
- Leak Detection Layer – High Density Polyethylene Geo-Grid.
- Secondary Liner – 80 mil High Density Polyethylene Geomembrane.
- Geosynthetic Clay Liner.
- Compacted native clay soils minimum five (5) feet above water table.

3.4.2. Leachate, Collection and Removal System

The DVM is equipped with a primary and secondary leachate collection and removal system (LCRS). The primary LCRS consists of polyethylene drainage net covered with a nonwoven geotextile placed on the cell bottom. The maximum load on the net is approximately 70 feet of waste, which is equivalent to approximately 6,800 pounds per square foot (psf). The drain net has a flow capacity of approximately 0.14 gallon per minute per foot of width of net, based upon test data at a confining pressure of 10,000 psf and using a soil, geotextile, drain net, HDPE liner test configuration. The strength of the drain net has been shown to exceed 20,000 psf without crushing. The drain net is connected to HDPE pipes located on each of the cell centerlines. These pipes carry leachate to the primary sumps at the north end of the cell. From the sumps, leachate is pumped to the leachate ponds located north and east of the cell area. The HDPE pipe is chemically resistant to the leachate and strong enough to withstand construction traffic loads with 18 inches of soil cover. It is also sufficient to withstand loads imposed by the full height of waste and soil cover. The HDPE pipe is located in a gravel filled trench which is wrapped in a geotextile cover.

The primary LCRS was placed immediately above the primary liner. The pumping capacity is approximately 50 gallons per minute. The maximum anticipated daily volume of leachate from the unit is 150 gallons, exclusive of storm runoff. The leachate holding ponds are designed to handle the 1,000 year design storm event. The system is designed to handle more than twice the anticipated volume of leachate generated per day. The secondary LCRS was placed between the inner and outer liners (Desert Valley Company, 2016; Section II, Page 132).

The desert climate precludes significant amounts of leachate from being generated on a continual basis. Storm events can generate significant quantities of leachate. An analysis performed for Cells 1 and 2, using EPA methods, has shown that no leachate is expected from the waste materials. The leachate sump is checked weekly with a water level indicator to determine if leachate is present. If leachate is present, it is pumped to the leachate pond and allowed to evaporate naturally in the desert climate.

The secondary leachate system consists of a polyethylene drain net between the two HDPE liners. The drain net is connected to the HDPE pipes (with clean out), which run to the secondary leachate sump. The drainage net is the same as used for the primary leachate collection system and can withstand the same loads. Past operational experience shows that little leachate reaches the secondary leachate system. The secondary leachate sump is checked weekly for liquid presence. If any liquid is present, it is pumped to the leachate ponds and allowed to evaporate.

Both leachate sumps are also inspected for presence of liquids after rainstorms. As noted above when leachate is present, it is removed by pumps equipped with flow meters that measure the amount of leachate removed from the sumps to the leachate ponds. The amount of leachate removed from the sumps is recorded in daily and electronic logs. In addition, the working surface of the DVM is

also inspected for ponded water from storm activity. If present, such water is removed by pumping to the existing leachate ponds.

A storm water runoff diversion wall is located between the closed Cells 1 and 2 and the leachate collection ponds to prevent storm water runoff issues at the ponds. This minor change was approved by the LEA on July 20, 2011 (Desert Valley Company, 2016; Section II, page 37).

3.4.3. Radiological Monitoring

As required and enforced by the Environmental Health Services Division and the Imperial County Air Pollution Control District, monitoring is conducted to ensure the expected minimal exposure/dose around the Monofill is maintained. The Radiological Monitoring Plan consists of on-site workers and truck drivers wearing film badge/ dosimeters, which measure external radiation exposure. The dosimeter must be worn at all times whenever the monofill workers or truck drivers are present at the facility. In accordance with the Plan, workers and truck drivers shall not receive more than the occupational dose limit set by Title 17-30265 of the California Code of Regulations for whole body exposure of 1.25 REM per calendar quarter. DVM submits quarterly reports to the ICAPCD and the LEA regarding the quarterly film badge radiological exposure for DVM workers, and truck drivers. To date, no exposures in excess of the standards have been reported.

3.4.4. Water Quality Monitoring Program

Monitoring Wells

There are eleven (11) monitoring ground water wells and six (6) vadose zone monitoring wells. Four groundwater monitoring wells are located north of the closed Cells 1 and 2. One is located between Cells 1 and 2 and Cell 3. Three are located on the northeast side of Cell 3. One is located south of Cell 3. Two are located on the west side of the site, one each by Cells 1 and 2 and Cell 3. In accordance with the CUP, SWF Permit, and the Waste Discharge Requirements Permit, groundwater monitoring reports are filed quarterly and annually to the Regional Water Quality Control Board and copied to the Imperial County Planning and Environmental Health (Compliance Report 13). When groundwater is sampled the elevation of the groundwater surface is determined to within 0.01 foot using an electric probe and field parameters (temperature, electrical conductivity, turbidity, and pH) is measured (Desert Valley Company, 2016; Section II, Page 163). The groundwater constituent trend analysis required under MRP R7-2016-0016 includes the following constituents:

- Groundwater Elevations
- Chloride
- Sulfate
- Lead
- Sodium
- Total Dissolved Solids (TDS)
- pH
- Specific Conductance
- Cadmium

Four (4) vadose zone wells are located around closed Cells 1 and 2. One is located between Cells 1 and 2 and Cell 3. One is located on the northeast side of Cell 3. Vadose zone monitoring is required quarterly in accordance with WDR R7-2016-0016.

Landfill Gas Control and Monitoring

The DVM does not accept materials that generate methane gas. As such, the DVM is not required to have a gas management plan. On March 8, 2018, the Imperial County Division of Environmental Health granted an extension exempting the Monofill from methane gas monitoring (Desert Valley Company, 2020). The exemption is reviewed by LEA at least every five years.

Daily Cover

No daily or intermediate soil cover is placed during operations at the DVM. The requirement for six (6) inches of cover material has been waived by the LEA for the disposal operations due to the nature of the materials accepted at the DVM. The only cover required at the DVM is the final closure cover. However, a soil sealant is sprayed on the disturbed area at the end of each working day. Approximately, 7,700 gallons of acrylic polymer (soil seal) are diluted and applied on the active waste deposition surface per year. The daily use of acrylic polymer is recorded in a daily and electronic log. Soil Seal is a liquid polymer that cures through evaporation of dilution water. Per the manufacturer, soil seal does not degrade to form methane.

3.4.5. Air Quality Controls

Air Quality Monitoring and Reporting

The DVM has been issued an Authority to Construct and Permit to Operate (#2120 B-3) by the Imperial County Air Pollution Control District (ICAPCD). In accordance with this permit and with the requirements of the CUP, the DVM installed a meteorology data collection station and four (4) high volume air quality total particulate sampling stations. The DVM is required to measure ambient particulate concentrations for 24 hours on a six-day interval. Particulate filter loading from the high-volume air sampler, the highest concentration measured for the quarter, are analyzed for gross radionuclides (Ra 226 and 228) and speciated for heavy metal concentrations (Pb, Zn, Cd, Cu, As). The heavy metal speciation was conducted quarterly the first year of the monofill's operation and twice yearly thereafter.

Reports of the total ambient concentrations of particulates (micrograms/cubic meter/24 hours) measured from the high-volume air samplers and heavy metal speciation concentrations and gross radionuclides including, the method procedures for heavy metal and radionuclides analysis are submitted to ICAPCD and the County of Imperial Department of Environmental Health on a quarterly basis. In addition, the DVM submits an annual gas speciation analysis. The Monofill is also required to report the total wastes received. The report includes the total tonnage, the type of

waste(s), and origin of wastes. Additionally, every three (3) years, the DVM measures radon gas emissions from closed Cells 1 and 2 and reports the findings to the ICAPCD.

Dust Control

The following control measures and improvements are used to control the generation of dust at the DVM site. The site access road, employee parking area and the maintenance area are paved. A water truck is used during landfill operations to wet down the working face of the monofill to prevent fugitive dust emissions during the day. A mobile soil sealant spray system is used to cover all working geothermal waste after each working day to prevent fugitive dust emissions.

The following Wind Dispersal Prevention Program continues to be implemented at the DVM:

Wind Dispersal Prevention Program (WDPP)

At the end of the compaction activities or the end of the day, the working face of the DVM is sprayed with soil sealant. The sealant used is a patented formulation composed primarily of high-grade latex acrylic-balanced copolymers prepared in an emulsion form. The soil sealant is applied by a water truck using a sprayer. The sealant material penetrates the soil surface to form a crust that is resistant to wind erosion and dispersion.

A wind direction/wind speed monitoring device is installed at the DVM that records wind speed and direction. The wind speed circuit is connected to an alarm light in the Administrative Office. When wind speeds exceed 13 miles per hour (mph) the alarm light illuminates, and all unloading activities cease. When wind speeds exceed 21 mph, all earth moving activities cease and the working face of the monofill is sprayed with sealant or covered by plastic tarps.

3.4.6. Fire Control

Burning wastes are not accepted at the DVM. Due to the inorganic nature of the DVM wastes, fires are extremely unlikely. In the event of a fire in a cell, a loader or water truck is used to smother the fire with on-site soils or water. In addition, fire extinguishers are located in the office, maintenance area, and on the site vehicles.

3.4.7. Vector Control

The types of materials accepted at the DVM have no known nutrient value that could be used by insects, rodents, small animals or birds for food purposes. Operational experience at the site indicates that the DVM waste materials do not attract insects, rodents, or birds. The leachate ponds are empty most of the time which decreases the potential for vectors, rodents, and birds to become dependent on the pond as a source for water. Larger wildlife is denied access to the site by the perimeter fence (6-foot height), and small animals are denied access to the site by virtue of slats inserted into the fence.

The leachate ponds are designed to contain approximately 6.5 feet of depth of leachate/ponded water. The inside slopes of the pond perimeters have 2:1 slopes, while the internal dike between the northern most pond sections has a 1.5:1 slope. These are typical design parameters for shallow ponds. The water in the ponds is essentially rainwater with some dissolved salts, almost all sodium chloride, and DVM leachate from the primary and secondary leachate sumps. Since the ponds would be dry a large percentage of the time the attraction for wildlife would be very low. Secondly, if rainwater is present in the ponds, then the presence of rainwater pools throughout the surrounding desert would also most likely be present and would be far more accessible and attractive to wildlife than the leachate ponds (Desert Valley Company, 2016: Section II, Page 39).

3.4.8. Drainage and Erosion Control

The DVM is protected from erosion from precipitation by an existing diversion barrier and/or additions to the diversion barrier. The design of the diversion barrier (berm) is described briefly as follows:

The DVM is protected from precipitation drainage from the higher elevation areas on the southern borders of the facility property by an upstream diversion barrier (berm) and ditch system. The berm is made of compacted soil and is approximately three (3) feet in height, eight (8) feet in width (at the crest) and has 3:1 side slopes. The DVM, as a Class II solid waste disposal facility, must be protected from the 1,000-year rainfall event, which at the Project site, is defined as 6-inches of rainfall in a 24-hour period. The existing diversion barrier has been designed for a protection level equivalent to that required by a Class I landfill, i.e., 13.3 inches of rainfall in a 24-hour period (probable maximum precipitation [PMP]). The maximum flood flow of 101 cubic feet per second (CFS) was derived from the Rational Equation with a runoff coefficient of 0.6 and rainfall intensity of 4.03 inches per hour. Assuming that approximately one third of the 24-hour rainfall occurs in the first hour is conservative. The 1.5-foot deep ditch in front of the diversion barrier has sufficient capacity to handle the maximum flow. The barrier, as stated earlier is three (3) feet high which provides sufficient freeboard for the design flow. The flow that is diverted around the DVM rejoins the original channels just north of the site. As a result, there is no significant change in the area drainage patterns. Other erosion measures that are used include:

- Application of polymer sealant to the surface of the cap (Cells 1 and 2) as needed to prevent soil losses due to wind erosion. Similarly, polymer sealant would be applied to the surface of the cap of Cell 3 in the future.
- Sandbags are also placed on the surface of the closed Cell 1 and 2 cap as necessary to prevent excessive surface erosion. At Cell 3, the sandbags are used to help keep the UV cover in place.
- The DVM installed a storm water runoff diversion wall between the closed Cells 1 and 2 and the leachate collection ponds. The objective for the installation of the storm water wall is to

prevent storm water runoff issues at the west leachate collection pond of Cell 1 and Cell 2. This minor change was approved by the LEA on July 20, 2011.

Litter Control

Litter is not a problem at Cell 3 because municipal solid waste is not accepted as a waste material at the DVM. Loose materials would not present a problem due to the WDPP and the daily compacting of the materials received (Desert Valley Company, 2016; Section II, Page 41).

3.4.9. Noise Control

Operational experience at the DVM has shown that noise has not been a problem and is not expected to be a problem for continuing Cell 3 operations. Hearing protection is available for use by on-site employees when required. The isolated location of the DVM in relationship to sensitive or casual receptors precludes any health hazards due to noise from the site. The nearest dwelling is approximately two (2) miles away from the site. (Desert Valley Company, 2016; Section II, Page 41).

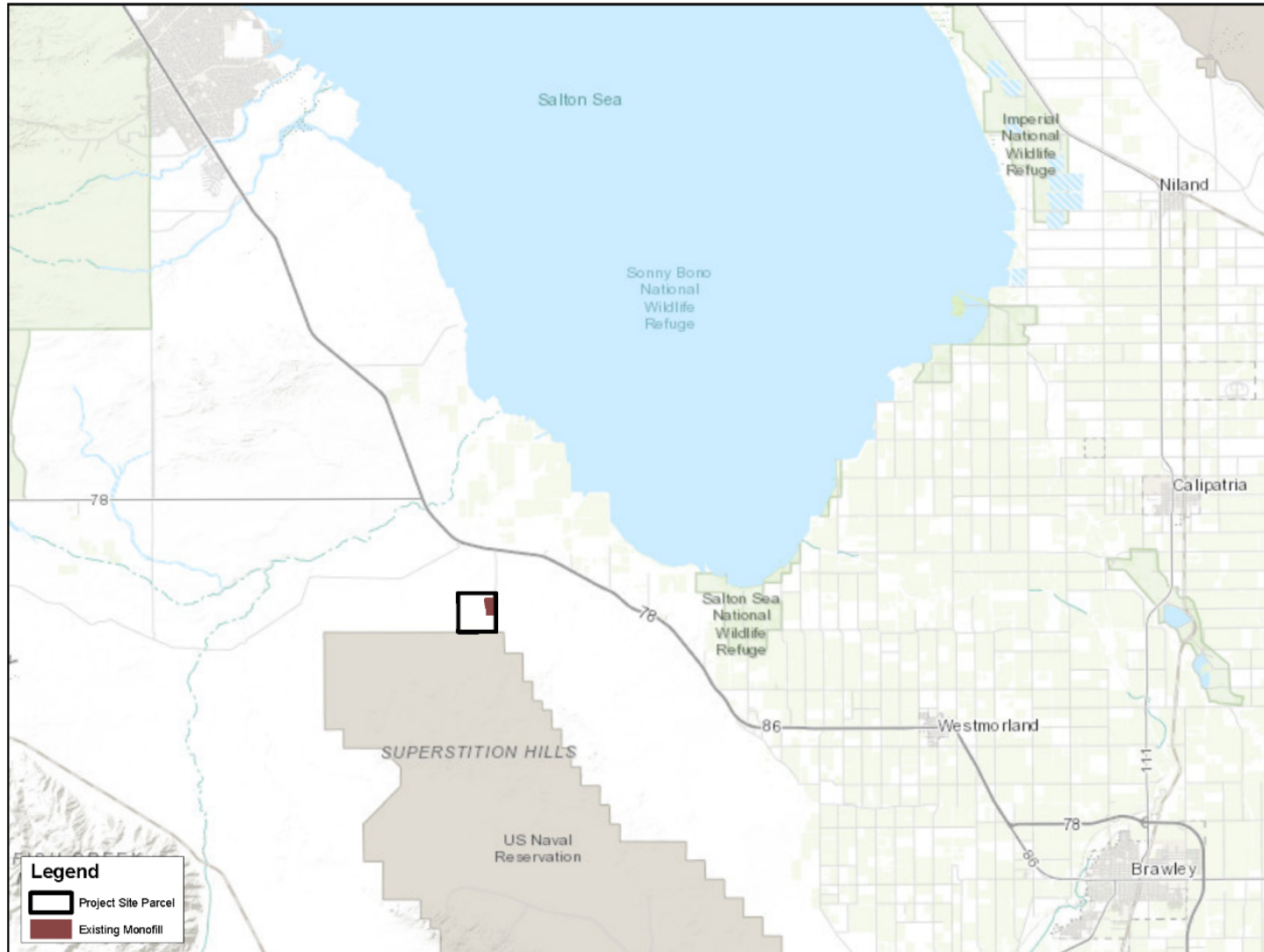
3.4.10. Odor Control

The types of materials disposed of at the DVM preclude the attraction of insects, rodents, and other vectors or creation of nuisance. Operational experience at the site indicates that insects, rodents, and other vectors not attracted to the DVM, and no problems have been noted. Odors have not been a concern since the DVM does not accept odorous waste materials. No issues with regard to the protection of public health have been identified (Desert Valley Company, 2016; Section II, Page 35).

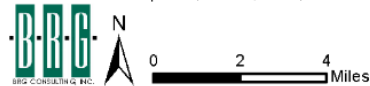
3.4.11. Site Security

The entire active portion of the DVM, office and maintenance areas, are surrounded by chain link fencing [approximately six (6) feet in height], with locking gates. The gates are locked at all times when facility personnel are not present at the site. This practice prevents animals and humans from accidentally coming into contact with the waste materials. A manual sliding gate is currently installed on the site access road. This gate is left open whenever facility personnel are present at the site but is closed and locked whenever the facility is unattended. There is also a pole gate at the access road entrance from State Highway 86 that is down when facility personnel are not present at the site (Desert Valley Company, 2016: Section II, Page 30).

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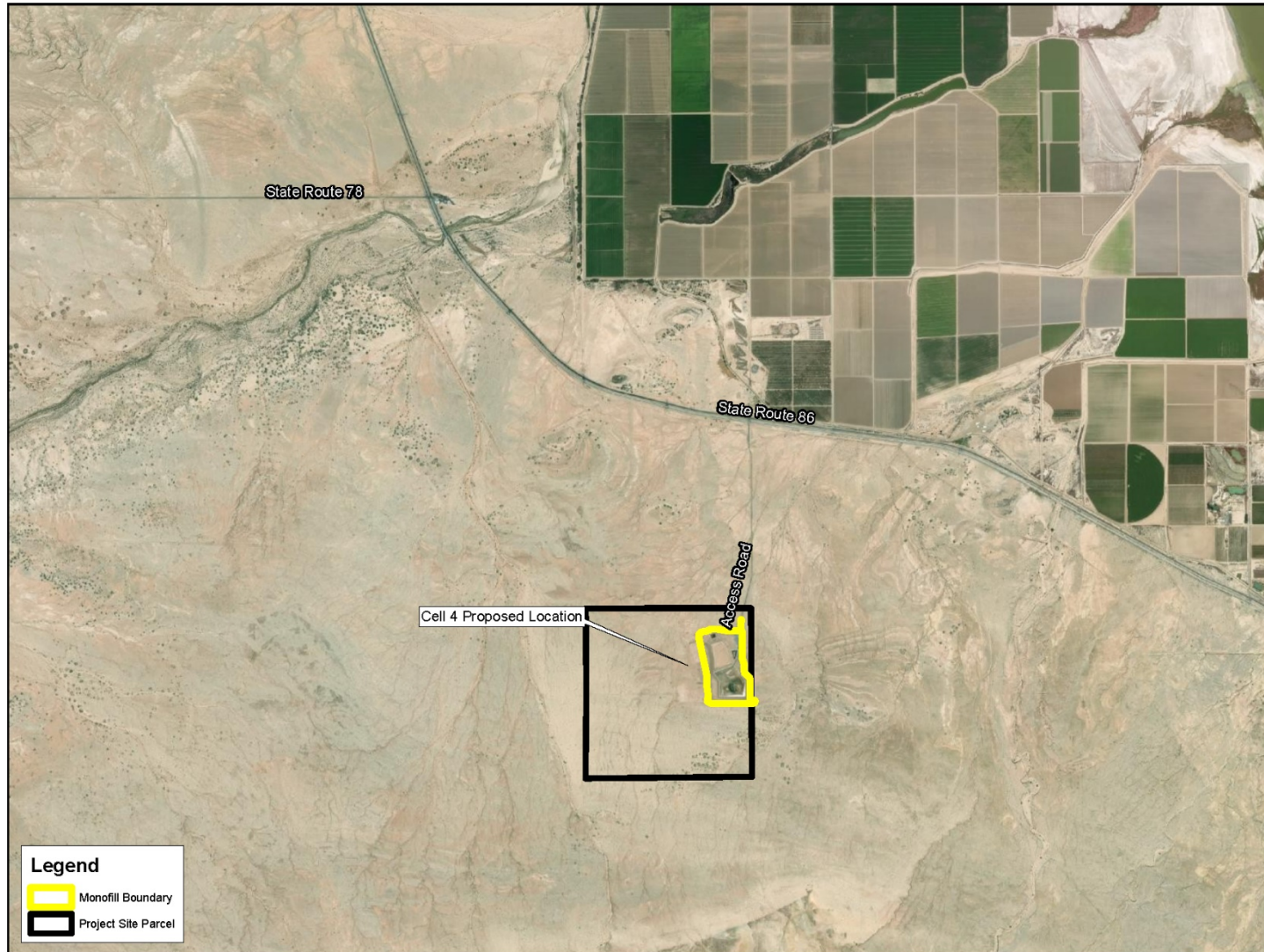


SOURCE: Basemap-ESRI; ICPDS, 2015, 2018




Desert Valley Monofill Regional Location
Desert Valley Company Monofill Expansion Project, Cell 4
Figure 3-1

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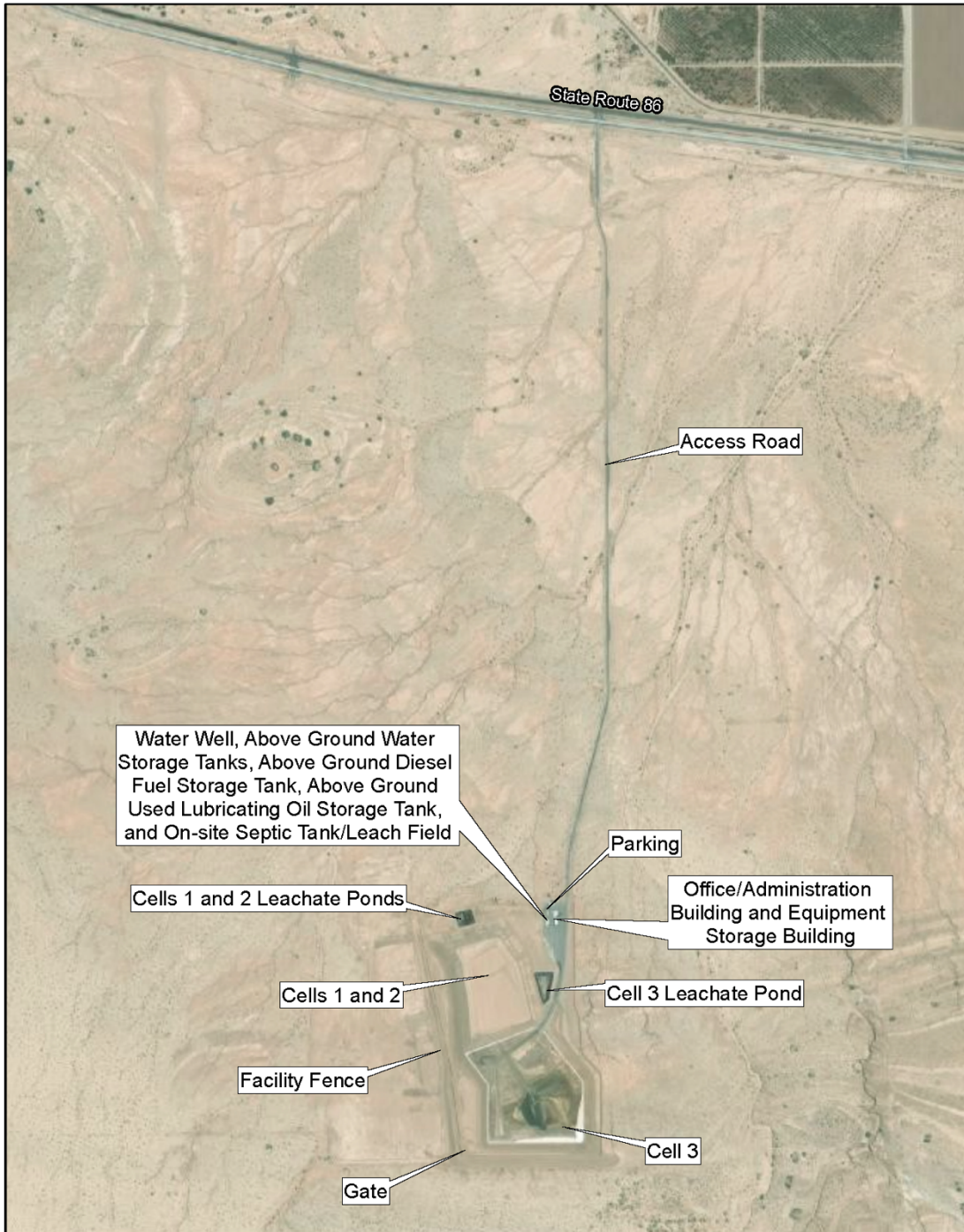
SOURCE: Basemap-ESRI; ICPDS, 2015, 2018



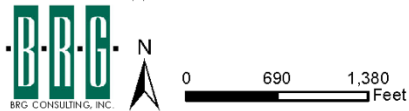
0 0.45 0.9 Miles

Desert Valley Monofill Location
Desert Valley Company Monofill Expansion Project, Cell 4
Figure 3-2

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SOURCE: Permit Application CUP No. 05-0020, 2018

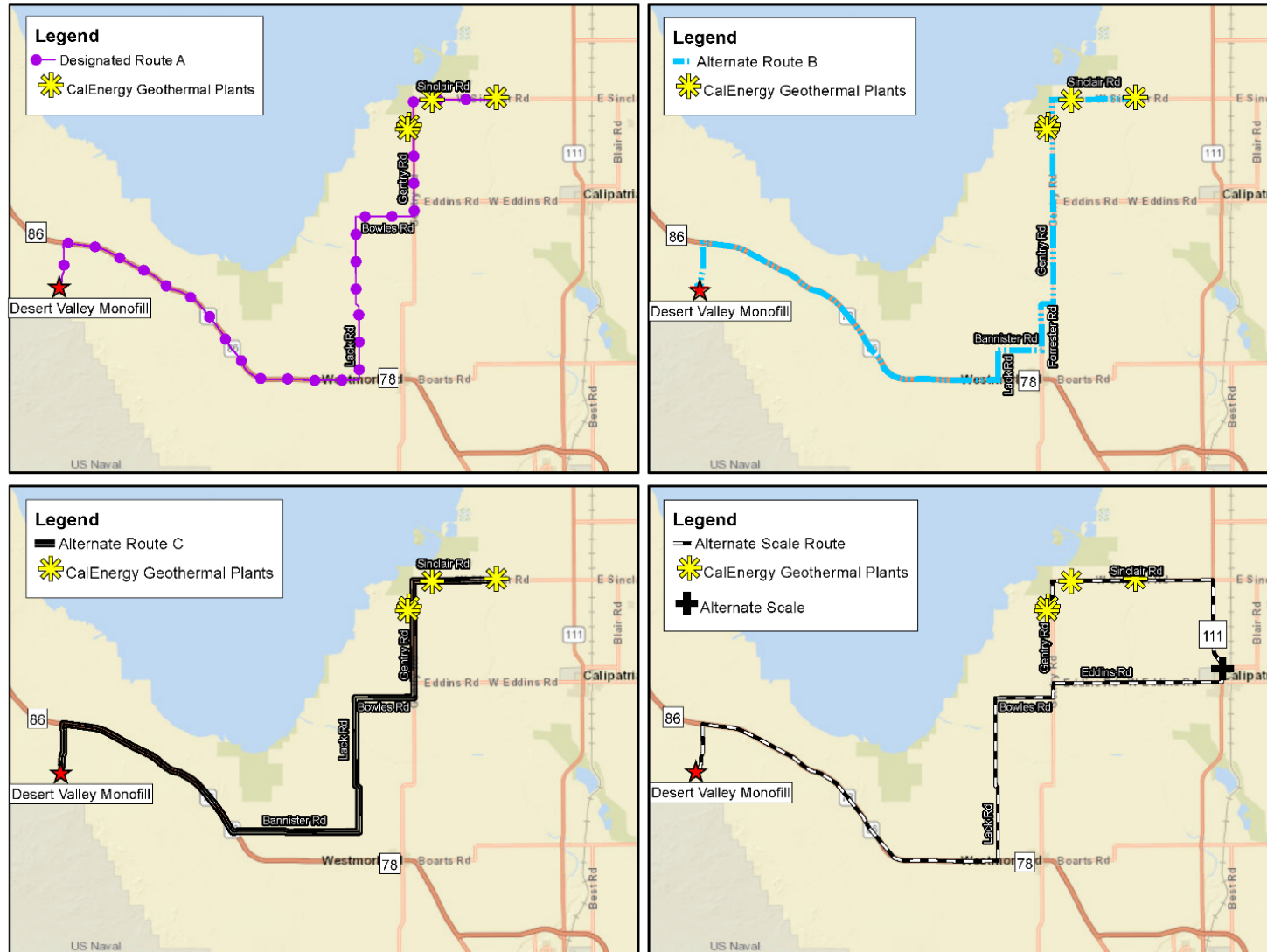


Existing Monofill
Desert Valley Company Monofill Expansion Project, Cell 4
Figure 3-3

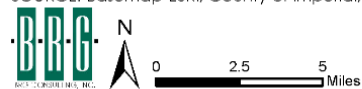
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2

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SOURCE: Basemap-ESRI; County of Imperial, 2008



Desert Valley Monofill Existing Haul Routes
Desert Valley Company Monofill Expansion Project, Cell 4
Figure 3-4

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4.0 PROJECT DESCRIPTION

4.1. Project Purpose and Objectives

The objective of CalEnergy (“the Applicant”), is to expand the existing Desert Valley Company Monofill with the construction of a new waste disposal Cell (Cell 4) to expand the existing monofill and continue the current operations of the permitted Class II Monofill Facility. To construct Cell 4, a modification of Conditional Use Permit (CUP) No. 05-0020 and issuance of a water well CUP for a new on-site water well is required by Imperial County. If the proposed expansion is approved, current operations would be shifted from Cell 3 to Cell 4 once Cell 3 has reached its disposal capacity in 2025. The purpose of the CUP modification is to allow the DVC to construct Cell 4 and continue the existing permitted operations of the facility when Cell 3 reaches capacity. The purpose of the water well CUP is to provide a new groundwater well for use during construction and operation of the expansion and for the capping and closure of existing Cell 3.

No change in the daily (750 tons per day) volumes of waste accepted at the facility, as identified in the SWF permit, is proposed; however, the location of the disposal cells and length of the disposal period would be extended to account for the estimated lifespan of the proposed Cell 4. Cell 3 is projected to reach capacity in 2025. The proposed expansion would increase the disposal capacity of the monofill by 2.6 million cubic yards (CY) and extend its operational life to approximately 2080.

Specific objectives developed for the Project are as follows:

- Maintain and expand cost-effective disposal for Cal Energy’s geothermal facility operations beyond 2025;
- Minimize haul distances for waste collection vehicles to reduce traffic, air quality, energy, and climate change impacts by providing up to 2.6 million cubic yards of additional waste disposal capacity at the Desert Valley Company Monofill;
- Utilize existing disposal facilities to minimize land use conflicts and impacts to the environment;
- Minimize the negative impacts of waste disposal at the expanded monofill through an environmentally sound operation that incorporates modern engineering and design techniques.

Cell 4 is proposed to be constructed and operated in two phases to transition operations from Cell 3. Phase 1 (Cell 4A) would be constructed and operable by 2024 to allow for the transition of disposal activities to occur prior to the estimated closure of Cell 3 in January 2025. Phase 2 (Cell 4B) would be constructed as additional capacity is needed. In addition to a CUP modification, an Imperial County General Plan Amendment and Zoning Change is required to modify the existing Open Space (OP) General Plan designation and Open Space (S-2) Zoning to Special Purpose Facility (SPF) and Medium Industrial (M-2), respectively.

4.2. Project Location

4.2.1. Regional Setting

Imperial County is a large rural county in southeast California consisting of approximately 2,942,080 acres. Imperial County is bordered on the north by Riverside County, the west by San Diego County, the east by the Arizona border, and the south by the United States/Mexican border (**Figure 3-1, Regional Location**). The county is located in the Colorado Desert and is characterized by open space, recreation, and conservation lands; irrigated agricultural activities and associated uses; rural communities; industrial uses, including geothermal development and landfill activities; and government uses.

Incorporated cities in Imperial County include Brawley, Calexico, Calipatria, El Centro, Holtville, Imperial, and Westmorland, as well as a number of unincorporated communities. A major feature of Imperial County is the Salton Trough, which includes the Salton Sea in the northwestern portion of the County. The Salton Sea area is known for its geothermal resources, including the four geothermal facilities owned by CalEnergy in the Salton Sea Known Geothermal Resources Area.

The region's climate is characterized by its hot summers with maximum temperatures ranging between 104 to 115°F (40-46°C). Winters are mild and dry, including maximum daily temperatures between 65 to 75°F (18- 24°C). Annual rainfall is approximately 3 inches.

4.2.2. Local Setting

The Desert Valley Company (DVC) Waste Disposal Monofill (Monofill) is located at 3301 West Highway 86, Brawley, California, 92227. The DVM and proposed Cell 4 expansion site ("Project site") are located southwest of the Salton Sea (**Figure 3-2, Regional Location**). The existing monofill, proposed expansion site, and the surrounding vicinity are characterized by low-lying, relatively flat topography with surface elevations ranging from 40 to 140 feet below mean sea level (MSL).

The Project site is located immediately west of the existing monofill on private lands north of Superstition Hills and south of State Route 86 (Highway 86), approximately 12 miles (19.3 km) west of the City of Westmorland and 4 miles (6.4 km) south of the Salton Sea in the County of Imperial, California (See (**Figure 3-3, Existing Monofill**)). The Project site is located in Section 33, Range 11 East, Township 12 South within the U.S. Geological Survey (USGS) Kane Spring, California 7.5-minute topographic quadrangle (Assessor's Parcel No. [APN] 019-100-004-001).

The proposed site for Cell 4 is similar to the existing DVM. The site and surrounding areas contain limited man-made disturbances, such as the Kane Springs Jeep Trail, which crosses Section 29 northeast of Section 33, and a power transmission line and maintenance road crossing Sections 27, 28 and 34, less than a mile from Section 33. No other man-made features are evident in the immediately adjacent sections to the existing DVM or proposed Cell 4 expansion site. The most

significant development in the area is State Highway 86, which is located to the north and east of the facility.

Surrounding properties exhibit largely the same desert features as Section 33—sparse vegetation, seasonal washes, exposed soil, and no man-made projects or uses. Human presence in the area is evidenced by occasional off-road vehicle trails, refuse dumps/litter, and survey points.

Some areas in the vicinity of the proposed project site have more pronounced mesquite hummocks, but in general, the area is sparsely vegetated. The San Sebastian Marsh, a wildlife and habitat reserve, is located several miles north. The San Sebastian Marsh area supports more diverse vegetation at higher concentrations than are present in the immediate vicinity of the site. Surface water drainage from the DVM and the proposed project site do not flow toward the reserve.

Land use to the north of the site (north of Section 33) is designated by Imperial County as A-2 (General Agriculture) and land to the east and west are designated M-2 (Medium Industrial). Land use to the south includes Bureau of Land Management (BLM) land and military uses.

4.3. Project Overview

The proposed Project includes the expansion of the existing Desert Valley Company Monofill with the addition of a new waste storage Cell 4 (45 acres) and associated facilities that include:

- a new leachate pond for Cell 4 (1.2 acres);
- the addition and extension of stormwater diversion dikes to divert surface water runoff around the Project site;
- minor extensions/modifications to internal roads to provide access to Cell 4;
- installation of a new water well for use during construction and operation of Cell 4 (e.g., dust control and mixing with soil sealant) and for the capping and closure of existing Cell 3; and,
- Additional air quality particulate sampling stations, and additional groundwater monitoring wells

The proposed site plan is shown on **Figure 4-1**. The design of Cell 4 would be consistent with Cell 3, with a liner system designed to a Class I hazardous waste standard and other criteria that conform to Class II designated waste standards and the existing monofill's permits. All other aspects of the proposed Project, such as operations, maintenance, monitoring, closure/post closure activities, recordkeeping and financial assurances would also be consistent with those of the existing monofill.

The total Desert Valley Company Monofill occupies 181.5 acres, of which approximately 68 acres (the total permitted area) is enclosed by fencing which surrounds the landfill operating area. A total of 28.9 acres of the site is currently permitted for disposal operations. The proposed Project would expand the total permitted area and disposal operations by 46.2 acres, which would result in a total

permitted area of 114.2 acres (68 acres + 46.2 acres = 114.2 acres) and a total disposal area of 75.1 acres (28.9 acres + 46.2 acres = 75.1 acres).

4.4. Project Operations

A full description of the technical project characteristics requires discussion of the definitions and criteria applied to the disposal site, wastes to be received, site preparation activities, and site operational procedures.

4.4.1. Definitions and Criteria

The following requirements, definitions, and criteria for the siting of a Class II facility are those of the California State Water Resources Control Board (1989).

Class II sites are those overlying usable ground water, with geologic conditions such that they would be either naturally capable of preventing lateral and vertical hydraulic continuity between liquids and gases emanating from the waste in the site and usable surface or ground waters, or those with a disposal area that has been modified to achieve these requirements.

Impervious formations, such as natural soil or the equivalent of artificially-constructed barriers, should have a permeability of 1×10^{-6} cm/sec and have adequate physical properties to prevent vertical movement of fluid, including waste and leachate, from waste management units to waters of the state as long as wastes in such units pose a threat to water quality. Class II units must confine wastes and byproducts within the boundary of the disposal area. Infiltration into adjacent non-water-bearing sediments which do not have hydraulic continuity with usable water may be permitted.

Class II sites must meet the following criteria of the California Administrative Code (see Code of Regulations, Title 23, Chapter 3, Subchapter 15):

- Class II units must be underlain by natural geologic materials having permeability of not more than 1×10^{-6} cm/sec or an equivalent liner system may be used.
- Class II units shall be designed, constructed, operated and maintained to prevent inundation or wash-out due to 100-year storm events.
- Class II units must have A 200-foot setback from any known Holocene fault.
- Class II units must be designed, constructed, and maintained to preclude failure from rapid geologic change.
- Class II units must be designed, constructed, and maintained to preclude failure from tidal waves.
- Wastes must be a minimum of 5 feet above the highest anticipated elevation of underlying ground water.

Section 2532, Chapter 3, Title 23 of the California Administrative Code specifically allows the disposal of certain designated wastes (nonhazardous) in Class II disposal sites that meet the criteria outlined previously for Class II sites, when in the judgement of the regional board such disposal will not unreasonably affect water quality and as allowed in the County CUP. Such restricted disposal of designated wastes shall be subject to terms and conditions considered appropriate by the Regional Board and the County with most restrictive conditions applying to the site.

4.4.2. Wastes Accepted

Future permitted waste streams would be in accordance with the existing SWF Permit (13-AA-0022) and Waste Discharge Permit for Cell 3 (R7-2016-0016). Cell 4 would continue to receive nonhazardous waste streams associated with geothermal energy production at the existing CalEnergy facilities in the Salton Sea Known Geothermal Resources Area: Elmore, Leathers, Salton Sea 1, and Salton Sea 2 (**Figure 3-4**). Waste streams would continue to consist of geothermal filter cake, drilling mud materials, geothermal contaminated soils and materials, and plastic liners used to line the trailers that are used to transport the waste to the DVM. The material that would be disposed of in Cell 4 would be consistent with the waste types and volumes described in **Tables 3-4** and **3-5** in the Project Background Section.

4.4.3. Other Ancillary Improvements

Support Facilities

For the addition of Cell 4 the following additional structures are planned:

- Addition and extension of stormwater diversion dikes to divert surface water runoff around the proposed project site;
- Minor extensions/modifications to internal roads to provide access to Cell 4;
- Installation of a new water well for use during construction and operation of Cell 4 and for the closure and capping of Cell 3; and,
- Additional air quality particulate sampling stations, and additional groundwater monitoring wells.

Diversion System/Dikes

Preliminary drainage features include the diversion and reconnection of existing natural drainages that enter the site and the routing of stormwater within the new facilities.

A diversion berm and swale would be constructed along the southern and eastern boundaries of the Cells 4A and 4B that would direct the flows from the natural drainages around the new cell. As shown on **Figure 4-2, Proposed Cross Section**, the berm and swale would be designed for a 100-year storm event, similar to the one constructed for Cells 1-3.

A swale would also be constructed on the east side of the diversion berm to pick up sheet flow from the site drainage from the west side dikes of the new cells. The east side of the cells would sheet flow to the existing drainage swale between Cells 1-3 and Cells 4A and 4B.

Rainfall within the cell would be collected at the southern low end of each cell and either evaporate or be transported to the leachate pond.

Internal Access Road

A new 20-foot wide paved road that would start adjacent to the existing site buildings at Cells 1 and 2 would be constructed to provide access Cell 4A and then 4B. The new road would follow along the 10-foot wide existing maintenance road on the east and south sides of Cell 3, crossing the Cell 3 diversion channel and terminating at the southeast corner of Cell 4A. Access to Cell 4B would be an extension of the access from Cell 4A to the southeast corner of Cell 4B.

Operational Water

Drinking water for on-site personnel and sanitary use at the office/administration building would continue to be provided by a water delivery service and stored in an existing aboveground water storage tank. A new water well would be drilled for use during construction and operation of Cell 4 for dust control, and for mixing the acrylic polymer stabilization/sealant for use on the monofill working surface. Water from the new well would also be used for the closure and capping of Cell 3, Cell 4A and Cell 4B. Expected maximum operational demand for groundwater is 11 acre-feet per year (AFY). Historically, groundwater use at the DVC has ranged from 3.58 to 8.02 AFY.

Environmental Controls

Air Quality and Groundwater Monitoring

Gas monitoring wells will be installed after the closure of each unit. A series of drilled PVC pipes will be installed into the landfills to monitor and release the presence of any gas generated within the fill.

Erosion and Sedimentation Control

Erosion and sedimentation controls would be developed during final engineering of the grading plans and would be implemented during construction and operation. Storm Water Pollution Prevention Plans (SWPPP) would be prepared for both Phase 1 and Phase 2 construction and operation. Best Management Practices (BMP) would be included in the SWPPPs to address erosion and sedimentation of the following features:

- Erosion protection of graded areas including slopes, roads, and drainage swales/ditches.

- Site perimeter runoff sedimentation control – Swales and ditches that discharge runoff from the site to existing drainages will contain fiber rolls or other devices to collect any sediment before leaving the site.
- Monitoring of natural drainages downstream of the site.
- Application of a polymer sealer to the outer surfaces of the slopes to prevent erosion.

4.4.4. Site Operation

Hours

The permitted hours and days of operation for Cell 4 would be the same as for Cell 3. The current DVM facility currently accepts waste between 6:00 AM and 6:00 PM, Monday through Sunday during daylight hours.

Personnel

During operation of Cell 4, the DVM facility would continue to employ eight (8) full-time staff. No additional staff would be required.

Disposal Rate and Volume

The projected life of each phase of Cell 4 is based on an estimated design capacity of approximately 1.3 million cubic yards, for a total of 2.6 million cubic yards, and a projected disposal rate of 45,454.54 cubic tons per year. The annual cubic tonnage is calculated by dividing the average annual waste disposal tonnage of 60,000 tons/year by an empirically determined airspace utilization factor of 1.32 tons per cubic yard. The approximate life span each phase of Cell 4 is thus calculated to be 28.60 years, based on the total volumetric capacity of 1.3 million cubic yards divided by the average annual disposal rate of 45,454.54 cubic tons per year.

Access and Security

Access to the site is via State Route 86 to a 1.25-mile paved access road. The existing chain link fencing [approximately six (6) feet in height] would be extended to encompass Cell 4. The gates would continue to be locked at all times when facility personnel are not present at the site.

Load Check and Waste Screen

Waste transport trucks arriving at the DVC facility would continue to be inspected prior to off-loading per existing operations. Sampling of incoming materials would be based upon present sampling and analysis requirements. Subsequent to inspection and sampling, the trucks would be cleared for access to the operational cell and offloaded.

After off-loading waste into Cell 4, site equipment is used to grade and compact the materials. Once the material is graded and compacted, the surface would be sprayed with a polymer-based sealant (Soil Seal), which penetrates the graded surface and creates a stable crust and provides for wind protection. On average, approximately 7,700 gallons of Soil Seal are applied at the DVM annually. Record keeping practices for operation and maintenance of Cell 4 would continue exactly the same as those used during operations at Cell 3.

4.4.5. Support Facilities

Sewage and Waste

The existing on-site septic tank/leach field would continue to be used for disposal of sanitary waste generated by site personnel.

Fire Control

Burning wastes would not be accepted at Cell 4. Due to the inorganic nature of the Cell 4 wastes, fires are extremely unlikely. In the event of a fire in a cell, a loader or water truck would be used to smother the fire with on-site soils or water. In addition, fire extinguishers are located in the office, maintenance area, and on the site vehicles.

Dust Control

Similar to existing Cell 3 operations, activities within Cell 4 would be ceased if wind speeds exceed 13 mph, and all site activities which generate fugitive dust are ceased when wind speeds exceed 21 mph.

Odor Control and Vector Control

Odors would not be a concern with Cell 4 since the DVM does not accept odorous waste materials. The types of materials disposed of at the DVM preclude the attraction of insects, rodents, and other vectors or creation of nuisance. Operational experience at the site indicates that insects, rodents, and other vectors are in fact not attracted to the DVM, and no problems have been noted.

Noise Control

All construction equipment would be equipped with exhaust mufflers in compliance with current State of California requirements. The construction equipment would not create vibrations outside of the construction zone. Vibratory sheepsfoot compaction equipment would create minor vibrations within 100 to 200 feet when in operation.

4.4.6. Waste Transport Trucks and Truck Haul Routes

In accordance with the existing solid waste facility permit, the number of waste transporting truck deliveries would be limited to 38 per day. In 2017, the number of daily truck deliveries ranged from a low of six (6) to a maximum of 38 per day; each with an approximate filter cake load capacity of less than 25 tons. Daily tonnage would not exceed 750 tons per day.

Truck haul routes used to transport the waste stream to the monofill are described on **Table 3-6** and depicted on **Figure 3-4, Designated Haul Routes**. These routes would continue to be used for the proposed Project.

4.5. Construction

4.5.1. Project Construction, Scheduling/Phasing

Cell 4 would be built in two (2) phases – Phase 1 and 2, referred to herein as Cells 4A and 4B, respectively. Similar to Cell 3, Cells 4A and 4B would occupy a surface area of approximately 50 acres (CalEnergy, 2018). Construction of Cell 4A, with an overall area of 24 acres, would be constructed first and would take approximately 12 months to complete. Therefore, the construction Year for Cell 4A is presumed to be 2023. The lifespan of Cell 4A is 28.6 years (i.e., until 2052). According to the Conceptual Design Report (2019), Cell 4B, with a surface area of 21 acres, would be constructed approximately two years prior to Cell 4A reaching its capacity. Thus, the construction year for Cell 4B is anticipated to be 2050.

Construction traffic to the site would include:

- Mobilization/demobilization of construction equipment included in the list above.
- Contractor personnel of 15 to 25 for an approximate 1-year construction duration.
- Truck loads for base rock and asphalt for construction access road and new paved road (Approximately 50 truck trips).
- Truck loads for synthetic liner materials. (Approximately 200 truck trips).

4.5.2. Site Preparation

To prepare the disposal site, required construction activities include access road improvements; onsite grading, berm and levee development, soil compaction, installation of two plastic membranes; and other ancillary improvements required for safe operation. A 50-foot buffer would also be established along the outer edge of Cell 4 and a new 1.2-acre leachate collection pond would be constructed along the eastern edge of Cell 4B. During construction, portable office trailers may be placed on the Project site to accommodate the construction personnel. During construction, the following additional structures are currently anticipated:

- New water well
- Drilling and excavation heavy equipment
- Trailers for construction crews
- Portable diesel lighting and portable diesel engines

Water Use Estimates

As previously noted, Cell 4 would be constructed in two phases referred to herein as Cells 4A and 4B. It is anticipated that construction of Cell 4A would be completed and Cell 4A would be operational before closure activities of Cell 3⁽¹⁾ would begin. This EIR assumes that water use for Cell 3 closure activities and day-to-day operational water demand of Cell 4A could overlap for four (4) to six (6) months during the construction of the Cell 3 cap.

The total water demand for the construction of Cell 4A and Cell 4B is projected to range from 75 to 100 acre-feet during the two year construction periods or 38 to 50 AFY, respectively. The total water demand for the closure of Cell 3 is projected to range from 30 to 40-acre feet during the four (4) to six (6) month closure activities.

Construction Laydown Areas

A 16-acre construction laydown, material stockpiling and borrow areas would be located between Cell 2 and Cell 4B.

Access Road

The existing DVM is accessed from State Route 86 by all vehicles entering and leaving the facility. The existing private single lane road between State Route 86 and the DVM would continue to be used by vehicles delivering waste to the facility. Minor extensions/modifications an internal roadway within the monofill would be required in order to access Cell 4.

Construction traffic to the site would include:

- Mobilization/demobilization of construction equipment included in **Table 4-1**.
- Contractor personnel of 15 to 25 for an approximate 1-year construction duration.
- Truck loads for base rock and asphalt for construction on the internal access road and new paved road. (Approximately 50 truck trips per day).
- Truck loads for synthetic liner materials. (Approximately 200 truck trips).

¹ Closure and maintenance activities for Cell 3 are addressed in this EIR as a cumulative project (see Chapter 7.0).

TABLE 4-1: GRADING AND PAVING EQUIPMENT

Quantity	Equipment Name
Grading Equipment	
1-3	Tractor/Scraper
1-2	Paddle Wheel Scraper
1	CST 140H Motor Grader
1	CAT D9 Dozer
1	CAT D6 Dozer
1-2	4,000-GAL Water Truck
1	8,000-GAL Water Pull
1	825C Sheepsfoot Compactor
1	CAT CP 433E Vibratory Sheepsfoot Compactor
1	Deere 210 LE Loader
1	CAT 430D Backhoe Loader
Paving Equipment	
1	CAT AP -1055B Asphalt Paving machine
1-2	SAKAI SW-850 Asphalt Compactor
1	CAT PS-200B Rubber Tire Compactor
1	IR DD-22 Vibratory Drum Compactor

Cell Construction

Development of Cell 4

The design of Cell 4 would be consistent with Cell 3. The liner system would be designed to Class I hazardous waste standards, and other criteria would conform to Class II designated waste standards and the existing facility’s permits. Cell 4 would receive approximately the same amount of waste annually as Cell 3, but CUP modifications are needed to receive waste at the proposed Cell 4 location (which is outside of the area permitted in previous EIRs) and extend the lifespan of waste disposal operations. All other aspects of the proposed Cell 4 waste storage area such as general operations, waste volume, waste type, maintenance, monitoring, recordkeeping, and financial assurances would be consistent with the existing DVM and are described in more detail below.

Seismic Design

The existing DVM operates under a seismic monitoring program approved by the Imperial County Public Works Department (CalEnergy, 2018), with data reported monthly to regulatory agencies. The expansion of the DVM would be designed to meet stringent landfill regulatory requirements for seismic stability identified in Title 27 of the California Code of Regulations. California State Water Resources Control Board (SWRCB) regulations require that a Class II landfill be set back at least 200-foot from any known Holocene fault. Holocene faulting was addressed at the outset of the site-selection process. The initial screening identified faults that had been previously recognized in Imperial County. Two long trenches were excavated to screen for Holocene faults. Trench 1 encountered several faults and many fractures; thus, this area was rejected in favor of the area near Trench 2, which encountered faulting only in the far western end of the trench. Cell 4 was sited in an area more than 200 feet from a Holocene era fault. A geotechnical investigation including borings would be performed to provide soil properties for designing the engineered fills, checking slope stability and identifying clay and other materials within the excavations.

Liner System

The liner system would be constructed to Class I standards. Each cell would be designed and would be constructed per State of California Title 23, Division 3, Chapter 15, Article 4; Construction Standards for Class I Units. The system shown on **Figure 4-2, Proposed Cross Section**, includes a leachate liner and collection layer and a leak detection layer. They would be installed over a bottom geosynthetic clay liner and a 3-4 ft thick layer of compacted material with a permeability less than 1×10^{-7} cm/sec. The leachate collection and leak detection layers would slope to a 4-inch PVC collection pipe that would slope downward from the south to north end of the cell. The PVC collection pipe would run up to the top of the north dike where a pump collection point would be installed to remove leachate if present. A similar leak detection pipe would be installed in the leak detection layer with a pump removal point adjacent to the leachate collection pipe on the north dike for each cell. The leachate or leakage fluid would be pumped to the leachate pond for evaporation.

Leachate Pond

A common 1.2-acre leachate collection pond would be constructed adjacent to Cell 4A to the north and Cell 4B to the west. The pond would also be used intermittently for stormwater removal from the active cell when stormwater build-up prohibits disposal of the geothermal waste material. It would be designed to contain approximately 6.5 feet of depth of leachate/ponded water. The inside slopes of the pond perimeters would have 2:1 slopes, while the internal dike between the northern most pond sections has a 1.5:1 slope. These are typical design parameters for shallow ponds. The water in the ponds is essentially rainwater with some dissolved salts, almost all sodium chloride, and DVM leachate from the primary and secondary leachate sumps.

Rainfall that accumulates during a rain event would evaporate in the active cell or in the leachate collection pond when moved there.

Leachate Monitoring System

The leachate monitoring system would consist of periodic operation of the leachate collection pump to check for the presence of leachate and to quantify the flowrate. The leak detection system would also be checked for leakage below the leachate collection system.

Grading Plan

Perimeter dikes would be constructed to be approximately 20 feet higher than the existing grades at the site. The total height of fill at cell capacity will be approximately 30 feet above existing ground or 10 feet above the top of the dike elevations. Material would be cut from the interior of the cell in order to construct the engineered fills for the dikes, protective cover, and cap material for daily cover.

A final grading plan would be prepared prior to construction that would provide for enough cut within the cell perimeters to construct the fills for the dikes, protective cover over the leachate collection/leak detection layers, and cap material for cell closures. Material may need to be stockpiled within the construction laydown/stockpile/borrow areas for the cap material. Grading of the cells will include:

- Dust control using on-site well water
- Clearing and grubbing
- Cutting/stockpiling of dike fill material
- Over-excavation, moisture conditioning and re-compaction of the cell bottom materials
- Construction of the engineered fills for the dikes

Installation of the bottom liner, geosynthetic liner, leak detection layer, leachate collection layer, protective synthetic cover and soil protective cap.

4.6. Post-Closure Maintenance and Final Closure Activities

Prior to issuance of the revision to Solid Waste Facility Permit No. 13-AA-0002, and in compliance with the requirements of the Title 27 California Code of Regulations, a closure and post closure maintenance plan for the proposed expansion shall be prepared by a registered civil engineer or a certified engineering geologist. The closure and post closure maintenance plan will be reviewed and approved by the local enforcement agency, the Regional Water Quality Control Board and the California Department of Resources Recycling and Recovery (CalRecycle) and will provide the following:

- (1) specific written descriptions of closure and post closure maintenance activities, and
- (2) reasonable estimates of the maximum cost of closure by a third party at the time during its active life when the extent and manner of operation would make the closure most expensive, and to maintain it through the post closure period.

4.6.1. Site Closure

Unless the Applicant determines that a further expansion of the facility is feasible and files the appropriate applications with the County, the Monofill would be closed when Cells 4A and 4B reach their total permitted capacity. An updated closure plan and post closure maintenance plan would be prepared to take into account the revised fill plan, the increased waste disposal capacity, and the extended site life. The closure plan along with the application for a revision to the currently approved SWFP would be submitted to the Imperial County Environmental Health Services Division, acting as the LEA for solid waste disposal facilities. Once the entire landfill reaches final grade, a final cover would be installed in accordance with 27 CCR §21090.

To ensure protection of the surrounding environment during the closure period an inspection and monitoring program would be implemented at the site. Water quality monitoring during the post-closure period would continue in accordance with regulations as formulated by the RWQCB in the WDRs issued to the facility. As required by 27 CCR §21190(c), all proposed on-site post-closure land uses, other than non-irrigated open space, must be submitted to ICPDSD, LEA, RWQCB, the Imperial County Air Pollution Control District and CalRecycle for review.

4.6.2. Final Cover Design

The final cover for Cells 4A and 4B, from the bottom up, would include a geosynthetic clay liner over the monofill material, a 40 mil HDPE Geomembrane Liner, a nonwoven geotextile fabric, a 12-inch thick soil cap soil; and a 12-inch thick soil cover/cap treated with soil binder and polymer sealant (See Detail 2 on **Figure 4-2**). The top surface would be graded to collect drainage at the north end of the cells. All finished slopes and the final cap would be treated with a polymer sealer to prevent erosion. Graded areas used for laydown, stockpiling and borrow would be revegetated with a hydroseed mix including tackifier, fertilizer and a straw cover.

4.7. General Plan Amendment and Change of Zone

The existing DVCM is located within the northeast quarter of Section 33, Township 12 South, Range 11 East, SBBM (APN 019-100-004), and the northernmost 20 acres of the southeast quadrant of Section 33. Collectively, this area has a land use designation of “Special Purpose Facility” and is zoned M-2 (Medium Industrial). The remainder of Section 33 (approximately 458.5 acres) is designated as “Recreational/ Open Space” and is zoned S-2 (Open Space/Preservation).

The Project will require an amendment to Imperial County’s General Plan Land Use Element to change the land use designation on the remainder of Section 33 from “Recreational/ Open Space” to “Special Purpose Facility” (Figure 4-3). The Project will also require a Zone Change to change the zoning from S-2 (Open Space/Preservation) to M-2 (Medium Industrial) (Figure 4-4).

4.8. Project Approvals

A number of discretionary approvals would be required as part of the proposed project’s approval and implementation. These include:

TABLE 4-2: CONSULTATION AND PERMITTING REQUIREMENTS

Jurisdiction Level	Type of Permit/Approval	Agency Name/Type	Purpose
State	Section 401 of the Federal CWA, National Pollutant Discharge Elimination System (NPDES) General Permit for Discharge of Construction Related Stormwater (CAS000001)	California Regional Water Quality Control Board, Colorado River Basin, Region 7 (RWQCB) <i>Responsible Agency</i>	Management of stormwater during construction, Notice of Intent (NOI) required under Section 401.
State	Updated Waste Discharge Requirements	California Regional Water Quality Control Board, Colorado River Basin, Region 7 (RWQCB) <i>Responsible Agency</i>	For discharge of non-hazardous geothermal wastes to land.
State	California Streets and Highways Code 660 to 711.21, California Code of Regulations (CCR) 1411.1 to 1411.6	California Department of Transportation (Caltrans) <i>Responsible Agency</i>	Permits are required for oversized and/or overweight truckloads that exceed legal load limits as defined by the California Vehicle Code.
State	1602 Lake and Streambed Alteration Agreement	California Department of Fish and Wildlife <i>Responsible/Trustee Agency</i>	Required for any activity that diverts or obstructs the natural flow of any river, stream, or lake; change the bed, channel, or bank of any river, stream, or lake; use material from any river, stream, or lake; or deposit or dispose of material into any river, stream, or lake.

TABLE 4-2: CONSULTATION AND PERMITTING REQUIREMENTS

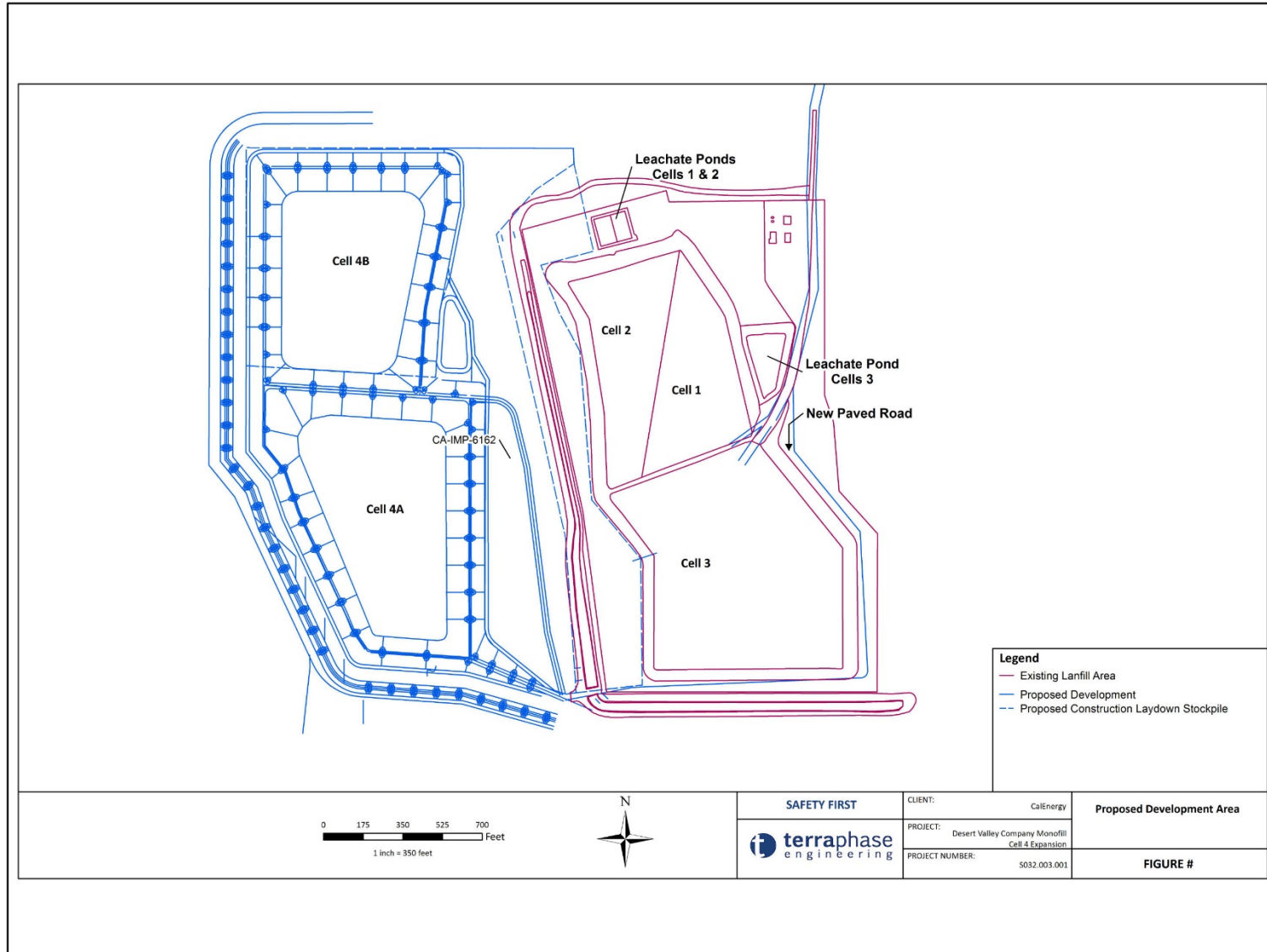
Jurisdiction Level	Type of Permit/Approval	Agency Name/Type	Purpose
State	Radioactive Material License	California Dept. of Public Health	To authorize the use of Americium-241 for use at the monofill as components of gauges for determination of moisture/density in engineering materials.
Local	Amendment to Conditional Use Permit No. 05-0020	Imperial County Planning and Development Services Department (ICPDSD) <i>Lead Agency</i>	To add a fourth cell to the existing monofill facilities and to facilitate the development, operation, closure and post-closure of a Class II non-hazardous solid waste landfill for geothermal, non-hazardous waste streams.
Local	Water Well Conditional Use Permit #21-0002	Imperial County Planning and Development Services Department (ICPDSD) <i>Lead Agency</i>	New well for water use during construction and operation of Cell 4 and for the capping and closure of existing Cell 3.
Local	General Plan Amendment	Imperial County Board of Supervisors <i>Lead Agency</i>	Change the land use designation on 458.5 acres within APN 019-100-004 from "Recreational/ Open Space" to "Special Purpose Facility".
	Zone Change	Imperial County Board of Supervisors <i>Lead Agency</i>	Change the zone classification on 458.5 acres within APN 019-100-004 from S-2 (Open Space/ Preservation) to M-2 (Medium Industrial)
Local	Revision to Solid Waste Facility Permit No. 13-AA-0002	Imperial County Public Health Department, Division of Environmental Health and CalRecycle <i>Responsible Agency</i>	Required for solid waste handling, processing and disposal activities
Local	Authority to Construct, Permit to Operate	Imperial County Air Pollution Control District (ICAPCD) <i>Responsible Agency</i>	Consultation and permitting for air pollution, including fugitive dust, and GHG emissions.

TABLE 4-2: CONSULTATION AND PERMITTING REQUIREMENTS

Jurisdiction Level	Type of Permit/Approval	Agency Name/Type	Purpose
			<p>Authority to Construct - required prior to constructing, erecting, installing, modifying, or replacing any article, machine, equipment or contrivance, the use of which may emit or control air contaminants.</p> <p>Permit to Operate – required prior to operation of any article, machine, equipment, or other contrivance that emits or controls air contaminants.</p>
Local	Section 401 of the CWA, NPDES General Permit for Discharge of Construction Related Stormwater	RWQCB, Region 7 <i>Responsible Agency</i>	<p>Monitor development and implementation of Stormwater Pollution Prevention Plans (SWPPPs) and other aspects of the NPDES permit 401 certification program.</p> <p>SWPPPs are required for stormwater discharges associated with construction activities disturbing > 1 acre of land.</p>
Local	Grading Permit	County Department of Public Works (DPW) <i>Responsible Agency</i>	Excavation or earthwork that involves over 2 feet in depth and/or fills over 1 foot in depth.

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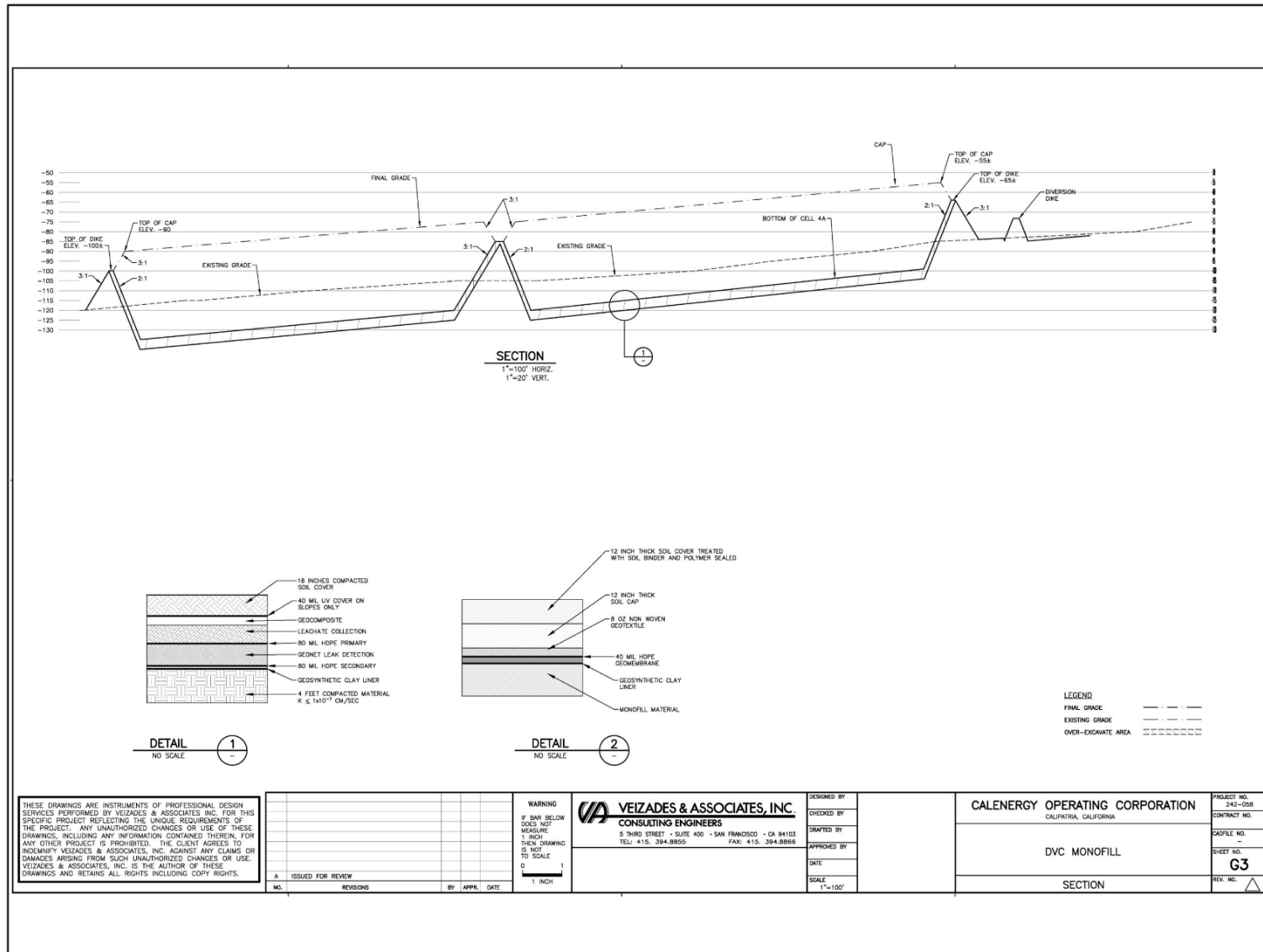
SOURCE: Terraphase, 2020.



Proposed Site Plan
Desert Valley Company Monofill Expansion Project, Cell 4
Figure 4-1

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SOURCE: Terraphase, 2020.



Proposed Cross Section
Desert Valley Company Monofill Expansion Project, Cell 4
Figure 4-2

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CONSULTING ENGINEERS
5 THIRD STREET - SUITE 400 - SAN FRANCISCO - CA 94103
TEL: 415.394.8805 FAX: 415.394.8868

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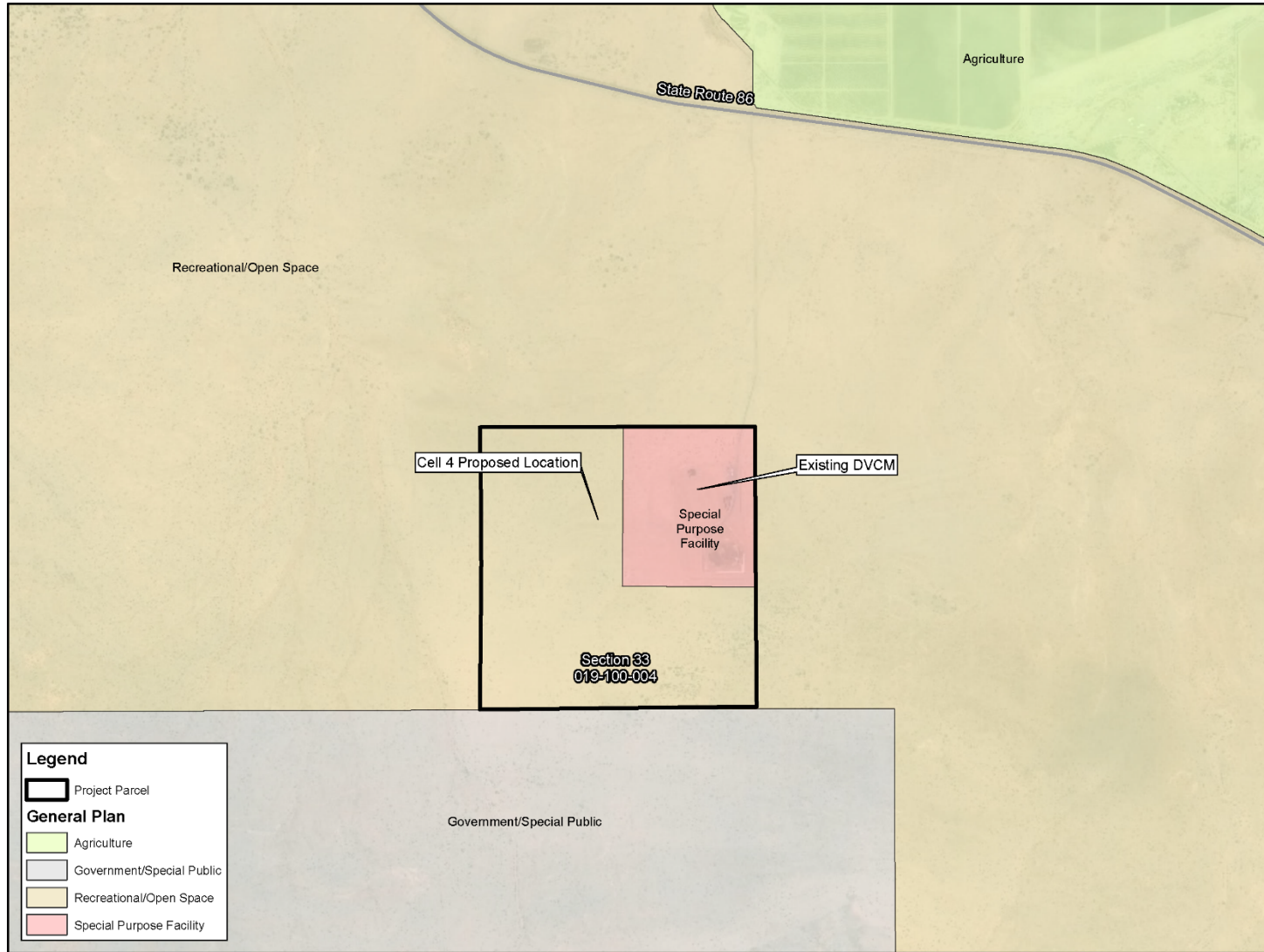
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SECTION

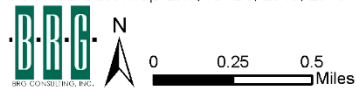
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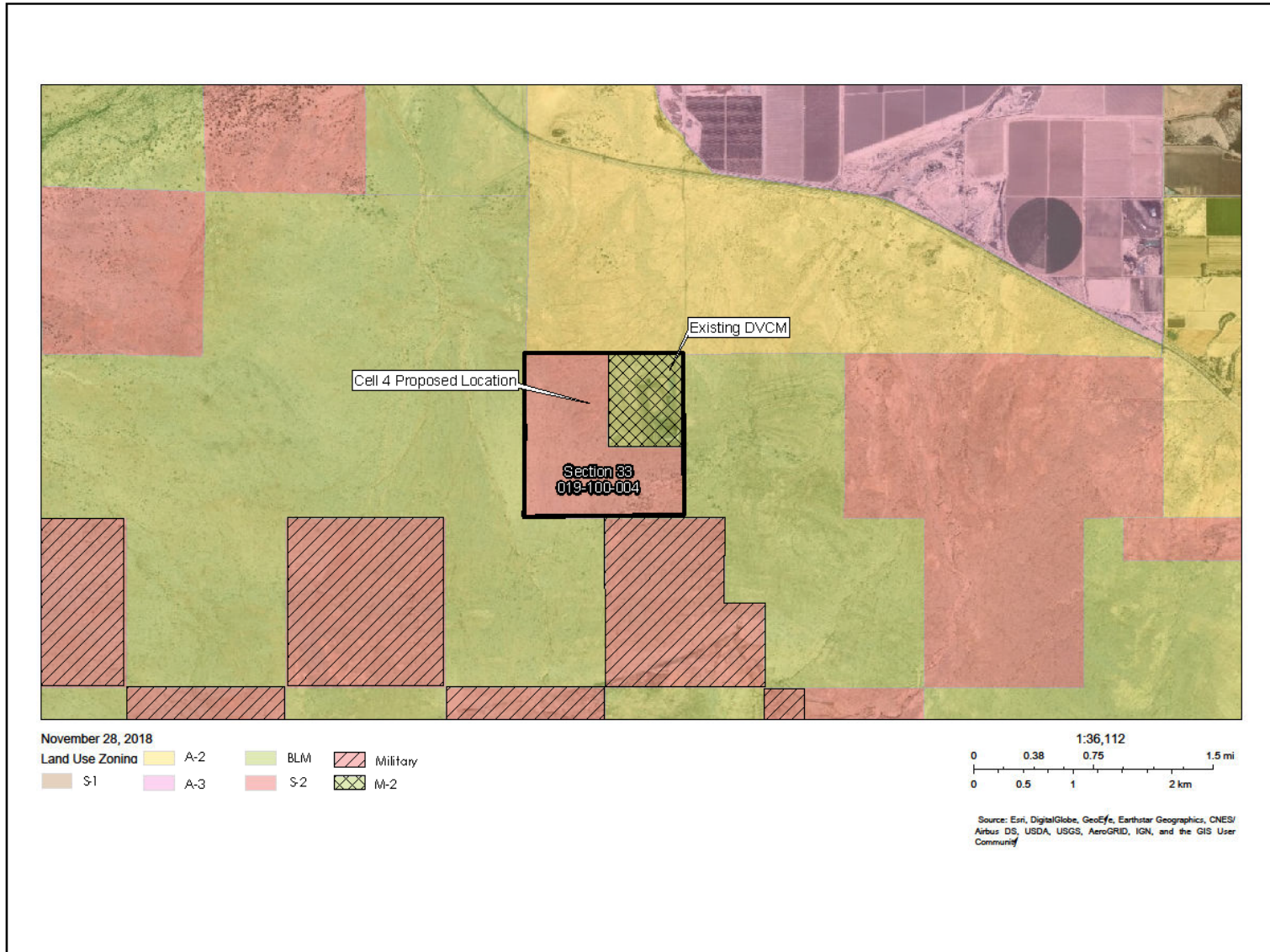
SOURCE: Basemap-ESRI; ICPDS, 2015, 2018



General Plan Amendment
Desert Valley Company Monofill Expansion Project, Cell 4
Figure 4-3

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SOURCE: Imperial County Planning & Development Services, Land Use Zoning, 2018



Proposed Zone Change
Desert Valley Company Monofill Expansion Project, Cell 4
Figure 4-4

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5.0 ENVIRONMENTAL ANALYSIS

This chapter evaluates environmental impacts that would result from construction, operation, closure and post-closure maintenance of the Desert Valley Company Monofill Expansion Project, Cell 4 (Project or proposed Project) proposed by CalEnergy Operating Corporation's (CalEnergy or the Applicant) and alternatives to the Project. The chapter includes sections for each of the following resource areas:

5.1 Air Quality	5.7 Hydrology/Water Quality
5.2 Biological Resources	5.8 Land Use and Planning
5.3 Cultural Resources	5.9 Noise
5.4 Geology and Soils	5.10 Traffic/Transportation
5.5 Greenhouse Gas Emissions	5.11 Tribal Cultural Resources
5.6 Hazards and Hazardous Materials	5.12 Utilities and Service Systems

5.01 Resource Area Format

Each resource area section is organized under the following headings:

- Environmental Setting;
- Regulatory Setting;
- Analysis of Impacts and Significance Determination
- Mitigation Measures; and
- Cumulative Effects.

Information contained under each heading is described below.

Environmental Setting

Each resource area section contains a discussion of the environmental setting (the existing environmental conditions in the vicinity of the entire proposed Project [project area]) and identifies the baseline physical conditions by which the significance of the Project's environmental impacts will be assessed. The baseline physical conditions for the proposed Project are the existing environmental conditions in the Project area at the time of the publication of the Notice of Preparation (NOP) (January 2020). The discussion of the environmental setting in each resource area section contains information necessary to understand the potential impacts of the Project as well as alternatives to the Project (California Environmental Quality Act Guidelines §15125(a)).

Regulatory Setting

Laws, ordinances, regulations, standards, and policies applicable to the Project and resource areas are discussed in the regulatory setting sections for each resource area. Laws and regulations may also identify permits, reviews and approvals necessary for authorization or evaluation and require agency consultation.

Analysis of Project Effects and Significance Determination

A discussion of environmental impacts and mitigation measures for the Project is presented for each environmental resource area, as applicable.

Guidelines for Determination of Significance

Significance thresholds serve as a benchmark for determining if the Project would result in significant impacts when evaluated against the baseline conditions established in the environmental setting and regulatory setting sections for each resource area. The significance criteria used are from the checklist presented in the Appendix G of the California Environmental Quality Act Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 1500015387).

Environmental Impacts

The impacts analyses presented in this chapter evaluate impacts that may occur from construction, operation, maintenance and closure of the proposed monofill. The discussion evaluates the significance of impacts, identifies mitigation measure(s) for significant impacts, and provides a determination of significance after mitigation. The analysis also evaluates additional impacts that could result from implementation of the mitigation measures, if any.

Mitigation Measures

This section provides the text of mitigation measures specific to the resource area that would be implemented to reduce significant impacts of the Project.

5.02 Terminology

The following terminology is used in this EIR to denote the significance of the Project's environmental impacts:

- **No Impact** indicates that the construction, operation, and maintenance of the project would not have any direct or indirect effects on the environment. It means no change from existing conditions. This impact level does not need mitigation.

- A **Less Than Significant Impact** is one that would not result in a substantial or potentially substantial adverse change in the physical environment. This impact level does not require mitigation, even if feasible, under CEQA.
- A **Significant Effect** on the environment is defined in CEQA Section 21068 as one that would cause “a substantial, or potentially substantial, adverse change in the environment”, which includes any of the physical conditions within the area affected by the project as they exist at the time the notice of preparation is published.” Levels of significance can vary by project, based on the change in the existing physical condition. Under CEQA, mitigation measures or alternatives to the project must be provided, where feasible, to reduce the magnitude of significant impacts.
- An **Unmitigable Significant Impact** is one that would result in a substantial or potentially substantial adverse effect on the environment, and that could not be reduced to a less than significant level even with any feasible mitigation. Under CEQA, a project with significant and unmitigable impacts could proceed, but the lead agency would be required to prepare a “statement of overriding considerations” in accordance with State CEQA Guidelines Section 15093, explaining why the lead agency would proceed with the project in spite of the potential for significant impacts.

5.03 Approach to the Cumulative Impact Analysis

CEQA Guidelines, Section 15130 requires that EIRs include an analysis of the cumulative impacts to determine if the project’s effect is considered cumulatively considerable. As defined by CEQA Guidelines, Section 15065(a)(3), “... ‘Cumulatively considerable’ means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects...” Section 15130(b)(1) goes on to identify two approaches for performing a cumulative analysis: (1) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or (2) A summary of projections contained in an adopted local, regional, or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. The cumulative analysis for the proposed Project utilized the list approach. According to Section 15130(b)(2), when using the list method, it is important to consider the nature of each environmental resource being examined, the location of the project, and its type. In keeping with these provisions, a list of cumulative projects was developed and includes projects known at the time of release of the Notice of Preparation of the Draft EIR, as well as additional projects that have been proposed since the NOP date. **Table 7-1** lists the cumulative projects, the locations of which are shown on **Figure 7-1**.

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5.1. Air Quality

This section addresses potential air quality impacts that may result from construction, operation, closure and post-closure maintenance of the Desert Valley Company Monofill (DVCM) Expansion Project, Cell 4. The following discussion addresses the existing conditions on the Project site, identifies applicable regulations, identifies and analyzes environmental impacts, and recommends measures to reduce or avoid adverse impacts anticipated from implementation of the proposed Project, as applicable.

Information used in preparing this section and in the evaluation of potential air quality impacts was derived from the Desert Valley Monofill Expansion Project Air Quality and Greenhouse Gas Study prepared by Birdseye Planning Group which is provided as Appendix F this EIR (Birdseye Planning Group 2020a).

Scoping Issues Addressed

During the scoping period for the Project, a public scoping meeting was conducted, and written comments were received from regulatory agencies. No issues related to air quality impacts were raised.

Issues Scoped Out

None.

5.1.1. Environmental Setting

The proposed Project is located in Imperial County, the southeastern most county in California. Imperial County is one of the hottest and driest parts of California and is located in a low latitude desert characterized by hot, dry summers and relatively mild winters. Average annual precipitation within Imperial County is less than 3 inches. The normal maximum temperature in January is approximately 70 degrees Fahrenheit (°F), and the normal minimum temperature is approximately 41°F. In July, the normal maximum temperature can exceed 107°F, while the normal minimum temperature is approximately 75°F. Relative humidity in the summer is low, averaging 30 to 50 percent in the early morning and 10 to 20 percent in the afternoon. During the hottest part of the day, the relative humidity can drop below 10 percent. However, the effect of extensive agricultural operations in the widely irrigated Imperial Valley tends to increase local humidity. The prevailing weather conditions promote intense heating during the day in summer with cooling at night. During the fall, winter, and spring, regional winds tend to come from the northwest. During the summer, winds tend to come from the southeast.

The Project site is located within the Imperial County Air Pollution Control District (ICAPCD) and is subject to ICAPCD guidelines and regulations. The ICAPCD operates a network of five (5) ambient air monitoring stations throughout Imperial County. The purpose of the monitoring

stations is to measure ambient concentrations of the pollutants to determine whether the ambient air quality meets the California and federal standards. The air quality monitoring station located nearest to the Project site (Westmorland Station) is located at 570 Cook Street in Westmorland approximately 12 miles east of the Project site.

Sensitive Receptors

Federal and state ambient air quality standards have been established to represent the levels of air quality considered sufficient, with an adequate margin of safety, to protect public health and welfare. They are designed to protect that segment of the public most susceptible to respiratory distress, such as children under 14; the elderly over 65; persons engaged in strenuous work or exercise; and people with cardiovascular and chronic respiratory diseases. This group is referred to as “sensitive receptors”. The sensitive receptors nearest the Project site are the residences associated with the Elmore Desert Ranch located on the north side of State Highway 86 approximately two (2) miles to the northeast.

Methodology

The air quality analysis conforms to the methodologies recommended in the ICAPCDs *CEQA Air Quality Handbook*. All emissions associated with construction vehicle and equipment operations were calculated using most current version of the California Emissions Estimator Model (CalEEMod) software, version 2016.3.2. Construction emissions would be associated with clearing, grading, excavation and construction of the cells, roads, berms, levees and water diversion infrastructure. These emissions would consist of diesel exhaust and dust emissions. Construction equipment that would generate criteria air pollutants includes excavators, graders, dump trucks, and loaders. It was assumed that all construction equipment used would be diesel-powered.

Construction emissions associated with development of the proposed Project were estimated based on the number and types of equipment that would be used on-site during construction (**Table 4-1**). Operation of Cell 4A and 4B would generate similar emissions to what is generated under existing conditions. These emissions are associated with 39 daily truck deliveries (38 waste trucks + 1 vendor truck), eight (8) employee trips and operation of equipment, described on **Table 3-3**, to spread and compact the waste material. To determine whether construction of the project would cause a regional air quality impact, the net increase in emissions over baseline conditions were compared with the ICAPCD’s recommended regional thresholds for emissions.

5.1.2. Regulatory Setting

Federal and State

The federal and state governments have been empowered by the federal and state Clean Air Acts to regulate emissions of airborne pollutants and have established ambient air quality standards for

the protection of public health. The Environmental Protection Agency (EPA) is the federal agency designated to administer air quality regulation, while the California Air Resources Board (CARB) is the state equivalent in California. Federal and state standards have been established for six criteria pollutants, including ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulates less than 10 and 2.5 microns in diameter (PM₁₀ and PM_{2.5}), and lead (Pb). California has also set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles. **Table 5.1-1** lists the current federal National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) for each of these pollutants. Standards have been set at levels intended to be protective of public health. California standards are more restrictive than federal standards for each of these pollutants except lead and the eight-hour average for CO.

TABLE 5.1-1: FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	Federal Primary Standards	California Standards
Ozone	1-hour	----	0.09 ppm
	8-hour	0.070 µg/m ³	0.070 µg/m ³
PM ₁₀	24-hour	150 µg/m ³	50 µg/m ³
	Annual	---	20 µg/m ³
PM _{2.5}	24-hour	35 µg/m ³	---
	Annual	12 µg/m ³	12 µg/m ³
Carbon Monoxide	8-hour	9.0 ppm	9.0 ppm
	1-hour	35.0 ppm	0.030 ppm
	Annual	0.053 ppm	0.030 ppm
Nitrogen Dioxide	1-hour	0.100 ppm	0.18 ppm
Sulfur Dioxide	24-hour	---	0.04 ppm
	3-hour	0.5 ppm (secondary)	---
	1-hour	0.075 ppm (secondary)	0.25 ppm
Lead	30-day average	---	1.5 µg/m ³
	3-month average	0.15 µg/m ³	---

Notes:

- (1) ppm = parts per million
- (2) µg/m³ = micrograms per cubic meter
- No standards for this pollutant.

Source: Birdseye Planning Group, 2020a (Appendix F).

Local

Local control in air quality management is provided by the CARB through county-level or regional (multi-county) air pollution control districts (APCDs). The CARB establishes air quality standards and is responsible for control of mobile emission sources, while the local APCDs are responsible for enforcing standards and regulating stationary sources. The CARB has established 14 air basins statewide. The Project site is located within the Salton Sea Air Basin (Basin), which includes all of Imperial County and a portion of central Riverside County. Air quality conditions in the Imperial County portion of the Basin are under the jurisdiction of the ICAPCD. The remainder of the Basin is managed by the South Coast Air Quality Management District. The ICAPCD is required to monitor air pollutant levels to ensure that air quality standards are met and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the local air basin is classified as being in “attainment” or “non-attainment.” **Table 5.1-2** shows the state and federal attainment status for the Imperial Valley portion of the Salton Sea Air Basin.

TABLE 5.1-2: ATTAINMENT STATUS – IMPERIAL VALLEY PORTION OF THE SALTON SEA AIR BASIN

Pollutant	CAAQS	NAAQS
Ozone (O ₃)	Nonattainment	Nonattainment - moderate
Carbon Monoxide (CO)	Attainment	Unclassified/ Attainment
Respirable Particulate Matter (PM ₁₀)	Nonattainment	Nonattainment - serious
Fine Particulate Matter (PM _{2.5})	Unclassified	Unclassified/ Attainment
Nitrogen Dioxide (NO ₂)	Attainment	Unclassified/ Attainment
Lead (Pb)	Attainment	Attainment
Sulfur Dioxide (SO ₂)	Attainment	Attainment
Sulfates	Attainment	No Federal Standards
Vinyl Chloride	Unclassified	No Federal Standards
Hydrogen Sulfide (H ₂ S)	Attainment	No Federal Standards
Visibility Reducing Particles	Unclassified	No Federal Standards

Source: Birdseye Planning Group, 2020a (Appendix F).

ICAPCD is the local air pollution control agency for Imperial County and the southern portion of the Salton Sea Air Basin. The Project site is located within the Salton Sea Basin, which is a nonattainment area for ozone and PM₁₀. The state ozone standard was not exceeded at the Westmorland monitoring station during 2016-2018. The federal PM₁₀ standard was exceeded 18 times in 2016, 8 times in 2017 and 9 times in 2018. Insufficient data was available to determine exceedances of the state PM₁₀ standard. **Table 5.1-3** summarizes monitoring data at the Westmorland Station for ozone and PM₁₀.

TABLE 5.1-3: AMBEINT AIR QUALITY DATA (WESTMORLAND MONITORING STATION)

Pollutant	2016	2017	2018
Ozone, ppm – Worst Hour	0.068	0.067	0.068
Number of days of federal exceedances (>0.070 ppm)	0	0	0
Particulate Matter <10 microns, $\mu\text{g}/\text{m}^3$ – Worst 24 Hours	733	332	414
Number of samples of State exceedances (>50 $\mu\text{g}/\text{m}^3$)	Insuff. Data	Insuff. Data	Insuff. Data
Number of samples of Federal exceedances (>150 $\mu\text{g}/\text{m}^3$)	18	8.1	9.1

Source: Birdseye Planning Group, 2020a (Appendix F).

The ICAPCD has primary responsibility for ensuring that state and federal air quality standards are attained and maintained within the ICAPCD's jurisdiction. Thus, the ICAPCD is responsible for preparing clean air plans, issuing construction and operation permits, monitoring ambient air quality, as well as developing and implementing rules and regulations that govern air quality within Imperial County. The ICAPCD meets its regulatory responsibilities through the State of California State Implementation Plan (SIP). The ICAPCD adopted its first SIP in 1971 and has prepared periodic updates to the SIP. SIPs for controlling PM₁₀, ozone, and a reasonably available control technology SIP are in place for Imperial County and constitute the Air Quality Attainment Plan (AQAP) for Imperial County.

A SIP revision for revised rules under ICAPCD Regulation VIII for fugitive dust PM₁₀ was reviewed by EPA, and the final rule was signed on March 27, 2013 and published in the Federal Register (Federal Register 2013). The ICAPCD adopted the rules on October 16, 2012 to regulate PM₁₀ emissions from sources of fugitive dust (e.g., unpaved roads and disturbed soils in open and agricultural areas). CARB submitted these rules to EPA for approval on November 7, 2012; EPA proposed approval of these revisions to the ICAPCD portion of the California SIP on January 7, 2013. Rules and regulations promulgated by the ICAPCD and in the SIP revision applicable to the proposed Project include the following:

- ICAPCD Rule 207.C.1, New and Modified Stationary Source Review (best available control technologies [BACT]), requires that any new or modified emissions unit that has a potential to emit 25 pounds per day or more of any nonattainment pollutant or its precursors, or 55 pounds per day of H₂S, must include BACT as a part of the project.
- ICAPCD Rule 400, Nuisances, forbids the emission of air contaminants or other materials that would cause a nuisance to the public, including non-agricultural related odors.
- ICAPCD Rule 800 General Requirements for Control of Fine Particulate Matter (PM₁₀), requires actions to prevent, reduce, or mitigate PM₁₀ emissions from anthropogenic (man-made) Fugitive Dust (PM₁₀) sources generated within Imperial County.
- ICAPCD Regulation VIII, Rule 801 (Construction and Earthmoving Activities) establishes a 20 percent opacity limit, requires the implementation of a dust management control plan for all nonresidential projects of 5 acres or more, and requires compliance with other portions of Regulation VIII regarding bulk materials (Rule 802), carry-out and track-out (Rule 803), and

paved and unpaved roads (Rule 805). The rule exempts single-family homes and waives the 20 percent opacity limit in winds over 25 miles per hour (mph) under certain conditions.

- ICAPCD Rule 804 Open Areas, requires actions to prevent, reduce or mitigate the amount of fine Particulate Matter (PM₁₀) emissions generated from Open Areas. Open areas are defined as any open area having 0.5 acres or more within urban areas, or 3.0 acres or more within rural areas; and contains at least 1,000 square feet of disturbed surface area.

On October 23, 2018, the Imperial County Air Pollution Control District Board of Directors approved the Imperial County 2018 Redesignation Request and Maintenance Plan for PM₁₀. Also in 2018, the California Air Resources Board approved the Imperial County 2018 Redesignation Request and Maintenance Plan for PM₁₀.

ICAPCD adopted the 2013 PM_{2.5} plan on December 2, 2014. The plan was transmitted to CARB on December 9, 2014. CARB reviewed and approved the plan on December 18, 2014 as a revision to the California State Implementation Plan for Imperial County. The plan was submitted to the U.S. EPA on January 9, 2015 and is pending approval.

In 2015, a portion of Imperial County was designated nonattainment for the 12.0 µg/m³ annual PM_{2.5} ambient air quality standard (NAAQS or standard) necessitating the need to develop a SIP. This report summarizes CARB's assessment of the Imperial County Air Pollution Control District (District) 2018 PM_{2.5} SIP for the 12.0 µg/m³ annual PM_{2.5}NAAQS (2018 PM_{2.5} Plan). The 2018 PM_{2.5} Plan relies on a special provision in the Act that enables states to prepare a SIP when transport of international pollution inhibits the ability to demonstrate attainment of the PM_{2.5} standard. The CARB staff reviewed the 2018 PM_{2.5} Plan developed by the District and determined that it met all applicable Act requirements. CARB staff will continue to work with the District and local community groups to develop additional emission reductions beyond the SIP to protect public health. On April 24, 2018, the District adopted the 2018 PM_{2.5} Plan to address the annual 12.0 µg/m³ annual PM_{2.5} standard for the Imperial County PM_{2.5} nonattainment area. The nonattainment area represents a portion of Imperial County that includes the most populated area of the county, including the cities of Brawley, El Centro, and Calexico.

During operations, any development with a potential to emit criteria pollutants below significance levels defined by the ICAPCD is referred to as a "Tier I Project," and is considered to have less than significant potential adverse impacts on local air quality. For Tier I projects, the project proponent must implement a set of feasible "standard" mitigation measures (determined by the ICAPCD) to reduce the air quality impacts to an insignificant level. A "Tier II Project" is one whose emissions exceed any of the ICAPCD thresholds. Its impact is significant, and the project proponent must select and implement all feasible "discretionary" mitigation measures (as determined by the Imperial County APCD) in addition to the standard measures. Tier I and Tier II daily thresholds for operational emissions are shown in **Table 5.1-4**.

TABLE 5.1-4: ICAPCD DAILY OPERATIONAL EMISSIONS THRESHOLDS

Pollutant	Tier I	Tier II
NOx and ROG	Less than 137 lbs/day	Greater than 137 lbs/day
PM ₁₀ and SOx	Less than 150 lbs/day	Greater than 150 lbs/day
CO and PM _{2.5}	Less than 550 lbs/day	Greater than 550 lbs/day

Notes: NOx = oxides of nitrogen ROG = reactive organic gas SOx = oxides of sulfur
Source: Birdseye Planning Group, 2020a (Appendix F).

The ICAPCD has also developed specific quantitative thresholds that apply to short-term construction activities. The daily construction emission thresholds are shown in **Table 5.1-5**.

TABLE 5.1-5: ICAPCD DAILY CONSTRUCTION EMISSION THRESHOLDS

Pollutant	Construction (lbs/day)	Operation (lbs/day)
NOx	100	55
ROG	75	55
CO	550	550
PM ₁₀	150	150
PM _{2.5}	N/A	55
SOx	N/A	150

Notes:

- (1) The ICAPCD has not adopted a significance threshold for operational or construction related emission of PM_{2.5} or construction related emissions of SOx. Recent projects in the ICAPCD have used a PM_{2.5} threshold for operation emissions of 55 pounds per day based on the SCAQMD’s Final Methodology to Calculate PM_{2.5} and PM_{2.5} Significance Thresholds.

Source: Birdseye Planning Group, 2020a (Appendix F).

The Imperial County General Plan contains goals, objectives, policies and/or programs to conserve the natural environment of Imperial County, including air quality. Table 5.1-6 summarizes the Project’s consistency with the applicable air quality goal and objectives from the General Plan.

TABLE 5.1-6: CONSISTENCY WITH APPLICABLE GENERAL PLAN AIR QUALITY GOALS AND OBJECTIVES

General Plan Policies	Consistency	Analysis
Land Use Element (LUE) (a)		
LUE Objective 9.6: Incorporate the strategies of the Imperial County AQAP in land use planning decisions and as amended.	Yes	The AQAP includes the rules and regulations promulgated by the ICAPCD that are applicable to land use projects in Imperial County. The proposed Project must comply with applicable ICAPCD rules and regulations, either through project design or inclusion of mitigation, to obtain the necessary permits for construction and operation.

TABLE 5.1-6: CONSISTENCY WITH APPLICABLE GENERAL PLAN AIR QUALITY GOALS AND OBJECTIVES

General Plan Policies	Consistency	Analysis
<p>LU Objective 9.7: Implement a review procedure for land use planning and discretionary project review which includes the Imperial County Air Pollution Control District.</p>	<p>Yes</p>	<p>As the air pollution control district for the County, the ICAPCD must review all projects subject to environmental documentation. This review may entail the required inclusion of mitigation or other measures to reduce project emissions to levels acceptable per ICAPCD rules and regulations.</p> <p>The ICAPCD will review the proposed Project as part of the CEQA process and is identified on Table 4-2 as a Responsible Agency under CEQA.</p>
Conservation and Open Space Element (COSE) (b)		
<p>COSE Goal 7: The County shall actively seek to improve and maintain the quality of air in the region.</p> <ul style="list-style-type: none"> • COSE Objective 7.1: Ensure that all project and facilities comply with current Federal, State, and local requirements for attainment of air quality objectives. • COSE Objective 7.4: Enforce and monitor environmental mitigation measures relating to air quality. • COSE Objective 7.6: Explore and assess strategies to reduce greenhouse gas emissions in the County. 	<p>Yes</p>	<p>The ICAPCD seeks to improve and maintain the quality of air in Imperial County through issuance of air quality management plans, rules, and regulations that reflect both state and federal requirements for meeting air quality objectives. The proposed Project has incorporated mitigation measures to comply with the requirements of these plans, rules, and regulations.</p> <p>Enforcement and monitoring requirements for mitigation measures related to air quality are presented in Section 5.1.4.</p> <p>An assessment of project-related greenhouse gas emissions was prepared for the Project and presented the <i>Desert Valley Monofill Expansion Air Quality and Greenhouse Gas Study</i> (Appendix F).</p>
<p>IV. Implementation Programs & Policies</p> <p>B.5 Protection of Air Quality and Addressing Climate Change Policy: Reduce PM₁₀ and PM_{2.5} emissions from unpaved roads, agricultural fields, and exposed Salton Sea lakebed.</p>	<p>Yes</p>	<p>The primary mechanism to implement the Goals and Objectives of the COSE is through incorporating environmental concerns into land use planning. This occurs primarily through the discretionary permit process.</p>
Circulation and Scenic Highways Element (CSHE) (c)		
<p>CSHE Objective 3.8: Attempt to reduce motor vehicle air pollution. Require all major projects to perform an air quality analysis to determine the amount of pollution, as well as the alternative reduction options.</p>	<p>Yes</p>	<p>An assessment of emissions from motor vehicle and other sources was prepared for the Project and presented the <i>Desert Valley Monofill Expansion Air Quality and Greenhouse Gas Study</i> (App. F).</p>

Sources: (a) County of Imperial General Plan, 2015. (b) County of Imperial General Plan, 2016. (c) County of Imperial General Plan, 2008.

5.1.3. Analysis of Project Effects and Significance Determination

Guidelines for Determination of Significance

A project would be considered to have a significant impact if it would:

1. Conflict with or obstruct implementation of the applicable air quality plan?
2. 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?
3. Result in other emissions (such as those leading to odors adversely affecting a substantial number of people)?
4. Expose sensitive receptors to substantial pollutant concentrations?

Impact Analysis

Impact 5.1-1: Conflict with or obstruct implementation of the applicable air quality plan.

Site Preparation and Construction Emissions

Project construction would generate temporary air pollutant emissions. These impacts are associated with fugitive dust (PM₁₀ and PM_{2.5}) and exhaust emissions (CO and NO_x) from heavy construction vehicles and trucks. It is anticipated that Cell 4A, with an expected lifespan of 28.6 years would be constructed first. Cell 4B would be constructed when Cell 4A approaches capacity. To conservatively estimate grading emissions and for fugitive dust control purposes, the analysis assumed that the entire 55.2-acre area comprising the Cell 4A (and 32 acres for Cell 4B) would be disturbed daily. For modeling purposes, it was assumed that all spoils would be stored on-site and used for cover material (in lieu of using soil sealant); thus, no off-site haul trips would occur. The construction year is 2024 for Cell 4A and 2050 for Cell 4B. Construction emission estimates are shown in **Table 5.1-7**.

**TABLE 5.1-7: ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS
(UNMITIGATED)**

Construction Phase	Maximum Emissions (lbs/day)					
	ROG	NO _x	SO _x	CO	PM ₁₀	PM _{2.5}
Project Construction (Cell 4A) – Year 2024	3.3	32.4	0.06	28.6	19.4	9.96
Project Construction (Cell 4B) – Year 2050	2.9	10.1	0.07	23.2	8.6	4.8
<i>ICAPCD Regional Thresholds</i>	<i>75</i>	<i>100</i>	<i>No Standard</i>	<i>550</i>	<i>150</i>	<i>No Standard</i>
Threshold Exceeded?	No	No	No	No	No	No

Source: Birdseye Planning Group, 2020a (Appendix F).

As shown in **Table 5.1-7**, construction of Cell 4A and Cell 4B would not result in emissions of criteria pollutants that exceed ICAPCD thresholds. Therefore, construction-related air quality impacts would not be significant.

While no significant air quality impact would occur during construction, all construction projects within Imperial County must comply with the requirements of ICAPCD Regulation VIII for the control of fugitive dust. For this reason, to minimize fugitive dust and general construction emissions, fugitive dust control measures per ICAPCD Rules 801 and 804 are included as **MM AQ-1** and **MM AQ-2**. Implementation of Mitigation Measures AQ-1 and AQ-2 would provide additional reduction strategies to further improve air quality and ensure that construction impacts would remain less than significant.

Additionally, the air quality control measures implemented for the existing Solid Waste Facility Permit (No. 13-AA-0022) as well as those in the Authority to Construct and Permit to Operate (2120 B-3) described in Section 3.4 of the EIR, shall continue to be implemented for the proposed expansion.

Site Operational Emissions

Table 5.1-8 summarizes emissions associated with operation of the expanded facility. Emissions include the daily truck trips delivering geothermal wastes to the site, employee trips and use of equipment to spread and compact the waste material. As shown on **Table 5.1-8**, the ICAPCD thresholds for operational emissions would not be exceeded.

TABLE 5.1-8: ESTIMATED OPERATIONAL EMISSIONS

Operation	Maximum Emissions (lbs/day)					
	ROG	NO _x	SO _x	CO	PM ₁₀	PM _{2.5}
Operation of Cell 4A or Cell 4B	0.2	8.1	3.3	0.08	2.4	0.6
ICAPCD Thresholds	55	55	150	550	150	55
Threshold Exceeded?	No	No	No	No	No	No

Source: Birdseye Planning Group, 2020a (Appendix F).

Carbon Monoxide Hotspot

A CO hotspot analysis is recommended if an intersection meets one of the following criteria:

- 1) the intersection is at Level of Service (LOS) D or worse and where the project increases the volume to capacity ratio by 2 percent, or
- 2) the project decreases LOS at an intersection to D or worse. A CO hotspot is a localized concentration of CO that is above the state or national 1-hour or 8-hour CO ambient air standards.

Localized CO “hotspots” can occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local CO concentration exceeds the federal AAQS of 35.0 parts per million (ppm) or the state AAQS of 20.0 ppm.

California Department of Transportation 2017 traffic counts on SR-86 shows average daily trip volumes (ADT) of 1,150 at the intersection with SR-78 northwest of the Project site and 1,250 ADT at the intersection of Bannister Road southeast of the Project site. Because the proposed expansion would not increase the maximum number of truck trips per day allowed to access the monofill, it would not increase traffic levels beyond those already permitted. Thus, the Project will not add traffic to SR-86 and the existing volumes are not high enough to cause or contribute to congested conditions. No CO hotspot would occur under operating conditions.

In summation, while implementation of the proposed Project would increase air pollutant emissions during site preparation and construction; operations and closure/post-closure maintenance, the emissions would not exceed ICAPCD thresholds. Therefore, the Project’s potential to conflict with or obstruct an applicable air quality plan is considered less than significant with mitigation incorporated. Nonetheless, because all construction sites, regardless of size, must comply with the requirements contained within Regulation VIII – Fugitive Dust Control Measures, MM AQ-1 and MM AQ-2 will be implemented to further reduce construction impacts.

Impact 5.1-2: Cumulatively considerable net increase of any criteria pollutant.

As discussed under Impact 5.1-1, implementation of the proposed Project would increase air pollutant emissions during Project construction. The proposed Project is consistent with ICAPCD plans and would not exceed pollutant thresholds during operation. The Project’s potential to result in a cumulatively considerable net increase of any criteria pollutant is considered less than significant with mitigation incorporated. With implementation of MM AQ-1 and MM AQ-2 impacts would be less than significant.

Impact 5.1-3: Other emissions, such as odors that adversely affect a substantial number of people.

The proposed Project would generate odors from construction (i.e., diesel exhaust) and the operation of heavy equipment. Construction emissions would not exceed ICAPCD impact thresholds; thus, short-term odors are not expected to be significant. Further, the nearest sensitive receptor is located approximately two (2) miles northeast of the Project site. Odors from the site would not be detectable at that distance. Additionally, the monofill does not accept organic wastes, the decomposition of which could generate odors.

No significant impacts or mitigation measures related to odor were identified. Odor impacts would be less than significant.

Impact 5.1-4: Exposure of sensitive receptors to substantial pollutant concentrations.

The nearest sensitive receptor to the Project site are residences associated within the Elmore Desert Ranch located approximately two (2) miles northeast of the site. As discussed above, the emissions from site preparation and construction, operation, closure or post- closure maintenance would not exceed the ICAPCD thresholds with implementation of **MM AQ-1** and **MM AQ-2**. Sensitive receptors would not be exposed to substantial pollutant concentrations, and impacts would be less than significant.

5.1.4. Mitigation Measures

The following Mitigation Measures would reduce impacts to below a level of significance.

MM AQ-1: Prepare and Implement Dust Control Plan

Prior to commencing construction, the Applicant shall be required to submit a Dust Control Plan to the ICAPCD for approval. The Dust Control Plan will identify all sources of PM₁₀ emissions and associated mitigation measures during the construction and operational phases (see Rule 801 F.2). The Applicant shall submit a “Construction Notification Form” to the ICAPCD 10 days prior to the commencement of any earthmoving activity. The Dust Control Plan submitted to the ICAPCD shall meet all applicable requirements for control of fugitive dust emissions, including the following measures designed to achieve the no greater than 20-percent opacity performance standard for dust control and address the following parameters:

- All disturbed areas, including bulk material storage that is not being actively used, shall be effectively stabilized; and visible emissions shall be limited to no greater than 20-percent opacity for dust emissions by using water, chemical stabilizers, dust suppressants, tarps or other suitable material, such as vegetative groundcover. Bulk material is defined as earth, rock, silt, sediment, and other organic and/or inorganic material consisting of or containing particulate matter with 5 percent or greater silt content. For modeling purposes, it was assumed that watering would occur twice daily.
- All on-site unpaved roads segments or areas used for hauling materials shall be effectively stabilized. Visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by restricting vehicle access, paving, application of chemical stabilizers, dust suppressants and/or watering.
- The transport of bulk materials on public roads shall be completely covered, unless 6 inches of freeboard space from the top of the container is maintained with no spillage and loss of bulk material. In addition, the cargo compartment of all haul trucks shall be cleaned and/or washed at the delivery site after

removal of bulk material, prior to using the trucks to haul material on public roadways.

- All track-out or carry-out on paved public roads, which includes bulk materials that adhere to the exterior surfaces of motor vehicles and/or equipment (including tires) that may then fall onto the pavement, shall be cleaned at the end of each workday or immediately when mud or dirt extends a cumulative distance of 50 linear feet or more onto a paved road within an urban area.
- Movement of bulk material handling or transfer shall be stabilized prior to handling or at points of transfer with application of sufficient water, chemical stabilizers, or by sheltering or enclosing the operation and transfer line except where such material or activity is exempted from stabilization by the rules of ICAPCD.

Timing/Implementation: Prior to and during construction.

*Enforcement/Monitoring: Imperial County Air Pollution Control
District and Imperial County Planning and
Development Services Department*

MM AQ-2: NO_x Emission Controls

The Applicant shall implement all applicable standard measures for construction combustion equipment for the reduction of excess NO_x emissions as contained in the Imperial County CEQA Air Quality Handbook and associated regulations. These measures include:

- Use alternative-fueled or catalyst-equipped diesel construction equipment, including all off-road and portable diesel-powered equipment.
- Minimize idling time, either by shutting equipment off when not in use or reducing the time of idling to five minutes at a maximum.
- Limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use. Replace fossil-fueled equipment with electrically driven equivalents (assuming powered by a portable generator set and are available, cost effective, and capable of performing the task in an effective, timely manner).
- Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing construction activity during the peak hour of vehicular traffic on adjacent roadways.

- Implement activity management (e.g., rescheduling activities to avoid overlap of construction phases, which would reduce short-term impacts).

Timing/Implementation:

Prior to and during construction.

Enforcement/Monitoring:

*Imperial County Air Pollution Control
District and Imperial County Planning and
Development Services Department*

Level of Significance After Mitigation

Impacts would be less than significant after mitigation.

5.2 Biological Resources

This section addresses potential biological resource impacts that may result from construction, operation, closure and post-closure maintenance of the Desert Valley Company Monofil Expansion Project, Cell 4. It describes the existing biological conditions of the DVCM, the regulatory framework, the Project's direct and indirect impacts to biological resources and recommends mitigation measures to reduce or avoid these impacts. The regulatory framework discussion focuses on the federal, state, and local regulations that apply to sensitive plants, animals and their habitats. The affected environment discussion focuses on topography and soils; general vegetation; general wildlife; sensitive biological resources; riparian habitat and sensitive natural communities; jurisdictional waters; and habitat connectivity and wildlife corridors.

Applicant's Reports and Survey Results

Information used in preparing this section and in the evaluation of potential impacts to biological resources was derived from a number of sources, including the following surveys and reports that can be found in Appendices G-1 and G-2:

- A Biological Technical Report prepared by Chambers Group (Chambers Group, 2019: Appendix G-1). For the Biological Technical Report, Chambers Group's biologists conducted a general reconnaissance survey within the Biological Survey Area (BSA), which consisted of the entirety of Section 33 (640 acres) to identify the potential for occurrence of sensitive species, vegetation communities, or habitats that could support sensitive wildlife species. The survey was conducted on foot throughout the BSA between 10:00 AM and 4:00 PM on May 8, 2019.
- A Small Mammal Trapping Survey Report prepared by Ecorp Consulting, Inc. (Ecorp Consulting, Inc., 2019; Appendix G-1). Because the BSA contains suitable habitat for the Palm Springs pocket mouse (PSPM; *Perognathus longimembris bangsi*) and is located within the species range, a habitat assessment and focused surveys for small mammal species were conducted June 17 through June 22, 2019, to determine the presence of Palm Springs pocket mouse or any other nocturnal small mammal species. The Palm Springs pocket mouse is a CDFW Species of Special Concern (SSC).
- A Burrowing Owl Survey Report prepared by Hernandez Environmental Services (HES) (HES, 2019a; Appendix G-1). Focused surveys for burrowing owls (*Athene cunicularia*) (BOUS) were conducted by HES on April 10th, June 21st, July 12th, and August 7th, 2019. The study area included the Project site and a 150-meter (500-foot) buffer around the site, where accessible. Parallel transects spaced at no more than 30-meter intervals were walked across portions of Section 27 and Section 33. Handheld global positioning system (GPS) units were utilized to ensure that the transects were parallel and to maintain the desired spacing and transect orientation. All burrows of sufficient size to harbor BUOWs were

investigated for signs of use by the species, including the presence of pellets, feathers, whitewash, or nearby individuals.

- A Jurisdictional Delineation Report prepared by HES (HES, 2018: Appendix G-2). The Jurisdictional Delineation (JD) was conducted within the BSA on May 29 and May 30, 2018, which delineated the extent of drainages considered to be state or federal jurisdictional waters regulated by the United States Army Corps of Engineers (USACE), the California Regional Water Quality Control Board (RWQCB), or the California Dept. of Fish & Wildlife (CDFW). The results of the JD were updated in October 2019 to reflect the change in the Environmental Protection Agency's (EPA) change in the definition of Waters of the United States.
- A focused rare plant survey prepared by (HES, 2019b; Appendix G-3) and included a survey area of approximately 320-acres. The botanical surveys were conducted on April 5th and April 10th, 2019.

Scoping Issues Addressed

During the scoping period for the Project, a public scoping meeting was conducted, and written comments were received from agencies. The following provides a concise summary of issues raised by the California Department of Fish and Wildlife (CDFW). A detailed listing is provided in **Table 2-1**.

- Evaluate habitat types located within the Project footprint.
- Include a general biological inventory of the fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present.
- Conduct a complete inventory of rare, threatened, endangered, and other sensitive species located within the Project footprint and within offsite affected areas.
- CDFW generally considers wildlife field assessments for to be valid for a one-year period, and rare plants to valid for a up to three years.
- Follow the recommendations and guidelines provided in the Staff Report on Burrowing Owl Mitigation.
- Review the Flat-tailed Horned Lizard Rangeland Management Strategy and develop the Draft EIR (DEIR) in accordance with all relevant sections.
- Conduct a thorough, recent, floristic-based assessment of special status plants and natural communities, following CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities.
- Include information on the regional setting.

- Conduct a full accounting of all open space and mitigation/conservation lands within and adjacent to the Project.
- Conduct an assessment of potential impacts of the Project to groundwater-dependent ecosystems within the Ocotillo-Clark Valley Groundwater Basin.
- Identify potential impacts to San Felipe Creek, a groundwater-dependent ecosystem identified by the USFWS as Designated Critical Habitat for the state- and federally-endangered desert pupfish (*Cyprinodon macularius*). The creek contains one of the few remaining populations of desert pupfish in a totally natural environment.
- Provide a thorough discussion of the direct, indirect, and cumulative impacts to biological resources.
- Identify appropriate and adequate mitigation measures and alternatives that can avoid or minimize potential impacts, to the extent feasible.
- Analyze potential adverse impacts to fully protected species due to habitat modification, loss of foraging habitat, and/or interruption of migratory and breeding behaviors.
- Include in the analysis how appropriate avoidance, minimization, and mitigation measures will reduce indirect impacts to fully protected species.
- The DEIR should include measures to fully avoid and otherwise protect sensitive plant communities with a statewide ranking of S-1, S-2, S-3, and S-4 from Project impacts.
- California Species of Special Concern (CSSC) that have the potential to occur within or adjacent to the Project area, include flat-tailed horned lizard, burrowing owl, Le Conte's thrasher, and Palm Springs pocket mouse and should be considered during the environmental review process.
- CDFW considers adverse Project-related impacts to sensitive species and habitats to be significant and the DEIR should include mitigation measures.
- Mitigation measures should emphasize avoidance and reduction of impacts.
- For unavoidable impacts, on-site habitat restoration and/or enhancement, and preservation should be evaluated and discussed in detail. Where habitat preservation is not available onsite, offsite land acquisition, management, and preservation should be evaluated and discussed in detail.
- The DEIR should include measures to perpetually protect the targeted habitat values within mitigation areas from direct and indirect adverse impacts. Specific issues that should be addressed include restrictions on access, proposed land dedications, long-term monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc.
- If sensitive species and/or their habitat may be impacted from the Project, CDFW recommends the inclusion of specific mitigation in the DEIR.

- CDFW recommends that the DEIR specify mitigation that is roughly proportional to the level of impacts. The mitigation should provide long-term conservation value for the suite of species and habitat being impacted by the Project. Furthermore, in order for mitigation measures to be effective, they need to be specific, enforceable, and feasible actions that will improve environmental conditions.
- Include the results of avian surveys, as well as specific avoidance and minimization measures to ensure that impacts to nesting birds do not occur and specific avoidance and minimization measures that will be implemented should a nest be located within the Project site.
- If pre-construction surveys are proposed, the CDFW recommends that they be required no more than three (3) days prior to vegetation clearing or ground disturbance activities.
- CDFW recommends that the DEIR address all Project impacts to listed species and include a mitigation monitoring and reporting program that will meet the requirements of CESA.
- Lake and Streambed Alteration Program. Based on review of material submitted with the NOP and review of aerial photography at least two drainage features traverse the site. It is likely that the Project applicant will need to notify CDFW per Fish and Game Code Section 1602 prior to commencing any activity that may substantially divert or obstruct the natural flow of any river, stream or lake; substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or deposit debris, waste or other materials that could pass into any river, stream or lake.

Issues Scoped Out

The Imperial County Planning and Development Services Department determined in the Initial Study located in Appendix A-2, that the following environmental issue area resulted in “No Impact” and was scoped out of requiring further review in this draft EIR. Please refer to Appendix A-2 of this DEIR for a copy of the Initial Study and additional information regarding this issue.

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. This criterion was eliminated from further evaluation because Imperial County does not have a Habitat Conservation Plan (HCP). Therefore, no conflicts or impacts would occur between the Project and an adopted HCP. The Bureau of Land Management (BLM) has adopted the Desert Renewable Energy Conservation Plan (DRECP), which provides protection and conservation of desert ecosystems while allowing for appropriate development of renewable energy Projects. The Draft DRECP was originally developed as an HCP/Natural Community Conservation Plan (NCCP) and as a BLM Land Use Plan Amendment covering both public and private lands across seven counties, including Imperial County. In 2016, BLM signed its Record of Decision approving the DRECP Land Use Plan Amendment and Final EIS, which addresses renewable energy, land use, and conservation on BLM lands only, was released. Although the DRECP plan area includes the Project area, the DRECP currently only applies

to renewable energy Projects on BLM managed lands and therefore would not be applicable to the Project. For this reason, the Project would not conflict with the goals and policies of the DRECP. The proposed Project is not located within any other local, regional, or state conservation planning areas. The Project site is not located within an area that is subject to a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

5.2.1 Environmental Setting

5.2.1.1 Regional Setting

The Project site is located within the Colorado Desert ecoregion, an area with vegetation and habitat that has adapted to an arid sub-tropical climate. Elevations within this ecoregion range from 230 feet below sea level at the Salton Sea to 2,200 feet above sea level at the boundary with the Peninsular Ranges. The region's climate is characterized by its hot summers with maximum temperatures ranging between 104 to 115°F (40-46°C). Winters are mild and dry, including maximum daily temperatures between 65 to 75°F (18- 24°C). Annual rainfall is approximately 3 inches.

The County of Imperial is located on the Pacific Flyway for migratory waterfowl, shorebirds, and songbirds. Although this area is considered to be part of the Colorado Desert, approximately 500,000-acres of the Colorado Desert in County of Imperial have been converted to agricultural use. The irrigation system in the Imperial Valley attracts many bird species that are typically found in agricultural areas, including waterfowl, gulls, herons, cranes, ibises, egrets, doves, quail, sparrows, juncos, and finches. Some raptor species forage in this area as well, particularly the western burrowing owl (*Athene cunicularia hypugea*). Small mammals occupy habitat along the canals and drains. Some of the common species include western harvest mouse (*Reithrodontomys megalotis*), house mouse (*Mus musculus*), Norway rat (*Rattus norvegicus*), valley pocket gopher (*Thomomys bottae*), brush rabbit (*Sylvilagus bachmani*), striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), and muskrat (*Ondatra zibethicus*). Surrounding desert areas provide habitat for these species as well as larger mammalian species such as black-tailed jackrabbit (*Lepus californicus*), mule deer (*Odocoileus hemionus*), wild burro (*Equus asinus*), gray fox (*Urocyon cinereoargenteus*), coyote (*Canis latrans*), bobcat (*Lynx rufus*), and mountain lion (*Puma concolor*).

Reptiles typically associated with the Colorado Desert include Sonoran gopher snake (*Pituophis catenifer affinis*), western diamond-backed rattlesnake (*Crotalus atrox*), Marcy's checkered gartersnake (*Thamnophis marcianus marcianus*), and Great Plains toad (*Anaxyrus cognatus*).

5.2.1.2. *Biological Study Area*

The biological study area for the proposed Project is located entirely within Section 33 and includes the existing landfill and surrounding lands. The 359.92-acre Biological Survey Area (BSA) is shown in **Figure 5.2-1**. The BSA is surrounded by agricultural fields and the Salton Sea to the north and west. State Route 86 (Highway 86) is located approximately 1-mile northeast of the Survey Area and runs northwest to southeast. The elevation at the Project site ranges from approximately 100 to 160 feet below mean sea level (bmsl).

5.2.1.3 *Vegetation Communities*

Field surveys conducted in June 2019 documented four (4) distinct vegetation communities within the BSA and the Project site: Creosote Bush Scrub, Creosote Bush – Honey Mesquite Scrub, Rigid Spineflower – Hairy Desert Sunflower Sparsely Vegetated Desert Pavement Alliance, and Tamarisk – Honey Mesquite – Four Wing Saltbush Scrub. Bare ground and developed areas were also documented. Creosote Bush Scrub, Creosote Bush – Honey Mesquite Scrub, and Rigid Spineflower – Hairy Desert Sunflower Sparsely Vegetated Desert Pavement Alliance are not considered sensitive vegetation communities (Chamber Group, 2019, Appendix G-1).

The approximate acreages of each vegetation community is shown in **Table 5.2-1** (also depicted on **Figure 5.3-2**, Vegetation Communities).

TABLE 5.2-1: VEGETATION COMMUNITY AND LAND COVER ACREAGES WITHIN THE BSA AND PROJECT SITE

Vegetation Community	Biological Survey Area (acres)	Project Impacts (acres)
Creosote Bush Scrub	214.80	39.73
Creosote Bush – Honey Mesquite Scrub	9.50	0.7
Rigid Spineflower – Hairy Desert Sunflower Sparsely Vegetated Desert Pavement Alliance	1.85	1.57
Tamarisk – Honey Mesquite – Four Wing Saltbush Scrub	0.36	0.7
Total Vegetation Communities	226.51	42.07
Land Cover		
Bare Ground	63.31	42.09
Developed	70.10	0.37
TOTAL	359.92	84.53

Source: Chambers Group, 2019 (Appendix G-1).

Full descriptions of each of these vegetation communities is provided in the Biological Technical Report prepared by (Appendix G-1) and are summarized below.

Creosote Bush Scrub

Creosote bush scrub areas are dominated by creosote bush (*Larrea tridentata*), white bursage (*Ambrosia dumosa*), and cattle spinach (*Atriplex polycarpa*) with scattered occurrences of desert tea (*Ephedra californica*). Vegetation within the community is primarily open with large bare ground areas between creosote bushes. Isolated herbaceous species were found in low concentrations throughout the habitat. A higher density of herbaceous species is found throughout the small drainage features compared to the Creosote Bush scrub vegetation located outside the drainages. Creosote Bush Scrub is generally of moderate to high quality with low plant density overall. Large areas of bare ground separate individual creosote bush shrubs with only limited plant species being located within the bare ground matrix of the habitat.

Creosote Bush – Honey Mesquite Scrub

Creosote Bush – Honey Mesquite Scrub is dominated by creosote bush, honey mesquite (*Prosopis glandulosa*), white bursage, four wing saltbush (*Atriplex canescens*), Acton brittlebush (*Encelia actoni*) and is found in areas where creosote bush and honey mesquite co-dominate the species makeup. Local topography is highly modified by the honey mesquite thickets and associated loose sand. This habitat is generally less species rich than the surrounding creosote bush scrub but provides high-quality burrowing habitat for various reptilian and mammalian species. This habitat is generally of high-quality with limited invasive species infiltration. Extensive networks of small mammal/reptile burrows extend throughout the dune complexes that form under the honey mesquite increasing habitat structural complexity and nutrient loads. This habitat is generally of high-quality with limited invasive species infiltration. Extensive networks of small mammal/reptile burrows extend throughout the dune complexes that form under the honey mesquite increasing habitat structural complexity and nutrient loads.

Rigid Spineflower – Hairy Desert Sunflower Sparsely Vegetated Desert Pavement Alliance

Rigid Spineflower – Hairy Desert Sunflower Sparsely Vegetated Desert Pavement Alliance habitat is dominated by herbaceous annuals including rigid spineflower (*Chorizanthe rigida*), hairy desert sunflower, Sahara mustard (*Brassica tournefortii*), desert plantain, common cryptantha (*Cryptantha sp.*), and shining pepperweed (*Lepidium nitidum*). This habitat is characterized as large open areas with very little plant density. Soils consisted primarily of gravely sand with some isolated areas of silty sand. These habitat areas are associated with locations that appear to experience ephemeral water infiltration and support a higher level of herbaceous species than surrounding areas. Species richness is higher than the surrounding Creosote Bush Scrub within this habitat type, but also have an increased level of invasive or non-native species present. Overall, this habitat quality is low due to the non-native species present within this community. A large

contributing factor for the low-quality aspect of this habitat type is influenced by the presence of Sahara mustard. This species is considered highly invasive, and while generally restricted to this habitat type, the potential for this species to spread into outlying areas is possible without proper management.

Tamarisk – Honey Mesquite – Four Wing Saltbush Scrub

Tamarisk – Honey Mesquite – Four Wing Saltbush Scrub is dominated by Tamarisk (*Tamarisk sp.*), honey mesquite, and four wing saltbush. Habitat is found along a large wash in the northwestern portion of the BSA and is the only location where arborescent vegetation is present. Vegetation remains very sparse, maintaining approximately the same vegetation density as the surrounding creosote bush scrub. This habitat type is restricted to a small area within the northwest corner of the BSA and in association with a large drainage. Overall a low level of non-native species were found within this habitat type with isolated native and non-native trees widely spaced. The Tamarisk – Honey Mesquite – Four Wing Saltbush Scrub was characterized as Desert Riparian Scrub, a riparian habitat in the Jurisdictional Delineation prepared for the project (Appendix G-2). Tamarisk is a component of this community; an invasive species that competes for water in drainage features and changes the natural chemistry of the soil (salt-saturated) that inhibits the survival of native species. The presence of tamarisk decreases the habitat value of area.

Bare Ground and Developed Areas

Bare Ground (BG) and Developed areas are not vegetation classifications, but instead are land cover types. Bare ground is generally devoid of vegetation, but do not contain any form of pavement. These areas are typically associated with areas that have been previously cleared and compacted by earth moving machinery, dirt access roads, and maintained areas within the developed portions of the site. Compared to Developed areas, BG has higher water permeability and slightly higher fossorial rodent habitat potential.

Developed (DV) areas are those where various forms of pavement cover the soil surface, the ground has been highly compacted and is part of the existing monofil operations, or is used for semi-permanent vehicle placement, staging, or loading. This community type is recorded as separate from bare ground due to the erosional, use, and hydric features associated with the feature. Due to the lack of permeability, these areas channel water run-off and can result in unique erosional management considerations.

5.2.1.4 Jurisdictional Waters

A delineation of jurisdictional waters was conducted by Hernandez Environmental Services in 2018 (HES, 2018, Appendix G-2) to identify potential riparian vegetation, wetlands, and jurisdictional drainages. Ephemeral streams were identified throughout the BSA and are characterized as a braided channel system which contains multiple channels that divide and rejoin

to form a pattern of gently curved channel segments, separated by exposed ephemeral islands or channel bars. The ephemeral streams were found to be dominated by desert riparian scrub that included several tall shrubs and trees such as western honey mesquite (*P. glandulosa var. torreyana*) and the introduced saltcedar (*Tamarix ramosissima*) and Chinese tamarisk (*Tamarix chinensis*). The majority of the streams in the BSA flow from south to northeast and are tributaries to the Salton Sea a Traditional Navigable Water (TNW). The 0.59 acres of streams located within the northwest corner of the BSA flow northwest and are tributary to San Felipe Creek. Soils within the drainages consist of alluvial soils on alluvial fans, channel bottoms, flood plains, and terraces; and eolian soils on windblown sand and silt.

All 35.2 acres of the identified ephemeral streams located within the BSA (a total of 71,222 linear feet) would be considered CDFW jurisdictional drainage features, regulated by Section 1602 of the California Department of Fish and Game Code. Furthermore, approximately 29.4 acres of the ephemeral drainages would be considered RWQCB jurisdictional features, which are regulated by the RWQCB under Section 401 of the Clean Water Act.

The acreage of Jurisdictional Waters identified within Section 33 of the BSA and within the Project site are provided in **Table 5.2-2**. The location of the drainages in relation to project boundaries is depicted on **Figure 5.2-3**.

TABLE 5.2-2: JURISDICTIONAL WATERS WITHIN BIOLOGICAL SURVEY AREA AND PROJECT SITE

Agency	Biological Survey Area (acres)	Project Site (acres)
CDFW	35.2 (71,222 LF)	7.37 (24,895 LF)
RWQCB	29.4	6.15
USACE	0	0

Notes: CDFW = California Dept. of Fish and Wildlife
USACE = United States Army Corps of Engineers

RWQCB = Regional Water Quality Control Board

Source: Chambers Group, 2019 (Appendix G-1).

San Felipe Creek and San Sebastian Marsh, sensitive wetlands and home of the endangered desert pupfish (*Cyprinodon mularius*), lie 3 to 6 miles northwest to west of the BSA and would not be affected by the Project.

5.2.1.5 Sensitive Plant Species

According to the focused rare plant survey conducted by HES in April of 2019 (Appendix G-3) the project area has the potential to support eight (8) species of listed or special status plant species (**Table 5.2-3**). Factors used to determine the potential for occurrence included the quality of habitat, elevation, and the results of the focused surveys. In addition, the location of prior

California Natural Diversity Database (CNDDDB) records of occurrence were used as additional data. However, because the CNDDDB is a positive-sighting database, this data was used only in support of the analysis from the previously identified factors.

The analysis of the CNDDDB search and field survey resulted in eight (8) species with a low potential to occur on the Project site. No previously recorded listed or sensitive species are anticipated to have a moderate or high potential for occurrence. Additionally, no federal-and/or state-listed threatened or endangered plants occur within five (5) miles of the Project site. A combination of low-quality habitat, historic records within 3 to 5 miles, and previous Chambers Group surveys in the surrounding area (Unpublished data, Chambers Group Inc., April 2015) support that determinations.

It should be noted however that while conditions for the botanical survey were considered suitable for most of the targeted rare species, general conditions were not conducive to finding flowering plants due to the low rainfall preceding the surveys.

TABLE 5.2-3: SPECIAL-STATUS PLANT SPECIES POTENTIALLY PRESENT ON THE PROJECT SITE

Scientific Name	Common Name	Status	Potential of Occurrence	Survey Results
<i>Euphorbia abramsiana</i>	Abram's spurge	CNPS List 2B.2	Low	Not Found
<i>Cryptantha costata</i>	Ashen forget me not	Not a CNPS List 4 plant	Low	Not Found
<i>Astragalus sabulorum</i>	Gravel milk vetch	CNPS List 2B.2	Low	Not Found
<i>Psorothamnus arborescens</i>	Mojave indigo bush	CNPS List 4.3	Low.	Not Found
<i>Pholisma sonora</i>	sand food	CNPS List 1B.2	Low	Not Found
<i>Astragalus crotalariae</i>	Salton's milk vetch	CNPS List 4.3	Low	Not Found
<i>Lycium torreyi</i>	Torrey's box thorn	CNPS List 4.2	Low	Not Found
<i>Pilostyles thurberi</i>	Thurber's pilostyles	CNPS 4.3	Low.	Not Found

Source: HES, 2019b

Notes:

FE = Federally Endangered.

SE = State Endangered.

CNPS = California Native Plant Society.

1B = Plants that are rare, threatened, or endangered in California and elsewhere.

2B= Plants that are rare, threatened, or endangered in California and common elsewhere

4 = A watch list of plants of limited distribution.

0.1: Seriously endangered in California.

0.2: Fairly endangered in California.

0.3: Not very endangered in California.

5.2.1.6 Sensitive Wildlife Species

No federal-and/or state-listed threatened or endangered wildlife are known or expected to occur within the project area. The analysis of the CNDDDB search and field survey identified three (3) Species of Special Concern (SSC) with a low potential to occur within the Biological Survey Area due to low quality habitat, which are described below:

- Colorado Desert fringe-toed lizard (*Uma notata*)- SSC
- mountain plover (*Charadrius montanus*)- SSC
- pallid bat (*Antrozous pallidus*)- SSC

No habitat for fringe-toed lizard or the pallid bat occurs within the Project site and low- quality habitat occurs within and/or directly adjacent to the BSA. In addition, no occurrences of these species have been documented within or immediately adjacent to the Survey Area. Low quality habitat for the mountain plover occurs within the BSA; however, no occurrences have been documented within five miles and none were observed during the focused survey efforts for this EIR. Therefore, these species are not anticipated to occur within the Project area.

The analysis of the CNDDDB search and field survey resulted in two species with a moderate potential to occur on the Project site. Burrowing owl (*Athene cunicularia*) and Le Conte's thrasher (*Toxostoma lecontei*) have a moderate potential to occur and is described below:

Burrowing owl – SSC

The burrowing owl is listed as a California Species of Special Concern and is found throughout the state. Historically, this species occurred in pasturelands and grasslands throughout California, but in recent times it has been found in agricultural and desert areas with open vegetation communities. Burrowing owls inhabit dry, open, native or non-native grasslands, deserts, and other arid environments with low-growing and low-density vegetation. It typically uses burrows made by mammals such as California ground squirrels (*Spermophilus beecheyi*), foxes, or badgers. When burrows are scarce, the burrowing owl may use man-made structures such as openings beneath cement or asphalt pavement, pipes, culverts, and nest boxes. Burrowing owls often are found within, under, or in close proximity to man-made structures. Because suitable habitat/nesting territory exists for burrowing owls in the BSA and within the Project site, focused burrowing owl surveys were conducted on April 10th, June 21st, July 12th, and August 7th, 2019 (Appendix G-1).

No burrowing owls were observed during the 2019 survey. The survey identified a total of 14 burrows that could potentially be suitable for burrowing owls. Most were located within ephemeral drainages. None of these burrows were “active” in that they contained no burrowing owls or signs of burrowing owls (e.g., molted feathers, scat, pellets, prey remains, eggshell fragments, tracks, or excrement). **Figure 5.2-5** shows the burrowing owl survey area and burrow locations.

Le Conte's thrasher – SSC

Le Conte's thrasher is a California Species of Special Concern. It occurs in habitat including open desert wash, desert scrub, alkali desert scrub, desert succulent shrub. This species commonly nests in a dense, spiny shrub or densely branched cactus in desert wash habitat. Suitable habitat for this species occurs within the BSA within the Creosote Bush Scrub, Creosote Bush – Honey Mesquite Scrub, and Tamarisk – Honey Mesquite – Four Wing Saltbush Scrub communities; however, the Le Conte's thrasher has not been recorded within five (5) miles of the site and no individuals were observed during the reconnaissance or focused burrowing owl surveys. Therefore, this species has a moderate potential to forage and a low potential to nest within the BSA.

Palm Springs pocket mouse – SSC

The Palm Springs pocket mouse is a California SSC. Small mammal trapping surveys were conducted of the BSA in 2019 to determine the presence of Palm Springs pocket mouse or any other nocturnal small mammal species (Appendix G-2). The Palm Springs pocket mouse typically occurs in sparsely vegetated creosote bush scrub, desert scrub, and grassland communities containing loose, sandy soils. These habitats are typically flat or contain gentle slopes less than 15 percent in grade. This species is most commonly found in creosote-dominated desert scrub and is rarely found in areas containing rocky soils. This species is active only during the spring, summer, and fall and hibernates during the cold months (from approximately October to March). This species resides in the daytime in underground burrows that are plugged near the entrance for protection from predators and temperature regulation. These burrows consist of several different chambers and tunnels used for giving birth and raising young (breeding from January to August, with March to May being the peak months), food storage, and protection.

The focused surveys for this species were conducted between June 17 and June 22, 2019. Three trapping locations with approximately 430 traps were set in the BSA within Creosote Bush Scrub, small, isolated patches of Creosote Bush Scrub/Honey Mesquite Scrub, Rigid Spineflower/Hairy Desert Sunflower/Desert Pavement Alliance, and Tamarisk/Honey Mesquite/Four Wing Saltbush Scrub. A total of 263 small mammal were captured included six rodent species: desert pocket mouse (*Chaetodipus penicillatus*), desert kangaroo rat (*Dipodomys deserti*), Merriam's kangaroo rat (*Dipodomys merriami*), white-throated woodrat (*Neotoma albigula*), Palm Springs pocket mouse, and round-tailed ground squirrel (*Xerospermophilus tereticaudus*). All species are considered common throughout the Colorado desert with the exception of the Palm Springs pocket mouse.

A total of 47 Palm Springs pocket mouse were caught over a period of four days within 3 general trapping area locations within the BSA; however, only 3 individuals were caught within the Project area. The occurrences were concentrated in the natural habitat communities surrounding the Project site and along its northwestern edge. No individuals were observed within the developed or bare ground areas within the Project Site. Locations of Palm Springs pocket mouse are provided

in **Figure 5.2-6**. Trapping did not occur on the fifth day due to high winds and unsafe trapping conditions.

Flat-tailed horned lizard – SSC

The flat-tailed horned lizard (FTHL) is a California Species of Special Concern. It occurs in desert dunes, Mojavean scrub, and Sonoran scrub and it is restricted to desert washes and desert flats in central Riverside, eastern San Diego, and Imperial counties. The species requires a high abundance of harvester ants, as this is their primary food source. Adult flat-tailed horned lizards begin hibernation as early as October and emerge as late as March. Breeding of flat-tailed horned lizards is believed to take place in early spring after emergence from winter hibernation.

Four FTHL individuals were observed within the BSA, directly adjacent to the Project site, during the small mammal trapping survey. All were observed within Creosote Bush Scrub habitat; however, this species likely occurs within the other three natural vegetation communities on the BSA as well. Flat-tailed horned lizard is not expected to occupy the disturbed bare ground and developed areas of the Project area, but could be present in low numbers along the edges and transition zones between suitable and unsuitable habitats. The locations of the individuals observed are provided in **Figure 5.2-6**.

5.2.1.7 Wildlife Movement

The concept of wildlife movement corridors addresses the linkage between large blocks of habitat that allow the safe movement of mammals and other wildlife species from one habitat area to another. The definition of a corridor is varied, but corridors may include such areas as greenbelts, refuge systems, underpasses, and biogeographic land bridges, for example. In general, a corridor is described as a linear habitat, embedded in a dissimilar matrix, which connects two or more large blocks of habitat. Wildlife movement corridors are critical for the survivorship of ecological systems for several reasons. Corridors can connect water, food, and cover sources, spatially linking these three resources with wildlife in different areas. In addition, wildlife movement between habitat areas provides for the potential of genetic exchange between wildlife species populations, thereby maintaining genetic variability and adaptability to maximize the success of wildlife responses to changing environmental conditions. This is especially critical for small populations subject to loss of variability from genetic drift and effects of inbreeding. Naturally, the nature of corridor use and wildlife movement patterns varies greatly among species. Drainages generally serve as movement corridors because wildlife can move easily through these areas, and fresh water is available. Corridors also offer wildlife unobstructed terrain to forage in and for the dispersal of young individuals. Movement corridors are particularly important to larger terrestrial species, such as mountain lions (*Felis concolor*), coyotes (*Canis latrans*), and desert kit foxes (*Vulpes macrotis*) due to the protective cover afforded by dense vegetation.

Figure 5.2-4, Sensitive Species and Habitats shows the project location in relation to nearby rivers, a Flat-Tailed Horned Lizard Species Management Area, the San Sebastian Marsh/San Felipe Creek Area of Critical Environmental Concern (ACEC) and documented occurrences of federal and state sensitive species as identified by the California Natural Diversity Database.

5.2.2 Regulatory Setting

Federal

Endangered Species Act

The federal Endangered Species Act of 1973 (ESA) provides a framework for the protection of plant and animal species that are at risk of becoming extinct. It is administered by the U.S. Fish and Wildlife Service (USFWS). Section 7 of the ESA requires each federal agency to consult with the USFWS about projects that may adversely affect species listed as threatened or endangered under the ESA ("listed species"). Habitat critical to these listed species may also be separately designated under the ESA.

The Section 7 consultation process requires each federal agency to prepare a "Biological Assessment" (BA) to determine if the project is likely to adversely affect listed species or designated critical habitat. In response, the USFWS prepares a "Biological Opinion" (BO) for listed species or a "Conference Opinion" (CO) for species proposed for listing, which states the USFWS position on whether the project would likely jeopardize the continued existence of the listed species or adversely modify designated critical habitat.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.) is a federal statute that implements treaties with several countries on the conservation and protection of migratory birds. The MBTA is enforced by USFWS. This act prohibits the killing of any migratory birds. Any activity which contributes to unnatural migratory bird mortality could be prosecuted under this act. With few exceptions, most birds are considered migratory under this act.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c) prohibits anyone without a permit issued by the USFWS from "taking" bald and golden eagles including their parts, nests, or eggs. The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." For purposes of these guidelines, "disturb" means: "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

Bureau of Land Management's California Desert Conservation Area (CDCA)

The CDCA encompasses 25 million acres of land in southern California that were designated by Congress in 1976 through the Federal Lands and Policy Management Act and under the jurisdiction of the Bureau of Land Management (BLM). BLM directly administers approximately 10 million acres of the CDCA. The CDCA Plan-designated Yuha Basin Area of Critical Environmental Concern (ACEC) Management Plan was prepared to give additional protection to unique cultural resource and wildlife values found in the region, while also providing for multiple use management. The ACEC Management Plan allows for the “traversing of the ACEC by proposed transmission lines and associated facilities if environmental analysis demonstrates that it is environmentally sound to do so.”

Federal Water Pollution Control Act (Clean Water Act)

The Clean Water Act (CWA) provides a structure for regulating discharges into the waters of the U.S. The Environmental Protection Agency (EPA) is given the authority to implement pollution control programs. Section 404 of the CWA regulates the discharge of dredged, excavated, or fill material in wetlands, streams, rivers, and other U.S. waters. U.S. Army Corps of Engineers (USACE) is the federal agency authorized to issue 404 Permits for certain activities conducted in wetlands or other U.S. waters. Section 401 of the CWA grants each state the right to ensure that the State's interests are protected on any federally permitted activity occurring in or adjacent to Waters of the State. In California, the Regional Water Quality Control Boards (RWQCB) are the agency mandated to ensure protection of the State's waters. For a Preferred Action that requires an USACE CWA 404 permit and has the potential to impact Waters of the State, the RWQCB will regulate the project and associated activities through a Water Quality Certification determination.

Executive Order 13112 – Invasive Species

On February 3, 1999, President William J. Clinton signed Executive Order (EO) 13112 and established the National Invasive Species Council. To the extent practicable and permitted by law, this EO requires agencies to prevent the introduction of invasive species; provide for control of invasive species; and minimize the economic, ecological, and human health impacts that invasive species cause.

State

California Endangered Species Act

The California Endangered Species Act of 1984 (CESA) provides a framework for the listing and protection of wildlife species determined to be threatened or endangered in California.

California Fish and Game Code 3503.5

Raptors (birds of prey) and active raptor nests are protected by the California Fish and Game Code 3503.5. This code prohibits the “taking” of any birds of prey or their nests or eggs unless authorized.

California Fish and Game Code 3513

Protects California’s migratory birds by making it unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame birds.

California Fish and Game Code, Section 1600, as amended

Under Section 1602 of the Fish and Game Code, CDFG regulates activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. CDFG has jurisdiction over riparian habitats (e.g., southern willow scrub) associated with watercourses. Jurisdictional waters are delineated by the outer edge of riparian vegetation or at the top of the bank of streams or lakes, whichever is wider. CDFW jurisdiction does not include tidal areas or isolated resources. Section 1602 of the Fish and Game Code requires any person who proposes a project that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake or use materials from a streambed to notify the CDFW before beginning the project. If the CDFW determines that the project may adversely affect existing fish and wildlife resources within a CDFW-jurisdictional water, a Lake or Streambed Alteration Agreement (i.e., 1602 Permit) is required.

Native Plant Protection Act

The Native Plant Protection Act (*California Fish and Game Code Section. 1900-1913*) (NPPA) prohibits the taking, possessing, or sale within the state of any plant listed by CDFW as rare, threatened, or endangered. An exception to this prohibition in the Act allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify CDFG at least 10 days prior to the initiation of activities that would destroy them. The NPPA exempts from “take” prohibition “the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right of way.”

Porter-Cologne Water Quality Control Act, as amended

The Porter-Cologne Act grants the State Water Resources Control Board (SWRCB) and the RWQCBs power to protect water quality and is the primary vehicle for implementation of California’s responsibilities under the federal Clean Water Act. Any person proposing to discharge waste into a water of the State must file a Report of Waste Discharge with the regional board that has jurisdiction over the area.

Local

County of Imperial General Plan

Relevant County of Imperial General Plan policies related to biological resources are provided below. **Table 5.2-4** summarizes the project’s consistency with the County’s General Plan policies.

While this EIR analyzes the project’s consistency with the General Plan pursuant to State CEQA Guidelines Section 15125(d), the Imperial County Planning Commissioners and Board of Supervisors ultimately determine consistency with the General Plan.

TABLE 5.2-4: CONSISTENCY WITH THE GENERAL PLAN’S BIOLOGICAL AND NATURAL RESOURCE POLICIES

General Plan Policies	Consistency	Analysis
Conservation and Open Space Element (COSE)		
<p>COSE Goal 1: Environmental resources shall be conserved for future generations by minimizing environmental impacts in all land use decisions and educating the public on their value.</p> <ul style="list-style-type: none"> • COSE Objective 1.1: Encourage uses and activities that are compatible with the fragile desert environment and foster conservation. • COSE Objective 1.4: Ensure the conservation and management of the County's natural and cultural resources. 	Yes	<p>The Project site is located within the desert environment. Mitigation measures have been incorporated into the Project to reduce impacts to natural and cultural resources to below a level of significance.</p>
<p>COSE Goal 2: The County will integrate programmatic strategies for the conservation of critical habitats to manage their integrity, function, productivity, and long-term viability.</p> <ul style="list-style-type: none"> • COSE Objective 2.1: Designate critical habitats for Federally and State-listed species. • COSE Objective 2.2: Develop management programs, including preservation of habitat for flat-tailed horned lizard, desert pupfish, and burrowing owl. • COSE Objective 2.4: Use the CEQA and NEPA process to identify, conserve and restore sensitive vegetation and wildlife resources. 	Yes	<p>A Biological Resources Report was prepared for the project, which included a jurisdictional delineation, rare plant survey, small mammal trapping survey and burrowing owl survey. No critical habitats for federally or state listed threatened or endangered species occur on-site and no off-site designated habitats would be affected by the Project.</p> <p>The Biology Report concludes there are no threatened or endangered species impacts associated with the proposed Project. Impacts to flat-tailed horned lizard individuals and habitat will be mitigated as specified in the <i>Flat-Tailed Horned Lizard Resource Management Plan</i>. Potential impacts to burrowing owls will be avoided by preconstruction surveys to confirm their absence from the site.</p> <p>No desert pupfish habitat occurs within the project site and no off-site habitat would be affected. Therefore, the Project would be consistent with these objectives.</p>

TABLE 5.2-4: CONSISTENCY WITH THE GENERAL PLAN’S BIOLOGICAL AND NATURAL RESOURCE POLICIES

General Plan Policies	Consistency	Analysis
Conservation and Open Space Element (COSE)		
<p>Biological Resource Conservation Policy: Provide a framework for the conservation and enhancement of natural and created open space which provides wildlife habitat values.</p> <p>Program: Projects within or in the vicinity of a Resource Area should be designed to minimize adverse impacts on the biological resources it was created to protect.</p>	Yes	<p>The Project has been designed to minimize impacts on biological resources. Mitigation measures have been identified that will reduce to below a level of significant all biological resource impacts that could not be avoided. No riparian habitat or other types of wetland occur within the project site and therefore would not be affected.</p>
<p>Program: Notify any agency responsible for protecting plant and wildlife before approving a project which would impact a rare, sensitive, or unique plant or wildlife habitat.</p>	Yes	<p>The Biological Resources Report (Chambers 2019) and Clean Water Act permit applications will be submitted to CDFW and RWQCB for processing to address impacting non-wetland waters of the State upon completing the final engineering design. The CDFW and RWQCB will be consulted and provided an opportunity to comment on this EIR prior to the County’s consideration of any Project approvals. Therefore, the proposed Project is consistent with this program.</p>
<p>Program: Protect riparian habitat and other types of wetlands from loss or modification by dedicating open space easements with adequate buffer zones, and by other means to avoid impacts from adjacent land uses. Road crossings or other disturbances of riparian habitat should be minimized and only allowed when alternatives have been considered and determined infeasible.</p>	Yes	<p>The Project has been designed to minimize impacts on biological resources. Mitigation measures have been identified that will reduce to below a level of significant all biological resource impacts that could not be avoided.</p>

Sources: COSE, County of Imperial, 2016

5.2.3 Analysis of Project Effects and Significance Determination

Guidelines for Determination of Significance

A project would be considered to have a significant impact if it would:

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

2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
3. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
4. 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?
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Approach to Impact Assessment

Consistent with the requirements of CEQA and local regulations, the significance of potential impacts is evaluated through the application of the significance criteria described above. The objective of the biological resources analysis is to identify potential adverse effects and/or significant impacts on biological resources. Avoidance is the preferred approach for the management of biological resources; however, it is not always possible to completely avoid impacts. If impacts can be avoided through project design, establishment of exclusion zones, or other means, then specific mitigation measures may be unnecessary. However, appropriate mitigation measures to avoid or minimize impacts are identified, as appropriate, including procedures to be followed if significant biological resources are discovered during construction.

Construction of the Project includes site preparation, modifications to the monofil's internal access road, installation of each waste disposal cell's liner system, construction of a leachate collection pond and collection/monitoring system, installation the perimeter diversion berms and drilling a new water well for use during construction. The construction and operation of the expanded monofil includes a number of impacts to biological resources. The specific impacts depend on the species, habitats, hydrology, and other resources present at the site. The following discussion provides an overview of the direct, indirect, and operation impacts that are expected to occur with the development of the Project.

Direct and Indirect Impacts

The CEQA Guidelines define direct impacts as those impacts that result from the project and occur at the same time and place. These include but are not limited to the removal of vegetation, disturbance to wildlife from construction activities, or the crushing of burrows. Indirect impacts are caused by the project, but can occur later in time or farther removed in distance while still reasonably foreseeable and related to the project. Indirect impacts can include the disruption of the native seed bank, the spread of invasive plant species, or changes to soil or hydrology that

adversely effects native species overtime, and the disruption of prey base or increased predation through alterations of the physical landscape from project features (i.e., fencing, solar panels, or power poles) that provide perch sites or shelter for predators. Indirect impacts may also include increased traffic and human disturbance.

Temporary Impacts

Temporary impacts are usually considered to be activities short in duration (i.e., 6 to 12 months) that do not result in a permanent land use conversion. These impacts include construction-phase ground disturbance activities, noise, human disturbance, vehicle traffic, and land or habitat changes that are subject to restoration at the completion of the project. The construction of each phase of the Project, that is construction of Cells 4A and 4B, would require approximately one year to complete.

Permanent Impacts

Project impacts are generally considered permanent if they involve the conversion of land to a new use, such as with the construction of the waste disposal cells, diversion berms, etc. Therefore, permanent impacts for certain species may include the footprint of the monofill facilities. Where this standard is applied specific language associated with each impact and a justification or rationale will be provided to support the conclusion. Permanent impacts that affect biological resources may also be associated with noise, dust generation or management actions such as weed abatement. These effects are described in more detail below under operational impacts.

Operational Impacts

Operational impacts include both direct and indirect impacts to biological resources that occur during the life of project operation, including maintenance activities. These impacts would remain an ongoing source of disturbance for many plants and wildlife species that occur within the fenced facility perimeter and in adjacent habitat.

Impact Analysis

Impact 5.2-1: Substantial effect on candidate, sensitive, or special status species.

The Project would impact individual flat-tailed horned lizards and their habitats within the West Mesa Flat-Tailed Horned Lizard Species Management Area. The flat-tailed horned lizard is a Special Status Species. This species was observed within the BSA, directly adjacent to the Project site during the small mammal trapping Survey. Impacts would be significant.

The Project would also impact individual Palm Springs pocket mouse individuals and their habitats. The Palm Springs pocket mouse is a special status species. This species was observed in the natural habitat communities surrounding the Project site and along its northwestern edge.

No individuals were observed within the developed or bare ground areas within the Project Site. Impacts would be significant.

In addition, the Project has a low to moderate potential to impact burrowing owl and Le Conte's thrasher during nesting and foraging, respectively. These two species are Species of Special Concern; however, neither were sited during current surveys. If these species are present during construction, impacts would be significant.

Impact 5.2-2: Substantial adverse effect on riparian habitat or other sensitive natural community.

Desert Riparian Scrub (reported as Tamarisk – Honey Mesquite – Four Wing Saltbush Scrub in the Biology report) is documented onsite. No permanent impacts are proposed to this resource; however, temporary loss of 0.7 acre of the habitat are proposed. Loss of riparian habitat would be considered significant. Loss of 39.73 acres (5.76 acres temporary and 33.97 acres permanent) of Creosote Brush Scrub and 0.69-acre (0.16 acre temporary and 0.53 acre permanent) Creosote Bush – Honey Mesquite Scrub would be considered a significant impact. Loss of 1.57 acre (all permanent) of Rigid Spineflower – Hairy Desert Sunflower Sparsely Vegetated Desert Pavement Alliance would be considered significant.

Impact 5.2-3: Substantial adverse effect on federally protected wetlands.

The Project would not affect wetlands as defined in the Clean Water Act. However, project construction would cause temporary and permanent direct impacts to about seven (7) acres of drainages.

Based on EPA's revised definition of Waters of the U.S., none of the ephemeral streams found on site are considered Waters of the U.S. and thus are not jurisdictional under Section 404 of the Clean Water Act. As shown on **Table 5.2-5**, approximately 7.37 acres within the Project are considered streambeds under California Fish and Game Code and are regulated by the CDFW. Temporary and permanent impacts to streambeds would be 2.64 acres and 4.73 acres, respectively.

TABLE 5.2-5 TEMPOARY AND PERMANENT IMPACTS TO JURISDICTIONAL WATERS

Agency	Temporary (acres)	Permanent (acres)	TOTAL (acres)
CDFW	2.64	4.73	7.37
RWQCB	2.2	3.95	6.15
USACE	0	0	0

Notes: CDFW = California Dept. of Fish and Wildlife
USACE = United States Army Corps of Engineers
Source: Chambers Group, 2019 (Appendix G-1).

RWQCB = Regional Water Quality Control Board

Approximately 6.15 acres within the Project are considered Waters of the State by the RWQCB and are jurisdictional under Section 401 of the Clean Water Act. Temporary and permanent impacts to Waters of the State would be 2.2 acres and 3.95 acres, respectively. These impacts

would be substantial and significant as they would result in a loss of associated functions and values.

Temporary impacts to jurisdictional non-wetland waters of the state will be immediately addressed by recontouring to the natural grade and restoring as the appropriate type of wetland (**MM BIO-4**). Therefore, with implementation of these mitigation measures, the Project would not have a substantial adverse effect on Waters of the State through direct removal, filling, hydrological interruption, or other means. Impacts after mitigation would be less than significant.

Indirect impacts to non-wetland waters could also result from spillage of hazardous materials used during construction, as well as erosion and sedimentation. These potential impacts would be avoided and minimized through implementation of the Proposed Project's Construction and Industrial Storm Water Pollution Prevention Plan (SWPPPs). The SWPPPs would require that vehicles be checked daily and maintained in accordance with manufacturer's specifications to minimize the potential for leaks, and refueling and maintenance of vehicles would occur at least 50 feet from the edge of any aquatic feature. As such, indirect impacts from the spillage of hazardous materials on aquatic resources would be less than significant. As noted in Section 5.6, Hazards and Hazardous Materials, the DVCM maintains a Hazardous Material Business Plan that addresses the safe handling, transport, use, and disposal of hazardous materials. With the implementation of these project features indirect impacts would be avoided and minimized.

Impact 5.2-4: Substantially interfere with the movement of 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.

No migratory fish or wildlife movement corridors or nursery sites were identified in the Biology Technical Report (Appendix G-1); therefore, there would be no significant impacts to corridors or nursery sites.

Impact 5.2-5: Conflict with local policies or ordinances protecting biological resources.

The Imperial County General Plan Open Space and Conservation Element (County of Imperial 2016) contains an Open Space Conservation Policy that requires detailed investigations to be conducted to determine the significance, location, extent, and condition of natural resources in the County, and to notify any agency responsible for protecting plant and wildlife before approving a project which would impact a rare, sensitive, or unique plant or wildlife habitat. As noted above, the Project has the potential to result in significant impacts to candidate, sensitive, or special status species, and ephemeral streams wildlife corridors. Such impacts could conflict with Open Space and Conservation Element and are considered potentially significant.

5.2.4 Mitigation Measures

The following Mitigation Measures would reduce impacts to below a level of significance.

MM BIO-1a: Mitigation of Impacts to flat-tailed horned lizards, Palm Springs pocket mouse, and their habitat

Prior to the initiation of any ground disturbances and the issuance of grading permits for Cells 4A or 4B, a Capture/Relocation Plan for flat-tailed horned lizard shall be prepared by a qualified biologist. The plan shall include preconstruction survey and monitoring methods, capture and relocation methods, and suitable relocation areas. The plan may include additional protection measures during construction including:

- Creating areas of land or small paths/culverts between project facilities for wildlife movement,
- Installing silt fencing around work areas to prevent migration of adjacent wildlife into impact areas,
- Installing pitfall traps in spring/summer/fall to trap any individuals that remain on the site for removal from work areas), and/or
- Biological monitoring during construction to inspect fencing and pitfall traps and relocate wildlife species out of harm's way, if required;
- Only persons authorized by the CDFW shall be permitted to handle flat-tailed horned lizards.
- Mitigation of FTHL shall be consistent with the Flat-tailed Horned Lizard Rangeland Management Strategy, 2003 Revision

The plan shall be approved by CDFW and the County of Imperial (or an agency delegated to oversee this program).

Prior to the initiation of any ground disturbances and the issuance of grading permits for Cells 4A or 4B, a Capture/Relocation Plan for Palm Springs pocket mouse shall be prepared by a qualified biologist. The plan shall include preconstruction survey and monitoring methods, capture methods, and suitable relocation areas. The plan may include additional protection measures during construction including:

- Creating areas of land or small paths/culverts between project facilities for wildlife movement,
- Installing silt fencing around work areas to prevent migration of adjacent wildlife into impact areas,
- Implementing vegetation removal and initial ground disturbance activities between September and December if possible, avoiding the peak breeding

season (March to May), and limiting activity as much as possible during the rest of the breeding season (January to February and June to August) to allow dispersing juveniles to potentially move out of the impact area, and/or biological monitoring during construction to inspect fencing, if required.

- The plan shall be approved by CDFW and the County of Imperial (or an agency delegated by the department to oversee this program).

An environmental training program shall be developed and presented to all crew members prior to the beginning of all project construction (See MM BIO-5).

A biological monitor shall be present prior to initiation of ground disturbing activities to demark limit of disturbance boundaries. Flagging and/or staking will be used to clearly define the work area boundaries and avoid impacts to adjacent native communities. The biological monitor will be present to conduct preconstruction sweeps and inspect compliance with project protection measures. If a sensitive species is found, the species shall be relocated out of harm's way according to the capture/relocation plan. Any mortalities shall be reported to the agencies and County of Imperial. A final monitoring report will be submitted to CDFW and County of Imperial. The annual report shall include a summary of preconstruction surveys, biological monitoring, avoidance measures implemented, and whether the avoidance measures were effective.

A qualified biologist shall work with construction crews to determine access routes that will avoid native habitat and burrows as much as feasible. Furthermore, during construction activities, the biological monitor shall ensure that connected, native habitat with sandy soils are avoided and remain intact to the greatest extent possible. If vegetation removal cannot be avoided, clearing of habitat shall be avoided during the peak breeding season (March to May), and activity shall be limited as much as possible during the rest of the breeding season (January to February and June to August).

Timing/Implementation: *Prior to issuance of a grading permits*

Enforcement/Monitoring: *Imperial County Planning and Development
Services Department and CDFW.*

MM BIO-1b: Burrowing Owl Preconstruction Surveys

While the 2019 Burrowing Owl Survey concluded that this species is absent from the project area, given the phased approach for construction of Cells 4A and 4B, Burrowing Owl Preconstruction Surveys will be required.

Pre-construction focused surveys for the burrowing owl shall be conducted, pursuant to the CDFW 2012 Staff Report on Burrowing Owl Mitigation (Staff Report), no less than 14 days prior to the start of initial ground disturbing activities for Cells 4A and Cell 4B, respectively, to ensure no portion of the construction footprint is being utilized by western burrowing owls. The survey shall be conducted by an experienced and qualified biologist, knowledgeable with the species. In conformance with federal and State regulations regarding the protection of raptors, surveys for burrowing owls shall be conducted in conformance with the California Staff Report's protocols, or updated guidelines as they become available.

If burrowing owls are detected on site, no ground-disturbing activities will be permitted within 656 feet of an occupied burrow during the breeding season (February 1 to August 31), unless otherwise authorized by CDFW. During the nonbreeding season (September 1 to January 31), ground-disturbing work can proceed near active burrows as long as the work occurs no closer than 165 feet from the burrow. Depending on the level of disturbance, a smaller buffer may be established in consultation with CDFW.

If avoidance of active burrows is infeasible during the nonbreeding season, then, before breeding behavior is exhibited and after the burrow is confirmed empty by site surveillance and/or scoping, a qualified biologist shall implement a passive relocation program in accordance with Appendix E (i.e., Example Components for Burrowing Owl Artificial Burrow and Exclusion Plans) of the 2012 Staff Report. Passive relocation consists of excluding burrowing owls from occupied burrows by closing or collapsing the burrows and providing suitable artificial burrows nearby for the excluded burrowing owls.

Where required buffering will not be feasible, passive relocation is an option in consultation with CDFW, but it is preferred to install appropriate artificial burrows (in accordance with the negotiated Plan) and then let the owls decide whether they would like to abandon the existing burrow. Only burrows that are in danger by construction should be collapsed if at all possible.

A Burrowing Owl Relocation Plan will be prepared and approved by CDFW prior to commencement of burrowing owl exclusion activities if this method of mitigation is required. The plan will detail the procedures of the passive relocation effort, the location of constructed replacement burrows, design of replacement burrows, and post relocation monitoring requirements.

Timing/Implementation: *No more than 14 days prior to ground-disturbing activities/qualified wildlife biologist.*

Enforcement/Monitoring: *Imperial County Planning and Development Services Department and CDFW.*

MM BIO-2: Mitigation of Impacts to Le Conte Thrasher, Nesting Birds and Breeding Birds

While the 2019 surveys concluded that Le Conte Thrasher is absent from the project area, given the phased approach for construction of Cells 4A and 4B, Preconstruction Surveys will be required.

Prior to any site disturbance (i.e., mobilization, staging, grading or construction) the Applicant shall retain a County qualified biologist to conduct pre-construction surveys for nesting birds and Le Conte Thrasher in all areas within 500 feet of construction activities to comply with CDFW Code 3503 and 3503.5 and the Migratory Bird Treaty Act in effect at the time of the surveys. Surveys for raptors shall be conducted for all areas from February 1 to August 15.

The survey(s) shall occur no more than 7 days prior to initiation of proposed Project activities, and any occupied passerine and/or raptor nests occurring within or adjacent to the proposed Project area shall be delineated. Additional follow-up surveys may be required by the resource agencies and the County of Imperial.

If breeding birds with active nests are found prior to or during construction, a biological monitor shall establish a 300-foot buffer around the nest for ground-based construction activities (or within a buffer determined by the avian biologist). In all cases, the buffer zone shall be sufficient in size to prevent impacts to the nest and no activities will be allowed within the buffer(s) until the young have fledged from the nest or the nest fails.

Once nesting has ceased, the buffer may be removed. A nesting bird survey report shall be provided to the County of Imperial within 30 days of survey completion.

If active Le Conte's Thrasher nests are located on the project site or within a 500-foot buffer, then a 500-foot no-work buffer will be established around the nest during the Le Conte's thrasher breeding season until it is no longer active.

Timing/Implementation: No earlier than 7 days prior to any on-site grading and construction activities that occurs during the nesting season/ Project biologist

Enforcement/Monitoring: Imperial County Planning and Development Services Department

MM BIO-3: Mitigation of Impacts to Creosote Bush Scrub, Creosote Bush – Honey Mesquite Scrub, Rigid Spineflower – Hairy Desert Sunflower Sparsely Vegetated Desert Pavement Alliance, and Riparian Habitat (Tamarisk – Honey Mesquite – Four Wing Saltbush Scrub)

Prior to construction, a qualified restoration specialist shall evaluate the habitats within the areas to be temporarily disturbed/impacted to determine if habitat restoration is possible. Habitat restoration may not be possible given prevailing winds and the potential inoculation of additional invasive species from adjacent areas.

If the specialist determines restoration is possible, then a Habitat Restoration Plan (HRP) for the temporarily impacted area shall be prepared. The plan shall include sufficient detail to address all aspects of the restoration effort (further site evaluation, site preparation, planting, maintenance, and monitoring to determine success (i.e., plant survival, etc.) and additional maintenance needs. In general restoration of temporarily impacted areas involves recontouring the land, decompaction, replacing the topsoil (if collected), planting seed and/or container stock, maintaining (i.e., weeding, replacement). Locations within Section 27, adjacent to the Project site and under the control of the Applicant, will be used for off-site restoration, if on-site restoration is not feasible.

Timing/Implementation: Prior to Construction

Enforcement/Monitoring: Imperial County Planning and Development Services Department

MM BIO-4: Mitigation of Impacts to Jurisdictional Waters

- Permanent impacts to all jurisdictional resources shall be compensated through a combination of habitat creation (i.e., establishment), enhancement, preservation, and/or and restoration at a minimum of a 2:1 ratio or as required by the permitting agencies. Any creation, enhancement, preservation, and/or restoration effort shall be implemented pursuant to an HRP, which shall include success criteria and monitoring specifications, and shall be approved by the permitting agencies and County of Imperial. A habitat restoration specialist

(1) will be designated and approved by the permitting agencies and will determine the most appropriate method of restoration. The restoration plan will be submitted to and reviewed/approved by the CDFW, and the County of Imperial Planning and Development Services Department.

- Temporarily impacted drainage features shall be recontoured to preconstruction conditions. Temporary impacts shall be restored sufficient to compensate for the impact to the satisfaction of the permitting agencies (depending on the location of the impact). If restoration of temporary impact areas is not possible to the satisfaction of the appropriate agency, the temporary impact shall be considered a permanent impact and compensated accordingly.
- A biological monitor shall be present prior to the initiation of ground disturbing activities to demark limits of disturbance boundaries. Flagging and/or staking will be used to clearly define the work area boundaries and avoid impacts to adjacent drainage features.
- Erosion protection and sediment control BMPs would be implemented in compliance with the General Construction General Permit and the Stormwater Pollution Prevention Plan (SWPPP).
- Graded areas would be stabilized to promote infiltration and reduce run-off potential.
- Any excess soil would be spread on site outside of jurisdictional drainages.

Timing/Implementation: *Prior to issuance of a grading permit/
In accordance with RWQCB and CDFW
requirements*

Enforcement/Monitoring: *Imperial County Planning and Development
Services Department*

MM BIO-5: Prepare and Implement a Worker Environmental Awareness Program

The Applicant shall prepare and implement a project-specific Worker Environmental Awareness Program (WEAP) to educate on-site workers about the Proposed Project's sensitive environmental issues. The WEAP shall be presented by the lead biologist or a biological monitor to all personnel on-site during the construction phase(s). If the WEAP presentation is recorded on video, it may be presented by any competent project personnel. Throughout the duration of construction, the Applicant shall be responsible for ensuring that all on-site project personnel receive this training prior to beginning work. A construction worker may

¹ The term "qualified restoration specialist" refers to a person with specialized knowledge, education, and experience in the revegetation of disturbed areas.

work in the field along with a WEAP-trained crew for up to 5 days prior to attending the WEAP training. The Applicant shall maintain a list of all personnel who have completed the WEAP training. This list shall be provided to the County ICPDSD personnel upon request.

The WEAP shall consist of a training presentation, with supporting written materials provided to all participants. At least 60 days prior to the start of ground-disturbing activities, the Applicant shall submit the WEAP presentation and associated materials to the County ICPDSD for review and approval in consultation with the USFWS and CDFW.

The WEAP training shall include, at minimum:

- Overview of the federal and state Endangered Species Acts, Migratory Bird Treaty Act, and the consequences of non-compliance with these acts.
- Overview of the project mitigation and biological permit requirements, and the consequences of non-compliance with these requirements.
- Sensitive biological resources on the project site and adjacent areas, including nesting birds, special-status plants and wildlife and sensitive habitats known or likely to occur on the project site, project requirements for protecting these resources, and the consequences of non-compliance.
- Construction restrictions such as limited operating periods, Environmentally Sensitive Areas (ESAs), and buffers and associated restrictions, and other restrictions such as no grading areas, flagging or signage designations, and consequences of non-compliance.
- Avoidance of invasive weed introductions onto the project site and surrounding areas, and description of the project's weed control plan and associated compliance requirements for workers on the site.
- Function, responsibilities, and authority of biological and environmental monitors and how they interact with construction crews.
- Requirement to remain within authorized work areas and on approved roads, with examples of the flagging and signage used to designate these areas and roads, and the consequences of non-compliance.
- Procedure for obtaining clearance from a biological monitor to enter a work site and begin work (including moving equipment), and the requirement to wait for that clearance.

- Nest buffers and associated restrictions and the consequences of non-compliance. Procedure and time frame for halting work and removing equipment when a new buffer is established. Discussion of nest deterrents.
- Explanation that wildlife must not be harmed or harassed. What to do and who to contact if dead, injured, or entrapped animals are encountered.
- General safety protocols such as hazardous substance spill prevention, containment, and cleanup measures; fire prevention and protection measures; designated smoking areas (if any) and cigarette disposal; safety hazards that may be caused by plants and animals.
- Project requirements that have resulted in repeated compliance issues on other recent transmission line projects, such as dust control, speed limits, track out (dirt or mud tracked from access roads or work sites onto paved public roads or other areas), personal protective equipment (PPE), work hours, working prior to clearance, and waste containment and disposal.
- Printed training materials, including photographs and brief descriptions of all special status plants and animals that may be encountered on the project, including behavior, ecology, sensitivity to human activities, legal protection, penalties for violations, reporting requirements and procedures, and protection measures. The material shall also include the function of flagging designated authorized work areas along with the importance of exercising care when commuting to and from the project area to reduce mortality of all special status animals.
- Contact information for construction management, and contractor environmental personnel, and who to contact with questions.
- Training acknowledgment form to be signed by each worker indicating that they understand and will abide by the guidelines, and a hardhat sticker so WEAP attendance may be easily verified in the field.

WEAP Lite. An abbreviated version of WEAP training (“WEAP lite”) may be used for individuals who are exclusively delivery drivers or visitors to the project site, and will be provided by a qualified project biologist, biological monitor, or environmental field staff prior to those individuals entering or working on the project.

Short-term visitors (total of 5 days or less per year) to the project site who will be riding with and in the company of WEAP-trained project personnel for the entire duration of their visit(s) are not required to attend WEAP or WEAP lite training. WEAP lite presentations shall be tailored to delivery/concrete truck drivers and

visitors as well as the situation and emphasize project requirements that are relevant to those individuals and that situation.

WEAP Refreshers. Biological monitors or environmental field staff will periodically present brief WEAP refresher presentations at tailboards to help construction crews and other personnel maintain awareness of environmental sensitivities and requirements. A 5- to 10-minute informal talk will be presented at each of the project's main contractor/ subcontractor tailboards at least once a week.

When a contractor or subcontractor resumes work after a long break, a biological monitor or environmental field staff will provide an extended WEAP refresher presentation (10-20 minutes) at each of the contractor/subcontractor tailboards on the first day back to work.

Timing/Implementation: *During construction and operation, as appropriate/Applicant, Project Contractor and Operator*

Enforcement/Monitoring: *Imperial County Planning and Development Services Department.*

MM BIO-6 State Agency Permits

To comply with the state regulations for impacts to jurisdictional resources regulated by the California Department of Fish and Wildlife and the Regional Water Quality Control Board, the following permits and agreement(s) shall be obtained, or evidence shall be provided from the respective resource agency satisfactory to the County that such an agreement or permit is not required if development activities are proposed within jurisdictional waters:

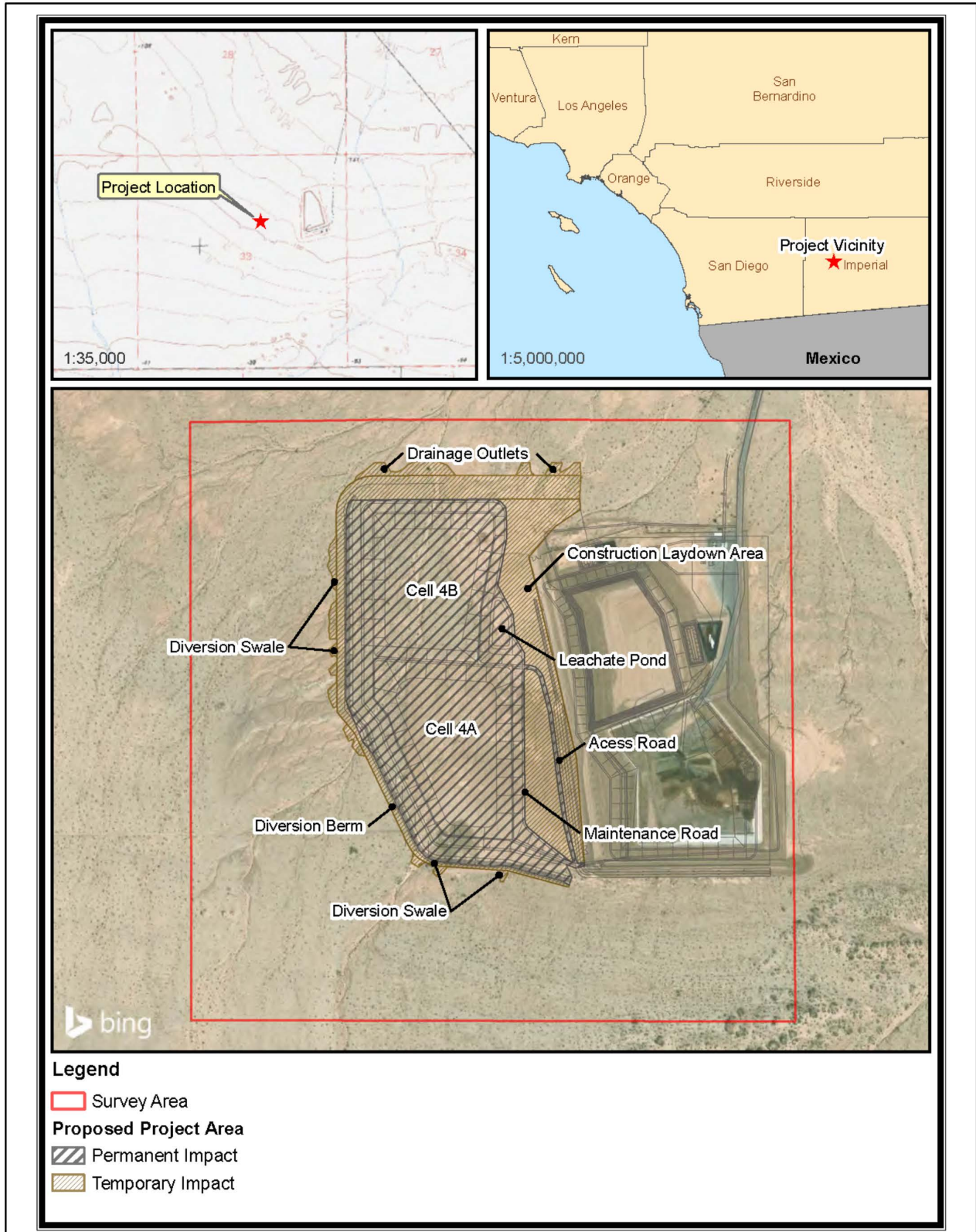
- A Clean Water Act Section 401 permit issued by the RWQCB for all Project-related disturbances of jurisdictional non-wetland waters of the State.
- A Section 1602 Streambed Alteration Agreement issued by the CDFW for all Project-related disturbances of any streambed and associated riparian habitat.

Timing/Implementation: *Prior to issuance of a grading permit and in accordance with CDFW and RWQCB requirements.*

Enforcement/Monitoring: *Imperial County Planning and Development Services Department, RWQCB and CDFW.*

Level of Significance After Mitigation

The Project will have less than significant impacts after implementation of MM BIO-1 through BIO-6 because these measures require the performance of professionally accepted and legally compliant procedures for the avoidance; preservation and/or and restoration; and monitoring of sensitive biological resources.

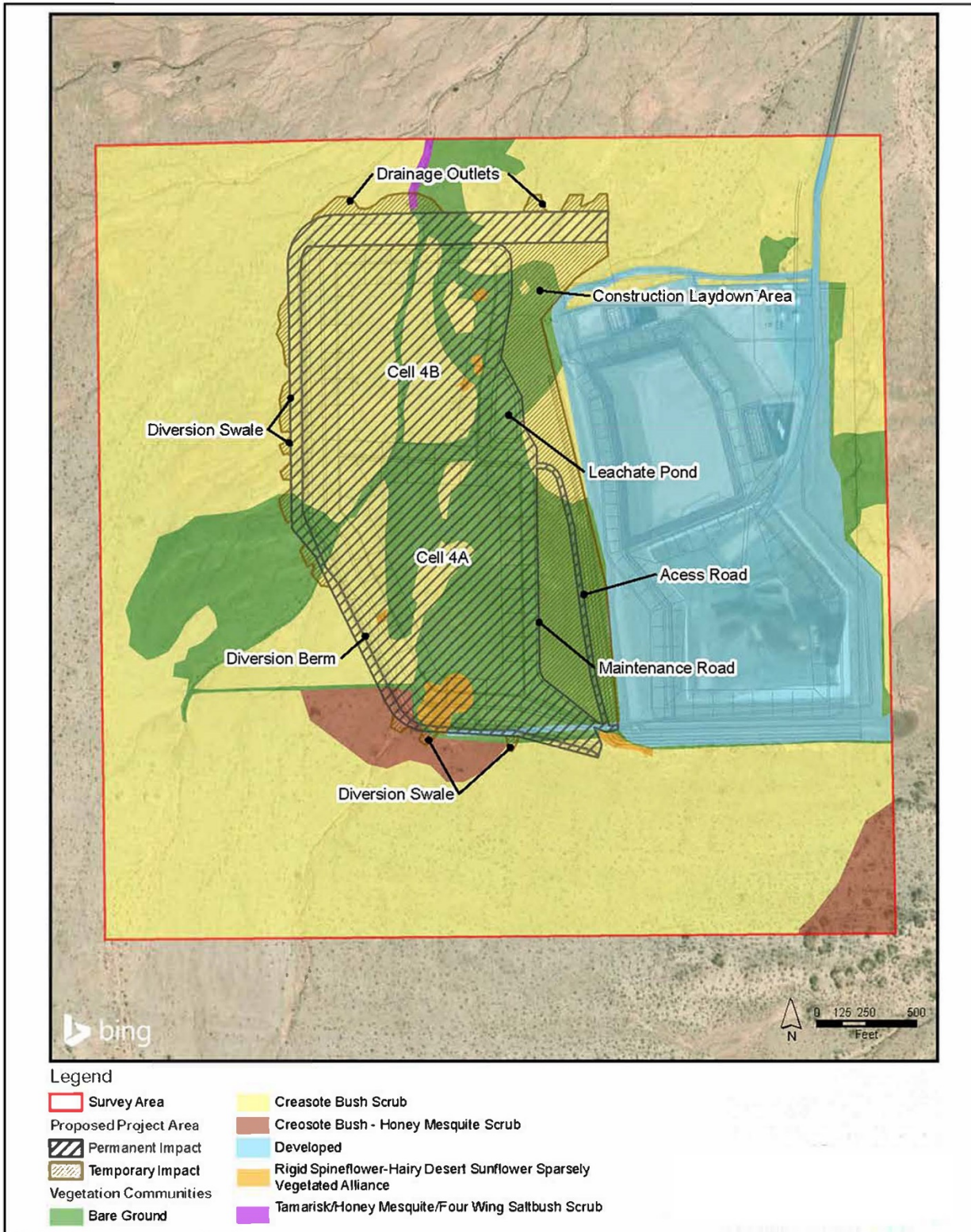


SOURCE: Chambers Group, 2019



Biological Survey Area
Desert Valley Company Monofil Expansion Project, Cell 4
Figure 5.2-1

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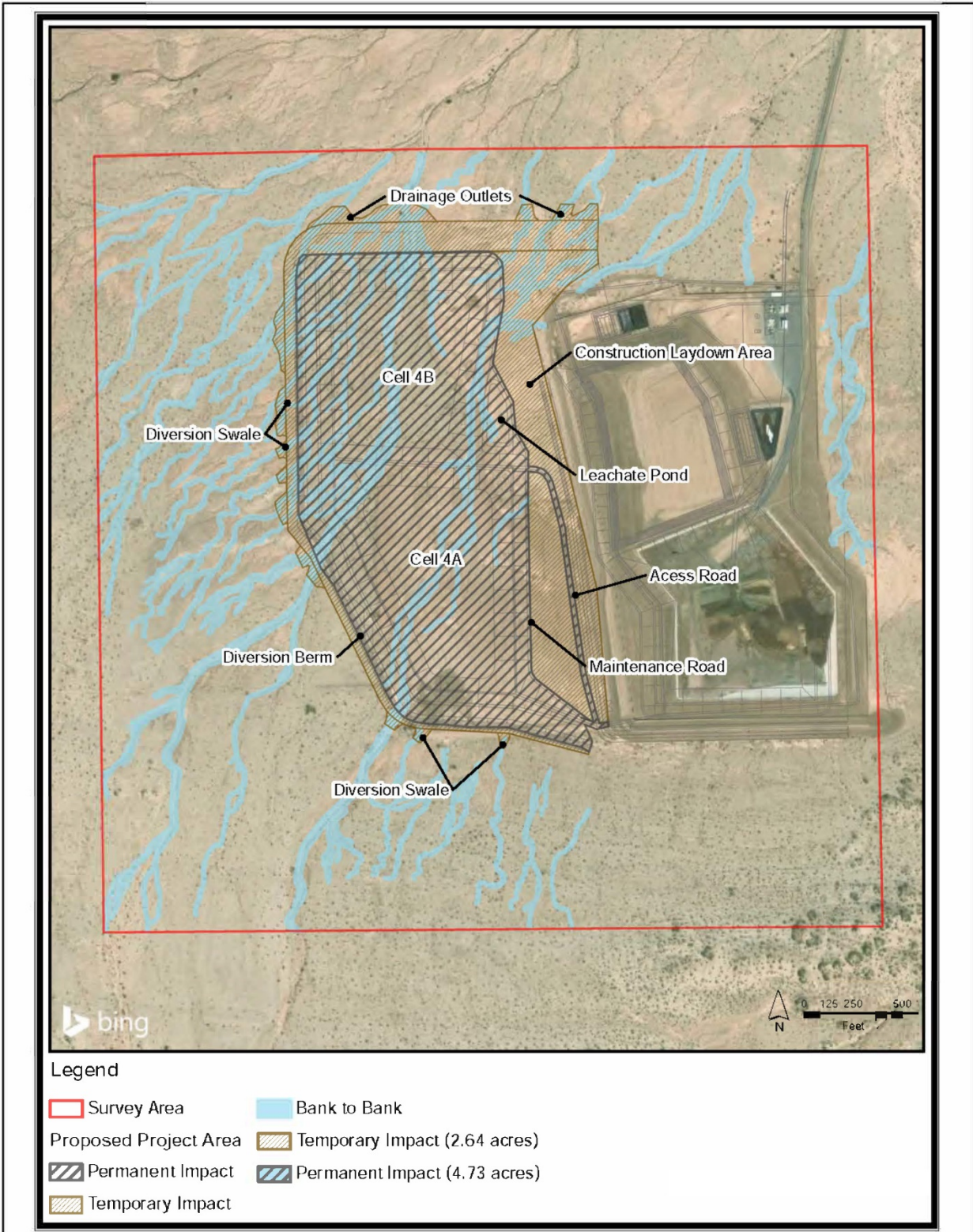


SOURCE: Chambers Group, 2019



Vegetation Communities
Desert Valley Company Monofil Expansion Project, Cell 4
Figure 5.2-2

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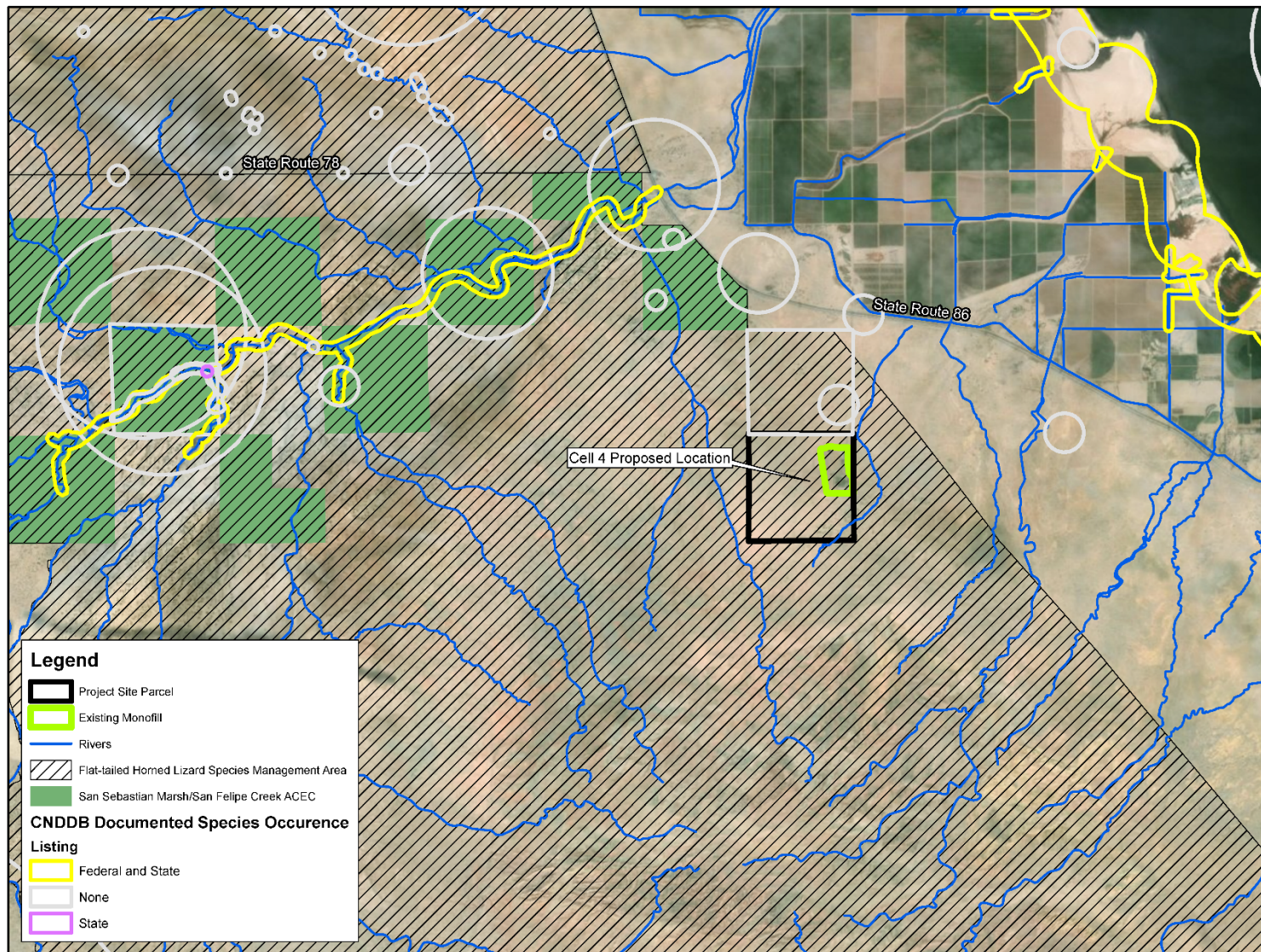
SOURCE: Chambers Group, 2019



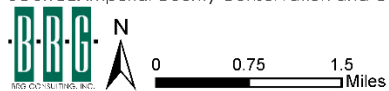
Jurisdictional Waters
Desert Valley Company Monofil Expansion Project, Cell 4

Figure 5.2-3

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SOURCE: Imperial County Conservation and Open Space Element

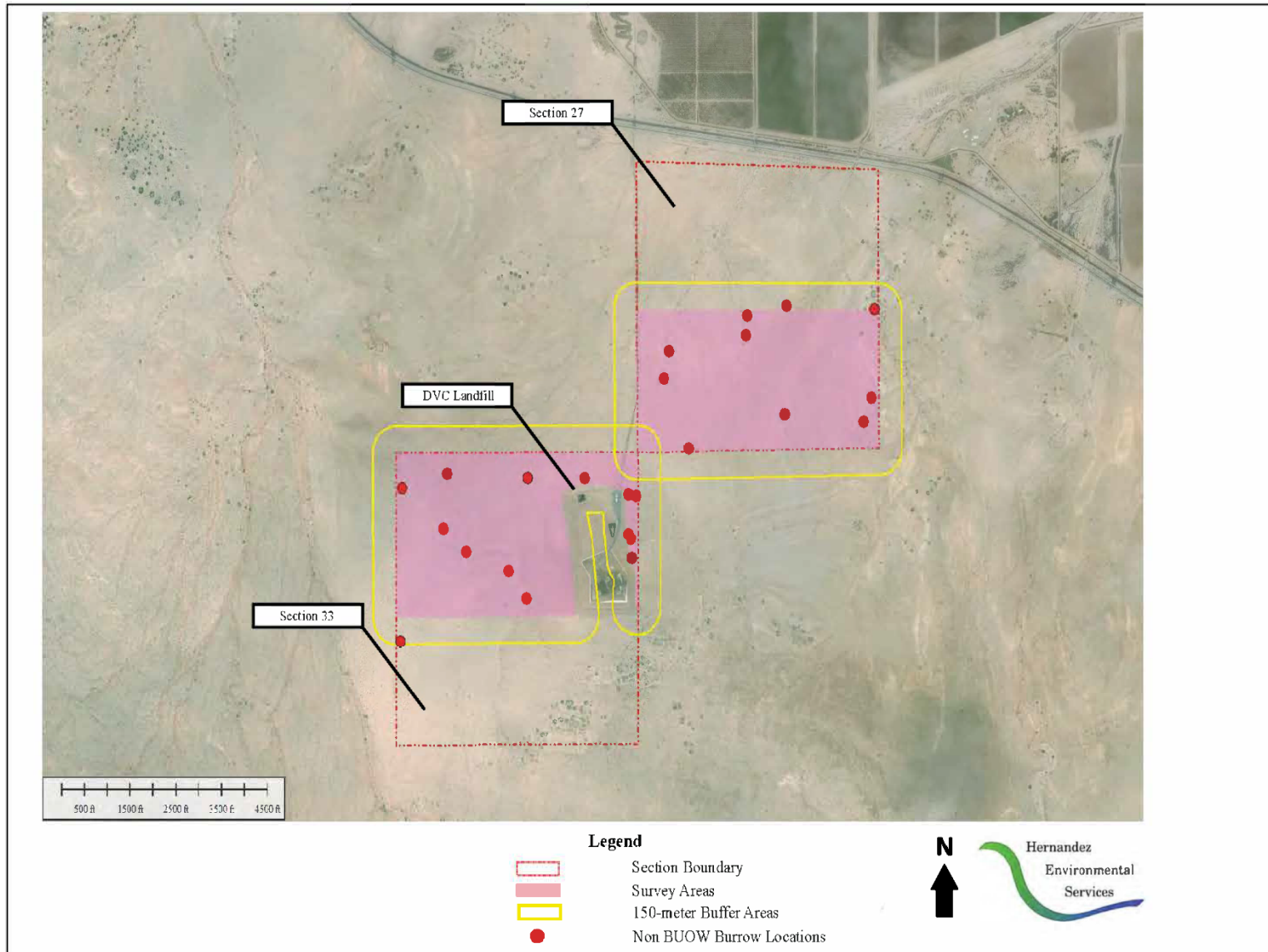


Desert Valley Monofil Sensitive Species and Habitats

Desert Valley Company Monofil Expansion Project, Cell 4

Figure 5.2-4

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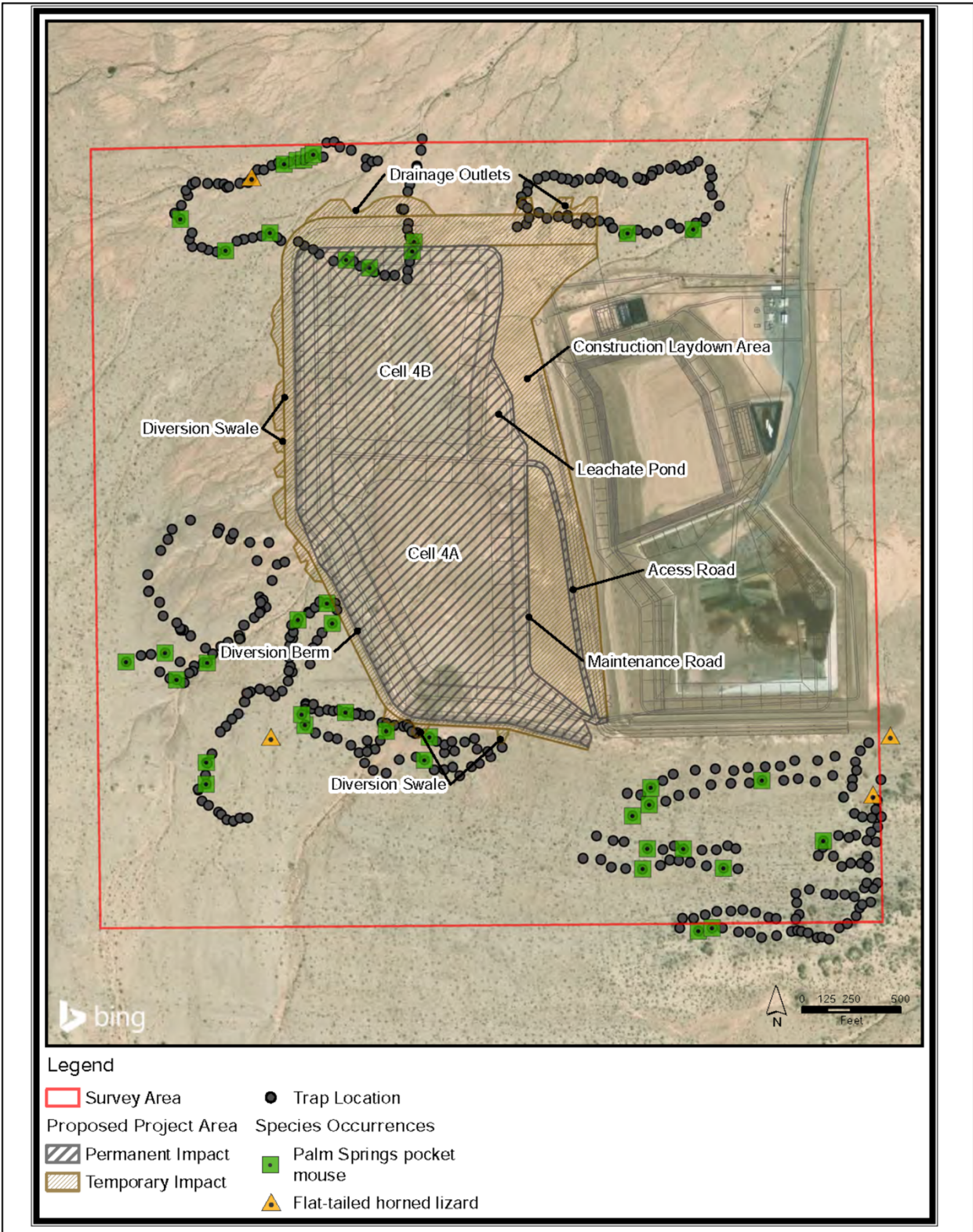


SOURCE: Hernandez Environmental Services, 2019a



Results of Burrowing Owl Survey
Desert Valley Company Monofil Expansion Project, Cell 4
Figure 5.2-5

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SOURCE: Chambers Group, 2019



Results of Small Mammal Trapping Survey
Desert Valley Company Monofil Expansion Project, Cell 4
Figure 5.2-6

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5.3. Cultural Resources

This section addresses potential cultural resource impacts that may result from construction, operation, closure and post-closure maintenance of the Desert Valley Company Monofill Expansion Project, Cell 4. The following discussion addresses the existing conditions in the vicinity of the Project site, identifies applicable regulations, identifies and analyzes direct and indirect environmental impacts, and recommends measures to reduce or avoid adverse impacts anticipated from implementation of the Project, as applicable. Please see Section 5.11 for a discussion of project-related impacts to Tribal Cultural Resources.

Cultural resources encompass archaeological, traditional, and built environmental resources, including buildings, structures, objects, districts, and sites. For purposes of the analysis of cultural resources under CEQA, the area of direct impacts to cultural resources is identified herein as the “CEQA Area of Direct Impacts”. It consists of all areas of ground disturbance under the Proposed Project plus a 200-foot buffer.

Information used in preparing this section was derived from the Phase I Cultural Resource Report for the Desert Valley Monofill Cell 4 Expansion Project prepared by Chambers Group, Inc. (Chambers Group, 2019; Appendix H-1). This report provides the results of an archaeological literature review, a records search and an intensive pedestrian survey of the entirety of Section 33 (360-acres) within which the Project site is located. Subsurface archaeological testing was also conducted, to determine the significance of cultural resources according to CEQA §15064.5. Results of the archaeological testing are presented in the Phase II Archaeological Testing Report, prepared by Chambers Group in 2020 (Chambers Group, 2020; Appendix H-2).

Scoping Issues Addressed

During the scoping period for the Project, a scoping meeting was conducted, and written comments were received from public agencies. The following issue related to Cultural Resources and were raised by the Native American Heritage Commission and are addressed in this section:

- NAHC provided recommendations for preparing cultural resource assessments.

Issues Scoped Out

None.

5.3.1. Environmental Setting

Ethnography and Archaeology

The Project area was utilized prehistorically by a variety of Native American groups, including the Kumeyaay (the Kamia are a subset of this group), the Cocopah, the Quechan, and the Cahuilla.

Kumeyaay

At the time of the Spanish contact, the Kumeyaay (also known as Kamia, Ipai, Tipai, and Diegueño) occupied the southern two-thirds of San Diego County. The term Kamia refers to the desert Kumeyaay while Ipai refers to the Kumeyaay north of Agua Hedionda to the San Luis Rey River and Tipai refers to the Kumeyaay south of Agua Hedionda to Todos Santos Bay, Mexico, and east to the Imperial Sand Dunes. The Kumeyaay lived in semi-sedentary, politically autonomous villages or rancherías. A settlement system typically consisted of two or more seasonal villages with temporary camps radiating away from these central places.

The Kumeyaay economic system consisted of hunting and gathering, with a focus on small game, acorns, grass seeds, and other plant resources. The most basic social and economic unit was the patrilocal extended family. A wide range of tools was made of both locally available and imported stone, including scrapers, choppers, flake-based cutting tools, and biface knives. Ground stone objects include mortars and pestles, and manos and metates typically made of locally available fine-grained granite.

The Kamia traditional territory included the southern Imperial Valley from the latitude of the southern half of the Salton Sea to well below what is the U.S.–Mexico international border. Their main settlements were along the New and Alamo. Subsistence among the Kamia consisted of hunting and gathering, and floodplain horticulture. The Kamia’s major food staple was mesquite and screwbean. Acorns, at times, were also an important food. They were gathered in the mountains to the west of Kamia territory in October and acquired through trade from the southern Kumeyaay. Hunting contributed to the diet and provided valuable protein, skin and bone for clothing, blankets, and tools. Small game, primarily rabbits, was most frequently taken, using bow and arrow or rabbit stick.

Cocopah

Cocopah subsistence was similar to other river Yuman people, although their location in the Colorado River delta area had a somewhat different environment from that of the upstream tribes. The Colorado River frequently changed course within the general floodplain throughout the area below the Grand Canyon. The river formed very active meanders in the delta region, requiring settlement and field movement among the Cocopah and other delta peoples. Mesquite and screwbean grew in profusion and formed a dietary staple of the Cocopah. Other important wild food sources of the delta region were “wild rice or wild wheat,” and quelite or amaranth. The Cocopah planted a variety of maize, pumpkins, tepary beans, cowpeas, muskmelons, watermelons, and heshmicha (grain resembling wheat), and sugar cane.

Hunting was relatively unimportant and was confined primarily to the hills and mountains. Fish was the most important animal food among the Lower Colorado River peoples. The Cocopah fished in

the Colorado and Hardy rivers, and occasionally parties would fish along the Gulf of California. Fish were also taken with bow and arrow, as well as by spears, gill nets, and dip nets.

The Cocopah frequently visited the mountainous Paipai country west of the delta to trade and to gather pine nuts and acorns. Tobacco, mescal (roasted agave), and mountain sheep skins were obtained from the Paipai in exchange for delta foodstuffs. The Cocopah also obtained tobacco and eagle feathers from the Kumeyaay. At times, the Cocopah traded seashells to the Kamia.

Quechan

The Quechan (Kwatsan) were formerly called the Yuma Indians. Their territory was centered at the confluence of the Gila and Colorado Rivers (present-day Yuma, Arizona), but extended north on the Colorado about 60 miles and 30 miles up the Gila. According to Quechan tradition, the northern boundary was in the vicinity of Blythe, California; the southern boundary reached into Baja California and Sonora, Mexico. Their neighbors on the northwest were the Cahuilla and Luiseño, and to the west the Kamia. Their eastern boundary was just west of Gila Bend, Arizona.

The Quechan had a relatively large population and Juan Oñate, estimated a population of about 4,000 in 1604. He mentioned a stable horticultural and gathering economy. Throughout winter and spring, the Quechan lived in large seasonal settlements or rancherias located on terraces above the Colorado River floodplain. These winter settlements were moved from time to time, and establishing their precise locations is problematic. When the floodwaters of spring receded, the Quechan left their winter villages on the river terraces and dispersed into camps near their 2- to 3-acre horticultural plots distributed along the river floodplain. Extended families resided in these camps. Planting was done in the mud, as the river receded. Major crops included maize, squash, pumpkin, watermelon, and wheat, introduced by Kino in 1700. After the fall harvest season, the Quechan would reconvene in villages on terraces above the river to avoid seasonal flooding.

Quechan villages were a collection of houses, or rancherias, dispersed along the Colorado and Gila rivers. Households consisted of composite families that lived together and moved, more or less as a unit from place to place. The annual flood of the Colorado constantly changed the gardening areas, eroding some, and burying others under tons of silt. The Quechan burned the houses and possessions of the dead, which also contributed to the movement of villages from time to time.

Cahuilla

The Project area currently falls within the ethnographic territory of the Cahuilla, whose ancestors may have entered this region of Southern California approximately 3,000 years ago. The Cahuilla ancestral territory is located near the geographic center of Southern California. Natural boundaries such as the Colorado Desert provided the Cahuilla separate territory from the neighboring Mojave, Ipai, and Tipai. In turn, mountains, hills, and plains separated the Cahuilla from the adjacent Luiseno, Gabrielino and the Serrano.

The Cahuilla relied heavily on the exploitation and seasonal availability of faunal and floral resources through a pattern of residential mobility that emphasized hunting and gathering. Important floral species used in food, for manufacturing of products, and/or for medicinal uses primarily included acorns, mesquite and screw beans, piñon nuts, and various cacti bulbs. Networks of trails linked villages and functioned as hunting, trading, and social conduits. Trades of both goods and technologies were frequently exchanged between the Cahuilla and nearby Serrano, Gabrielino, and Luiseño cultural groups.

The Cahuilla are believed to have first come into contact with Europeans prior to the Juan Bautista de Anza expedition in 1774; however, little direct contact was established between the Cahuilla and the Spanish except for those baptized at the Missions San Gabriel, San Luis Rey, and San Diego. Following the establishment of several *asistencias* or “smaller branch missions” near the traditional Cahuilla territories, many Spanish cultural forms — especially agriculture and language — were adopted by the Cahuilla people.

Through the Rancho and American periods, the Cahuilla continued to retain their political autonomy and lands despite more frequent interactions with European-American immigrants. In 1863, a large number were killed by a smallpox epidemic that affected many tribal groups in Southern California. The first reservations established in Riverside County ca. 1865 saw many of the Cahuilla remaining on their traditional lands. After 1891, however, all aspects of the Cahuilla economic, political, and social life were closely monitored by the Federal Government; a combination of missionaries and government schools drastically altered the Cahuilla culture.

Prehistory

Archaeological studies have been limited in the Salton Sea desert region. This lack of archaeological investigation has resulted in undefined and imperfect archaeological classification schemas and typologies. Therefore, the prehistoric time periods used by archaeologists to describe the southern Imperial County desert region borrow heavily from those chronologies established for San Diego County prehistory, with some minor Colorado Desert-specific clarifications. The three general time periods accepted in the region are briefly described below.

The San Dieguito Complex

The earliest recognized occupation of the region, dating to 10,000-8,000 years before present (B.P.), is known as the San Dieguito complex. Assemblages from this occupation generally consist of flaked stone tools. Evidence of milling activities is rare for sites dating to this period. It is generally agreed that the San Dieguito complex shows characteristics of the Western Pluvial Lakes Tradition (WPLT), which was widespread in California during the early Holocene. The WPLT assemblage generally includes scrapers, choppers and bifacial knives. Archaeologists theorize this toolkit composition likely reflects a generalized hunting and gathering society.

The Archaic Period

The Archaic Period (8,500-1,300 B.P.) is traditionally seen as encompassing both coastal and inland adaptations, with the coastal Archaic represented by the shell middens of the La Jolla complex and the inland Archaic represented by the Pauma complex. Coastal settlement is also thought to have been significantly affected by the stabilization of sea levels around 4,000 years ago that led to a general decline in the productivity of coastal ecosystems. Artifacts associated with this period include milling stones, unshaped manos, flaked cobble tools, Pinto-like and Elko projectile points, and flexed inhumations.

Late Prehistoric Period

The Late Prehistoric Period (1,300-200 B.P.) is marked by the appearance of small projectile points indicating the use of the bow and arrow, the common use of ceramics, and the general replacement of inhumations with cremations, all characteristic of the San Luis Rey complex. The San Luis Rey complex is divided temporally into San Luis Rey I and San Luis Rey II, with the latter distinguished mainly by the addition of ceramics. Along the coast of northern San Diego County, deposits containing significant amounts of Donax shell are now often assigned to the Late Prehistoric, based on a well-documented increase in the use of this resource at this time. The inception of the San Luis Rey complex is suggested to mark the arrival of Takic speakers from regions farther inland. This migration was probably sporadic and took place over a considerable period, due to burials showing physical differences between pre- and post-1,300 B.P. remains. However, some researchers have suggested that these Shoshonean groups may have arrived considerably earlier, perhaps as early as 4,000 years ago.

History

The first significant European settlement of California began during the Spanish Period (1769 to 1821) when 21 missions and four presidios were established between San Diego and Sonoma. Although located primarily along the coast, the missions dominated economic and political life over the greater California region. The purpose of the missions was primarily for political control and forced assimilation of the Native American population into Spanish society and Catholicism, along with economic support to the presidios.

In the 1700s, due to pressures from other colonizers (Russians, French, British), New Spain decided that a party should be sent north with the idea of founding both military presidios and religious missions in Alta California to secure Spain's hold on its lands. The aim of the party was twofold. The first was the establishment of presidios, which would give Spain a military presence within its lands. The second was the establishment of a chain of missions along the coast slightly inland, with the aim of Christianizing the native population. By converting the native Californians, they could be counted as Spanish subjects, thereby bolstering the colonial population within a relatively short time.

The Mexican Period (1821-1848) began with the success of the Mexican Revolution in 1821, but changes to the mission system were slow to follow. When secularization of the missions occurred in the 1830s, their vast land holdings in California were divided into large land grants called ranchos. The Mexican government granted ranchos throughout California to Spanish and Hispanic soldiers and settlers. Even after the decree of secularization was issued in 1833 by the Mexican Congress, missionaries continued to operate a small diocesan church. In 1834, the San Gabriel Mission, including over 16,000 head of cattle, was turned over to the civil administrator.

In 1848, the Treaty of Guadalupe Hidalgo ended the Mexican-American War and marked the beginning of the American Period (1848 to present). The discovery of gold that same year sparked the 1849 California Gold Rush, bringing thousands of miners and other new immigrants to California from various parts of the United States, most of whom settled in the north. For those settlers who chose to come to southern California, much of their economic prosperity was fueled by cattle ranching rather than by gold. This prosperity, however, came to a halt in the 1860s because of severe floods and droughts, as well as legal disputes over land boundaries, which put many ranchos into bankruptcy.

Imperial County was formed in 1907 from a portion of San Diego County known as Imperial Valley and is the newest of California's counties. It is known for being one of California's most prosperous agricultural communities because of its vast canal systems stemming from the Colorado River. The first diversion of the Colorado River was in 1905 and continued through 1942 when the All-American Canal was completed. It is this water, conveyed from the Colorado River, that makes Imperial County so rich. The City of Brawley was originally going to be named Braly after J.H. Braly, a Los Angeles man who was assigned 4,000 acres of land at the center of where the current city sits now. Braly sold his 4,000 acres of the land in 1902, to George E. Carter, after Braly believed the land would be nothing but a hostile wasteland. Not long after the sale, the Imperial Land Company purchased the land from Carter, and was renamed Brawley. The City of Brawley was officially incorporated in 1908.

5.3.2. Regulatory Setting

Cultural resources may be subject to federal, state, and local laws, policies, and regulations that are developed to ensure that adequate consideration is given to mitigating impacts to historical resources. The Project is subject to the following regulations, plans, goals, and policies.

Federal

National Historic Preservation Act

Federal regulations (36 Code of Federal Regulations [CFR] Part 800.2) define historic properties as "any prehistoric or historic district, site, building, structure, or object included, or eligible for inclusion in, in the National Register of Historic Places." Section 106 of the National Historic

Preservation Act (NHPA) (Public Law 89-665; 80 Stat 915; U.S. Code [USC] 470, as amended) requires a federal agency with jurisdiction over a project to take into account the effect of the project on properties included in or eligible for listing on the National Register of Historic Places (NRHP), and to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment. The term "cultural resource" is used to denote a historic or prehistoric district, site, building, structure, or object, regardless of whether it is eligible for the NRHP.

Native American Graves Protection and Repatriation Act (1990); Title 25, United States Code Section 3001, et seq.

The statute defines “cultural items,” “sacred objects,” and “objects of cultural patrimony;” establishes an ownership hierarchy; provides for review; allows excavation of human remains, but stipulates return of the remains according to ownership; sets penalties; calls for inventories; and provides for the return of specified cultural items.

State

California Register of Historic Places

Under the provisions of CEQA, including the CEQA Statutes (Public Resources Code [PRC] §§ 21083.2 and 21084.1), the CEQA Guidelines (Title 14 California Code of Regulations [CCR], § 15064.5), and PRC § 5024.1 (Title 14 CCR § 4850 et seq.), properties expected to be directly or indirectly affected by a proposed project must be evaluated for CRHR eligibility (PRC § 5024.1).

The purpose of the California Register of Historical Resources (CRHR) is to maintain listings of the state’s historical resources and to indicate which properties are to be protected, to the extent prudent and feasible, from material impairment and substantial adverse change. The term historical resources includes a resource listed in or determined to be eligible for listing in the CRHR; a resource included in a local register of historical resources; and any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (CCR § 15064.5[a]). The criteria for listing properties in the CRHR were expressly developed in accordance with previously established criteria developed for listing in the National Register of Historic Places (NRHP). The California Office of Historic Preservation regards “any physical evidence of human activities over 45 years old” as meriting recordation and evaluation.

A cultural resource is considered “historically significant” under CEQA if the resource meets one or more of the criteria for listing on the CRHR. The CRHR was designed to be used by state and local agencies, private groups, and citizens to identify existing cultural resources within the state and to indicate which of those resources should be protected, to the extent prudent and feasible, from substantial adverse change. The following criteria have been established for the CRHR. A resource is considered significant if it:

Criterion 1: is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;

Criterion 2: is associated with the lives of persons important in our past;

Criterion 3: embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

Criterion 4: has yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting one or more of the above criteria, historical resources eligible for listing in the California Register must retain enough of their historic character or appearance to be able to convey the reasons for their significance. Such integrity is evaluated in regard to the retention of location, design, setting, materials, workmanship, feeling, and association.

Under CEQA, if an archeological site is not a historical resource but meets the definition of a “unique archeological resource” as defined in PRC § 21083.2, then it should be treated in accordance with the provisions of that section. A unique archaeological resource is defined as follows:

An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information
- Has a special and particular quality, such as being the oldest of its type or the best available example of its type
- Is directly associated with a scientifically recognized important prehistoric or historic event or person

Resources that neither meet any of these criteria for listing in the CRHR nor qualify as a “unique archaeological resource” under CEQA PRC § 21083.2 are viewed as not significant. Under CEQA, “A nonunique archaeological resource need be given no further consideration, other than the simple recording of its existence by the lead agency if it so elects” (PRC § 21083.2[h]).

Impacts that adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered a significant effect on the environment. Impacts to historical resources from a proposed project are thus considered significant if the project (1) physically destroys or damages all or part of a resource; (2) changes the character of the use of the resource or physical feature within the setting of the resource, which contributes to its significance; or (3) introduces visual, atmospheric, or audible elements that diminish the integrity of significant features of the resource.

Assembly Bill 52

California Assembly Bill 52 of 2014 (AB 52) was enacted on July 1, 2015 and expands CEQA by defining a new resource category, “tribal cultural resources.” AB 52 establishes that “A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment” (PRC Section 21084.2). It further states that the lead agency shall avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3). PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources:

1. “Sites, features, places, cultural landscapes, sacred places and objects with cultural value to a California Native American tribe” and meets either of the following criteria: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
2. A cultural 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.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified. AB 52 requires that lead agencies “begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project.” Native American tribes to be included in the formal consultation process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

Senate Bill 18

SB 18 of 2004 (California Government Code §65352.3) requires local governments to contact, refer plans to and consult with tribal organizations prior to making a decision to adopt or amend a general or specific plan. The tribal organizations eligible to consult have traditional lands in a local government’s jurisdiction and are identified, upon request, by the Native American Heritage Commission (NAHC). As noted in the California Office of Planning and Research’s Tribal Consultation Guidelines (2005), “The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places.”

Native American Historic Resource Protection Act

Public Resources Code Sections 5097 et seq. codify the procedures to be followed in the event of the unexpected discovery of human remains on nonfederal public lands. Section 5097.9 states that

no public agency or private party on public property shall “interfere with the free expression or exercise of Native American Religion.” The code further states that:

No such agency or party [shall] cause severe or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine... except on a clear and convincing showing that the public interest and necessity so require. County and city lands are exempt from this provision, except for parklands larger than 100 acres.

California Health and Safety Code

California Health and Safety Code, Section 7050.5 requires that if human remains are discovered in the project site, disturbance of the site shall halt and remain halted until the coroner has conducted an investigation into the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. If the coroner determines that the remains are not subject to his or her authority and recognizes or has reason to believe the human remains are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

Local

Imperial County General Plan

The County of Imperial General Plan (General Plan) provides goals, objectives, and policies for the identification and protection of significant cultural resources. Specifically, the Conservation and Open Space Element of the General Plan calls for the protection of cultural resources and scientific sites and contains requirements for cultural resources that involve the identification and documentation of significant historic and prehistoric resources and the preservation of representative and worthy examples. The Conservation and Open Space Element also recognizes the value of historic and prehistoric resources and the need to assess current and proposed land uses for impacts upon these resources.

TABLE 5.3-1 CONSISTENCY WITH APPLICABLE GENERAL PLAN TRIBAL CULTURAL RESOURCES GOALS AND POLICIES

General Plan Policies	Consistency	Analysis
Conservation and Open Space Element (COSE)		
Conservation of Environmental Resources for Future Generations, COSE Goal 1: – Environmental resources shall be conserved for future generations by minimizing environmental impacts in all land use decisions and educating the public on their value	Yes, with mitigation	Cultural resource investigations and testing have been conducted for the proposed Project and potential impacts have been minimized. The Project is in compliance with this goal through incorporation of mitigation measures MM CUL-1 through MM CUL-4.

TABLE 5.3-1 CONSISTENCY WITH APPLICABLE GENERAL PLAN TRIBAL CULTURAL RESOURCES GOALS AND POLICIES

General Plan Policies	Consistency	Analysis
Conservation of Environmental Resources for Future Generations, COSE Goal 1: – Objective 1.4: Ensure the conservation and management of the County's natural and cultural resources.	Yes, with mitigation	Cultural resource investigations and testing have been conducted for the proposed Project and potential impacts have been minimized. The Project is in compliance with this goal through incorporation of mitigation measures MM CUL-1 through MM CUL-4.
Preservation of Cultural Resources, COSE Goal 3: – Objective 3.1: Protect and preserve sites of archaeological, ecological, historical, and scientific value, and/or cultural significance.	Yes, with mitigation	Cultural resource investigations and testing have been conducted for the proposed Project and potential impacts have been minimized. The Project is in compliance with this goal through incorporation of mitigation measures MM CUL-1 through MM CUL-4.
Cultural Resources Conservation Policy: – Identify and document significant historic and prehistoric resources, and provide for the preservation of representative and worthy examples; and recognize the value of historic and prehistoric resources, and assess current and proposed land uses for impacts upon these resources.	Yes, with mitigation	Cultural resource investigations and testing have been conducted for the proposed Project and potential impacts have been minimized. The Project is in compliance with this goal through incorporation of mitigation measures MM CUL-1 through MM CUL-4.
Cultural Resources Conservation Program: – The County will use the CEQA process to conserve cultural resources and conform to Senate Bill 18 “Consultation with Tribal Governments” and Assembly Bill 52 “Consultation with Tribal Governments”. Public awareness of cultural heritage will be stressed. All information and artifacts recovered in this process will be stored in an appropriate institution and made available for public exhibit and scientific review.	Yes, with mitigation	Cultural resource investigations and testing have been conducted for the proposed Project and potential impacts have been minimized. The Project is in compliance with this goal through incorporation of mitigation measures MM CUL-1 through MM CUL-4. The County’s compliance with the requirements of Senate Bill 18 and Assembly Bill 52 are documented in Section 5.11, Tribal Cultural Resources.

Source: County of Imperial, 2016.

While this Draft EIR analyzes the Project’s consistency with the County of Imperial General Plan pursuant to California Environmental Quality Act (CEQA) Guidelines, Section 15125(d), the Imperial County Planning Commission ultimately determines consistency with the General Plan.

5.3.3. Analysis of Project Effects and Significance Determination

Study Methods and Findings

Records Search

An archaeological records search was conducted at the South Coastal Information Center on June 18, 2019. The record search provided information on all documented cultural resources and previous archaeological investigations with a 0.5-mile radius of Section 33. It included results from the National Register of Historic Places (NRHP), California Historical Landmarks, California Points of Historical Interest, and the California State Historic Resources Inventory.

The record search identified that 15 cultural resource studies have previously been completed within the 0.5-mile radius of Section 33, ten (10) of which were conducted for the Desert Valley Company Monofill dating back to 1983. The record search also identified that 75 cultural resources had been recorded within a 0.5-mile radius of Section 33, 46 of which are located within Section 33.

Pedestrian Field Survey

On May 9, 2019, Chambers Group archaeologists completed an intensive pedestrian survey of the entirety of Section 33, minus the area occupied by the existing monofill and related facilities, using transects spaced 30 meters apart and oriented in a north-south direction. No geographic obstructions or impediments were present, and the crew was able to survey the project area in its entirety. Overall ground visibility was high (95%). Sparse vegetation (primarily creosote) and various drainages were present throughout the project area and presented the only limitations to ground surface visibility and uniformity.

The survey identified 10 new isolated artifacts, which are not considered significant under CEQA. The survey also updated four (4) previously recorded archaeological sites (CA-IMP-6144, CA-IMP-6145, CA-IMP-6262, and CA-IMP-6269) within Section 33. However, three (3) previously identified cultural resource sites could not be relocated⁽¹⁾. Most likely, those sites have been obscured with sediment through aeolian processes or were displaced by erosion or modern disturbances (Appendix H-1).

Summary of Findings

The records search and archaeological survey resulted in the identification of 56 resources within Section 33, including 35 isolates (25 previously recorded isolates and 10 newly identified isolates) and 21 archaeological sites. Isolates are not considered to be significant under CEQA.

¹ “Relocated” in this context means that the previously recorded sites were revisited during the current survey and were found in the same location as originally described in the site record.

The previous cultural resource studies indicated that the majority of the archaeological sites represent temporary encampments and ephemeral artifact scatters consistent with prehistoric subsistence and settlement patterns around the Lake Cahuilla area. The previous cultural resource studies also indicated that limited sub-surface testing had been completed on 14 of the 21 archaeological sites. Archaeological site CA-IMP-6141 was found to be significant under CEQA.

Due to the lack of previous subsurface testing and/or evaluation further archaeological testing and evaluation was recommended for the following sites:

- CA-IMP-6142,
- CA-IMP-6144,
- CA-IMP-6145,
- CA-IMP-6146,
- CA-IMP-6149, and
- CA-IMP-6162

Archaeological Testing

Between February 17 and February 20, 2020, the Chambers Group, accompanied by a Native American monitor representing the Viejas Band of Kumeyaay Indians, conducted subsurface archaeological testing on the six (6) archaeological sites noted above that could be subject to direct and indirect impacts. The objective of the testing effort was to determine the significance of the resources according to CEQA §15064.5. A total of 49 shovel test pits (STPs) were placed in approximately 25-meter intervals across each of the sites, with additional STPs placed in locations where the pedestrian survey revealed high concentrations of artifacts. STPs also were placed strategically at the borders of the sites to determine the horizontal extent of subsurface deposits where necessitated. The STPs measured 35 centimeters (cm) in diameter and were excavated in 20-cm levels until two levels of sterile soil were excavated (minimum depth of 40 cm) or bedrock reached. Two 1x1-meter test units were also excavated at two locations within CA-IMP-6145. All excavated soils were processed through 1/4-inch hardware mesh using shaker screens. Artifacts recovered from the surface collection and excavation programs were collected from the field and cataloged in the lab at the Chambers Group San Diego Office.

A total of 49 STPs were excavated across the six sites and the results are presented on **Table 5.3-2**.

TABLE 5.3-2: ARCHAEOLOGICAL TESTING RESULTS

Cultural Resource Site No.	No. of STPs Excavated	Site Description	Results	CRHR Eligibility Recommendation
CA-IMP-006142	6	Prehistoric Site	- No subsurface artifacts or features identified.	Not Eligible
CA-IMP-006144	10	Prehistoric Site	- No subsurface artifacts or features identified.	Not Eligible
CA-IMP-006145	23	Prehistoric Site	- Freshwater shell and a ceramic sherd within upper 10 cm of STP. - Two (2) lithic artifacts, One piece of non-human (fish) bone; Two (2) pieces of charcoal at 50 cm below the surface.	<i>Eligible</i>
CA-IMP-006146	7	Prehistoric Site	- No subsurface artifacts or features identified	Not Eligible
CA-IMP-006149	2	Prehistoric Site	- No subsurface artifacts or features identified.	Not Eligible
CA-IMP-006162	1	Prehistoric Site	- No subsurface artifacts or features identified.	Not Eligible
TOTAL	49			

Source: Chambers Group, Inc., 2020 (Appendix H-5).

Based on the surface collection and archaeological testing, archaeological sites CA-IMP-6142, -6144, -6146, -6149, and -6162 are not recommended as being eligible for inclusion on the California Register of Historical Resources. Archaeological site CA-IMP-6145 is recommended as being eligible for listing on the California Register of Historical Resources, primarily on the basis of the presence of data that may answer important scientific questions related to the historic use of the region during a period of time in the history of the Salton rough where many questions remain unanswered or only partially understood, as well as being a site that represents an expression of an event that has made a significant impact to the broad patterns of California's history and cultural heritage, namely the formation and use of Ancient Lake Cahuilla.

Guidelines for Determination of Significance

This section presents the significance criteria used for considering project impacts related to cultural resources, the methodology employed for the evaluation, an impact evaluation, and mitigation requirements, if necessary.

A project would be considered to have a significant impact if it would:

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

2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to State CEQA Guidelines § 15064.5?
3. Disturb any human remains, including those interred outside of formal cemeteries?

Impact 5.3-1: Change in the significance of an historical resource.

To be considered historically significant, a resource must meet one of four criteria for listing outlined in the CRHR (CEQA Guidelines 15064.3 (a)(3)). In addition to meeting one of the criteria outlined in the CRHR, a resource must retain enough intact and undisturbed deposits to make a meaningful data contribution to regional research issues (CCR Title 14, Chapter 1.5 Section 4852 [c]). Further, based on CEQA Guidelines Section 15064.5 (b), substantial adverse change would include physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource is materially impaired. This can occur when a project:

- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the CRHR, NRHP, a local register, or historic resources.
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its identification in an historical resources survey meeting the requirements of PRC §5024.1(g), unless the public agency establishes by a preponderance of the evidence that the resource is not historically or culturally significant.

Site Preparation and Construction

Site preparation for the Project includes internal access road improvements; onsite grading, berm and levee development, soil compaction, installation of two plastic membranes; and other ancillary improvements required for safe operation. Construction includes the construction of the new Cell 4 (Cell 4A/Cell 4B) and other support facilities.

Ground disturbing activities associated with the proposed Project during construction would have the potential to cause substantial adverse changes to resources that escaped detection on the survey and/or buried prehistoric and historic resources due to the moderately high potential of the Project area. If such resources are encountered during construction and those resources meet the eligibility criteria of the CRHR, the impact would cause a substantial adverse change in the significance of a historical or archaeological resource. This would be a potentially significant impact to cultural resources. With implementation of Mitigation Measures CUL-1, CUL-2 and CUL-3, impacts would be less than significant.

Site CA-IMP-6141 has been identified as being eligible for listing on the CRHR and NRHP and it is recommended that CA-IMP-6145 be eligible for inclusion on the CRHR. The Project does not include any ground disturbing activities near either of these sites, and both will be avoided by the Project. As required by **MM-CUL-2**, a 200 foot buffer around the boundaries of Sites CA-IMP-6141

and CA-IMP-6145 will be established and an archaeological monitor will be present during all preparation and construction activities that may take place near or within that buffer.

Site Operations

Operation of the proposed Project would not involve any “new” disturbance of ground areas that had not previously been disturbed during construction and therefore no operational impacts to historical resources would occur.

Site Closure and Post-Closure Maintenance

Closure and post-closure maintenance of Cells 4A and 4B would not involve any ground disturbing activities and therefore no impacts to historical resources would occur.

Impact 5.3-2: Disturb archaeological resources and remains.

Pursuant to CEQA Guidelines §15064.5(c)(1) and (2), an archaeological resource includes an archaeological site that qualifies as a significant historical resource as described for Impact 5.3-1. If an archaeological site does not meet any of the criteria outlined in the provisions under Impact 5.3-1, but meets the definition of a “unique archaeological resource” in PRC 21083.2, the site shall be treated in accordance with the provisions of PRC 21083.2, unless the project applicant and public agency elect to comply with all other applicable provisions of CEQA with regards to archaeological resources. “Unique archaeological resource” means an archaeological artifact, object or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions that there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important historic event or person.

CEQA Guidelines 15064.5(c)(4) confirms that if an archaeological resource is neither a unique archaeological nor an historic resource, the effects of the project on those resources shall not be considered a significant effect on the environment.

Site Preparation and Construction

Two (2) previously recorded archaeological resources (CA-IMP-6145 and CA-IMP-6146) were identified during the archaeological record search and pedestrian survey. Site CA-IMP-614 has been identified as eligible to the CRHR and NRHP and it is recommended that CA-IMP-6145 be eligible for inclusion on the CRHR. The Project does not include any ground disturbing activities near either of these sites, and both will be avoided by the Project. A 200 foot buffer from the current site

boundaries will be established and an archaeological monitor be present during all preparation and construction activities that may take place near or within that buffer (see **MM CUL-2**).

Ground disturbing activities associated with the proposed Project during construction would have the potential to cause substantial adverse changes to resources that escaped detection on the survey and/or buried prehistoric and historic resources due to the moderately high potential of the Project area. If such resources are encountered during construction and those resources meet the eligibility criteria of the CRHR, the impact would cause a substantial adverse change in the significance of a historical or archaeological resource. This would be a potentially significant impact to cultural resources. With implementation of **Mitigation Measures CUL-1, CUL-2 and CUL-3** impacts would be less than significant.

Site Operations

Operation of the proposed Project would not involve any ground disturbing activities and therefore no impacts to archaeological resources would occur.

Site Closure and Post-Closure Maintenance

Closure and post-closure maintenance of Cell 4A and Cell 4B would not involve any disturbance of previously undisturbed ground and therefore no impacts to archaeological resources would occur.

Impact 5.3-3: Would the project disturb any human remains, including those interred outside of formal cemeteries?

Site Preparation and Construction

During the construction and phases of the proposed Project, grading, excavation and trenching will be required. While no potential human remains have been identified in the project area, subsurface activities always have some potential to impact previously unknown remains. This potential impact is considered a significant impact. Mitigation Measure CUL-4 will ensure that the potential impacts to previously unknown human remains do not rise to the level of significance pursuant to CEQA. Implementation of **Mitigation Measure CUL-4** will reduce the potential impact associated with inadvertent discovery of human remains to a level less than significant.

Site Operations

Operation of Cells 4A and Cell 4B would not disturb any areas not previously disturbed during construction and therefore no impacts to human remains would occur.

Site Closure and Post-Closure Maintenance

Closure and post-closure maintenance of Cells 4A and Cell 4B would not disturb any areas not previously disturbed during construction and therefore no impacts to human remains would occur.

5.3.4. Mitigation Measures

The following Mitigation Measures would reduce impacts to below a level of significance.

MM CUL-1: Cultural Resources and Native American Construction Monitor

A cultural resources monitor shall be present during all initial excavation or other earth-moving activities associated with construction of Cell 4A and Cell 4B and ancillary improvements. The monitoring shall consist of the full-time presence of a Qualified Archaeologist who meets or exceeds the Secretary of the Interior Professional Qualifications Standards as an archaeologist and a TCA (traditionally and culturally affiliated) Native American Monitor.

The Applicant shall immediately notify the Imperial County Planning and Development Services Department if any undocumented and/or buried prehistoric or historic resource is uncovered. All construction must stop in the vicinity of the find until the find can be evaluated for its eligibility for listing in the CRHR. The cultural resources monitor shall have the authority to halt construction activity in the immediate vicinity of the encountered historic resource for a sufficient interval of time to allow avoidance or recovery of the encountered historic resources and shall also have the authority to redirect construction equipment in the event that any cultural resource is inadvertently encountered. All cultural resources are assumed to be eligible for the CRHR until determined otherwise by the monitor. Work will not resume in the area of the discovery until authorized by the monitor.

Timing/Implementation: *Prior to grading permit issuance, during grading and excavation activities, and upon completion of monitoring activities.*

Enforcement/Monitoring: *Imperial County Planning and Development Services Department*

MM CUL-2: Delineate Environmentally Sensitive Areas

Prior to the construction permit issuance, the Applicant shall delineate on a confidential copy of project plans provided to the County, Environmentally Sensitive Areas (ESAs). ESAs will encompass the site boundary of two sites deemed significant under CEQA (CA-IMP-6141 and CA-IMP-6145) plus a 200-foot buffer around the site(s). ESAs shall be staked and/or flagged in a conspicuous manner prior to the commencement of construction. To ensure the integrity of these areas from unauthorized disturbance or collection, the delineated areas shall not be labeled with regard to the specific type of cultural resource identified as sensitive. Spot checking by a qualified archaeologist shall be completed throughout construction to ensure ESAs are not entered. If it is necessary for the Project to encroach on any ESA, full

time monitoring by a qualified archaeologist, who is approved by the County, will be required to ensure there are no impacts to the archaeological site. If avoidance is not an option, then a data recovery program shall be undertaken.

Timing/Implementation: *Prior to grading permit issuance, during grading and excavation activities, and upon completion of monitoring activities.*

Enforcement/Monitoring: *Imperial County Planning and Development Services Department*

MM CUL-3: Data Recovery Program

The Project was designed to avoid and preserve archaeological resources in place where possible. Where avoidance and preservation is not possible, data recovery through excavation is the most feasible mitigation. Prior to excavation, a data recovery plan must be prepared that makes provision for adequately recovering the scientifically consequential information from and about the historical resource. Data recovery includes the documentation, recordation, and removal of the archeological deposit from a project site in a manner consistent with professional (and regulatory) standards; and the subsequent inventorying, cataloguing, analysis, identification, dating, interpretation of the artifacts and “ecofacts” & the production of a report of findings.

Timing/Implementation: *Prior to grading permit issuance, during grading and excavation activities, and upon completion of monitoring activities.*

Enforcement/Monitoring: *Imperial County Planning and Development Services Department*

MM CUL-4: Unanticipated Discovery – Human Remains

In the event that evidence of human remains is discovered, construction activities within 200 feet of the discovery will be halted or diverted and the Imperial County Coroner will be notified (Section 7050.5 of the Health and Safety Code). If the Coroner determines that the remains are Native American, the Coroner will notify the NAHC, which will designate a most likely descendant (MLD) for the project (Section 5097.98 of the PRC). The designated MLD then has 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains (AB 2641). If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (Section 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (Section 5097.98 of the PRC). This will also include either recording the

site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a document with the county in which the property is located (AB 2641).

Timing/Implementation: *Prior to grading permit issuance, during grading and excavation activities, and upon completion of monitoring activities.*

Enforcement/Monitoring: *Imperial County Planning and Development Services Department*

Level of Significance After Mitigation

The Project will have less than significant impacts after implementation of MM CUL-1 through CUL-4 because these measures require the performance of professionally accepted and legally compliant procedures for the monitoring, discovery, data recovery, and treatment of previously undocumented significant archaeological resources and human remains.

5.4 Geology and Soils

This section addresses potential geology, soil and paleontological resource impacts that may result from construction, operation, closure and post-closure maintenance of the Desert Valley Company Monofill (DVCM) Expansion Project, Cell 4. The following discussion addresses the existing conditions on the Project site, identifies applicable regulations, identifies and analyzes environmental impacts, and recommends measures to reduce or avoid adverse impacts anticipated from implementation of the proposed Project, as applicable.

Information used in preparing this section and in the evaluation of potential impacts to geology, soils, and paleontological resources was derived from of the following sources,

- *Soils and Geology Report* prepared by Terraphase Engineering (Terraphase Engineering, 2019; Appendix I-1),
- *Calibration Boreholes Report* prepared by Fugro (Fugro, 2019a; Appendix I-2),
- *Fault Setbacks Map* prepared by Fugro (Fugro, 2019b; Appendix I-3);
- *Fault Trenching Report* prepared by Fugro (Fugro, 2019c; Appendix I-4);
- *Site Geologic Data Review and 3D Model Report*, prepared by Fugro (Fugro, 2018; Appendix I-5);
- *Geophysical Screening Report for Section 33* prepared by Fugro (Fugro, 2019d; Appendix I-6);
- *Geophysical Survey Report for Section 27* prepared by Fugro (Fugro, 2019e; Appendix I-7);
- *Phase I Environmental Site Assessment* prepared by Ninyo and Moore (Ninyo and Moore 2020; Appendix K); and,
- *Paleontological Report* prepared by Chambers Group (Chambers Group, 2019; Appendix J).

Scoping Issues Addressed

During the scoping period for the proposed Project, a public scoping meeting was conducted, and written comments were received from agencies. The following issue was raised by the California Department of Fish and Wildlife (CDFW) and are addressed in this section.

- Any changes from the elevations in the SWFP should be included in the project description and analyzed in the DEIR.

No comments related to paleontological resources were received.

Issues Scoped Out

The Imperial County Planning and Development Services Department (County) determined in the Initial Study/Notice of Preparation (IS/NOP), located in Appendix A-1, that the following

environmental issue area resulted in no impact and was scoped out of requiring further review in this Draft EIR (DEIR). Please refer to Appendix A-1 of this DEIR for a copy of the NOP/IS and additional information regarding this issue.

- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. Soils in the project area support the existing septic system and leach field at the Desert Valley Monofill. This same infrastructure would be used for the proposed Project.

5.4.1 Environmental Setting

Landfill History

As detailed in Section 3.2.1 of this EIR, the Desert Valley Company Monofill (DVCM or Monofill) began operations in May 1991 in an undeveloped area of western Imperial County. Cell 1 of the DVCM was built in 1990, and Cell 2 was built in 1999. Construction of Cell 3 began in the summer of 2004 and was completed in June 2005. Cell 3 is the only active cell currently receiving waste. Information regarding the existing regulatory permits and plans under which the DVCM currently operates is presented in **Table 3-2**.

Geologic Setting

Regional Geology

The Project site is located within the Salton Trough. The Salton Trough is a structural basin that comprises the northern extension of the Gulf of California Rift Zone. It consists of a depressed crustal block within a complex plate boundary zone. The primary structural features of the Gulf of California Rift Zone are a series of parallel transform faults which includes the San Andreas, San Jacinto, and the Elsinore fault zones. From a geomorphic perspective, the Salton Trough consists of a low-lying alluvial basin which is characterized by internal drainage and relatively low relief. Typical stratigraphy incorporates up to 21,000 feet of Late Cenozoic Era sediments and metasediments which are deposited primarily by the Colorado River. Other sources of sedimentation include wind and lake (lacustrine) deposition and the erosion of adjacent highlands (**Figure 5.4-1**). Regionally, the Quaternary Brawley Formation (Qb) attains a maximum thickness of approximately 2,000 feet and has been interpreted as Pliocene to mid-Pleistocene in age. Mollusks and diatoms are common and sparse remains of freshwater vertebrates and brackish water foraminifers have been observed (Terraphase, 2019; Appendix I-1).

Site-Specific Geology

The Project site is characterized by generally low-lying level topography. Surface elevations range from approximately 40 to 140 feet below mean sea level (MSL), with a slight southwest to northeast gradient across the Project site. Previous studies have determined that surface exposures within the

Project site consist of recent alluvial and eolian (wind derived) deposits, as well as ancient shoreline and lacustrine materials associated with Cahuilla Lake. These units overlies a generally unconformable sequence of Quaternary through Paleozoic strata and may extend locally to depths of up to several hundred feet (Terraphase, 2019; Appendix I-1). Specific soil types found in the vicinity of the Project site, as identified in the *Soils and Geology Report* are discussed below:

- Quaternary alluvium (Qal) is defined to include unconsolidated recent silt, sand, and gravel deposits associated with the larger ephemeral stream courses. These deposits are generally limited to several meandering washes which traverse the Project site from southwest to northeast.
- Quaternary Eolian Deposits (Qd) consist of significant accumulations of recent wind-blown sand and silt, typically in the form of dunes. Active dune structures incorporating unconsolidated and mobile sand and silt deposits are limited to the extreme southeast corner of the Project site.
- Quaternary Mixed Alluvium (Qa) includes unconsolidated recent silt, sand, and gravel deposits associated with minor washes and sheet flow areas, minor eolian deposits, and less extensive shoreline and lacustrine materials. These materials are widely exposed throughout the Project site.
- Quaternary Shoreline Deposits (Qs) consist of unconsolidated sand and gravel ridges associated with Pleistocene/Holocene Cahuilla Lake. Fine material is generally absent and mollusk and gastropod shell fragments are common. Shoreline deposits are present in the southern and east-central portions of the Project site in the form of low east-west trending ridges.
- Quaternary Brawley Formation (Qb) consists locally of interbedded massive silty clay, clayey silt, and sand units of lacustrine origin. Relatively small exposures of the Brawley Formation occur throughout much of the Project site, with these strata likely underlying the entire project site

The stratigraphic units of the Brawley Formation at the Project site include two thick clay layers, Qb2 and Qb5, which are interbedded with relatively coarser deposits comprising units Qb1, Qb3, Qb4, Qb6, and Qb7. These beds reflect alternating changes in depositional environments through time. Conditions have alternated between lacustrine, fluvial, and aeolian environments over time. The thick clay units indicate deposition in very still water of a lagoon or embayment isolated from significant coarse alluvial deposition. Unit Qb5 exhibits an important change in composition from clay to sand at the eastern edge of the Project site. The clay of Qb5 seen in boreholes taken underneath under Cell 3 transitions to sand in boreholes farther to the east. A body of eolian sand, likely a sand dune or ramp, apparently bounded the northeastern side of the lagoon or embayment (Fugro, 2018; Appendix I-5).

At the Project site, the beds of the Brawley Formation generally dip to the north with gentle undulations resulting from tectonic deformation. Unit Qb2 is the younger clay layer and underlies Cells 1 and 2. Unit Qb5 is a somewhat older clay unit and underlies Cell 3. Both outcrop to the west of the Project site where they were quarried for borrow to construct the clay liner of each cell.

Additional borrow was used for the cap of Cells 1 and 2. The disturbed area reflects the excavation, backfill and grading from these activities (**Figure 5.4-2**) (Fugro, 2018; Appendix I-5).

Two 150-foot-deep, continuous soil-core borings, B-401 and B-402, located in Sections 27 and 33 respectively (**Figure 5.4-3**) were drilled at the Project site to collect subsurface stratigraphic data and to conduct geophysical measurements used to calibrate previously obtained seismic reflection data. At B-401 the alluvium was lean clay at 10 feet changing to fat clay at 14.5 feet and back to lean clay at 45.5 feet. It changed to silty clay at 82 feet and back to fat clay at 95 feet. At B-402 the alluvium was silty clay to 26 feet changing to fat clay at 36 feet and staying as that until 110 feet when it changed back to silty clay (Fugro 2019a, Appendix I-2).

Seismic and Geologic Hazards

The Project site is within an active seismic region subject to regular earthquake events, resulting in potential seismic hazards as described below and as presented on **Table 5.4-1**.

TABLE 5.4-1: ACTIVE AND POTENTIALLY ACTIVE FAULTS IN PROJECT REGION

Fault Name or Seismic Zone	Approximate Distance to Project Site (miles)	Maximum Credible Earthquake Magnitude	Mercalli Intensity (*)	Peak Ground Acceleration (g)
Elmore Ranch	1.2	6.6	XI	0.80
Superstition Hills (San Jacinto).	5	6.6	X	0.52
Superstition Mountain (San Jacinto)	8.2	6.6	IX	0.37
San Jacinto Borrego Mtn.	9.9	6.6	IX	0.32
Brawley Seismic Zone	13.7	6.4	IX	0.24
Imperial	19.1	7.0	VIII	0.20
San Andreas-Coachella Valley	19.6	7.1	IX	0.21
San Jacinto - Anza	21	7.2	VIII	0.20
San Jacinto - Coyote Creek	22.6	6.8	VIII	0.17
Elsinore - Coyote Mountain	23.4	6.8	VIII	0.16
Laguna Salada	25	7.0	VIII	0.16

Source: Terraphase, 2019; Appendix I-1.

Ground Rupture: Seismically-induced ground rupture is defined as the physical displacement of surface deposits in response to earthquake-generated seismic waves. Recent ground rupture was not observed on the Project site during previous geotechnical investigations. The potential for seismic

activity (and ground rupture) originating on faults within the Project site is considered low due to their small extent and is discussed in more detail below. Ground rupture may occur along faults in the project vicinity; however, this is usually in response to activity along larger regional structures. The earthquakes along the Superstition Hills and Elmore Ranch Faults in November 1987 produced surficial ground rupture along a number of nearby geologic structures, including the Elmore Desert Ranch Fault and several small unnamed faults west and south of the Project site (Terraphase, 2019; Appendix I-1).

Ground Acceleration: Ground acceleration is an estimation of the peak ground motion associated with a specific earthquake event. It is expressed in terms of accelerations as a fraction of the force of gravity at the earth's surface (g). Acceleration can be measured directly from seismic events or calculated from magnitude and fault distance data. Severe or extended ground accelerations can produce a variety of adverse structural effects. Potentially significant adverse effects from ground acceleration would be associated primarily with major earthquakes along regional faults. Large earthquakes along more extensive faults (e.g., the San Andreas Fault Zone) can produce ground accelerations with longer wavelengths and durations than smaller faults, even though the latter structures may be closer and thus generate greater peak acceleration values. Both the wavelength and duration of seismic waves can contribute to the destructive potential of individual earthquake events. The modified peak ground acceleration (PGA) on the Project site is projected as 0.905 g. As shown on **Table 5.4-1**, such an event would likely generate Modified Mercalli intensities of “X” or more, potentially resulting in a variety of adverse effects (Terraphase, 2019; Appendix I-1).

The effect of an earthquake on the earth's surface is called the “intensity”, the scale of which consists of a series of responses such as people awakening, movement of furniture, damage to chimneys, and finally - total destruction. While numerous intensity scales have been used to evaluate the effects of earthquakes, the one currently used in the United States is the Modified Mercalli (MM) Intensity Scale. The Modified Mercalli Intensity value is assigned to a specific site after an earthquake has occurred. As shown on **Table 5.4-2**, the lower numbers of the intensity scale generally deal with the manner in which the earthquake is felt by people. The higher numbers of the scale are based on observed structural damage. Structural engineers usually contribute information for assigning intensity values of “VIII” or above.

TABLE 5.4-2: MODIFIED MERCALLI INTENSITY SCALE

Intensity	Shaking	Description/Damage
I	Not Felt	Not felt except by a very few under especially favorable conditions
II	Weak	Felt only by a few persons at rest especially on upper floors of buildings.
III	Weak	Felt quite noticeably by persons indoors, especially on upper floors of building. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated
IV	Light	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.

TABLE 5.4-2: MODIFIED MERCALLI INTENSITY SCALE

Intensity	Shaking	Description/Damage
V	Moderate	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
VI	Strong	Felt by all, many frightened, Some heavy furniture moved; a few instances of fallen plaster. Damage slight.
VII	Very Strong	Damage negligible in building of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
VIII	Severe	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.
IX	Violent	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X	Extreme	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.

Source: U.S. Geological Service, 2020.

Liquefaction and Dynamic Settlement: Liquefaction and dynamic settlement of unconsolidated materials can be caused by a strong vibratory motion resulting from seismic activity. Loose, granular soils are most susceptible to those effects, while the stability of silty clay and clay materials is generally not as affected by vibratory motion. Among granular materials, finer textured varieties are more susceptible to liquefaction and settlement than coarse-grained types, and sediments of uniform grain size are more likely to liquefy than well-graded materials. Additionally, liquefaction is generally restricted to saturated or near-saturated materials at depths of less than 50 feet. Although Trench T-401 in Section 27 did exhibit evidence for significant liquefaction and soft soil deformation (Fugro 2019c, Appendix I-4), in general, depth to groundwater across the Project site is too deep to produce significant liquefaction settlements. The high seismicity of the area will have exposed any loose sand deposits to very many significant shaking events over the past few thousand years. Hence, seismic shakedown, settlements due to compaction of dry sands, is also unlikely.

Landsliding: Seismically-induced landsliding is not considered a significant hazard on the Project site due to the fact the topography is generally level.

Non-seismic geologic hazards include a number of potential physical and chemical effects such as compaction, expansion, erosion, and reactive soils.

Active Faults

A *Geological Data Review and 3D Model* was prepared to identify potentially active faults on the Project site (Fugro, 2018; Appendix I-5). The Project site is located in a tectonically active area, and a number of faults have been identified. Major active faults located to the northwest and southeast of Sections 27 and 33 experienced surficial ground rupture in the 1987 Superstition Hills earthquake. After 1987, no surface rupture was documented in either Sections 27 or 33. Faults discovered at the Project site were judged active on the basis of their displacement of Late Pleistocene to Holocene

sediments. In general, faults documented in trenches and washes are considered to be minor faults with small displacements and do not constitute major tectonic elements of the Superstition Hills fault system (Fugro, 2018; Appendix I-5).

Figure 5.4-4 shows the location of all faults in Section 33 whose presence and extent were well supported by field observations of trenches or wash exposures.

Faults 1 through 5 were documented in Trench 1 and excavated for the initial site investigation for Cell 1. The faults were described as steeply dipping to vertical with displacement of bedding of less than two feet. Also present in Trench 1 were a number of fractures and disturbed zones that did not show displacement of beds consistent with faulting. These may have formed as a result of strong ground shaking. The presence of these faults and fractures led to the elimination of this area as a potential site for the DVCM.

Fault 6 was documented in Trench 2; it was also excavated for the initial site investigation. It was the only fault identified in this trench at the time. In 1989, additional trenches constrained the lateral extent of this fault and identified a second parallel fault, Fault 7. In accordance with the Alquist-Priolo Earthquake Fault Zoning Act of 1972 a 200-foot setback from Fault 7 established the western margin of Cells 1 and 2.

Faults 8 and 9 were identified during the fault trenching investigations conducted for the siting of Cell 3. The presence of Fault 9 constrained the western margin of Cell 3. The southern extent of Fault 8 was not investigated.

Fault 10 was identified in an incised wash draining northward along the east side of Section 33. It was not observed in Trench 219 which was located about 250 feet south of the wash exposure. Trenches on the east side of the DVCM did not encounter other faults.

Fault 11 was identified in an incised wash to the southwest of the DVCM, during the initial site selection. The northern and southern extensions of this fault were not visible due to soil cover.

Fault 12 was identified in an incised wash during Fugro's 2018 field mapping. This fault is a one-foot wide zone with several parallel traces, having a 1.4-foot cumulative displacement of the Lake Cahuilla beds. The fault could be traced a short distance across the surface to the south but could not be traced north of the wash due to soil cover.

All faults identified in Section 33 were documented in trench exposures or incised washes. They were recognized on the basis of vertically displaced bedding of generally less than one meter. Evidence to quantify lateral displacement was not present. Some faults could be traced across the ground surface for a limited distance, but generally faults could not be recognized across the surface in Section 33, possibly due to soil cover. In areas trenched extensively for the DVCM, individual faults were laterally discontinuous. There was not enough data exist to establish whether they may

continue in an echelon pattern. The relatively small displacements and lack of surficial expression suggest the faults thus far identified are minor faults and do not constitute major tectonic elements of the larger fault system. None were observed to have ruptured in the 1987 Superstition Hills earthquake. Nonetheless, they should be presumed capable of future surface rupture (Fugro, 2018; Appendix I-5).

Geophysical surveys were conducted in January and April 2019 (Fugro 2019d and e, Appendices I-6 and I-7, respectively) and a fault trenching investigation was performed in June 2019 (Fugro 2019c, Appendix I-4) to supplement the 2018 *Geological Data Review and 3D Model*. The purpose of the January and April 2019 geophysical surveys was to scan for the presence of active faults capable of surface rupture within the proposed sites for DVCM Cell 4. The results of the geophysical surveys did not show strong evidence for lateral velocity boundaries indicative of shallow faulting; however, fault trenching was recommended (Fugro 2019d and e, Appendices I-6 and I-7, respectively). The purpose of the fault trenching investigation was to locate and delineate active faults that may constrain site boundaries for the proposed DVCM Cell 4 and to establish regulatory fault setbacks (Fugro, 2019c; Appendix I-4). Thirteen trenches were excavated to screen the Project site in Sections 27 and 33. The trenching targeted the extension of faults that had been identified in previous geologic investigations, were observed during field mapping, and were noted as anomalies in seismic reflection profiles prepared in 2018. No faults were found in the southwest quarter of Section 27. In Section 33, two zones of faulting were delineated. **Figure 5.4-5** shows faults in Section 33 as they are currently understood. A zone of faulting immediately west of Cells 1-3 consisting of multiple north trending fault segments and includes zones of potential faulting along geophysical lines GL-2 and GL-5. A second zone of northwest trending faulting lies to the west. Fault setbacks were delineated at a distance of 200 feet from identified faults (Fugro, 2019c; Appendix I-4).

Seismicity

The Salton Trough is one of the most seismically active regions in the world. Perceptible earthquakes (those registering on the Richter Scale as a magnitude of approximately 3.0 and above) are a regular occurrence and numerous microearthquakes (those registering on the Richter Scale as a magnitude of 2.9 or less) are recorded on a daily basis. The Southern California Earthquake Data Center reports there have been 1,992 perceptible earthquakes within 20 miles of the Project site since 1933, the last one on May 8, 2019 (magnitude 3.48) (Terraphase, 2019; Appendix I-1).

Seismicity in the Salton Trough is generally characterized by two types of activity: mainshock-aftershock sequences (i.e., large-scale seismic events) and earthquake swarms. Earthquake swarms typically consist of a few tens to a few hundred low magnitude events occurring very close together both temporally and geographically. Earthquake swarms are not associated with large seismic events, but often can be attributable to shear stress related to the emplacement of magnetic dikes in areas of crustal extension). There is current evidence to suggest that both large-scale and earthquake swarm activity can occur along the same structure (as demonstrated by events along the Imperial

Fault), although larger earthquakes are normally located on major faults and swarms tend to occur along parallel offset faults associated with inferred areas of crustal extension (Terraphase, 2019; Appendix I-1).

Large-scale seismic events often occur in mainshock-aftershock sequences, with the second earthquake (aftershock event) averaging approximately one magnitude less than the first (mainshock event). From 1933 to 2019, at least 27 earthquakes with Richter magnitudes of 5.0 or greater have occurred within the Salton Trough. The most recent major earthquakes (6.0 or greater in magnitude) in the Salton Trough occurred in November 1987 along the Elmore Desert Ranch and Superstition Hills faults. These events generated magnitudes of 6.2 (11/24/87, Elmore Desert Ranch Fault) and 6.6 (11/24/87, Superstition Hills Fault), located approximately 2 and 5 miles south of the Project site, respectively. It is estimated that these events produced nearby peak ground accelerations of over 0.5 g, with associated Modified Mercalli intensities of VIII or IX. It is anticipated that similar earthquakes would be capable of producing significant effects on the Project site. Because of the proximity and earthquake potential of the Elmore Desert Ranch and Superstition Hills faults, they are considered the most likely source of maximum potential seismic impacts on the project site. A number of other major fault structures are located in the project vicinity and could generate significant seismic effects (Terraphase, 2019, Appendix I-1).

Non-Seismic Hazards

Non-seismic geologic hazards include a number of potential physical and chemical effects such as compaction, expansion, erosion, and reactive soils.

Compaction: Loose, well-graded soils (especially those containing oversize materials) can be subject to compaction and settlement hazards, including differential compaction (i.e., varying degrees of settlement over short distances). The Project site is not susceptible to damage due to differential settlements.

Expansive Soils: Expansive soils are fine-grained soils (generally high-plasticity clays) that can undergo a significant increase in volume with an increase in water content as well as a significant decrease in volume with a decrease in water content. Changes in the water content of highly expansive soils can result in severe distress for structures constructed on or against the soils. Sediments encountered during previous geotechnical investigations contain significant quantities of clay. These materials may exhibit expansive (shrink-swell) characteristics due to the water-holding capacity of clay minerals. Significant shrink-swell behavior can adversely affect the integrity of foundations, fill slopes, and associated structures.

Erosion: Erosional processes in the vicinity of the project site are related primarily to storm runoff and eolian activity. Runoff on the site is largely confined to a number of small ephemeral drainages trending generally northeast-southwest. Channel walls and banks in these washes are subject to erosional impacts during larger storm events due to their often, intensive nature. Some erosional

effects may also occur outside of drainage channels as a result of sheet flow runoff. Such impacts would be expected to be minor, however, due to the presence of generally level topography and cohesive surface deposits.

Eolian-generated erosion is associated with the occurrence of seasonally high wind speeds in the project vicinity. Finer grained silt, sand, and clay materials are susceptible to transport and redeposition by high winds, especially if disturbed by grading, vehicular travel, etc.

Reactive Soils: Surficial deposits on the Project site are alkaline in nature and may contain soluble sulfates and chlorides and/or exhibit low resistivity. Soils with these characteristics can produce corrosive effects to subsurface facilities such as steel or concrete foundations and pipelines. No such effects are currently known in the vicinity of the Project site (Terraphase, 2019; Appendix I-1).

Paleontological Setting

Paleontological resources are the fossilized remains of prehistoric plants and animals and the mineralized impressions left as indirect evidence of the form and activity of such organisms. These resources are located within sedimentary rocks or alluvium and considered to be nonrenewable.

The Project site lies within the southern portion of the Salton Trough, a northwesterly-trending tectonic basin located between the Peninsular Ranges on the west and the Chocolate Mountains on the east. The geologic units that underly the Project site include quaternary alluvium (Qa), Lake Cahuilla Beds (Qlc), and Brawley Formation (Qbr). The paleontological sensitivity of the area is depicted on **Figure 5.4-6**, Paleontological Sensitivity, and is described below.

Quaternary Alluvium (Qa)

Much of the ground surface of the western portion of the Salton Trough in Imperial County is covered by a thin veneer of recent sediments of variable thickness (0-20 feet), including aeolian sand (in currently active sand dunes) and alluvial sand and gravel (in modern washes and alluvial fans). In general, these surficial deposits are undeformed by faulting and are probably entirely Holocene in age. Quaternary alluvium typically is not considered to yield significant fossils given the young age of the sediments. These deposits are therefore assigned a “No Potential” paleontological sensitivity rating.

Lake Cahuilla Beds (Qlc)

Lake Cahuilla was a former freshwater lake that periodically occupied a major portion of the Salton Trough during late Pleistocene to Holocene time (approximately 37,000 to 240 years ago), depositing sediments that underlie the entire Project site. Generally, Lake Cahuilla sediments consist of an interbedded sequence of both freshwater lacustrine (lake) and fluvial (river/stream) deposits. There are no SDNHM fossil collection localities from these deposits within a half-mile radius of the Project site. However, paleontological resources of the Lake Cahuilla Beds are considered

significant because of the paleoclimatic and paleoecological information they can provide. These deposits are therefore assigned a “High” paleontological sensitivity rating.

Brawley Formation (Qbr)

The early to middle Pleistocene-age (approximately 1.1 to 0.5 million years old) Brawley Formation consists of sediments deposited in freshwater lacustrine, fluvial, and eolian settings, and underlies the southeastern portion of the Project site. While the SDNHM has no recorded fossil localities from the Brawley Formation within a half-mile radius of the Project site, this formation has produced well-preserved shells of freshwater mollusks and diatoms, freshwater vertebrates, and brackish water foraminifers in other locations. This formation is therefore assigned a “High” paleontological sensitivity rating.

5.4.2 Regulatory Setting

Geologic resources and geotechnical hazards are governed by local jurisdictions. The conservation elements and seismic safety elements of city and county general plans contain policies for the protection of geologic features and avoidance of hazards. The California Environmental Quality Act (CEQA) is the major environmental statute that guides the design and construction of projects on non-federal lands in California. This statute sets forth a specific process of environmental impact analysis and public review. In addition, the project proponent must comply with other applicable State and local statutes, regulations and policies. Relevant and potentially relevant statutes, regulations and policies are discussed below.

State

Geology

California Building Code

The California Building Code (CBC) (2019), as contained in Title 24 CCR Part 2, has been adopted by the California Building Standards Commission and other agencies within the State of California, including Imperial County. This Code implements the requirements contained in the 2018 International Building Code and consists of 12 parts that contain administrative regulations of the California Building Standards Commission. Local agencies must ensure that development in their jurisdictions complies with guidelines contained in the CBC. Cities and counties can, however, amend the CBC to adopt more stringent building standards beyond those provided because of unique climatic, geological, or topographical conditions.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 regulates development near active faults, with the specific intention of mitigating the hazard of surface fault rupture on buildings intended for human occupancy. In accordance with this law, the CGS maps active faults and designates

Earthquake Fault Zones along mapped faults. This Act groups faults into categories of active (historic or Holocene-age faults), potentially active (Quaternary-age faults), and inactive (pre-Quaternary age faults).

Local government agencies are mandated by this Act to require site-specific geologic investigations for proposed projects contained within a designated Alquist-Priolo Earthquake Fault Zone area. Such investigations typically include subsurface trenching to determine the presence, or lack of faulting.

Under this Act, the California State Geologist identifies areas in the state that are at risk from surface fault rupture. The main purpose of this Act is to prevent construction of buildings used for human occupancy where traces of active faults are evident on the earth's surface. Fault rupture generally occurs within 50 feet of an active fault line and is limited to the immediate area of the fault zone where the fault breaks along the surface. Such a rupture could potentially displace and/or deform the ground surface. Based on reviews of published maps, the Project site is located within a delineated Earthquake Fault Zone.

Seismic Hazards Mapping Act of 1990

In accordance with Public Resources Code, Chapter 7.8, Division 2, the California Department of Conservation, California Geological Survey (CGS), the State Geologist compiled maps identifying Seismic Hazard Zones. The Seismic Hazards Mapping Act of 1990 addresses non-surface fault rupture earthquake hazards, including liquefaction and seismically induced landslides. The purpose of this Act is to reduce the threat to public health and safety and to minimize the loss of life and property by identifying and mitigating seismic hazards, such as those associated with strong ground shaking, liquefaction, landslides, other ground failures, or other hazards caused by earthquakes.

Cities, counties, and state agencies are directed to use and incorporate site-specific geotechnical hazard investigations and seismic hazard zone maps developed by CGS in their land use planning, as part of their permit approval process. This Act provides a mechanism to identify when provisions beyond standard building codes are necessary to ensure safe development and to reduce future losses.

California Code of Regulations, Title 27

Title 27 of the California Code of Regulations prohibits the construction of a Class II Waste Management Unit within 200 feet of the trace of an active ground-crossing fault. Section 20250 (d) of Title 27 requires that expansions of existing Class II waste management units have a 200-foot setback from any known Holocene fault. Section 20250 (d) of Title 27 also notes that "Other units (that are subject to this section) can be located within 200 feet of a known Holocene fault, provided the RWQCB finds that the Unit's containment structures are capable of withstanding ground accelerations associated with the maximum credible earthquake."

Section 20370 of Title 27 of the California Code of Regulations (Seismic Design) requires Class II Units to be designed to withstand the maximum credible earthquake without damage to the foundation or to the structures which control leachate, surface drainage, erosion, or gas.

Paleontology

California Code of Regulations, Title 14, Division 3, Chapter 1, Sections 4307-4309

These code sections prohibit the removal and destruction of geological features and any object of archaeological or historical interest or value. Section 4309 provides that the Department of Parks and Recreation may grant a permit to remove, treat, disturb, or destroy plants or animals or geological, historical, archaeological, or paleontological materials.

California Environmental Quality Act (CEQA)

CEQA affords paleontological resources explicit protection, specifically in item V(c) of CEQA Guidelines Appendix G, the Environmental Checklist Form, which addresses the potential for adverse impacts to “unique paleontological resource[s] or site[s] or ... unique geological feature[s].” This provision covers fossils of significant importance—remains of species or genera new to science, as well as localities that yield fossils significant in their abundance, diversity, preservation, and so forth.

In addition, CEQA provides that generally, a resource shall be considered “historically significant” if it has yielded or may be likely to yield information important in prehistory (PRC Section 15064.5[a][3][D]). Paleontological resources would fall within this category. Sections 5097.5 and 30244 of PRC Chapter 1.7 also define unauthorized removal of fossil resources as a misdemeanor and require mitigation of disturbed sites.

Paleontological resources are classified as nonrenewable scientific resources and are protected by state statute (PRC Section 5097.5). However, neither state nor local agencies have specific jurisdiction over paleontological resources, but all must evaluate potential impacts and provide applicable mitigation measures. State and local agencies do not require a paleontological collecting permit to allow for the recovery of fossil remains discovered as a result of construction-related earthmoving on state or private land in a project site.

Local

Imperial County General Plan Seismic and Public Safety Element

The Imperial County General Plan includes a “Seismic and Public Safety Element.” The Seismic and Public Safety Element identifies potential natural and human-induced hazards and provides policy to avoid or minimize the risk associated with hazards. Potential hazards must be addressed in

the land use planning process to avoid the unfolding of dangerous situations. The policies and implementation measures in the General Plan applicable to the Project are outlined below.

**TABLE 5.4-3 CONSISTENCY WITH GEOLOGY, SOILS,
AND SEISMICITY POLICIES OF THE GENERAL PLAN**

General Plan Policies	Consistency	Analysis
Seismic and Public Safety Element (SPSE)		
<p>SPSE Goal 1: Include public health and safety considerations in land use planning.</p> <ul style="list-style-type: none"> • SPSE Objective 1.1: Ensure that data on geological hazards is incorporated into the land use review process, and future development process. • SPSE Objective 1.4: Require, where possessing the authority, that avoidable seismic risks be avoided; and that measures, commensurate with risks, be taken to reduce injury, loss of life, destruction of property, and disruption of service. • SPSE Objective 1.7: Require developers to provide information related to geologic and seismic hazards when siting a proposed project. 	Yes	<p>The Project is located in a rural area of Imperial County with very few residences nearby. Public health and safety from seismic considerations would not be affected by implementation of the proposed Project in this area based on its location away from population centers. The proposed Project has prepared a Soils and Geology Report identifying potential geologic hazards. All measures and design specifications identified in the Soils and Geology Report shall be incorporated into and reflected on the Project design and building plans. Therefore, the proposed Project is consistent with this goal.</p>
<p>SPSE Goal 2: Minimize potential hazards to public health, safety, and welfare and prevent the loss of life and damage to health and property resulting from both natural and human-related phenomena.</p> <ul style="list-style-type: none"> • SPSE Objective 2.2: Reduce risk and damage due to seismic hazards by appropriate regulation. • SPSE Objective 2.5: Minimize injury, loss of life, and damage to property by implementing all state codes where applicable. • SPSE Objective 2.8: Prevent and reduce death, injuries, property damage, and economic and social dislocation resulting from natural hazards including flooding, land subsidence, earthquakes, other geologic phenomena, levee or dam failure, urban and wildland fires and building collapse by appropriate planning and emergency measures. 	Yes	<p>The Project will be required to incorporate design parameters and recommendations of the Soils and Geology Report into the final Project design to address seismic and soil conditions. The Soils and Geology Report prepared for the proposed Project utilized information provided by the State Geologist including Alquist-Priolo Earthquake Fault Zone maps and the 2010 Fault Activity Map of California. Therefore, the proposed Project is consistent with this goal.</p>

Source: County of Imperial, nd.

While this Draft EIR analyzes the Project's consistency with the County of Imperial General Plan pursuant to California Environmental Quality Act (CEQA) Guidelines, Section 15125(d), the Imperial County Planning Commission ultimately determines consistency with the General Plan.

5.4.3 Analysis of Project Effects and Significance Determination

Methodology

Geology and Soils

The potential impacts associated with the proposed Project are evaluated on a qualitative and quantitative basis through a comparison of the anticipated Project effects on geologic resources. The technical reports prepared by Terraphase (2019) and Fugro (2018 and 2019a, b, c, d and e) present findings, conclusions, and recommendations concerning the development of the Project site based upon the engineering analysis of geotechnical properties of the site, as discussed above. The change in the land use to expand the monofill would be significant if the effects described below would occur. The evaluation of Project impacts is based on the significance criteria adopted by the Imperial County, which the County has determined to be appropriate criteria for this DEIR.

Paleontological Resources

To evaluate the proposed Project's potential impacts on significant paleontological resources, Chambers Group, Inc. conducted a paleontological literature review and museum records search along with an intensive pedestrian survey of the entire 320-acre area of Section 33. The study area included all of Section 33 plus a half-mile buffer. A detailed review of museum collections was performed by the Department of Paleontology and Paleo Services staff at the SDNHM on May 10, 2019 for the purposes of determining whether there are any known fossil localities in or near the project area, identifying the geologic units present in the project area, and determining the paleontological sensitivity ratings of those geologic units in order to assess potential impacts to nonrenewable paleontological resources. Museum records indicate that no vertebrate fossil localities have been documented within the study area. In addition to the records search, published and unpublished literature and geologic maps were reviewed. As shown on **Figure 5.4-6**, the Project site is underlain by the Brawley Formation (early to middle Pleistocene) and the Lake Cahuilla Beds (late Pleistocene to Holocene).

Guidelines for Determination of Significance

A project would be considered to have a significant impact if it would:

1. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the

area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?

2. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving strong seismic ground shaking?
3. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving seismic-related ground failure, including liquefaction?
4. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving landslides?
5. Result in substantial soil erosion or the loss of topsoil?
6. 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?
7. 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?
8. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Impact Analysis

Impact 5.4-1: Substantial adverse effects from the rupture of a known earthquake fault.

The Project site is located within an active seismic region subject to regular earthquake events. Geotechnical investigations of the Project site involved a number of subsurface excavations designed to identify and date potential fault structures on the project site. These investigations documented the presence of multiple active (Holocene) fault traces within Section 33, including several faults that was previously unmapped.

The fault systems are adjacent to the proposed location of the storage/disposal cells. Pursuant to California Code of Regulations requirements, proposed siting of these facilities has been set back 200 feet from the traces of observed faults. Additional subsurface exploration did not identify any evidence of faulting for a distance of over 1,000 feet to the east of the eastern fault system. Thus, no active fault traces are located within 200 feet of the Project site, and no significant effects associated with ground rupture are anticipated.

In addition, the DVC has elected to construct the liner system for the proposed expansion of the Class II Facility to Class I standards. Each cell would include a multi-layer leachate collection and liner system designed and constructed to the standard for Class I Units. The leachate liner and collection layer and a leak detection layer would be installed over a bottom geosynthetic clay liner and a 3-4 ft thick layer of compacted material with a permeability less than 1×10^{-7} cm/sec. The

leachate collection and leak detection layers would slope to a 4-inch PVC collection pipe that would slope downward from the south to north end of the cell. The pipe would run up to the top of the north dike where a pump collection point would be installed to remove leachate if present. A similar leak detection pipe would be installed in the leak detection layer with a pump removal point adjacent to the leachate collection pipe on the north dike for each cell. The leachate or leakage fluid would be pumped to the leachate pond where it would be allowed to evaporate (CalEnergy, 2019, Appendix D). The proposed Project would neither negate nor supersede the requirements of the Alquist-Priolo Earthquake Fault Zoning Act, nor would the project expose people or structures to potentially substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the current Alquist-Priolo Earthquake Fault Zoning Map. In addition, all new development would have to comply with the requirements of the Alquist-Priolo Fault Zoning Act.

Impact 5.4-2: Substantial adverse effects from strong seismic ground shaking.

As discussed under Impact 5.4-1, Southern California has numerous active seismic faults potentially subjecting people to earthquake- and seismic-related hazards. Seismic activity poses two types of potential hazards for people and structures, categorized as either primary or secondary hazards. Primary hazards include ground rupture, ground shaking, ground displacement, subsidence, and uplift from earth movement. Secondary hazards include ground failure (lurch cracking, lateral spreading, and slope failure), liquefaction, water waves (seiches), movement on nearby faults (sympathetic fault movement), dam failure, and fires. These secondary hazards are discussed under Impact 5.4-3, below.

The maximum peak ground acceleration anticipated for the site is 0.905 g. Such an event would be expected to result in a Modified Mercalli intensities of approximately “X” (See Table 5.4-1), which could result in significant damage to sloped embankments and subsurface drainage and liner facilities.

As required by **Mitigation Measure GEO-1** (Reduce Effects of Ground Shaking), the project design will incorporate peak ground acceleration loading values as recommended by the geotechnical consultant to reduce potentially significant impacts to less than significant impact.

Impact 5.4-3: Substantial adverse effects from seismic-related ground failure, including liquefaction.

No significant effects related to liquefaction and dynamic settlement are anticipated for the proposed project facilities due to the depth to groundwater and the seismicity of the Salton Trough. However, in the event that localized loose granular cohesionless materials (e.g., in alluvial washes) are encountered during final design, implementation of **MM GEO-1** will reduce impacts to below a level of significance.

Impact 5.4-4: Substantial adverse effects from landslides.

No significant effects related to seismically-induced landslides are expected from implementation of the proposed Project due to the nature of on-site topography (generally level). The proposed Project does, however, incorporate a number of sloped embankments which are potentially subject to seismically-induced failure. As required under **MM GEO-1**, additional analysis of the Project site will be conducted to evaluate potential impacts associated with repeatable high ground acceleration, localized liquefaction potential, expansive and reactive soils, and wind generated erosion. Project design features derived from these analyses, including, but not limited to incorporating into the Project the appropriate design of fill slopes associated with berms, storage/disposal facilities, building pads, etc., to minimize the potential for seismically-induced landslides will reduce potential impacts to below a level of significance.

Impact 5.4-5: Substantial soil erosion or the loss of topsoil.

The proposed Project may be subject to both fluid and wind erosion impacts. Specifically, the Project site and the associated access roads are crossed by minor drainage channels. Storm runoff in these channels could result in erosion of disturbed areas, road foundations, fill slopes, etc. The proposed project design will incorporate measures to mitigate these potential effects, which may include the use of a protective berm to divert runoff around storage/disposal facilities, excavation of a borrow ditch on the up-slope side of the access road, and/or construction of the road at channel bottom elevation (to avoid the use of culverts or bridges) within crossings. These are discussed in more detail below. Further protection at road/drainage crossings will be provided by the use of concrete aprons at the crossing banks and channel bottoms. These measures will be incorporated into final project design. Disturbed areas of the project site may be susceptible to wind erosion impacts as described under existing conditions.

As required under **MM GEO-1**, final project design will incorporate all measures deemed appropriate by the geotechnical engineer on the basis of existing and future site-specific investigations. Additional analysis of the project site will be conducted to evaluate potential impacts associated with repeatable high ground acceleration, localized liquefaction potential, expansive and reactive soils, and wind generated erosion. Mitigation measures derived from these analyses may include the following types of requirements:

- Appropriate design, location, and construction of erosion control methods and devices
- Scarification and recompaction of the native soils in all fill areas to reduce erosion potential
- Identification of appropriate wind erosion mitigation measures (if necessary) such as the use of chemical or physical stabilizers, appropriate operating schedules, etc.

Potentially significant wind erosion impacts would be reduced below a level of significance with implementation **MM AIR-1** which requires the preparation and implementation of dust control plan. Additionally, the air quality control measures in the existing Solid Waste Facility Permit

(No. 13-AA-0022) and the Authority to Construct and Permit to Operate (2120 B-3) described in Section 3.4 of the EIR have been incorporated as a feature of the Project and shall also be implemented to minimize wind generated erosion.

Additionally, the proposed Project would be subject to compliance with the requirements set forth in the National Pollutant Discharge Elimination System (NPDES) Storm Water General Construction Permit (Order No. 2009-0009-DWQ) for construction activities and includes preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) and best management practices (BMPs). The SWPPP would be completed prior to project construction.

Impact 5.4-6: Landslides, lateral spreading, subsidence, liquefaction or collapse.

Potential effects from landslides and liquefaction, which can include excessive settlement, ground rupture and lateral spreading were discussed in Impact 5.4-3 and 5.4-4.

Impact 5.4-7: Substantial risks to life or property due to expansive soil.

The proposed Project may be subject to the effects of expansive soils due to the clayey nature of most surficial materials. However, the proposed Project, a landfill cell, would not be susceptible to differential movement caused by expansive clays. Final project design would incorporate all measures deemed appropriate by the geotechnical engineer on the basis of existing and future site-specific investigations. These could include:

- Use of moisture, chemical, engineering, and/or drainage methods to control expansive behavior of underlying clay soil, if appropriate.
- Use of non-steel or coated (usually polyethylene encasement) conduits, sulfate resistant cement, or other protective materials in areas of corrosive soils.

Impact 5.4-8: Direct or indirect destruction of a unique paleontological resource, site or unique geologic feature.

The Project site is underlain by the Brawley Formation (early to middle Pleistocene) and the Lake Cahuilla Beds (late Pleistocene to Holocene), both of which have a high paleontological sensitivity. The current project area contains an above average potential for paleontological resources. Therefore, any project-related ground disturbances within these formations from the construction of Cell 4A, Cell 4B and/or ancillary facilities could result in an adverse impact to non-renewable fossil resources and impacts are potentially significant. Mitigation Measures **MM PAL-1** through **MM PAL-4** would be required to mitigate impacts. With the implementation of **MM PAL-1** through **MM PAL-4**, impacts under this criterion would be reduced to less than significant.

The operation, closure and post-closure maintenance activities would not result in new ground disturbance and thus would not result in paleontological resource impacts.

5.4.4 Mitigation Measures

The following Mitigation Measures would reduce impacts to below a level of significance.

MM GEO-1: Reduce Effects of Groundshaking

Prior to issuance of construction permits, the design-level geotechnical investigations shall be conducted and shall include site-specific seismic analyses to evaluate ground accelerations for design of project components. Based on these findings, project structure designs shall be modified/strengthened to:

- Comply with all California Code of Regulations, Title 27, and the Regional Water Quality Control Board (RWQCB) and County of Imperial standards regarding the nature, location, and construction of proposed facilities, including, but not limited to Section 20370, which requires all Class II waste disposal facilities to be designed to withstand the maximum credible earthquake (MCE) without damage to the foundation or to the structures which control leachate, surface drainage, or erosion, or gas.
- Incorporate peak ground acceleration loading values of 0.905 g unless a site-specific seismic hazard analysis provides a different value of PGA or modified recommendations are provided by the geotechnical consultant.
- Incorporate all measures deemed appropriate by the geotechnical engineer. Prior to the issuance of building permits, additional analysis of the project site shall be conducted to evaluate potential impacts associated with repeatable high ground acceleration, localized liquefaction potential, expansive and reactive soils, and wind generated erosion. Mitigation measures derived from these analyses may include the following types of requirements:
 - Overexcavation of unsuitable base materials and replacement with approved and properly compacted structural fill;
 - Use of moisture, chemical, engineering, and/or drainage methods to control expansive behavior of underlying clay soil, if appropriate;
 - Use of non-steel or coated (usually polyethylene encasement) conduits, sulfate resistant cement, or other protective materials in areas of corrosive soils;
 - Appropriate design of fill slopes associated with berms, storage/disposal facilities, building pads, etc., to minimize the potential for seismically-induced landsliding. This may include measures such as establishing maximum slope grades and the use of stabilizing materials or buttressing;
 - Proper design of surface and subsurface drainage devices. Initiation of settlement monitoring if appropriate;
 - Appropriate design, location, and construction of erosion control methods and devices;

- Scarification and recompaction of the native soils in all fill areas to reduce erosion potential; and,
- Identification of appropriate wind erosion mitigation measures (if necessary) such as the use of chemical or physical stabilizers, appropriate operating schedules, etc.

Timing/Implementation: *Prior to approval of final building plans/As part of Project design.*

Enforcement/Monitoring *Imperial County Department of Planning and Development Service*

MM PAL-1: Retain Qualified Project Paleontologist

Prior to the start of ground disturbance for the construction of Cell 4A and prior to the start of ground disturbance for Cell 4B, a qualified paleontologist shall be retained by the Applicant to serve as Project Paleontologist. The qualifications of the Project Paleontologist shall be submitted to the Imperial County Planning and Development Services Department (ICPDSD) for approval. This individual shall have the following qualifications:

- Professional instruction in a field of paleontology relevant to the work proposed (vertebrate, invertebrate, trace, paleobotany, etc.), obtained through:
 - Formal education resulting in a graduate degree from an accredited institution in paleontology, or in geology, biology, botany, zoology or anthropology if the major emphasis is in paleontology; or
 - Equivalent paleontological training and experience including at least 24 months under the guidance of a professional paleontologist who meets qualification; and
- Demonstrated experience in collecting, analyzing, and reporting paleontological data;
- Demonstrated experience in planning, equipping, staffing, organizing, and supervising crews;
- Demonstrated experience in carrying paleontological projects to completion as evidenced by completion and/or publication of theses, research reports, scientific papers and similar documents.

The Project Paleontologist will serve as the Principal Investigator (PI) and is responsible for the performance of all other personnel. This person is also the contact person for the Applicant and the ICPDSD.

Additional Paleontological Staff – The Project Paleontologist may obtain the services of Paleontological Field Agents, Field Monitors, and Field Assistants, if needed, to assist in mitigation, monitoring, and curation activities.

Timing/Implementation: *Pre-construction of Cell 4A and Pre-construction of Cell 4B*

Enforcement/Monitoring *ICPDSD Monitor will verify compliance*

MM PAL-2: Provide Paleontological Environmental Awareness Training

The Applicant will provide worker’s environmental awareness training on paleontological resources protection as part of its Worker Environmental Awareness Program (WEAP) required under **Mitigation Measure BIO-5 - Prepare and implement a Worker Environmental Awareness Program**. This training may be administered by the Project Paleontologist as a stand-alone training or included as part of the overall worker’s environmental awareness training. At a minimum, the training shall include the following:

- Types of fossils that could occur at the project site;
- Types of lithologies in which the fossils could be preserved;
- Procedures that should be followed in the event of a fossil discovery; and
- Penalties for disturbing paleontological resources.

Timing/Implementation: *WEAP training shall be provided prior to, and during construction.*

Enforcement/Monitoring *ICPDSD Monitor will verify compliance*

MM PAL-3: Prepare and Implement a Paleontological Resource Mitigation and Monitoring Plan (PRMMP)

Prior to the start of construction of Cell 4A and 4B, the Applicant shall submit a Paleontological Mitigation and Monitoring Plan (PRMMP) for the Project to the ICPDSD for review and approval. The PRMMP shall be prepared and implemented during the construction of Cell 4A and Cell 4B under the direction of the Project Paleontologist and shall address and incorporate mitigation measures **PAL-1, PAL-3** and **PAL-4**. The PRMMP shall be based on Society of Vertebrate Paleontology (SVP) assessment and mitigation guidelines and meet all regulatory requirements. A monitoring plan indicates the avoidance or treatments recommended for the area of the proposed disturbance and must at a minimum address the following:

- Identification and mapping of impact areas of high paleontological sensitivity that will be monitored during construction;
- A coordination strategy to ensure that a qualified paleontologist will conduct monitoring at the appropriate locations at the appropriate intensity;
- The significance criteria to be used to determine which resources will be avoided or recovered for their data potential;
- Procedures for the discovery, recovery, preparation, and analysis of paleontological resources encountered during construction, in accordance with standards for recovery established by the SVP;
- Provisions for verification that the Applicant has an agreement with a recognized museum repository for the disposition of any recovered fossils
- Specifications that all paleontological work undertaken shall be carried out by qualified paleontologists;
- Description of monitoring reports that will be prepared which shall include daily logs, monthly reports, and a final monitoring report with an itemized list of specimens found to be submitted to the ICPDSD, the Applicant and the designated repository within 90 days of the completion of monitoring;
- The implementation sequence and the estimated time frames needed to accomplish all project-related tasks during the ground-disturbance phases; and
- Person(s) expected to perform each of the tasks, and their responsibilities, shall be identified.
- All impact-avoidance measures (such as flagging or fencing) to prohibit or otherwise restrict access to sensitive resource areas that are to be avoided (if any) during ground disturbance/ construction shall be described. Any areas where these measures are to be implemented shall be identified. The description shall address how these measures would be implemented prior to the start of ground disturbance and how long they would be needed to protect the resources from project-related impacts.

Timing/Implementation: Pre-construction and Construction Phases

Reporting Requirements Prior to the start of construction of Cell 4A and Cell 4B, the Applicant shall submit a PRMMP to the ICPDSD for review and approval

Enforcement/Monitoring ICPDSD Monitor will verify compliance

MM PAL-4: Paleontological Monitoring

The Applicant shall continuously comply with the following during all ground disturbing activities during the project:

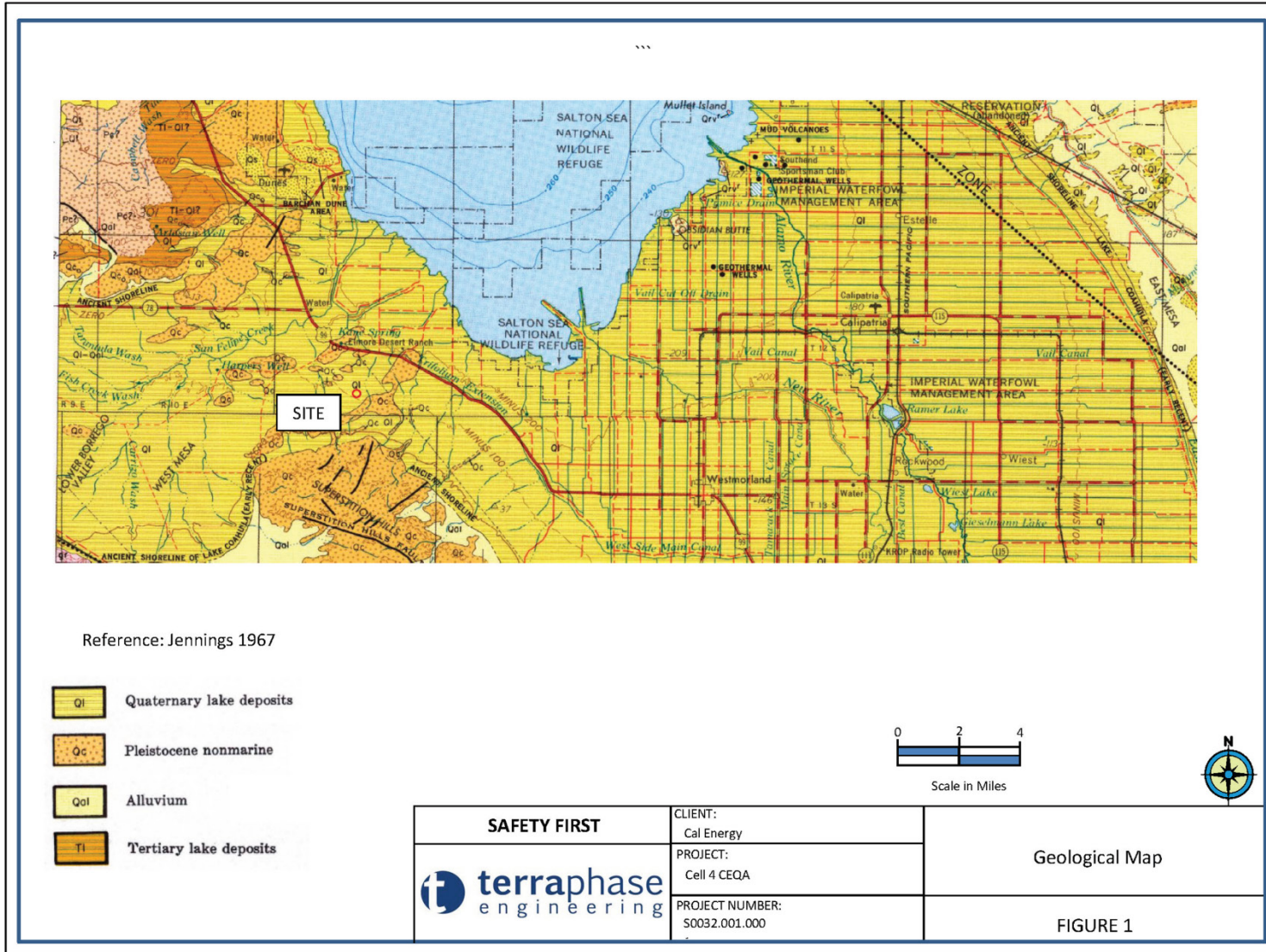
- Areas within the Project work areas with high paleontological sensitivity shall be plotted on the main project map and all ground disturbing activity in these areas shall be monitored on a full-time basis by an ICPDSD approved Paleontological Field Agent who will work under the supervision of the paleontologist and principal investigator.
- The level of effort and intensity for monitoring shall be modified as needed by the Project Paleontologist, based on the sediment types, depths, and distributions observed.
- Project activities shall be diverted when data recovery of significant fossils is warranted, as determined by the Project Paleontologist. Monitoring shall be conducted as follows:
 - Monitoring of ground disturbance shall consist of the surface collection of visible vertebrate and significant invertebrate fossils within the project site. Upon discovery of paleontological resources by paleontologists or construction personnel, work in the immediate area of the find shall be halted and diverted and the Project Paleontologist shall be notified. Once the find has been inspected and a preliminary assessment has been made, the Project Paleontologist will notify the Applicant. The Applicant will notify the ICPDSD of the discovery within 24 hours.
 - Recovered specimens shall be prepared to a point of identification and curated into a repository with retrievable storage.
- All significant fossil specimens recovered from the Project site shall be treated (prepared, identified, curated, and catalogued) in accordance with the designated repository requirements.
 - Samples shall be submitted to a laboratory, acceptable to the designated repository, for identification, dating, and microfossil and pollen analysis.
 - Upon completion of the monitoring efforts,
- Within 90 days of the completion of monitoring effort(s), monitoring reports will be prepared and submitted to the ICPDSD, the Applicant and the designated repository.

Timing/Implementation: *Construction Phases*

Enforcement/Monitoring *ICPDSD Monitor will verify compliance*

Level of Significance After Mitigation

Implementation of **MM GEO-1** and **MMs PAL-1** through **PAL-4** would reduce the geological and paleontological resource impacts to a level that is less than significant by ensuring appropriate measures are incorporated into the project design; that resource awareness training is provided to all construction personnel; that proper resource monitoring is conducted; and, that the proper assessment, documentation, and recovery and curation of unique fossils occurs.

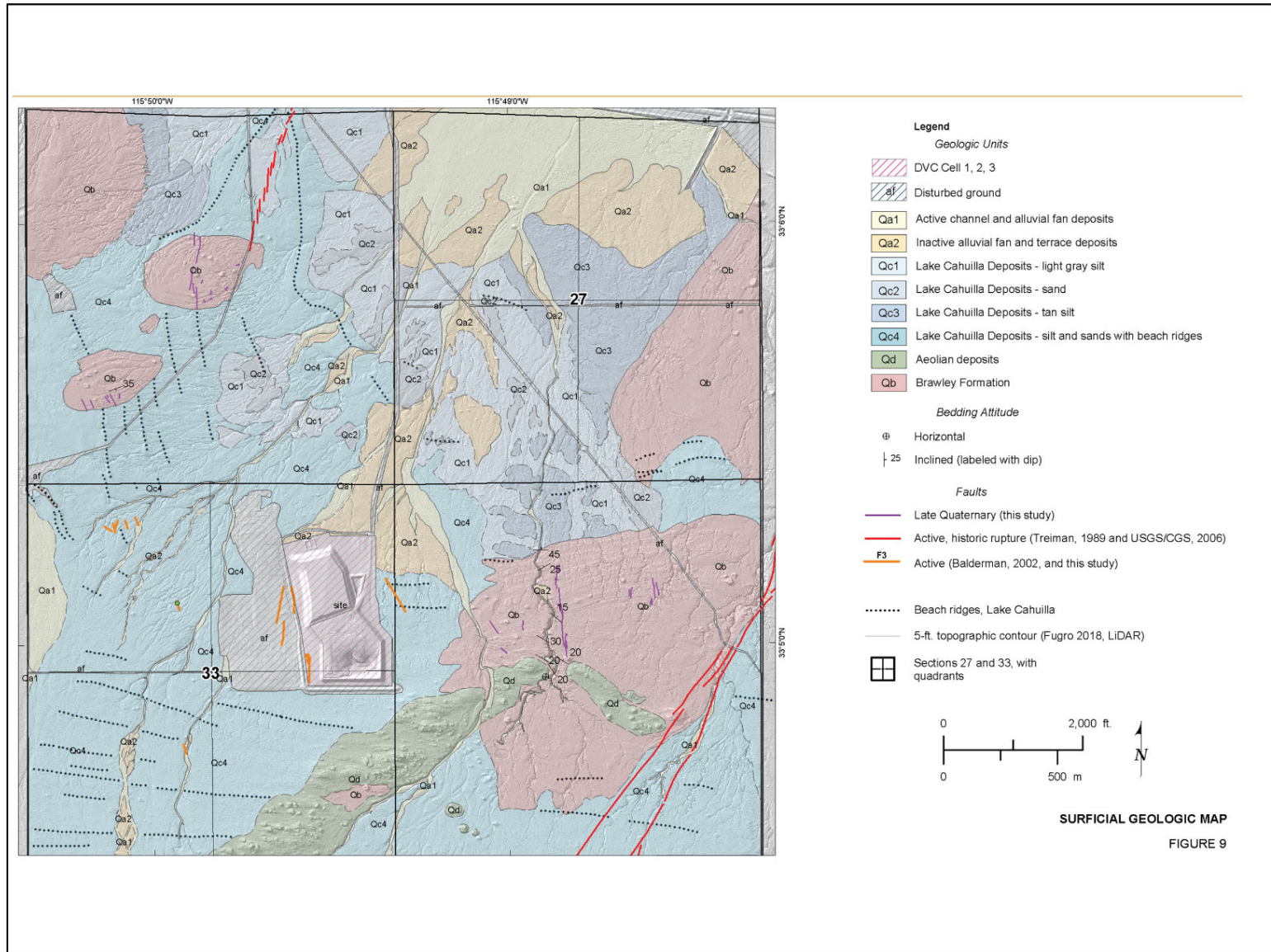


SOURCE: Terraphase Engineering, 2019.



Soil Formations
Desert Valley Company Monofill Expansion Project, Cell 4
Figure 5.4-1

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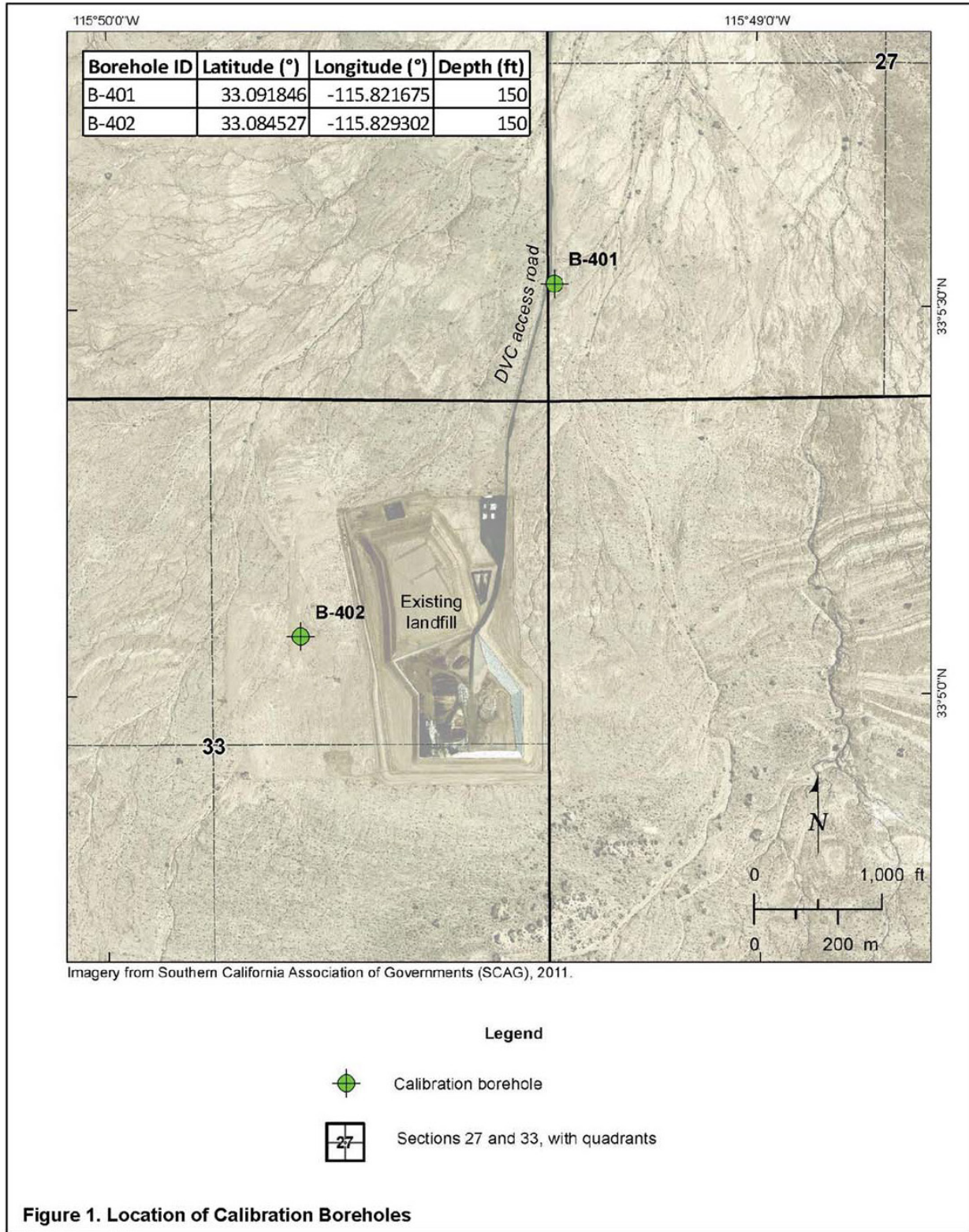


SOURCE: Fugro, 2018.



Brawley Soil Formations
Desert Valley Company Monofill Expansion Project, Cell 4
Figure 5.4-2

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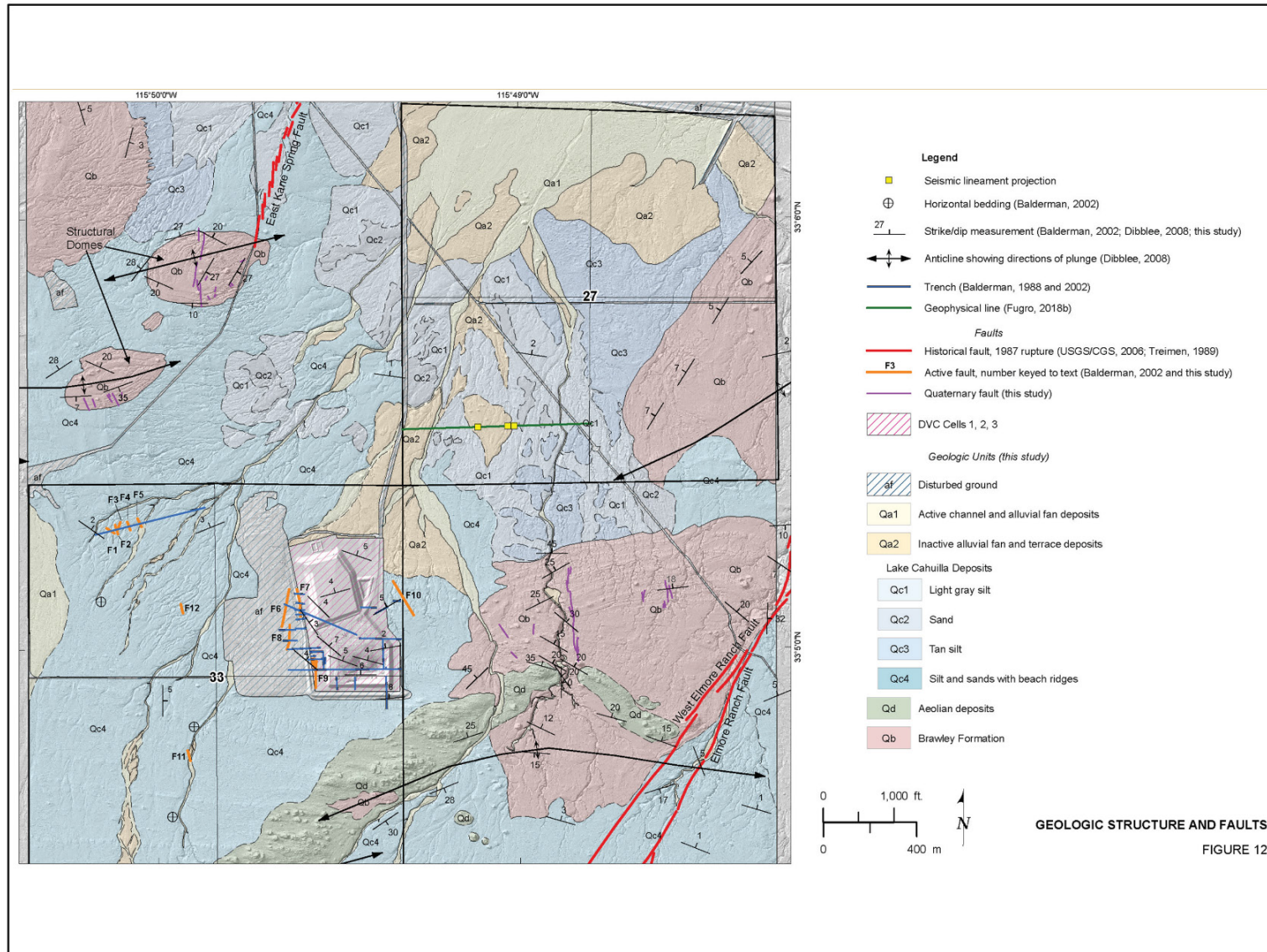


SOURCE: Fugro 2019a.



Calibration Soil Boring Locations
Desert Valley Company Monofill Expansion Project, Cell 4
Figure 5.4-3

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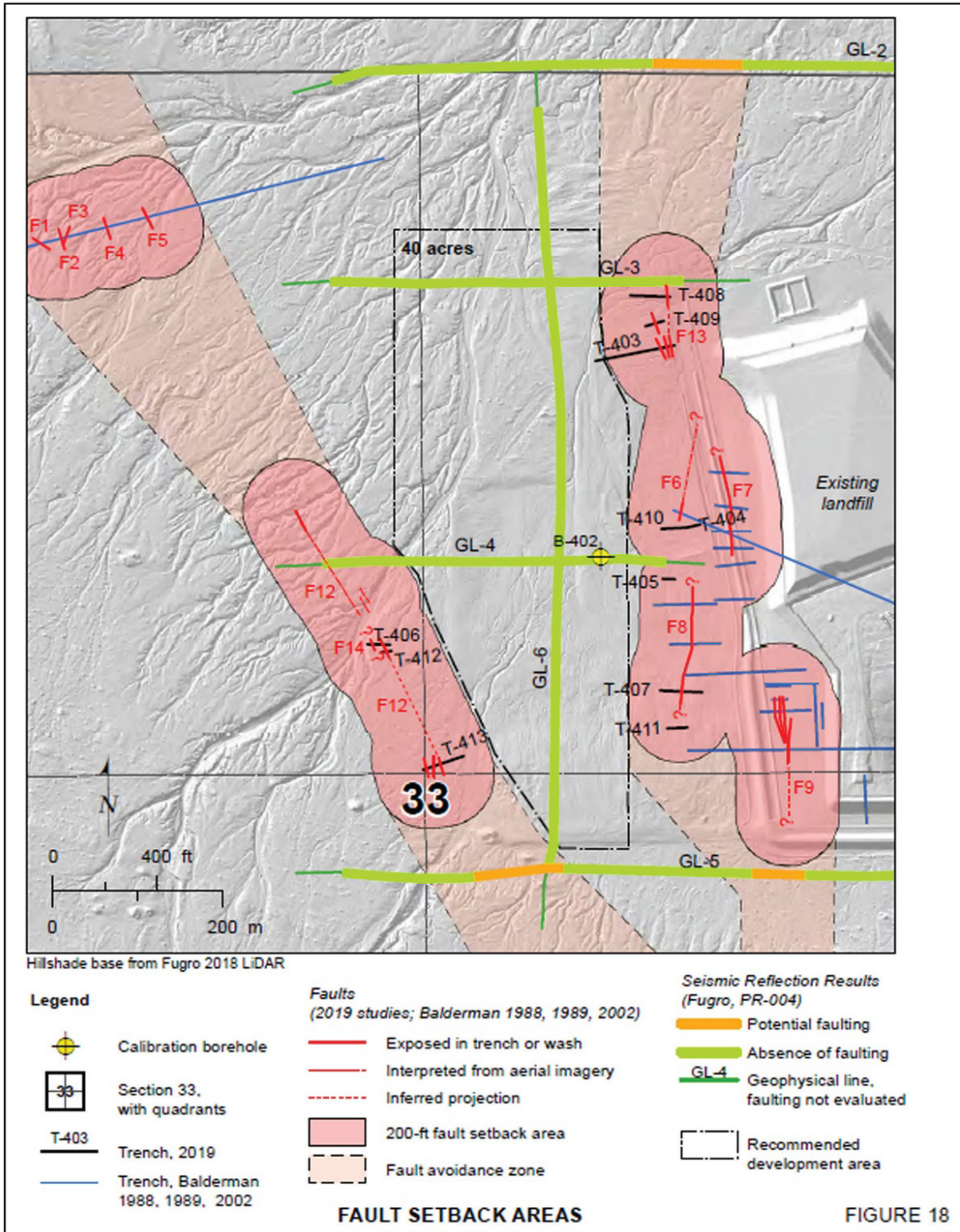


SOURCE: Fugro, 2018.



Previously Identified Faults
Desert Valley Company Monofill Expansion Project, Cell 4
Figure 5.4-4

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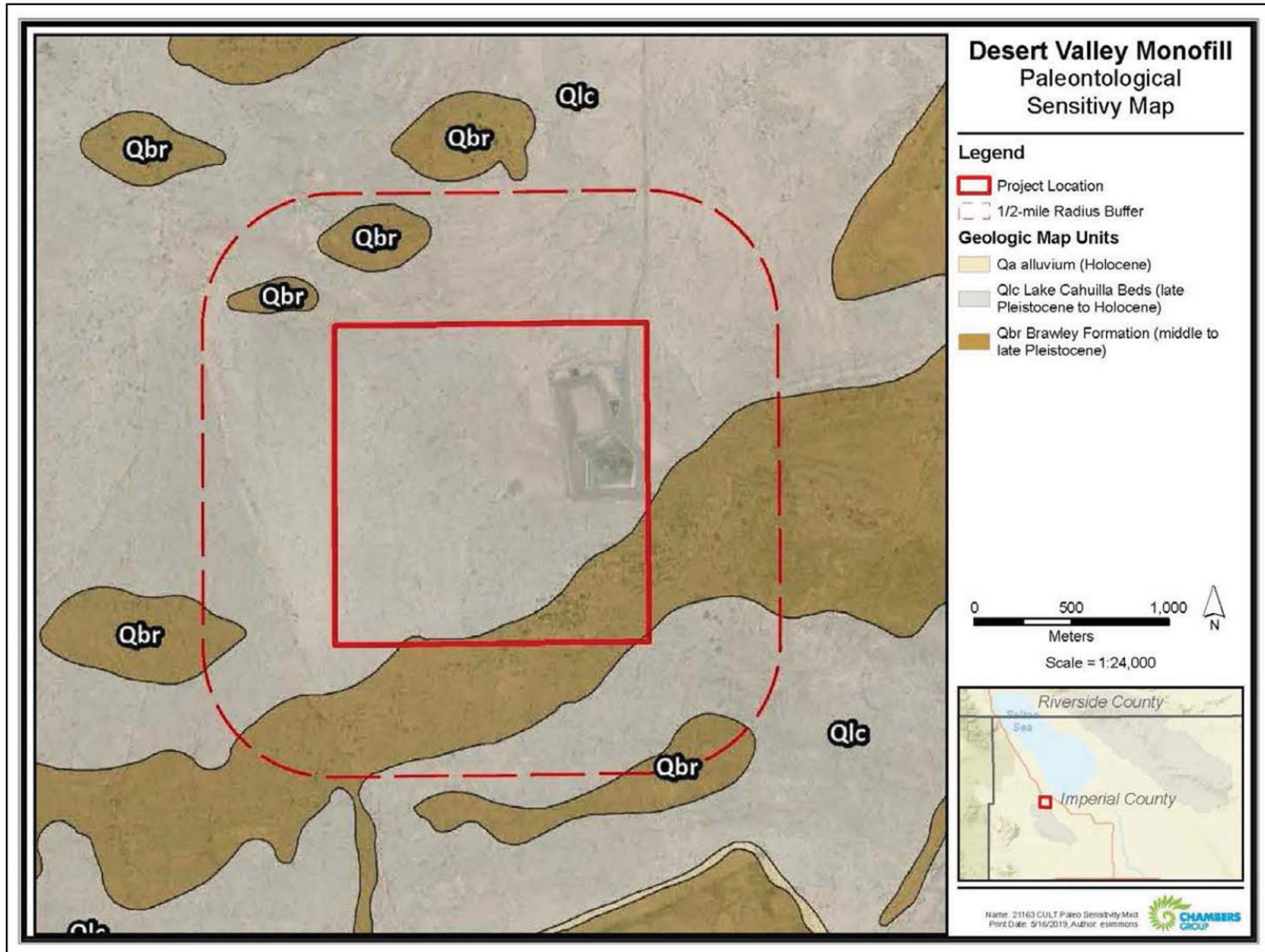


SOURCE: Fugro 2019c.



Faults and Fault Setback Areas
Desert Valley Company Monofill Expansion Project, Cell 4
Figure 5.4-5

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SOURCE: Chambers, 2019.



Paleontological Sensitivity
Desert Valley Company Monofill Expansion Project, Cell 4
Figure 5.4-6

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5.5. Greenhouse Gas Emissions

This section addresses potential biological resource impacts that may result from construction, operation, closure and post-closure maintenance of the Desert Valley Company Monofill Expansion Project, Cell 4. The following discussion addresses the existing conditions in the Project area, identifies applicable regulations, identifies and analyzes environmental impacts, and recommends measures to reduce or avoid adverse impacts anticipated from implementation of the Project, as applicable.

The analysis in this section is based on the *Greenhouse Gas Study* prepared by Birdseye Planning Group (Birdseye, 2020). The Greenhouse Gas Study was peer reviewed by BRG Consulting, Inc. The report and its attachments are included as Appendix F.

Scoping Issues Addressed

During the scoping period for the Project, a public scoping meeting was conducted, and written comments were received from agencies. No issues related to greenhouse gas emissions were raised.

Issues Scoped out as part of the Initial Study

None.

5.5.1. Environmental Setting

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO₂), methane (CH₄), nitrous oxides (N₂O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

GHGs are emitted by both natural processes and human activities. Of these gases, CO₂ and CH₄ are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely by-products of fossil fuel combustion, whereas CH₄ results from off-gassing associated with agricultural practices and landfills. Man-made GHGs, many of which have greater heat-absorption potential than CO₂, include fluorinated gases and sulfur hexafluoride (SF₆). Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO₂) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as “carbon dioxide equivalent” (CO₂e), and is the amount of a GHG emitted multiplied by its GWP. Carbon dioxide has a GWP of one. By

contrast, CH₄ has a GWP of 28, meaning its global warming effect is 28 times greater than carbon dioxide on a molecule per molecule basis.

California produced 440.4 million metric tons (MMT) CO₂e in 2015. The major source of GHG in California is transportation, contributing 37 percent of the state's total GHG emissions. The industrial sector is the second largest source, contributing 21 percent of the state's GHG emissions. California emissions result in part to its geographic size and large population compared to other states. However, a factor that reduces California's per capita fuel use and GHG emissions, as compared to other states, is its relatively mild climate. The CARB has projected statewide unregulated GHG emissions for the year 2020 is projected to be 509 MMT CO₂e. These projections are based on Business As Usual (BAU) conditions and represent the emissions that would be expected to occur in the absence of any GHG reduction actions.

5.5.2. Regulatory Setting

State

Executive Order S-3-05

In 2005, former Governor Schwarzenegger issued Executive Order (EO) S-3-05, establishing statewide GHG emissions reduction targets. EO S-3-05 states that by 2020, emissions shall be reduced to 1990 levels; and by 2050, emissions shall be reduced to 80 percent of 1990 levels. In response to EO S-3-05, CalEPA created the Climate Action Team (CAT), which in March 2006 published the Climate Action Team Report (the "2006 CAT Report"). The 2006 CAT Report recommended various strategies that the state could pursue to reduce GHG emissions. These strategies could be implemented by various state agencies to ensure that the emission reduction targets in EO S-3-05 are met and can be met with existing authority of the state agencies. The strategies include the reduction of passenger and light duty truck emissions, the reduction of idling times for diesel trucks, an overhaul of shipping technology/infrastructure, increased use of alternative fuels, increased recycling, and landfill methane capture.

Assembly Bill 32 and CARB' Scoping Plan

To further the goals established in EO S-3-05, the Legislature passed AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020. Under AB 32, the CARB is responsible for and is recognized as having the expertise to carry out and develop the programs and requirements necessary to achieve the GHG emissions reduction mandate of AB 32. Under AB 32, CARB must adopt regulations requiring the reporting and verification of statewide GHG emissions from specified sources. This program is used to monitor and enforce compliance with established standards. CARB also is required to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 authorized CARB to adopt market-based compliance mechanisms to meet the

specified requirements. Finally, CARB is ultimately responsible for monitoring compliance and enforcing any rule, regulation, order, emission limitation, emission reduction measure, or market-based compliance mechanism adopted.

In 2007, CARB approved a limit on the statewide GHG emissions level for year 2020 consistent with the determined 1990 baseline (427 MMT CO₂e). CARB's adoption of this limit is in accordance with Health and Safety Code, Section 38550.

Further, in 2008, CARB adopted the Scoping Plan in accordance with Health and Safety Code, Section 38561. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions for various emission sources/sectors to 1990 levels by 2020. The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team early actions and additional GHG reduction features by both entities, identifies additional measures to be pursued as regulations, and outlines the role of a cap-and-trade program. The key elements of the Scoping Plan include the following:

1. Expanding and strengthening existing energy efficiency programs, as well as building and appliance standards;
2. Achieving a statewide renewable energy mix of 33%;
3. Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85% of California's GHG emissions;
4. Establishing targets for transportation related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets;
5. Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
6. Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation.

In the Scoping Plan (CARB 2008), CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of approximately 28.5% from the otherwise projected 2020 emissions level (i.e., those emissions that would occur in 2020) absent GHG reducing laws and regulations (referred to as BAU). To calculate this percentage reduction, CARB assumed that all new electricity generation would be supplied by natural gas plants, no further regulatory action would impact vehicle fuel efficiency, and building energy efficiency codes would be held at 2005 standards. In the 2011 Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document, CARB revised its estimates of the projected 2020 emissions level in light of the economic recession and the availability of updated information about GHG reduction regulations.

Based on the new economic data, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of 21.7% (down from 28.5%) from the BAU conditions. When the 2020 emissions level projection was updated to account for newly implemented regulatory measures, including Pavley I (model years 2009–2016) and the Renewables Portfolio Standard (RPS) (12% to 20%), CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of 16% (down from 28.5%) from the BAU conditions.

In 2014, CARB adopted the First Update to the Climate Change Scoping Plan: Building on the Framework (First Update; CARB 2014). The stated purpose of the First Update is to “highlight California’s success to date in reducing its GHG emissions and lay the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80% below 1990 levels by 2050” (CARB 2014). The First Update found that California is on track to meet the 2020 emissions reduction mandate established by AB 32 and noted that California could reduce emissions further by 2030 to levels needed to stay on track to reduce emissions to 80% below 1990 levels by 2050 if the state realizes the expected benefits of existing policy goals.

In conjunction with the First Update, CARB identified six key focus areas comprising major components of the state’s economy to evaluate and describe the larger transformative actions that will be needed to meet the state’s more expansive emission reduction needs by 2050. Those six areas are (1) energy, (2) transportation (vehicles/equipment, sustainable communities, housing, fuels, and infrastructure), (3) agriculture, (4) water, (5) waste management, and (6) natural and working lands. The First Update identifies key recommended actions for each sector that will facilitate achievement of EO S-3-05’s 2050 reduction goal.

Based on CARB’s research efforts presented in the First Update, it has a “strong sense of the mix of technologies needed to reduce emissions through 2050”. Those technologies include energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies. As part of the First Update, CARB recalculated the state’s 1990 emissions level using more recent GWPs identified by the Intergovernmental Panel on Climate Change (IPCC). Using the recalculated 1990 emissions level (431 MMT CO₂e) and the revised 2020-emissions-level projection identified in the 2011 Final Supplement, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of approximately 15% (instead of 28.5% or 16%) from the BAU conditions.

In January 2017, CARB released, *The 2017 Climate Change Scoping Plan Update*, for public review and comment. This update proposes CARB’s strategy for achieving the state’s 2030 GHG target as established in SB 32, including continuing the Cap-and-Trade Program through 2030, and includes a new approach to reduce GHGs from refineries by 20%. The Second Update incorporates

approaches to cutting short-lived climate pollutants (SLCPs) under the Short-Lived Climate Pollutant Reduction Strategy (a planning document that was adopted by CARB in March 2017), acknowledges the need for reducing emissions in agriculture, and highlights the work underway to ensure that California's natural and working lands increasingly sequester carbon. During development of the Second Update, CARB held a number of public workshops in the Natural and Working Lands, Agriculture, Energy, and Transportation sectors to inform development of the 2030 Scoping Plan Update. The Second Update has not been considered by CARB's Governing Board at the time this analysis was prepared.

Executive Order S-01-07

Executive Order S-01-07 was enacted on January 18, 2007. The order mandates that a Low Carbon Fuel Standard (LCFS) for transportation fuels be established for California to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020.

Assembly Bill 939 and Senate Bill 1374

AB 939 requires that each jurisdiction in California to divert at least 50 percent of its waste away from landfills, whether through waste reduction, recycling or other means. SB 1374 requires the California Integrated Waste Management Board to adopt a model ordinance by March 1, 2004 suitable for adoption by any local agency to require 50 to 75 percent diversion of construction and demolition of waste materials from landfills.

Senate Bill 1368

SB 1368 is the companion Bill of AB 32 and was adopted September 2006. SB 1368 required the California Public Utilities Commission (CPUC) to establish a performance standard for baseload generation of GHG emissions by investor-owned utilities by February 1, 2007 and for local publicly owned utilities by June 30, 2007. These standards could not exceed the GHG emissions rate from a baseload combined-cycle, natural gas-fired plant. Furthermore, the legislation states that all electricity provided to the State, including imported electricity, must be generated by plants that meet the standards set by the CPUC and the California Energy Commission (CEC).

Senate Bill 97

SB 97 was adopted August 2007 and acknowledges that climate change is an environmental issue that requires analysis under CEQA. SB 97 directed the Governor's Office of Planning and Research (OPR), which is part of the State Natural Resources Agency, to prepare, develop, and transmit to CARB guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, by July 1, 2009. The Natural Resources Agency was required to certify and adopt those guidelines by January 1, 2010. Pursuant to the requirements of SB 97 as stated above, on December 30, 2009 the Natural Resources Agency adopted amendments to the state CEQA

guidelines that address GHG emissions. The CEQA Guidelines Amendments changed sections of the CEQA Guidelines and incorporated GHG language throughout the Guidelines. However, no GHG emissions thresholds of significance were provided and no specific mitigation measures were identified. The GHG emission reduction amendments went into effect on March 18, 2010 and are summarized below:

- Climate action plans and other greenhouse gas reduction plans can be used to determine whether a project has significant impacts, based upon its compliance with the plan.
- Local governments are encouraged to quantify the greenhouse gas emissions of proposed projects, noting that they have the freedom to select the models and methodologies that best meet their needs and circumstances. The section also recommends consideration of several qualitative factors that may be used in the determination of significance, such as the extent to which the given project complies with state, regional, or local GHG reduction plans and policies. OPR does not set or dictate specific thresholds of significance. Consistent with existing CEQA Guidelines, OPR encourages local governments to develop and publish their own thresholds of significance for GHG impacts assessment.
- When creating their own thresholds of significance, local governments may consider the thresholds of significance adopted or recommended by other public agencies or recommended by experts.
- New amendments include guidelines for determining methods to mitigate the effects of greenhouse gas emissions in Appendix F of the CEQA Guidelines.
- OPR is clear to state that “to qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project; general compliance with a plan, by itself, is not mitigation.”
- OPR’s emphasizes the advantages of analyzing GHG impacts on an institutional, programmatic level. OPR therefore approves tiering of environmental analyses and highlights some benefits of such an approach.
- EIRs must specifically consider a project's energy use and energy efficiency potential.

Senate Bills 1078, 107, and X1-2 and Executive Orders S-14-08 and S-21-09

SB 1078 requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 changed the target date to 2010. EO S-14-08 was signed on November 2008 and expands the State’s Renewable Energy Standard to 33 percent renewable energy by 2020. EO S-21-09 directed CARB to adopt regulations by July 31, 2010 to enforce S-14-08. SB X1-2 codifies the 33 percent renewable energy requirement by 2020.

California Code of Regulations Title 24, Part 6

California Code of Regulations (CCR) Title 24, Part 6: California’s Energy Efficiency Standards for Residential and Nonresidential Buildings were first established in 1978 in response to a legislative

mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions. The Energy Commission adopted 2008 Standards on April 23, 2008 and Building Standards Commission approved them for publication on September 11, 2008. These updates became effective on August 1, 2009. All buildings for which an application for a building permit is submitted on or after July 1, 2014 must follow the 2013 standards. The 2013 commercial standards are estimated to be 30 percent more efficient than the 2008 standards; 2013 residential standards are at least 25 percent more efficient. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions.

Senate Bill 375

SB 375 was adopted in September 2008 and aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPO) to adopt a Sustainable Communities Strategy (SCS) or alternate planning strategy (APS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP). CARB, in consultation with each MPO, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's sustainable community's strategy or alternate planning strategy for consistency with its assigned targets.

City and County land use policies, including General Plans, are not required to be consistent with the RTP and associated SCS or APS. However, CEQA incentivizes, through streamlining and other provisions, qualified projects that are consistent with an approved SCS or APS and categorized as "transit priority projects."

Senate Bill X7-7

SB X7-7, enacted on November 9, 2009, mandates water conservation targets and efficiency improvements for urban and agricultural water suppliers. SB X7-7 requires the Department of Water Resources (DWR) to develop a task force and technical panel to develop alternative best management practices for the water sector. Additionally, SB X7-7 required the DWR to develop criteria for baseline uses for residential, commercial, and industrial uses for both indoor and landscaped area uses. The DWR was also required to develop targets and regulations that achieve a statewide 20 percent reduction in water usage.

California Green Building Standards

Title 24, Part 6. Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically establishes Building Energy Efficiency Standards that are designed to ensure new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. These energy efficiency standards are reviewed every few years by the Building Standards Commission and the CEC (and revised if necessary) (California Public Resources Code, Section 25402(b)(1)). The regulations receive input from members of industry, as well as the public, with the goal of "reducing of wasteful, uneconomic, inefficient, or unnecessary consumption of energy" (California Public Resources Code, Section 25402). These regulations are carefully scrutinized and analyzed for technological and economic feasibility (California Public Resources Code, Section 25402(d)) and cost effectiveness (California Public Resources Code, Sections 25402(b)(2) and (b)(3)). These standards are updated to consider and incorporate new energy efficient technologies and construction methods. As a result, these standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment.

The 2016 Title 24 standards are the currently applicable building energy efficiency standards and became effective on January 1, 2017. In general, single-family homes built to the 2016 standards are anticipated to use approximately 28% less energy for lighting, heating, cooling, ventilation, and water heating than those built to the 2013 standards, and nonresidential buildings built to the 2016 standards will use an estimated 5% less energy than those built to the 2013 standards (CEC 2015a).

Title 24, Part 11. In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as "CALGreen," and establishes minimum mandatory standards and voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential, and state-owned buildings and schools and hospitals. The CALGreen 2016 standards became effective on January 1, 2017. The mandatory standards require the following (24 CCR Part 11):

- Mandatory reduction in indoor water use through compliance with specified flow rates for plumbing fixtures and fittings;
- Mandatory reduction in outdoor water use through compliance with a local water efficient landscaping ordinance or the California Department of Water Resources' Model Water Efficient Landscape Ordinance;
- Diversion of 65% of construction and demolition waste from landfills;

- Mandatory inspections of energy systems to ensure optimal working efficiency;
- Inclusion of electric vehicle charging stations or designated spaces capable of supporting future charging stations; and
- Low-pollutant-emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring, and particle board.

The CALGreen standards also include voluntary efficiency measures that are provided at two separate tiers and implemented at the discretion of local agencies and applicants. CALGreen's Tier 1 standards call for a 15% improvement in energy requirements, stricter water conservation, 65% diversion of construction and demolition waste, 10% recycled content in building materials, 20% permeable paving, 20% cement reduction, and cool/solar-reflective roofs. CALGreen's more rigorous Tier 2 standards call for a 30% improvement in energy requirements, stricter water conservation, 75% diversion of construction and demolition waste, 15% recycled content in building materials, 30% permeable paving, 25% cement reduction, and cool/solar-reflective roofs (24 CCR Part 11).

The California Public Utilities Commission, CEC, and CARB also have a shared, established goal of achieving zero net energy (ZNE) for new construction in California. The key policy timelines include the following: (1) all new residential construction in California will be ZNE by 2020, and (2) all new commercial construction in California will be ZNE by 2030. As most recently defined by the CEC in its 2015 Integrated Energy Policy Report, a ZNE code building is "one where the value of the energy produced by on-site renewable energy resources is equal to the value of the energy consumed annually by the building" using the CEC's Time Dependent Valuation metric.

Title 20. Title 20 of the California Code of Regulations requires manufacturers of appliances to meet state and federal standards for energy and water efficiency. Performance of appliances must be certified through the CEC to demonstrate compliance with standards. New appliances regulated under Title 20 include refrigerators, refrigerator-freezers, and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwashers; clothes washers and dryers; cooking products; electric motors; low voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing for each type of appliance covered under the regulations and appliances must meet the standards for energy performance, energy design, water performance, and water design. Title 20 contains three types of standards for appliances: federal and state standards for federally regulated appliances, state standards for federally regulated appliances, and state standards for non-federally regulated appliances.

Executive Order B-30-15

EO B-30-15 (April 2015) identified an interim GHG reduction target in support of targets previously identified under S-3-05 and AB 32. EO B-30-15 set an interim target goal of reducing statewide GHG emissions to 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing statewide GHG emissions to 80% below 1990 levels by 2050 as set forth in EO S-3-05. To facilitate achievement of this goal, EO B-30-15 calls for an update to CARB's Scoping Plan to express the 2030 target in terms of MMT CO₂e. EO B-30-15 also calls for state agencies to continue to develop and implement GHG emission reduction programs in support of the reduction targets. EO B-30-15 does not require local agencies to take any action to meet the new interim GHG reduction target.

Senate Bill 32 and Assembly Bill 197

SB 32 and AB 197 (enacted in 2016) are companion bills that set new statewide GHG reduction targets, make changes to CARB's membership, increase legislative oversight of CARB's climate change-based activities, and expand dissemination of GHG and other air quality-related emissions data to enhance transparency and accountability. More specifically, SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40% below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, in order to provide ongoing oversight over implementation of the state's climate policies. AB 197 added two members of the Legislature to CARB as nonvoting members; requires CARB to make available and update (at least annually via its website) emissions data for GHGs, criteria air pollutants, and toxic air contaminants from reporting facilities; and requires CARB to identify specific information for GHG emissions reduction measures when updating the Scoping Plan.

Local

ICAPCD has no regulations or additional guidelines relative to GHG emissions for residential, commercial, or industrial projects; however, ICAPCD Rule 903 applies to any stationary source that would have the potential to emit air contaminants equal to or in excess of the threshold for a major source of regulated air pollutants. In 2011, ICAPCD amended Rule 903 to add GHGs to the list of regulated pollutants. As part of the revised rule, stationary sources that exceed the de minimis emissions level of 20,000 tons of CO₂e per year in a 12-month period would need to meet recordkeeping and reporting requirements.

General Plan Consistency

No specific GHG regulations pertaining to projects within the County of Imperial have been developed by the County or the ICAPCD. Both entities rely upon the CEQA Guidelines that govern

the evaluation of impacts associated with GHG emissions, as well as on guidance provided by OPR in its technical advisory document, CEQA and Climate Change: Addressing Climate Change through CEQA Review, published in October 2008.

5.5.3. Analysis of Project Effects and Significance Determination

Guidelines for Determination of Significance

A project would be considered to have a significant impact if it would:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
2. Conflict with an applicable plan or policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Impact Analysis

Impact 5.5-1: Generation of greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Construction of proposed improvements would generate GHG emissions. Site preparation activities, site grading, exhaust from vehicles transporting construction materials and personnel, and emissions from heavy-duty construction equipment would generate GHG emissions. Construction emissions would vary based on the number and types of heavy-duty vehicles and equipment in use, the intensity of construction activities, the number of construction personnel involved, and the length of time over which these construction activities would occur. Implementation would generate GHG emissions from truck and employee/vendor trips and use of heavy equipment. The Project would not produce electrical power or otherwise offset emissions associated with carbon-based fuels.

Construction Emissions

Construction activity is assumed to occur over two one-year periods in 2023 and 2050. Based on CalEEMod results, construction activity for the project would generate an estimated 599 metric tons of CO₂e in 2023 and 411 tons of CO₂e in 2050. Amortized over a 30-year period (the assumed life of the project), construction of the proposed project would generate a total of 34 tons metric tons of CO₂e. The estimated construction related greenhouse gas emissions are summarized on **Table 5.5-1**.

TABLE 5.5-1: ESTIMATED CONSTRUCTION RELATED GREENHOUSE GAS EMISSIONS.

Year	Annual Emissions (metric tons CO ₂ e)
Construction of Cell 4A – Year 2023	559
Construction of Cell 4A – Year 2050	411
Amortized 30 years - 2023	20
Amortized 30 years - 2050	14
TOTAL	34

Source: Birdseye Planning Group, 2020a.

Operational Emissions

Long-term emissions would be generated primarily by operation of equipment and trucks and would not change from baseline conditions or with construction of Cells 4A and 4B. Water would be imported for potable and dust abatement use. Electricity would be associated with operation of the on-site office facility. Each source is discussed below and includes the anticipated emissions that would result from operation of the proposed project. **Table 5.5-2** combines the net new construction, operational, and mobile GHG emissions associated with the proposed Project.

TABLE 5.5-2: COMBINED ANNUAL GREENHOUSE GAS EMISSIONS.

Emission Source	Annual Emissions (metric tons CO ₂ e)
Construction	
Cell 4A	20 (2023)
Cell 4B	14 (2050)
Operational	
Energy	8
Solid Waste	1
Water	2
Mobile	1,392
TOTAL	1,437

Source: Birdseye Planning Group, 2020a.

The proposed Project would generate GHG emissions during construction, primarily related to emissions from construction equipment. Operational GHG emissions would occur primarily related to operation of equipment and trucks. As shown above, the Project's combined annual emissions of GHG from construction and operational GHG emissions would be 1,437 metric tons of CO₂e which

is below the 20,000 annual metric tons (MT) screening threshold. Impacts resulting from Project-generated GHGs would be less than significant.

A proposed project exceeding the 20,000 annual MT screening threshold could have a significant environmental impact under CEQA. The proposed Project would not exceed the threshold; thus, emissions, when combined with existing, approved, proposed, and reasonably foreseeable projects within the County would not result in cumulative emissions that would conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases. Implementation of the project would not exceed the IPAPCD GHG mission thresholds; and thus, would not cumulatively contribute to significant or adverse impacts.

Impact 5.5-2: Conflict with an applicable plan or policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

A proposed project exceeding the 20,000 annual MT screening threshold could have a significant environmental impact under CEQA. The proposed Project would not exceed the threshold; thus, emissions, when combined with existing, approved, proposed, and reasonably foreseeable projects within the County would not result in cumulative emissions that would conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases. Implementation of the project would not exceed the IPAPCD GHG emission thresholds; and thus, would not cumulatively contribute to significant or adverse impacts.

5.5.4. Mitigation Measures

No mitigation is required.

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5.6 HAZARDS AND HAZARDOUS MATERIALS

This section describes the existing conditions with regard to potential hazards within the Project site, the regulatory framework, potential hazards created as a result of implementing the proposed Project and provides mitigation measures to reduce these impacts. The regulatory framework discussion focuses on the federal, state, and local regulations that apply.

The analysis presented in this section is based, in part, on the Phase I Environmental Site Assessment prepared by Ninyo & Moore (2020). This report is provided as Appendix K of this EIR.

Scoping Issues Addressed

During the scoping period for the Project, a public scoping meeting was conducted, and written comments were received from agencies. The following issues related to potential hazards were raised by the California Department of Resources and Recycling and Recovery (CalRecycle) are addressed in this section:

- The Project may require an exemption or license from the California Department of Public Health (CDPH) since the materials received include materials that are considered Naturally Occurring Radioactive Material (NORM) and possibly Technologically Enhanced NORM (TENORM), which are regulated by CDPH.
- DEIR should include a discussion and analysis of potential impacts from receipt and handling of NORM/TENORM, including radiation monitoring and maximum radiation levels in the waste stream. Any potentially significant impacts should be analyzed in the DEIR.

Issues Scoped Out

The Imperial County Planning and Development Services Department (County) determined in the Initial Study/Notice of Preparation (IS/NOP), located in Appendix A-1, that the following environmental issue areas resulted in no impact or less-than-significant impact, and were scoped out of requiring further review in this draft EIR. Please refer to Appendix A-1 of this DEIR for a copy of the NOP/IS and additional information regarding these issue areas

- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. The nearest schools (Westmore Elementary School and Westmoreland Junior High School) are located 13 miles east of the Project site.
- Result in a safety hazard or excessive noise for people residing or working in an area located within an airport land use plan or, within two miles of a public airport or public use airport. The Project is not located within the Airport Land Use Compatibility Plan for Imperial County Airports (County of Imperial, 1996) or within two miles of a public airport or public use

airport. The nearest public use airport, Salton Sea Airport, is located 13 miles northwest of the Project site.

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. An Emergency Response/Contingency Plan for the existing DVCM is included in the Desert Valley Company's Hazardous Materials Business Plan. Post-project operations would be similar to existing operations and no feature of the Project would impair implementation of or physically interfere with any adopted emergency plan. The proposed Project would not generate large amounts of traffic due to the SWFP's limitation of 38 delivery trucks per day. Additionally, the Project would not involve the modification of existing roadways along the designated or alternate truck haul routes, such that off-site evacuation routes would be affected.

In addition, no public comments were received regarding these issues during the 35-day IS/NOP public scoping period. Therefore, these issues are not addressed further in this section.

5.6.1 Environmental Setting

The Project site is located immediately west of the existing DVCM on private lands north of Superstition Hills and south of State Route 86 (Highway 86), approximately 12 miles (19.3 km) west of the City of Westmoreland and 4 miles (6.4 km) south of the Salton Sea. The DVCM is an active Class II Solid Waste Management Facility (SWMF) used for the disposal of certain geothermal non-hazardous waste streams and byproducts generated by CalEnergy's geothermal power plant operations in Imperial County, California. The DVCM is permitted under CUP No. 05-0020, SWF Permit No. 13-AA-0022, and WDR Permit No. R7-2016-0016. Information regarding the existing regulatory permits and plans that the DVCM currently operates under is available in Table 3-1.

The existing DVCM began operations in May 1991. It has three (3) storage/disposal cells (Cell 1, Cell 2 and Cell 3). The total site occupies 181.5 acres, of which approximately 68 acres (the total permitted area) is enclosed by fencing which surrounds the landfill operating area. A total of 28.9 acres of the site is permitted for disposal operations. Cells 1, 2 and the tie-in area in between the cells were closed in 2008 and a permanent cap was constructed. Cell 3, with a design capacity of approximately 1.3 million cubic yards (cy), is the only active cell currently receiving waste. At the current rate of waste disposal, Cell 3 is projected to reach its design capacity in 2025 (CalRecycle, 2019a).

As identified in CUP No. 05-0020 and SWF Permit No. 13-AA-0022, the waste stream accepted at the DVCM is limited to geothermal filter cake, drilling mud materials and cuttings, soils containing geothermal materials, and incidental plastic sheeting used as truckbed liners by the waste transport trucks. These materials contain a number of substances including arsenic, salts, metals, and organic hydrocarbons and Naturally Occurring Radioactive Materials (NORM). TENORM are not present.

The DVCM maintains a Hazardous Material Business Plan (HMBP) (CalEnergy, 2017) which is updated annually in keeping with the requirements of the Certified Unified Program Agency (CUPA) under Part 19 Section 2729 of the California Code of Regulations (CCR); which governs emergency planning requirements for businesses handling hazardous materials in excess of certain threshold quantities. The materials included in the waste stream accepted at the DVCM are addressed in the HMBP which also addresses all releases of hazardous materials or waste. Groundwater testing is conducted for contaminants of concern (CoC) which include NORM.

As required and enforced by the Environmental Health Services Division and the Imperial County Air Pollution Control District, monitoring is conducted to ensure the expected minimal exposure/dose around the Monofill is maintained. The Radiological Monitoring Plan consists of on-site workers and truck drivers wearing film badge/ dosimeters, which measure external radiation exposure. The dosimeter must be worn at all times whenever the monofill workers or truck drivers are present at the facility. In accordance with the Radiological Monitoring Plan, workers and truck drivers shall not receive more than the occupational dose limit set by Title 17-30265 of the California Code of Regulations for whole body exposure of 1.25 REM per calendar quarter. DVM submits quarterly reports to the ICAPCD and the LEA regarding the quarterly film badge radiological exposure for DVM workers, and truck drivers. To date, no exposures in excess of the standards have been reported.

No municipal solid waste is accepted at the DVCM, and it is not open for public and/or commercial use at any time. The permitted hours and days of operation are 6:00 AM to 6:00 PM, Monday through Sunday. The volume of non-hazardous wastes that can be received is limited to a maximum of 750 tons per day and 273,750 tons annually in accordance with current CUP and SWFP.

Solid waste materials are delivered to the DVCM by truck. The covered loads are transported from the Salton Sea area, via a designated truck haul route that includes Sinclair Road, Gentry Road, Bowles Road, Lack Road and State Routes 78 / 86. The use of designated alternate truck routes for deliveries to the DVCM and the use of an alternative truck scale in Calipatria, California are also allowed. The DVCM is accessed via a single lane road that connects to State Route 86 (Highway 86). The access road is approximately 1.25 miles long and is asphalt surfaced.

Trucks arriving at the DVCM are inspected prior to off-loading and incoming materials are analyzed based upon present sampling and analysis requirements. Next, the trucks are cleared for access to the operational cell and offloaded. After off-loading, site equipment is used to grade and compact the materials. Once the material is graded and compacted, the surface is sprayed with a polymer-based sealant (Soil Seal), which penetrates the graded surface and creates a stable crust and provides for wind protection.

Phase I Environmental Site Assessment

A Phase I Environmental Site Assessment (ESA) was prepared for the proposed Project (Ninyo & Moore, 2020), which is included as Appendix K of this EIR. The analysis contained in this section is based, in part on the findings of this technical report. The Phase I ESA was conducted in accordance with American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments (Designation E 1527-13) and consists of the following:

- A review of physical setting and background information.
- Performance of a site reconnaissance.
- A review of federal, state, tribal, and local regulatory agency databases for the site and for properties located within a specified radius of the site along with local regulatory agency files for the site, as applicable.
- A review of historical information for the site, such as historical aerial photographs, historical topographic maps, reverse street directories, Sanborn fire insurance maps, and building department records.
- A review of user-provided information.
- An interview of the property owner representative and tenant regarding the environmental status of the site.
- A preliminary vapor encroachment screen to evaluate the potential for vapor encroachment conditions.

Interviews and regulatory and historical research were conducted in March and April 2020. The site reconnaissance was conducted on April 24, 2020. The records search included federal, state, tribal, and local databases. The review was conducted to evaluate whether the site or properties within the site vicinity have been documented as having experienced significant unauthorized releases of hazardous substances or other events with potentially adverse environmental effects. It was determined that the listings for off-site properties appearing in the database report do not represent a Recognized Environmental Concern (REC) to the site at the current time.

A preliminary vapor encroachment screen was conducted to identify a vapor encroachment condition (VEC), which is the presence or likely presence of potential COC vapors in subsurface soils at the site caused by the release of vapors from contaminated soil or groundwater either on or near the site. The potential for VECs beneath the site was evaluated using a Vapor Encroachment Screening Matrix (VESM) in accordance with *ASTM E 2600-15 Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*. The VESM included performing a Search Distance Test to identify if there are any known or suspect contaminated properties surrounding or upgradient of the site within specific search radii, a COC Test (for those known or suspect contaminated sites identified within the Search Distance Test) to evaluate whether

or not COCs are likely to be present, and a Critical Distance Test to evaluate whether or not COCs in a contaminated plume may be within the critical distance of the site (100 feet for non-petroleum hydrocarbon contaminants and 30 feet for petroleum hydrocarbon contaminants).

Based on the waste disposal activities conducted at the DVCM, the disposed waste may contain various VOCs at non-hazardous levels. The DVCM does not accept material that will generate decomposition landfill gases; therefore, the DVCM has not been required to have a gas management plan. On May 28, 2013, the LEA granted an extension exempting DVCM from methane gas monitoring, which is reviewed by the LEA at least every five years. The waste disposal activities at the DVCM represents a vapor encroachment condition; however, landfill gas wells, leachate detection systems, and liners are currently in place.

The Phase I ESA determined that while the continued disposal of non-hazardous geothermal filter cake and other non-hazardous waste materials is considered a Recognized Environmental Concern (REC), because the DVCM is operating in compliance with regulatory agency requirements and environmental controls are in place no additional assessments were recommended.

Wildland Fire

The Project site is located in the unincorporated area of Imperial County. According to the Seismic and Public Safety Element of the General Plan, the potential for a major fire in the unincorporated areas of the County is generally low (County of Imperial, n.d.). Additionally, according to the Draft Fire Hazard Severity Zone Map for Imperial County prepared by the California Department of Forestry and Fire Protection (CALFIRE), the Project site is not located in or near state responsibility areas or lands classified as very high hazard severity zones (CALFIRE, 2007).

5.6.2 Regulatory Setting

A variety of federal, state, and local laws, regulations, and/or policies pertain to protection of public safety from hazardous materials and waste (including radioactive waste), wildfire, and disease vectors. These are described below.

Federal

United States Environmental Protection Agency (USEPA)

The USEPA provides leadership in the nation's environmental science, research, education, and assessment efforts. The USEPA works closely with other federal agencies, state and local governments, and Indian tribes to develop and enforce regulations under existing environmental laws. The USEPA is responsible for researching and setting national standards for a variety of environmental programs and delegates to states and tribes responsibility for issuing permits, and monitoring and enforcing compliance. Prior to August 1992, the principal agency of the federal level regulating the generation, transport, and disposal of hazardous waste was the EPA under the

authority of the Resource Conservation and Recovery Act (RCRA). As of August 1, 1992, however, the California Department of Toxic Substance Control (DTSC) was authorized to implement the State's hazardous waste management for the USEPA.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) of 1976 was enacted to create a management system to regulate waste from "cradle-to-grave." The USEPA states that RCRA's goals are to protect the public from harm caused by waste disposal, to encourage reuse, reduction, and recycling, and clean up spilled or improperly stored wastes. Waste management involves the collection, transportation, processing, recycling or disposal of waste materials. In response to the 1984 Hazardous and Solid Waste Amendments to the RCRA, the USEPA revised the *Criteria for Classification of Solid Waste Disposal Facilities and Practices* set forth in 40 CFR Part 257 and Part 258. Subtitle D of the RCRA addresses non-hazardous solid wastes, as well as certain hazardous wastes which are exempted from the Subtitle C regulations such as: hazardous wastes from households and from conditionally exempt small quantity generators. Subtitle D also includes national technical criteria (regulations) which include specific requirements for location, operation, design (liner, leachate collection, run-off controls, etc.), groundwater monitoring, corrective action, closure and post-closure care, and financial assurance responsibility. Subtitle D also fulfills EPA's mandate under Section 405(d) of the Clean Water Act, regulations governing the use and disposal of sewage sludge.

Occupational Safety and Health Administration

The United States Occupational Safety and Health Administration (OSHA) is an agency of the United States Department of Labor. It was created by the Congress of the United States under the Occupational Safety and Health Act of 1970. Its mission is to prevent work-related injuries, illnesses, and occupational fatality by issuing and enforcing rules called standards for workplace safety and health. Pursuant to the Occupational Safety and Health Act, OSHA has adopted numerous regulations pertaining to worker safety. OSHA regulations are contained in Title 29 CFR. These regulations set standards for safe workplaces and work practices. OSHA also has authority to regulate employee exposures from radiation sources not regulated by the Nuclear Regulatory Commission.

State

State Water Resources Control Board

The State Water Resources Control Board (SWRCB) was created by the Legislature in 1967 and administers Title 27 CCR (Discharges of Waste to Land), which governs the disposal of wastes in a landfill or on dedicated land disposal sites. The mission of the SWRCB is to ensure the highest reasonable quality for waters of the State, while allocating those waters to achieve the optimum

balance of beneficial uses. The joint authority of water allocation and water quality protection enables the Water Board to provide comprehensive protection for California's waters.

There are nine Regional Water Quality Control Boards (RWQCB), and the Project is in the Colorado River Basin Region (Region 7). The mission of the RWQCB is to develop and enforce water quality objectives and implementation plans that will best protect the beneficial uses of the State's waters, recognizing local differences in climate, topography, geology and hydrology. Regional Boards develop "basin plans" for their hydrologic areas, govern requirements/issue waste discharge permits, take enforcement action against violators, and monitor water quality. The RWQCB- Colorado River Basin Region will oversee the approval of the Waste Discharge Requirements (WDR) and Preliminary and Final Closure/Post-Closure Maintenance Plans for the Project.

The regulations in Title 27, Division 2, Section 20080(a) that are promulgated by the SWRCB pertain to water quality aspects of discharges of solid waste to land for treatment, storage, or disposal. The regulations establish waste and site classifications and waste management requirements for solid waste treatment, storage, or disposal in landfills. In addition, Section 20200(a) contains a waste classification system which applies to solid wastes that cannot be discharged directly or indirectly to waters of the state. Therefore, wastes must be discharged to waste management units. Waste classifications are based on an assessment of the potential risk of water quality degradation associated with each category of waste.

Regarding waste and site classifications under Section 20240(a), units shall be classified according to their ability to contain wastes. Containment shall be determined by geology, hydrology, topography, climatology, and other factors relating to the ability of the unit to protect water quality. Classification of units shall be based on the criteria contained in Article 3, on staff field inspections by the RWQCB and SWRCB. Owners or operators of classified units shall comply with WDRs adopted by the RWQCB. For general construction criteria, Section 20310 (c) states that Class II landfills shall be designed and constructed to prevent migration of wastes from the Units to adjacent geologic materials, ground water, or surface water, during disposal operations, closure, and the post-closure maintenance period. Class II Units shall also be designed and constructed for the containment of the specific wastes which will be discharged.

California Department of Resources Recycling and Recovery (CalRecycle)

At the state level, the management of solid waste is governed by the regulations established by CalRecycle, which delegates local permitting, enforcement, and inspection responsibilities to the Local Enforcement Agency (LEA). As discussed under the local regulatory environment below, Imperial County is the LEA for the DVCM. CalRecycle is the issuing agency of the Project's SWF Permit.

Title 27, California Code of Regulations, Environmental Protection, Division 2, Solid Waste

Regulations covering waste disposal site operations specifically are defined in Title 27 CCR, Division 2, Chapter 3, sections 20550 - 20750. Several sections deal with worker health and safety. Section 20590 requires that operating and maintenance personnel wear and use approved safety equipment for personal health and safety. Section 20610 requires that personnel assigned to operate the site must be adequately trained in subjects pertinent to site operation and maintenance, with emphasis on safety, health, environmental controls, and emergency procedures. It is the responsibility of the site operator to provide adequate numbers of qualified personnel to staff the site and deal effectively and promptly with matters of environmental controls, emergencies, and health and safety. The site operator is required to provide adequate supervision to ensure proper compliance with all applicable laws, regulations, permit conditions, and other requirements.

The Project site is a Class II SWMF used for the disposal of certain geothermal non-hazardous waste streams and byproducts generated by CalEnergy's geothermal power plant operations in Imperial County, California and is regulated under Title 27 CCR. According to the Regional Water Quality Control Board's (RWQCB) Geologic and Siting Criteria for Classified Units, Title 27 CCR, a Class II Landfill shall be located where site characteristics and containment structures isolate waste from waters of the state. New and existing Class II landfills or waste piles shall be immediately underlain by natural geologic materials which have a hydraulic conductivity of not more than 1×10^{-6} cm/sec (i.e., 1 foot/year) and which are of sufficient thickness to prevent vertical movement of fluid, including waste and leachate, from Units to waters of the state for as long as wastes in such units pose a threat to water quality. Class II units shall not be located where areas of primary (porous) or secondary (rock opening) hydraulic conductivity greater than 1×10^{-6} cm/sec (i.e., 1 foot/year) could impair the competence of natural geologic materials to act as a barrier to vertical fluid movement.

Landfill Controls and Standards

In 1997, some of the regulations pertaining to landfills adopted by the SWRQB (Title 23, Chapter 15) were incorporated with CalRecycle regulations (Title 14) to form Title 27 CCR. Thus, Title 27 CCR now contains coordinated regulations of SWRQB and CalRecycle pertaining to the disposal of waste to land. Title 27, Division 2, Chapter 3, establishes minimum standards for solid waste handling and disposal. Articles 4 and 6 contain landfill disposal site controls that relate to public health and safety:

- Section 20590. Personnel Health and Safety. Operating and maintenance personnel shall wear and use appropriate safety equipment.
- Section 20610. Training. Personnel assigned to operate the site shall be adequately trained in subjects pertinent to the site operation and maintenance, including requirements of this chapter, hazardous materials recognition and screening, and heavy equipment operations,

with emphasis on safety, health, environmental controls and emergency procedures. A record of such training shall be placed in the operating record.

- Section 20760. Nuisance Control. Each disposal site shall be operated and maintained so as not to create a public nuisance.
- Section 20790. Leachate. The operator shall ensure that leachate is controlled to prevent contact with the public.
- Section 20800. Dust Control. The operator shall take adequate measures to minimize the creation of dust and prevent safety hazards due to obscured visibility.
- Section 20830. Litter Control. Litter shall be controlled, routinely collected and disposed of properly. Windblown materials shall be controlled to prevent injury to the public and personnel. Controls shall prevent the accumulation, or off-site migration, of litter in quantities that create a nuisance or cause other problems.
- Section 20860. Traffic. Traffic flow into, on, and out of the disposal site shall be controlled to minimize the following: (a) interference and safety problems with traffic on adjacent public streets or roads; (b) on-site safety hazards, and (c) interference with site operations.
- Section 20870. Hazardous Wastes. Owners or operators of all municipal solid waste landfill units must implement a program at the facility for detecting and preventing the disposal of regulated hazardous wastes as defined in 40 CFR Part 261 and polychlorinated biphenyls (PCB) wastes as defined in 40 CFR Part 761. This program must include, at a minimum: (1) Random inspections of incoming loads; (2) Records of any inspections; (3) Training of facility personnel to recognize regulated hazardous wastes and PCB wastes; and (4) Notification of the appropriate enforcement agency if a regulated hazardous waste or PCB waste is discovered at the facility.

Safety and Health Regulations – California Occupational Safety and Health Administration

Workers who handle or come in contact with hazardous materials or potentially hazardous wastes or other workplace hazards are subject to worker safety requirements to protect employees. In both instances, site safety plans are mandatory as required by federal and state OSHA requirements. Such site safety plans typically include provisions for safety training, safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency response and fire prevention plan preparation. The California Occupational Safety and Health Administration (Cal/OSHA) is the State agency responsible for assuring worker safety in the handling and use of chemicals in the workplace. Cal/OSHA assumes primary responsibility for developing and enforcing state workplace safety regulations. Because the State of California has a federally approved OSHA program, it is required to, and has, adopted regulations that are at least as stringent as those found in Title 29 CFR.

Cal/OSHA regulations concerning the use of hazardous materials in the workplace, as detailed in Title 8 CCR, include requirements for safety training, availability of safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation. Cal/OSHA enforces hazard communication program regulations that contain training and information requirements, including procedures for identifying and labeling hazardous substances, communicating hazard information related to hazardous substances and their handling, and preparation of health and safety plans to protect workers and employees at hazardous waste sites. The hazard communication program requires that Material Safety Data Sheets be available to employees and that employee information and training programs be documented.

Hazardous Materials Release Response Plans and Inventory Act of 1985

The *Hazardous Materials Release Response Plans and Inventory Act*, also known as the Business Plan Act, requires businesses using hazardous materials to prepare a hazardous materials business plan that describes their facilities, inventories, emergency response plans, and training programs. Hazardous materials are defined as raw or unused materials that are part of a process or manufacturing step. They are not considered hazardous waste. Health concerns pertaining to the release of hazardous materials, however, are similar to those relating to hazardous waste. An HMBP currently exists for the DVCM, and an annual report is submitted to the County.

Assembly Bill 2948 (Tanner) – County Hazardous Waste Management Plans

In 1988, the State Assembly passed AB 2948 in response to the growing concern regarding hazardous waste management in California (CalRecycle, 2012). AB 2948 enacted legislation authorizing local governments to develop comprehensive hazardous waste management plans. The intent of each plan is to ensure that adequate treatment and disposal capacity is available to manage the hazardous wastes generated within its jurisdiction. The *Imperial County Hazardous Materials Area Plan* addresses the use, storage, and transportation of hazardous materials, as well as the generation and transportation of hazardous wastes and is discussed in more detail below.

Hazardous Waste Control Act

The *Hazardous Waste Control Act* created the state hazardous waste management program, which is similar to, but more stringent than, the federal RCRA program. The Act is implemented by regulations contained in Title 22 CCR, *California Hazardous Waste Control Law*, which describes the following required aspects for the proper management of hazardous waste: identification and classification; generation and transport; design and permitting of recycling, treatment, storage, and disposal facilities; treatment standards; operation of facilities and staff training; and closure of facilities and liability requirements.

Department of Toxic Substance Control

The management of hazardous materials and waste within the State of California falls within the jurisdiction of the California Environmental Protection Agency (Cal-EPA) and the DTSC. DTSC regulates hazardous waste, cleans existing contamination, and looks for ways to reduce hazardous waste produced in California. DTSC's authority to regulate hazardous waste in California stems from EPA authorization to carry out the federal RCRA of 1976. Additional authority is given to DTSC by the California Health and Safety Code. DTSC also oversees the implementation of the hazardous waste generator and on-site treatment program, which is one of six environmental programs implemented at the local level within the Certified Unified Program. There are 72 CUPAs, which are generally part of the local fire department or environmental health department, that have authority to enforce regulations, conduct inspections, administer penalties, and hold hearings. On January 1, 2005, the DTSC was authorized by the Cal/EPA as the Imperial County CUPA (DTSC 2020).

Government Code Section 65962.5 (Cortese List)

The provisions in Government Code section 65962.5 are commonly referred to as the "Cortese List" (after the Legislator who authored the legislation that enacted it). The list, or a site's presence on the list, has bearing on the local permitting process as well as on compliance with the California Environmental Quality Act (CEQA). Because this statute was enacted over twenty years ago, some of the provisions refer to agency activities that were conducted many years ago and are no longer being implemented and, in some cases, the information to be included in the Cortese List does not exist. Government Code section 65962.5 was originally enacted in 1985, and per subsection (g), the effective date of the changes called for under the amendments to this section was January 1, 1992. While Government Code Section 65962.5 makes reference to the preparation of a "list," many changes have occurred related to web-based information access since 1992 and this information is now largely available on the Internet sites of the responsible organizations. Those requesting a copy of the Cortese "list" are now referred directly to the appropriate information resources contained on the Internet web sites of the boards or departments that are referenced in the statute.

California Highway Patrol

The California Highway Patrol (CHP) is an agency of the State of California with patrol jurisdiction over all California highways. The CHP performs inspections of hazardous materials carriers and enforces hazardous materials transport regulations. The CHP under the Title 13 CCR, Chapter 6, Hazardous Materials, and the CFR Title 49 regulates transport of hazardous materials. When a hazardous material/waste spill originates on a highway, the CHP is responsible for direction of cleanup and enforcement.

California Department of Transportation

Caltrans, CHP, and the Imperial County Department of Public Works regulate transportation of hazardous materials. Drivers must have a hazardous materials endorsement to operate a commercial vehicle carrying hazardous materials. During the transporting of materials, a route map must be maintained that indicates safe routing and safe stopping places along the route.

California Office of Environmental Health Hazard Assessment

The California Office of Environmental Health Hazard Assessment's (OEHHA) mission is to protect and enhance public health and the environment by scientific evaluation of risks posed by hazardous substances. While OEHHA does not promulgate environmental regulations directly, it is responsible for developing and providing risk managers in state and local government agencies with toxicological and medical information relevant to decisions involving public health. State agency users of such information include all Boards and departments within Cal/EPA, as well as the California Department of Public Health, the Department of Food and Agriculture, the Office of Emergency Services, the Department of Fish and Wildlife, and the Department of Justice. OEHHA also works with Federal agencies, the scientific community, industry and the general public on issues of environmental as well as public health. Examples of current OEHHA functions and responsibilities include:

- Developing health-protective exposure standards for different media (air, water, land) to recommend to regulatory agencies, including ambient air quality standards for the Air Resources Board and drinking water chemical contaminant standards for the Department of Health Services.
- Carrying out special investigations of potential environmental causes of illness, diseases and deaths. Current and recent activities include investigation of the health effects of air pollutants, pesticides, and other chemical exposures.
- Continuing public health oversight of environmental regulatory programs within Cal/EPA.
- Making recommendations to the Department of Fish and Game and the State Water Resources Control Board with respect to sport and commercial fishing in areas where fish may be contaminated.
- Assessing health risks to the public from air pollution, pesticide and other chemical contamination of food, seafood, drinking water, and consumer products.
- Providing guidance to local health departments, environmental departments, and other agencies with specific public health problems, including appropriate actions to take in emergencies that may involve chemicals.

- Implementing the provisions of the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65).

These responsibilities are fulfilled by a highly trained professional staff of about 110 individuals. Of these staff, 64 hold doctoral degrees, seven are physicians, and 21 hold master's degrees in public health or science.

Local

County of Imperial Solid Waste Local Enforcement Agency (LEA)

As discussed above, at the state level, the management of solid waste is governed by the regulations established by CalRecycle, which delegates local permitting, enforcement, and inspection responsibilities to the LEA. The County of Imperial Solid Waste LEA is responsible for enforcement of federal, state, and local laws and regulations within the jurisdiction of the County of Imperial to protect public health safety and the environment by ensuring safe and proper solid waste management practices.

Imperial County General Plan Seismic and Public Safety Element

The Imperial County General Plan includes a “Seismic and Public Safety Element.” Updated, in January 2021, the “Seismic and Public Safety Element” identifies potential natural and human-induced hazards and provides policy to avoid or minimize the risk associated with hazards. Potential hazards must be addressed in the land use planning process to avoid the unfolding of dangerous situations. The policies and implementation measures in the General Plan applicable to the Project are outlined below.

Imperial County-Mexicali Emergency Response Plan

The Binational Prevention and Emergency Response Plan between Imperial County, California, and the city of Mexicali, Baja California, was established as part of a joint contingency plan (JCP) between the United States of America (U.S.) and Mexico. The JCP was signed in 1999 and provided a foundation for collaboration for the border area and the basis for preparedness, mitigation, response, and prevention of hazardous substances along the inland international boundary. A memorandum of understanding (MOU) was developed to reinforce the jurisdictional cooperation between the two nations. The MOU with the corresponding emergency preparedness and response plan was developed with the support of the USEPA (Imperial County, 2005).

Imperial County Multi-Jurisdictional Hazard Mitigation Plan Update

The Imperial County Multi-Jurisdictional Hazard Mitigation Plan (MHMP) Update was developed in partnership with the County of Imperial, the City of Brawley, the City of Calexico, the City of Calipatria, the City of El Centro, the City of Holtville, the City of Imperial, the City of Westmorland, the Imperial Irrigation District, and the Imperial County Office of Education. This document is a

comprehensive update of the original MHMP. The purpose of the MHMP is to reduce death, injury, and disaster losses from both natural and human-caused disasters in Imperial County through outlining goals, strategies, and actions regarding hazard mitigation (Imperial County, 2020).

Imperial County Hazardous Materials Area Plan

The Imperial County Hazardous Materials Area Plan addresses the use, storage, and transportation of hazardous materials, as well as the generation and transportation of hazardous wastes. The Hazardous Materials Area Plan identified the federal, State, and local agencies responsible for incidents involving the release or threatened release of hazardous materials. The primary responsibility and authority lie with the Incident Commander, who activates the responses consistent with the plan. The Hazardous Materials Area Plan also identifies the existing mutual aid agreements with Yuma County and Cal Fire. Existing plans and documents that have also been taken into account include the Imperial County Emergency Operations Plan, the Multi-Jurisdictional Hazard Mitigation Plan, the Imperial Valley Hazardous Emergency Assistance Team Joint Powers Agreement, and the U.S. – Mexico Environmental Program (November 2016).

Imperial County Office of Emergency Services – Emergency Operations Plan

The Imperial County Office of Emergency Services (OES) provides emergency management services for Imperial County including the seven cities/towns in the county as well as special districts. The OES coordinates emergency operations and develops plans for emergency preparedness, response, recovery and mitigation to natural/man-made disasters, and technological disasters. The Imperial County Fire Department (ICFD) is the local OES and is the lead agency for the Imperial County Operational Area (OA), in which the ICFD develops emergency management plans, conducts public education, establishes EOC operations, and participates in interagency coordination (Imperial County, 2007). The OES serves as a liaison between the state and local government political subdivisions (California Emergency Services Act, Chapter 7, Division 1, Title 2). Imperial County has developed an OA Emergency Operations Plan (EOP) which describes coordinated guidance and procedures to prepare for and respond to emergency risks. The EOP is consistent with the requirements of the Standardized Emergency Management System (SEMS), which is required by California Government Code Section 8607(a). All local government agencies are required to use SEMS when responding to multi-jurisdictional or multi-agency emergencies to be eligible for state reimbursement of response-related personnel costs. The EOP is also consistent with the requirements of the U.S. Department of Homeland Security National Incident Management System (NIMS), which is a national standardized methodology to incident management and response.

TABLE 5.6-1: CONSISTENCY WITH GENERAL PLAN HAZARDOUS MATERIALS AND PUBLIC HEALTH GOALS AND OBJECTIVES

General Plan Policies	Consistency	Analysis
Seismic and Public Safety Element (SPSE)		
<p>SPSE Goal 1: Include public health and safety considerations in land use planning.</p>	Yes	<p>The proposed Project is located in a rural area of Imperial County with very few nearby residences. Public health and safety would not be affected in association with development of the proposed Project in this area based on its location away from population centers.</p> <p>The proposed Project has prepared a Geotechnical and Geo-Hazards Report identifying potential geologic hazards. All measures and design specifications identified in the Geotechnical and Geo-Hazards Report shall be incorporated into and reflected on the Project design and building plans. Therefore, the proposed Project is consistent with this goal.</p>
<p>SPSE Goal 2: Minimize potential hazards to public health, safety, and welfare and prevent the loss of life and damage to health and property resulting from both natural and human-related phenomena.</p>	Yes	<p>In regard to potential for seismic ground shaking and engineering design, the Project would be required to incorporate design parameters and recommendations of the Geotechnical Report into the final Project design to address seismic and soil conditions. The Geological and Geo-Hazard Report prepared for the proposed Project utilized information provided by the State Geologist including Alquist-Priolo Earthquake Fault Zone maps and the 2010 Fault Activity Map of California. Therefore, the proposed Project is consistent with this goal.</p>
<p>SPSE Goal 3: Protect the public from exposure to hazardous materials and wastes.</p> <ul style="list-style-type: none"> • SPSE Objective 3.1: Discourage the transporting of hazardous materials/waste near or through residential areas and critical facilities. • SPSE Objective 3.2: Minimize the possibility of hazardous materials/waste spills. • SPSE Objective 3.4: Adopt and implement ordinances, policies, and guidelines that assure the safety of County ground and surface waters from toxic or hazardous materials and wastes. 	Yes	<p>Geothermal waste materials that would be disposed of within the expanded Monofill are classified as non-hazardous wastes. Prior to being transported to the Monofill, all waste materials are analyzed by a California Certified Laboratory to document the non-hazardous designation of the material. Trucks arriving at the Monofill are inspected prior to off-loading and each load of waste is accompanied by a numbered non-hazardous waste data form.</p> <p>To minimize the possibility of spills, transport trucks are tarped at all times, except when being filled or emptied, to prevent any filtercake residue from exiting the transport trucks.</p> <p>Additionally, designated haul routes have been approved for the transport of waste materials from the geothermal plants to the monofill that avoid residential areas and critical facilities.</p>

TABLE 5.6-1: CONSISTENCY WITH GENERAL PLAN HAZARDOUS MATERIALS AND PUBLIC HEALTH GOALS AND OBJECTIVES

General Plan Policies	Consistency	Analysis
Seismic and Public Safety Element (SPSE)		
		<p>Lastly, the proposed Project is required to obtain a Report of Waste Discharge from the Regional Water Quality Control Board, which will include that groundwaters and surface waters are protected.</p>
<p>Goal 4: The County will adopt and implement ordinances, policies, and guidelines that assure the safety of County ground and surface waters from toxic or hazardous materials and wastes.</p>	<p>Yes</p>	<p>The proposed Project would preserve ground and surface water quality from hazardous materials and wastes during construction, operation and decommissioning activities. The proposed Project would protect water quality during construction through compliance with NPDES General Construction Permit, SWPPP, which will incorporate the requirements referenced in the State Regulatory Framework and BMPs. The proposed project will be designed to include site design, source control, and treatment control BMPs. The use of source control, site design, and treatment BMPs would result in a decrease potential for storm water pollution. It is anticipated that project decommissioning activities would be subject to similar, or more stringent ground and surface water regulations than those currently required.</p>
<p>Protection of Water Resources from Hazardous Materials Policy: Adoption and implementation of ordinances, policies, and guidelines which assure the safety of County ground and surface waters from toxic or hazardous materials and/or wastes.</p>	<p>Yes</p>	<p>The proposed Project would preserve ground and surface water quality from toxic or hazardous materials and/or wastes during construction, operation and closure activities.</p> <p>The proposed Project would protect water quality during construction through compliance with NPDES General Construction Permit, SWPPP, which will incorporate the requirements referenced in the State Regulatory Framework and BMPs. The proposed project will be designed to include site design, source control, and treatment control BMPs. The use of source control, site design, and treatment BMPs would result in a decrease potential for storm water pollution. A post-closure plan and post-closure monitoring plan shall be prepared for the Project, to ensure the monofill is maintained and water resources are protected.</p>

Source: County of Imperial, 2021.

5.6.3 Analysis of Project Effects and Significance Determination

The potential impacts associated with the Project are evaluated on a qualitative basis through a comparison of existing conditions within the Project site and the anticipated Project effects. The potential for impacts from hazards/hazardous materials would exist if the effect described under the criteria below occurs. The evaluation of Project impacts is based on the significance criteria adopted by Imperial County, which the County has determined to be appropriate criteria for this Draft EIR.

Guidelines for Determination of Significance

A project would be considered to have a significant impact if it would:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
2. 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?
3. 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?
4. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Impact Analysis

Impact 5.6-1: Significant public hazard from the routine transport, use, or disposal of hazardous materials.

The existing DVCM is a Class II solid waste management facility that is permitted to accept non-hazardous waste streams and byproducts generated by CalEnergy's geothermal power plant operations in Imperial County. The waste stream includes geothermal filter cake, geothermal drilling mud materials, soils containing geothermal materials and incidental plastic sheeting used as truckbed liners of the geothermal waste transport trucks. The disposal of hazardous waste (as defined in 40 CFR Part 26) and polychlorinated biphenyls (PCB) wastes (as defined in 40 CFR Part 761) is prohibited under SWF Permit No. 13-AA-002. The DVCM is subject to California's Hazardous Materials Business Plan requirements, specified by Sections 2729 to 2732 of Title 19 of the California Code of Regulations (CalEnergy, 2018). The regulations require:

- Annual updates of the site's chemical inventory to the Department of Toxic Substances Control, (as the State Emergency Response Commission and the Local Emergency Planning Committee).

- An Emergency Response Plan to minimize the impact of any possible releases.
- Training of employees on emergency response procedures.

The proposed Project would require the limited transport, storage, and use of fuels, polymer-based sealants, and other fluids for the fueling/servicing of construction equipment. These practices are already in place for current operations and the Project would not substantially increase the transport or use of hazardous materials above current levels. Transportation, storage, and disposal/recycling of such products are extensively regulated at the local, state and federal levels. Current and future construction and operations are, and will be, required to be in compliance with these regulations. The current inventory of chemicals on site are not expected to increase markedly due to the addition of Cell 4 and the current Hazardous Materials Business Plan for the monofill would be updated to reflect any changes. Because operations for Cell 4 would be similar to operations at Cell 3, impacts would be less than significant.

Radiological analyses conducted for the existing monofill have determined that isotopes in the naturally occurring Uranium-238 (U-238) and Thorium-232 (Th 232) decay chains are present in various concentrations. Uranium and thorium and the associated decay products are common and are found in measurable quantities in most soils. The radioactivity in the geothermal filter cake is a result of the decay of uranium and thorium. As each isotope decays, it forms a new isotope which may also be radioactive. The principal radionuclides produced in the decay chains appear to be Radium-226 (Ra-226) and Radium-228 (Ra-228). Limits on the allowable release levels of radioactive material are covered in Title 40 CFR Parts 302 and 355. The radiological constituents identified in the geothermal filter cake are classified as NORMS and are therefore exempt from licensing and permitting requirements under California and federal regulations in effect at the time of the Draft EIR's publication.

The Applicant's continued implementation of the Radiological Monitoring Plan as required and enforced by the Environmental Health Services Division and the Imperial County Air Pollution Control District is included as a feature of the proposed Project. Monitoring will continue to be conducted to ensure the expected minimal exposure/dose around the Monofill is maintained. On-site workers and truck drivers shall be required to wear film badge/ dosimeters at all times whenever the monofill workers or truck drivers are present at the facility. In accordance with the Radiological Monitoring Plan, workers and truck drivers shall not receive more than the occupational dose limit set by Title 17-30265 of the California Code of Regulations for whole body exposure of 1.25 REM per calendar quarter. DVM shall submit quarterly reports to the ICAPCD and the LEA regarding the quarterly film badge radiological exposure for DVM workers, and truck drivers. To date, no exposures in excess of the standards have been reported.

Impact 5.6-2: Create a significant public or environmental hazard through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Transportation

Solid waste materials are delivered to the DVCM by truck. The covered loads are transported from the Salton Sea area, via a designated truck haul route that includes Sinclair Road, Gentry Road, Bowles Road, Lack Road and State Routes 78 / 86. The use of alternate truck routes for deliveries to the DVCM and the use of an alternative truck scale in Calipatria, California are also allowed. The DVCM is accessed via a single lane road that connects to State Route 86 (Highway 86). The access road is approximately 1.25 miles long and is asphalt surfaced. Trucks arriving at the DVCM are inspected prior to off-loading and incoming materials are analyzed based upon present sampling and analysis requirements. Next, the trucks are cleared for access to the operational cell and offloaded. After off-loading, site equipment is used to grade and compact the materials. Once the material is graded and compacted, the surface is sprayed with a polymer-based sealant (Soil Seal), which penetrates the graded surface and creates a stable crust and provides for wind protection. The DVCM currently caps the number of waste haul truck trips at 38 per day and this number would not change as a result of the proposed Project. Thus, implementation of the proposed Project is not expected to 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.

Impact 5.6-3: Located on a site which is included on a list of hazardous materials sites as a result, create a significant hazard to the public or the environment.

The Phase I ESA prepared for the proposed Project reviewed lists of hazardous materials sites compiled pursuant to Government Code Section 65962.5 “Cortese” list, including environmental record sources contained within Federal, State and local environmental databases along with additional environmental record sources obtained from regulatory departments/agencies. Based on this search the DVCM is not listed as a hazardous materials site and is not near any superfund or cleanup sites. According to the SWRCB, there are no Underground Storage Tanks in the vicinity of the landfill. This environmental parameter is not proposed for further analysis in the EIR.

Impact 5.6-4: Expose people or structures to a significant risk of loss, injury or death involving wildland fires.

As discussed in the environmental setting, the Project site is located in the unincorporated area of Imperial County. The potential for a major fire in the unincorporated areas of the County is generally low (County of Imperial, n.d.). Additionally, according to the Draft Fire Hazard Severity Zone Map for Imperial County prepared by the California Department of Forestry and Fire Protection, the Project site is not located in or near state responsibility areas or lands classified as very high hazard severity zones (California Department of Forestry and Fire Protection, 2007). This is considered a less than significant impact.

5.6.4 Mitigation Measures

The Applicant's implementation of the Radiological Monitoring Plan, required and enforced by the Environmental Health Services Division and the Imperial County Air Pollution Control District, is included as a feature of the proposed Project to ensure the expected minimal exposure/dose around the Monofill is maintained. Similarly, the Applicant's preparation and annual update of their Hazardous Material Business Plan, in keeping with the requirements of the Certified Unified Program Agency (CUPA) under Part 19 Section 2729 of the California Code of Regulations (CCR), is also included as a feature of the proposed Project. No mitigation additional measures would be required.

5.7. Hydrology/Water Quality

This section addresses potential hydrology and water quality impacts that may result from construction, operation, closure and post-closure maintenance of the Desert Valley Company Monofill (DVCM) Expansion Project, Cell 4. The following discussion addresses the existing conditions on the Project site, identifies applicable regulations, identifies and analyzes environmental impacts, and recommends measures to reduce or avoid adverse impacts anticipated from implementation of the proposed Project, as applicable.

Information used in preparing this section and in the evaluation of potential impacts was derived from of the Hydrology and Water Quality Assessment Report prepared by EMKO Environmental, Inc. in 2019 (EMKO, 2019a; Appendix L).

Scoping Issues Addressed

During the scoping period for the Project, a public scoping meeting was conducted, and written comments were received from agencies. The following issues related to hydrology and water quality were raised by the California Department of Fish and Wildlife and are addressed in this section:

- The groundwater hydrology of this groundwater basin is not well understood. The DEIR should thoroughly analyze proposed impacts of installation of the proposed groundwater well within the Ocotillo-Clark Valley Groundwater Basin.
- The DEIR should provide a thorough discussion of Project-related changes on drainage patterns and water quality within, upstream, and downstream of the Project site, including volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and
- The DEIR should provide a thorough discussion of post-Project fate of runoff from the Project site.

Issues Scoped Out

The Imperial County Planning and Development Services Department (County) determined in the Initial Study/Notice of Preparation (IS/NOP), located in Appendix A-1, that the following environmental issue area resulted in no impact and was scoped out of requiring further review in this Draft EIR (DEIR). Please refer to Appendix A-1 of this DEIR for a copy of the NOP/IS and additional information regarding this issue.

- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. Soils in the project area support the existing septic system and leach field at the Desert Valley Monofill. This same infrastructure would be used for the proposed Project.
- Is the Project located within a flood hazard, tsunami, or seiche zones such that there is a risk of releasing of pollutants from Project inundation? The Project site is not located within a flood

hazard, tsunami, or seiche zone. There are no risks of releasing pollutants from Project inundation.

5.7.1 Environmental Setting

The environmental setting consists of the existing hydrologic conditions in the region and at the Project site. Existing conditions are described below for both surface water and groundwater, and for water quality, which define the baseline for the evaluation of potential environmental impacts

Surface Water

This section describes the environmental setting, or existing conditions, related to surface water, including both surface water occurrence and surface water quality.

Regional Conditions

The Project site is located in an arid, desert environment. Rainfall data from five stations ranging from 18 miles to 42 miles from the Project site indicate that the average annual rainfall varies from 2.47 inches to 2.86 inches (EMKO Environmental, 2019a; Appendix L). Peak annual rainfall ranges from 5.73 inches to 10.16 inches for the five stations (ibid). At each station, there have been years when very little or no rainfall occurred. The estimated total rainfall from a 100-year, 24-hour storm event is 2.88 inches, and the pan evaporation rate is reported to range from 87 inches per year to 117 inches per year.

The nearest perennial drainage to the Project site is San Felipe Creek, located approximately 3.5 miles to the northwest. Groundwater from a shallow aquifer zone may discharge to this drainage to maintain the surface flows (EMKO Environmental, 2019a; Appendix L). Other drainages in the region are ephemeral and only experience surface flows during or after major storm events. As a result, there may be several years between flow events within the ephemeral drainages.

The Salton Sea is located four miles to the northeast. The Salton Sea is a major inland water body with no outlet, which results in highly saline conditions.

Site-Specific Conditions

Surface drainages that are classified as jurisdictional under California Department of Fish and Wildlife (CDFW) criteria have been mapped by Hernandez Environmental Services (2018). The jurisdictional drainages in the Project vicinity are shown on **Figure 5.2-3**. A total of 35.2 acres of CDFW jurisdictional drainages are present in Section 33 (See **Table 5.2-2**) The surface drainages at the Project site are ephemeral and may only experience flow after major storm events. There may be multiple years between periods when surface water flows occur in the drainages.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (Firm) Panel Number 060065-0400 B, there are no areas within any part of Section 33 that are within

a flood hazard zone. The FEMA Firm Panel is available at <http://www.icpds.com/CMS/Media/19-FEMA-400.pdf>.

Estimates of stormwater flows within the drainages have been performed by McDowell & Associates (2002) for the design of the existing diversion berm along the south side of Cell 3 and the west side of Cells 1, 2, and 3. Peak stormwater flows were estimated based on a Probable Maximum Precipitation of 13.3 inches of rain over 24 hours, with an estimated maximum intensity of 4.03 inches per hour. The estimated peak runoff from the jurisdictional drainages to the south (upstream) of Cells 1, 2, and 3 is 101.1 cubic feet per second (cfs). To prevent flooding and erosion of the existing facility, a three-foot high berm along with a 1.5-foot deep swale along the outer edge of the berm are present around the south and west side of Cell 3. The berm and swale were designed based on the Probable Maximum Precipitation of 13.3 inches in a 24-hour period, which is a protection level equivalent to that required for a Class I landfill.

Additional evaluations of the runoff from several jurisdictional drainages west of Cell 3 were also calculated to estimate the appropriate size for drainage crossings along the access road north of the facility along the west side of Section 27, based on the same Probable Maximum Precipitation and maximum rainfall intensity used to design the Cell 3 berm and swale (EMKO Environmental, 2019a; Appendix L). Two of the jurisdictional drainages west of Cell 3 pass through the area in which Cell 4 is proposed to be constructed. For these two drainages, the peak runoff ranges from 275 cfs to 290 cfs. Because the total drainage area evaluated in the McDowell & Associates (2002) calculations extends northward (downslope) to the access road for the facility, those watershed areas are approximately twice the area that would provide runoff from upslope of the south edge of the proposed Cell 4. Thus, the peak runoff approaching the south edge of the Cell 4 area may be approximately one-half of the peak runoff for the entire drainage area extending to the access road, or approximately 300 cfs.

The Desert Valley Company Monofill operates in accordance with an active Industrial Storm Water Pollution Prevention Plan (I-SWPPP), WDID⁽¹⁾ 7 13I00458 to comply with the terms of the General Permit for Storm Water Discharges Associated with Industrial Activity Order 2014-0057-DWQ, National Pollutant Discharge Elimination System General Permit #CAS000001. The SWRCB received and processed the most recent Notice of Intent (NOI) for the Monofill's coverage under the General Permit on May 18, 2021.

The existing I-SWPPP identifies appropriate best management practices (BMPs) to prevent erosion and the mobilization of pollutants in stormwater runoff, defines primary and alternative sampling locations, and describes on-going monitoring and maintenance requirements. In 2018, the existing stormwater management system was enhanced with additional erosion control measures, including

¹ WDID = Waste Discharger Identification Number

construction of an earthen drainage swale around the perimeter of Cell 3 (EMKO, 2019a; Appendix L).

Leachate from Cells 1 and 2 is collected within a pair of lined basins to the north of those two former disposal cells. Leachate from active Cell 3, and any rain that falls within the perimeter of the cell, is collected in a lined basin at the northeast corner of Cell 3. Any leachate that accumulates in these lined basins eventually evaporates and there is no discharge to any of the surface drainages.

Existing Surface Water Quality

Storm water runoff from qualifying storm events is monitored in accordance with the current I-SWPPP. Except for rain that falls within the active Cell 3 area, storm water is not retained onsite, but is discharged through several designated discharge points. The results of stormwater monitoring are presented on **Table 5.7-1**.

TABLE 5.7-1: RESULTS OF STORMWATER MONITORING, QUALIFIED STORM EVENT (JANUARY 15, 2019)

Parameter	Qualifying Storm Event (QSE) Results – Jan. 15, 2019 *	Reporting Units	Annual	NAL	Method
Iron (FE), Total	2.04	mg/L	1.0	N/A	EPA 200.7
pH	6.28	pH Units	NA	<6.00 - >9.0	A4500-H+B
Total Suspended Solids (TSS)	17	mg/L	100	400	SM 2540-D
Total Oil & Grease (O&G)	<5.0	mg/L	15	25	EPA 1664B

Note: (*) Alternative Sampling Location for DP 5 & 6.

Source: EMKO Environmental, 2019a; Appendix L

Since adoption of the 2015 Industrial General Permit, the iron annual numeric action level was exceeded in January 2016. Phase 1 and Phase 2 Exceedance Response Action (ERA) evaluations were conducted and enhancements to the stormwater best management practices (BMPs) were implemented in 2017 (Yorke, 2016; CalEnergy, 2017 and 2018). However, the sampling results from a qualifying storm event (QSE) on January 15, 2019 indicate that iron still exceeds its annual numeric action level (EMKO Environmental, 2019a; Appendix L). The results of the January 15, 2019 QSE sampling are shown in **Table 5.7-1**. Evaluation of iron concentrations in onsite and offsite soils, and of iron in windblown dust entering the site), suggests that the source of the iron may be naturally-occurring levels in the native soils and windblown dust, and is not a result of waste disposal activities at Cell 3.

Table 5.7-2 presents the leachate monitoring data for the fourth quarter of 2018.

TABLE 5.7-2: FOURTH QUARTER 2018 LEACHATE MONITORING RESULTS

Cell No.	Volume (gallons)	pH	Conductivity (µmhos/cm)
1	215	6.8	101,900
2	14,033	4.9	208,100
3	0	NA	NA

Source: EMKO Environmental, 2019a; Appendix L

Groundwater

This section describes the environmental setting, or existing conditions, related to groundwater, including both groundwater occurrence and groundwater quality.

Regional Conditions

The DVC Monofill Facility is located within the Ocotillo-Clark Valley Groundwater Basin (Basin Number 7-25), as defined by DWR (2004), as shown on **Figure 5.7-1**. The basin is bounded by the Santa Rosa Mountains to the north and northeast, Coyote Creek and Superstition Mountain faults to the west and south, and the Salton Sea and surface drainage divides to the east. The total surface area is approximately 223,000 acres (348 square miles), while the estimated groundwater storage capacity of the Ocotillo Valley part of the groundwater basin is 5,800,000 acre-feet (DWR, 2004). However, the actual volume of groundwater currently in storage is unknown.

Clark Valley drains toward Clark Dry Lake, to the northeast of Borrego Springs (see **Figure 5.7-1**). The eastern part of the groundwater basin drains toward the Salton Sea. The basin is an alluvial filled valley of stream, alluvial fan, lake and aeolian deposits² (DWR, 2004). Recharge occurs due to runoff from the mountains along the north and west sides of the basin and is estimated to be 1,200 acre-feet per year for the Clark Valley part of the basin and 1,100 acre-feet per year for the Ocotillo Valley part of the basin (DWR, 2004).

Two aquifers are present within the Ocotillo Valley area of the groundwater basin. Northwest of San Felipe Creek, shallow groundwater is encountered at depths ranging from 40 feet to 90 feet below ground surface, with depths generally increasing toward the west. The depth to groundwater in the lower aquifer is approximately 100 feet deeper than that in the shallow aquifer. Thus, in the area west of San Felipe Creek, the shallow groundwater zone is generally unconfined and perched, while the lower aquifer is confined. Groundwater from the shallow zone may discharge at springs along Fish Creek and San Felipe Creek, suggesting that groundwater flow is toward the east-southeast in

² Aeolian deposits are those that are transported and deposited by wind, such as dune sands and wind-blown silt deposits.

the western area of the Ocotillo Valley part of the groundwater basin. Groundwater from all areas of the Ocotillo Valley part of the groundwater basin ultimately discharge to the Salton Sea.

Historically, the largest groundwater user in the basin was Allegretti Farms, located approximately 10 miles west-northwest of the Project site. From the 1950s into the 2010s, irrigation for agricultural production occurred on land areas ranging from 320 acres up to 2,000 acres. The estimated groundwater pumping ranged from over 10,000 acre-feet per year in 1978, decreasing to 2,800 acre-feet per year, on average, from 1996 to 2009. In 2010 and 2011, groundwater pumping decreased to 208 acre-feet and 224 acre-feet per year, respectively. The Seville Solar Farm has largely supplanted agricultural use of the Allegretti Farms property (Ericsson-Grant, 2014). Estimated annual water demand for the property now ranges from 140 acre-feet to 300 acre-feet.

Groundwater levels have been monitored by the U.S. Geological Survey in a lower- aquifer well at Allegretti Farms since 1953. The data demonstrate that from 1953 to 2001, groundwater levels decreased from a depth of approximately -75 feet relative to the 1988 North American Vertical Datum (ft NAVD88) to about -240 ft NAVD88. However, since 2001 the groundwater level has recovered by approximately 35 feet.

As described above, the estimated rate of recharge in the Ocotillo Valley part of the groundwater basin is 1,100 acre-feet per year (DWR, 2004). Thus, pumping at rates in excess of this amount would result in overdraft and declining groundwater levels. The more recent groundwater pumping rates reported by Todd Engineers (2013) at the Allegretti Farms/Seville Solar Farm property are less than the estimated recharge rate, and may account for the slow recovery in groundwater levels. Based on the maximum projected water use for the Seville Solar Farm of 300 acre-feet per year (Todd Engineers, 2013), up to 800 acre-feet of groundwater per year are available for other users in the Ocotillo Valley part of the groundwater basin, without causing further overdraft.

A series of three bills passed by the California legislature were signed by Governor Brown on September 16, 2014. These three bills, Assembly Bill (AB) 1739, SB 1168, and SB 1319, together comprise the Sustainable Groundwater Management Act of 2014 (SGMA). SGMA provides a structure under which local agencies are to develop a sustainable groundwater management program. SGMA focuses on basins or subbasins designated by DWR as high- or medium priority basins, and those with critical conditions of overdraft.

The Ocotillo-Clark Valley Groundwater Basin (DWR Basin 7-25) is classified as a very low priority basin with no significant declining groundwater levels (i.e., no evidence of critical conditions of overdraft), according to the SGMA Basin Prioritization Dashboard (<https://gis.water.ca.gov/app/bp2018-dashboard/p1/>, accessed February 20, 2019). As such, the general requirements of SGMA do not apply to the basin. The Ocotillo-Clark Valley Groundwater Basin has not been adjudicated.

Site-Specific Conditions

At the Project site, groundwater has been encountered in both the shallow aquifer zone and in the lower aquifer. Shallow groundwater is present at depths ranging from 50 feet to 60 feet below ground surface. Sixteen shallow zone wells have been drilled at the Project site. Shallow zone groundwater occurs within eight separate geologic layers within the Pleistocene Brawley Formation. These layers represent ancient lake bed deposits that range from clay lenses to fine-grained sand units. The geologic layers dip toward the north at a slope of five to eight percent, or about two to five degrees. Due to the sloping layers, wells that are drilled to the same depth in the shallow aquifer zone in different parts of the Project site are often not completed within the same geologic layer.

From 1991 to 2002, the groundwater level varied by no more than two to three feet in the onsite shallow aquifer zone wells. Shallow groundwater flows toward the northeast with a hydraulic gradient of approximately 0.0164 foot/foot and at a velocity of approximately 3.86 feet per year (EMKO Environmental, 2019a; Appendix L).

In 2005, DVC installed a new water supply well into the lower aquifer for operation of Cell 3. The information provided below for the supply well is from UCM (2005). The well was drilled to a total depth of 605 feet and completed with 5-inch Schedule 80 PVC casing. The screened interval extends from 490 feet to 600 feet below ground surface, but the filter pack sand extends from 340 feet to 605 feet below ground surface. The static water level is approximately 44 feet below ground surface, indicating that the lower aquifer is under confined conditions. Since there is only one lower aquifer zone well onsite, it is not possible to estimate the slope of the groundwater surface or rate of flow within this aquifer zone.

After installation of the lower aquifer supply well, a series of pumping tests were conducted with a temporary pump set at various depths to identify the optimal placement of a permanent pump. Based on these tests, a three-horsepower, three-phase submersible pump was installed at a depth of 461 feet. The pump provides up to 38 gallons per minute of groundwater from the lower aquifer zone. Two 5,000-gallon water tanks are used to store pumped groundwater before use onsite.

The water well attachment to CUP 05-0020 allows up to 8.5 acre-feet of groundwater per year to be produced from the supply well. Over the past decade, the maximum annual water use reported by DVC was 8.02 acre-feet in 2010. Since 2012, the peak annual water use has been 5.57 acre-feet while the minimum annual water use has been 3.58 acre-feet. The median water use over the past seven years has been 5.45 acre-feet per year.

Groundwater Quality

The groundwater quality throughout the Ocotillo Valley area of the groundwater basin is generally poor. For example, in the area of the basin west of San Felipe Creek, the total dissolved solids (TDS)

content of the deeper groundwater ranges from 1,200 milligrams per liter (mg/L) to 1,800 mg/L, while the TDS in the shallow groundwater is reported to be three to four times higher.

At the Project site, the TDS in the shallow groundwater ranges from 2,000 mg/L to 11,000 mg/L (EMKO, 2019a; Appendix L). The TDS is comprised primarily of sodium, chloride, and sulfate. The TDS levels vary appreciably within the eight different geologic layers described above under “Site-Specific Conditions”. For example, in one layer within the Quaternary Brawley Formation (Qb), referred to as Qb3, the TDS ranges from 7,000 mg/L to 11,000 mg/L, whereas in layers Qb6 and Qb4 the TDS ranges from 3,500 mg/L to 5,000 mg/L respectively. In the southernmost upgradient well at the Project site, which is completed within the lowest geologic layer, referred to as Qb8, the TDS level is 2,000 mg/L.

Groundwater monitoring is conducted in accordance with the Monitoring and Reporting Program (MRP) that is a part of Waste Discharge Requirements Order No. R7-2016- 0016 (the “WDRs”). A summary of the groundwater monitoring results for the first quarter of 2019 is provided in Appendix A of the Hydrology Study and Water Quality Report (Appendix L).

Due to the variation in TDS levels in the different geologic layers that make up the shallow aquifer zone, there is not a valid upgradient background well for assessing potential effects of the existing DVC Monofill cells on groundwater quality. However, a trend analysis determined that within each individual well the water quality has remained relatively consistent over time (EMKO, 2019a; Appendix L).). Therefore, evaluation of changes in water quality and verification of compliance with the WDRs are based on intra-well comparisons. To date, there has not been a verified excursion that would indicate the potential for leakage from existing Cells 1, 2, and 3 at the DVC Monofill Facility.

The produced water from the existing deep, onsite supply well has a TDS level of 1,200 mg/L, a pH of 7.9, and a temperature of 95 degrees F (35 degrees C).

5.7.2 Regulatory Setting

Federal

Federal Emergency Management Agency

Imperial County is a participant in the National Flood Insurance Program (NFIP), a federal program administered by the Federal Emergency Management Agency (FEMA). Participants in the NFIP must satisfy certain mandated floodplain management criteria. The National Flood Insurance Act of 1968 has adopted, as a desired level of protection, an expectation that developments should be protected from floodwater damage of the Intermediate Regional Flood (IRF). The IRF is defined as a flood that has an average frequency of occurrence on the order of one in 100 years, although such a flood may occur in any given year. Imperial County is occasionally audited by the Department of

Water Resources (DWR) to ensure the proper implementation of FEMA floodplain management regulations.

State

The Porter-Cologne Water Quality Control Act

In the State of California, the State Water Resources Control Board (SWRCB) and local Regional Water Quality Control Boards (RWQCBs) have assumed the responsibility of implementing the US EPA's NPDES Program and other programs under the CWA such as the Impaired Waters Program and the Antidegradation Policy. The primary water quality control law in California is the Porter-Cologne Water Quality Act (Water Code Sections 13000 et seq.). Under Porter-Cologne, the SWRCB issues joint federal NPDES Storm Water permits and state Waste Discharge Requirements (WDRs) to operators of municipal separate storm sewer systems (MS4s), industrial facilities, and construction sites to obtain coverage for the storm water discharges from these operations.

State Water Resources Control Board

In the State of California, the State Water Resources Control Board (SWRCB) and the local Regional Water Quality Control Boards (RWQCBs) have assumed the responsibility of implementing the US EPA's NPDES Program and other programs under the CWA such as the Impaired Waters Program and the Antidegradation Policy. The primary water quality control law in California is the Porter-Cologne Water Quality Act (Water Code Sections 13000 et seq.). Under Porter-Cologne, the SWRCB issues joint federal NPDES Storm Water permits and state Waste Discharge Requirements (WDRs) to operators of municipal separate storm sewer systems (MS4s), industrial facilities, and construction sites to obtain coverage for the storm water discharges from these operations.

Basin Plan Requirement

In addition to its permitting programs, the SWRCB, through its nine RWQCBs, developed Regional Water Quality Control Plans (or Basin Plans) that designate beneficial uses and water quality objectives for California's surface waters and groundwater basins, as mandated by both the CWA and the state's Porter-Cologne Water Quality Control Act. Water quality standards are thus established in these Basin Plans and provide the foundation for the regulatory programs implemented by the state. The Colorado River Basin RWQCB Basin Plan, which covers the Project Area, designates beneficial uses for surface waters and ground waters.

Construction General Permit

The Construction General Permit, (Order 2009-0009-DWQ as modified by Order 2010-0014-DWQ, NPDES Permit No. CAS000002), issued by the SWRCB, regulates storm water and non-storm water discharges associated with construction activities disturbing one acre or greater of soil. Construction sites that qualify must submit a Notice of Intent (NOI) with the SWRCB to gain permit coverage or otherwise be in violation of the CWA and California Water Code.

The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) for each individual construction project greater than or equal to 1 acre of disturbed soil area. The SWPPP must list Best Management Practices (BMPs) that the discharger will use to control sediment and other pollutants in storm water and non-storm water runoff. The CGP requires that the SWPPP is prepared by a Qualified SWPPP Developer (QSD) and implemented at the site under the review/direction of a Qualified SWPPP Practitioner (QSP).

The Project includes over one acre of grading, and is therefore subject to the storm water discharge requirements of the Construction General Permit. The Project will submit a NOI and prepare a SWPPP prior to the commencement of soil disturbing activities. In the Colorado River Basin Region, where the project resides, the SWRCB is the permitting authority, while the County of Imperial and Colorado River Basin RWQCB provide local oversight and enforcement of the CGP.

Industrial Stormwater Discharges

The Statewide General Permit for Stormwater Discharges Associated with Industrial Activities, Order 2014-0057-DWQ (Industrial General Permit), as amended by Orders 2015- 0122-DWQ and the 2018 Amendment, implements the federally required stormwater regulations in California for stormwater associated with industrial activities discharging to waters of the United States. The Industrial General Permit regulates discharges associated with nine (9) federally defined categories of industrial activities.

The State Water Resources Control Board and Regional Water Quality Control Boards (collectively, Water Boards) regulate runoff of storm water from industrial, construction and municipal sources in California through with National Pollutant Discharge Elimination System (NPDES) permits. Storm water is historically perceived as a nuisance because it mobilizes pollutants such as motor oil, heavy metals, and trash which can then flow into water bodies either directly or via storm sewer systems, threatening aquatic life and public health.

On November 6, 2018, the State Water Board amended the Industrial General Permit to incorporate the following additional requirements, which become effective on July 1, 2020.

- Required “Facility Operators” to use test methods that can detect and quantify pollutants at or below the applicable water quality criteria, action levels, or effluent limitations.
- Required “Facility Operators” to collect industrial storm water samples for Total Maximum Daily Load (TMDL) -related pollutants and comply with applicable requirements if the facility discharges industrial storm water and/or authorized non-storm water discharges to certain impaired waterbodies and the discharge contains the identified TMDL-related pollutants associated with the impaired receiving waterbody.

The Industrial General Permit requires the development of a site-specific stormwater pollution prevention plan (I-SWPPP) and monitoring plan, and requires the Discharger to submit a Notice of Intent (NOI) to obtain regulatory coverage. The I-SWPPP must include the information needed to

demonstrate compliance with the requirements of the Industrial General Permit. The SWPPP must be submitted electronically via the States' Storm Water Multiple Application And Report Tracking System (SMARTS) and a copy of it must be kept at the facility. The Industrial General Storm Water Permit also requires the implementation of Best Available Technology Economically Achievable (BAT) and BCT to achieve performance standards. The Industrial General Storm Water Permit also requires the development of a Storm Water Pollution Prevention Plan (SWPPP)

The proposed expansion of the monofill will require coverage under the General Industrial Stormwater permit.

Water Quality Control Plan Colorado River – Region 7

The Project site is within the jurisdiction of the Colorado River RWQCB, which is responsible for the preparation and implementation of the water quality control plan for the Colorado River Region (RWQCB, 2019). *The Water Quality Control Plan - Colorado River Basin Plan* (Basin Plan) was prepared by the RWQCB-7, and establishes beneficial uses in the Colorado River Basin. The Basin Plan also identifies water quality objectives that protect the beneficial uses of surface water and groundwater; describes an implementation plan for water quality management in the Colorado River Region; and describes measures designed to ensure compliance with statewide plans and policies. Overall, the Basin Plan provides comprehensive water quality planning in Region 7 which encompasses all of Imperial County as well as portions of San Bernardino, Riverside and San Diego Counties (RWQCB- 2019).

Colorado River Regional Water Quality Control Board Basin Plan

The *Water Quality Control Plan for the Colorado River Basin Region* (Basin Plan) defines the beneficial uses, The Basin Plan contains specific numeric water quality objectives that apply to certain water bodies or portions of water bodies. Objectives have been established for aesthetic qualities, tainting substances, toxicity, temperature, pH, dissolved oxygen, suspended and settleable solids, total dissolved solids, bacteria, biostimulatory substances, sediment, turbidity, radioactivity, and chemical constituents. Numerous narrative water quality objectives have also been established.

Clean Water Act (CWA) Section 303(d)

Section 303(d) of the CWA deals with Water Quality Standards and Implementation Plans. Specifically, Section (d) addresses the stringency of effluent limitations for state waters and whether the limitations are stringent enough to implement any water quality standard applicable to such waters. Section 303(d) requires each state to establish a priority ranking for such waters taking into account the severity of the pollution and the uses to be made of such waters. In addition, Section 303(d) requires each state to identify those waters or parts thereof within its boundaries for which controls on thermal discharges under Section 301 are not stringent enough to assure protection and propagation of a balanced indigenous population of shellfish, fish and wildlife. For the specific purpose of developing information, each state shall identify the total maximum daily load with seasonal variations and margins of safety for those pollutants which the Administrator identifies

under Section 204(a)(2) as suitable for such calculation and for thermal discharges at a level that would assure protection and propagation of a balanced indigenous population of fish, shellfish and wildlife. Section 303(d) also identifies Limitations on Revision of Certain Effluent Limitations and addresses instances where the standard is Not Attained as well as instances where the Standard is attained.

Clean Water Act (CWA) Section 401

Section 401 of the CWA, water quality certification, provides states and authorized tribes with an effective tool to help protect water quality, by providing an opportunity to address the aquatic resource impacts of federally issued permits and licenses. Under Section 401, a federal agency cannot issue a permit or license for an activity that may result in a discharge to waters of the U.S. until the state or tribe where the discharge would originate has granted or waived section 401 certification. The central feature of CWA section 401 is the state or tribe's ability to grant, grant with conditions, deny or waive certification. Granting certification, with or without conditions, allows the federal permit or license to be issued consistent with any conditions of the certification. Denying certification prohibits the federal permit or license from being issued. Waiver allows the permit or license to be issued without state or tribal comment. States and tribes make their decisions to deny, certify, or condition permits or licenses based in part on a proposed Project's compliance with EPA-approved water quality standards. In addition, states and tribes consider whether the activity leading to the discharge will comply with any applicable effluent limitations guidelines, new source performance standards, toxic pollutant restrictions, and other appropriate requirements of state or tribal law.

Clean Water Act (CWA) Section 404

CWA Section 404 establishes a program to regulate the discharge of dredged and fill material into waters of the United States (WUS), including wetlands. Responsibility for administering and enforcing Section 404 is shared by the U.S. Army Corps of Engineers (USACE) and EPA. USACE administers the day- to-day program, including individual permit decisions and jurisdictional determinations; develops policy and guidance; and enforces Section 404 provisions. EPA develops and interprets the environmental criteria used in evaluating permit applications, identifies activities that are exempt from permitting, review/comments on individual permit applications, enforces Section 404 provisions, and has authority to veto USACE permit decisions. With EPA approval and oversight, states and tribes can assume administration of the Section 404 permit program in certain "non-navigable" waters within their jurisdiction.

As noted in Section 5.2.1.4 of this EIR (Jurisdictional Waters), a delineation of jurisdictional waters was conducted by Hernandez Environmental Services in 2018. None of the ephemeral streams found on and near the Project Site are considered Waters of the U.S. and thus are not jurisdictional under Section 404 of the Clean Water Act (HES, 2018, Appendix G-2).

California Toxic Rule

Under the California Toxic Rule (CTR), the USEPA has proposed water quality criteria to priority toxic pollutants for inland surface waters, enclosed bays, and estuaries. These federally promulgated criteria create water quality standards for California waters. The CTR satisfies CWA requirements and protects public health and the environment. The USEPA and the SWRCB have the authority to enforce these standard, which are incorporated into the NPDES permits that regulate the current discharges in the study areas.

Local

The Imperial County General Plan contains goals, objectives, policies and programs created to ensure water resources are preserved and protected. **Table 5.7-3** identifies applicable General Plan goals, objectives, policies and programs from the Conservation and Open Space Element for water quality and flood hazards that are relevant to the Project. In addition, one policy and two programs from the Water Element that directly relate to the Project are also analyzed. While this EIR analyzes the Project's consistency with the General Plan pursuant to CEQA Guidelines Section 15125(d), the Imperial County Board of Supervisors ultimately determines consistency with the General Plan.

TABLE 5.7-3 CONSISTENCY WITH GENERAL PLAN WATER AND HYDROLOGY GOALS AND OBJECTIVES

General Plan Policies	Consistency	Analysis
Water Element (WE)		
WE Goal 1: The County will secure the provision of safe and healthful sources and supplies of domestic water adequate to assure the implementation of the County General Plan and the long-term continued availability of this essential resource.	Yes	The only domestic water source that would be used to supply water to the Project would be drinking water for on-site personnel that would continue to be provided by a water delivery service and stored in an existing aboveground water storage tank. Construction and operational water would be obtained from a new groundwater well (for dust control, and for mixing the acrylic polymer stabilization/sealant for use on the monofill working surface) and for the closure and capping of Cell 3. The maximum demand for groundwater is 11 acre-feet per year. Groundwater use at the DVC has ranged from 3.58 acre-feet/year to 8.02 acre-feet/ year.
WE Goal 2: Long-term viability of the Salton Sea, Colorado River, and other surface waters in the County will be protected for sustaining wildlife and a broad range of ecological communities.	Yes	The Project includes mitigation measures HWQ-1, HWQ-2 and HWQ -3 that will ensure that water quality of the Salton Sea and other surface waters in the vicinity would not be impacted.
Goal 4: The County will adopt and implement ordinances, policies, and guidelines that	Yes	The County's comprehensive Groundwater Management Ordinance is intended to preserve

TABLE 5.7-3 CONSISTENCY WITH GENERAL PLAN WATER AND HYDROLOGY GOALS AND OBJECTIVES

General Plan Policies	Consistency	Analysis
assure the safety of County ground and surface waters from toxic or hazardous materials and wastes.		and manage groundwater resources within the County The Groundwater Ordinance provides the County with various regulatory tools The existing groundwater well at the DVC Monofill Facility is permitted and regulated by an attachment to CUP 05-0020. Issuance of a CUP for the proposed new water well will also be required.
Protection of Surface Waters Policy: Preservation of riparian and ruderal habitats as important biological filters, and as breeding and foraging habitats for native and migratory birds and animals.		The Project includes mitigation measures HWQ-1, HWQ-2 and HWQ -3 that will ensure that water quality of the Salton Sea and other surface waters in the vicinity would not be impacted.
Conservation and Open Space Element (COSE)		
COSE Goals 6: The County will conserve, protect, and enhance water resources in the County. <ul style="list-style-type: none"> • COSE Objective 6.1: Ensure the use and protection of all the rivers, waterways, and groundwater sources in the County for use by future generations. • COSE Objective 6.2: Ensure proper drainage and provide accommodation for storm runoff from urban and other developed areas in manners compatible with requirements to provide necessary agricultural drainage. • COSE Objective 6.3: Protect and improve water quality and quantity for all water bodies in Imperial County. • COSE Objective 6.4: Eliminate potential surface and groundwater pollution through regulations as well as educational programs. 	Yes	The proposed Project will comply with the General Stormwater Construction Permit and the General Industrial Stormwater Permit to ensure that water runoff from the site would not pollute surface or groundwater resources
<ul style="list-style-type: none"> • COSE Objective 6.7: Prohibit the inappropriate siting of solid or hazardous waste facilities next to water bodies or over sources of potable groundwater or recharge basins. 	Yes	The proposed expansion of the DVM would be located adjacent to the existing monofill. It is not located over a potable groundwater or recharge basin. The water body nearest the Project site is San Felipe Creek, located approximately 3.5 miles to the northwest.

TABLE 5.7-3 CONSISTENCY WITH GENERAL PLAN WATER AND HYDROLOGY GOALS AND OBJECTIVES

General Plan Policies	Consistency	Analysis
<ul style="list-style-type: none"> COSE Objective 6.8: Discourage the use of hazardous materials in areas of the County where significant water pollution could pose hazards to humans or biological resources. 		<p>The proposed Project would preserve ground and surface water quality from toxic or hazardous materials and/or wastes during construction, operation and closure activities.</p> <p>The proposed Project would protect water quality during construction through compliance with NPDES General Construction Permit, SWPPP, which will incorporate the requirements referenced in the State Regulatory Framework and BMPs. The proposed project will be designed to include site design, source control, and treatment control BMPs. The use of source control, site design, and treatment BMPs would result in a decrease potential for storm water pollution. A post-closure plan and post-closure monitoring plan shall be prepared for the Project, to ensure the monofill is maintained and water resources are protected.</p>
<p>Program: Structural development normally shall be prohibited in the designated floodways. Only structures which comply with specific development standards (Flood Drainage Prevention Regulation, Division 6) should be permitted in the floodplain.</p>	<p>Yes</p>	<p>According to the FEMA Firm Panel Number 060065-0400 B, the Project site is not within a flood hazard zone.</p>

Sources: County of Imperial, 2016.
County of Imperial, 2019.

Imperial County Groundwater Management Ordinance

In 1998, the County adopted, and in 2015 amended, a comprehensive Groundwater Management Ordinance to preserve and manage groundwater resources within the County (Imperial County, 1998). The Groundwater Ordinance, codified as Division 22 of Title 9 of the Imperial County Code, is implemented by the Planning Commission acting upon the direction of the Board of Supervisors. The Groundwater Ordinance provides the County with various regulatory tools that are designed to avoid or minimize the impact of existing and proposed groundwater extraction activities on groundwater resources and other users, such as overdraft or excessive drawdown. The Groundwater Ordinance requires that existing extraction facilities be permitted and registered with the County.

The existing groundwater well at the DVC Monofill Facility is permitted and regulated by an attachment to CUP 05-0020, which restricts operational groundwater use to non-potable dust control and sanitary use at a maximum of 8.5 acre-feet per year.

5.7.3 Analysis of Project Effects and Significance Determination

Guidelines for Determination of Significance

A project would be considered to have a significant impact if it would:

1. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?
2. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?
3. 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 result in substantial erosion or siltation on- or off-site?
4. 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 substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?
5. 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 create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff?
6. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?
7. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Impact 5.7-1: Violation of water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

The proposed Project is an expansion of existing activities at the site. While the disturbance area would change, the same waste disposal, management, and monitoring practices have been conducted at the site for many years. The current facility operates under WDRs that require compliance with applicable water quality standards. The WDRs are intended to prevent degradation of surface water and groundwater quality.

Stormwater monitoring conducted in February 2019 indicated that the facility meets the numeric action levels for pH, suspended solids, and oil & grease. The total iron concentration exceeded the annual average value for the numeric action level, despite implementation of Level 2 Exceedance Response Actions. It is unknown whether additional qualifying storm events this year could bring

the annual average iron level into compliance. The source of the elevated iron is unknown but may be related to naturally-occurring concentrations in soils in the site vicinity and/or windblown dust. In either case, the iron does not appear to be related to waste disposal activities in Cell 3. Significant impacts surface water quality impacts related to the exceedance of iron limits in surface water would be reduced to below significance with implementation of mitigation measure **HWQ-1**.

The stormwater sample collected during the qualifying storm event for January 15, 2019 (EMKO Environmental, 2019a; Appendix L) exceeded the annual numeric action level for iron. The reported concentration of iron was 2.04 mg/ while the action level is 1.0 mg/L. BMP enhancements had previously been installed as part of Level 2 Exceedance Response Actions. It is unclear based on the available data whether the January 15, 2019 result was an anomaly, whether the overall results could average out over the year to be less than the action level, whether the iron is a natural component of the soils and sediments at the site, or whether there is a source of iron from the site. Based on these uncertainties, an adaptive management approach is recommended.

The 2016 trend analysis and 2018 groundwater monitoring results (EMKO Environmental, 2019a; Appendix L) demonstrate that current operations do not result in any violations of water quality standards in groundwater. Overall, construction of the disposal cells 1, 2 and 3 to Class I standards has been shown to be effective in containing the waste material and preventing impacts to groundwater quality.

Impact 5.7-2: Substantial decrease in groundwater supplies or substantial interfere with groundwater recharge.

Groundwater use at the monofill has ranged from 3.58 acre-feet/year to 8.02 acre- feet/year. The proposed Project would have an ongoing maximum demand for groundwater of 11 acre-feet per year. In addition to the ongoing operational water demand, short term demands for construction of Cell 4A and Cell 4B and closure of Cell 3 would also occur. Construction of Cell 4A would require approximately 75 to 100 acre-feet during its two year construction period. Closure of Cell 3 would require approximately 30 to 40 acre-feet over a six-month period. Construction of Cell 4B in the future is anticipated to require the same amount of water over the same duration as construction of Cell 4A since they would be comparable in size. Closure of Cell 4A and closure of Cell 4A are each anticipated to require a comparable amount of water over a similar duration as closure of Cell 3 due to their similar sizes and capacities.

The Ocotillo-Clark Valley Groundwater Basin has an estimated capacity of 5,800,000 acre-feet of water, with annual recharge in the Ocotillo Valley part of the Basin of 1,100 AFY. Other groundwater users in the Ocotillo Valley pump a maximum of 300 AFY, resulting in a remaining sustainable yield of 800 AFY. The maximum water demand for the Project during construction, operations, closure and post-closure maintenance is well below this value. Therefore, while the Project would require more water than is currently used at the site, the Water Supply Assessment

(EMKO, 2019b; Appendix L) concluded that there is more than adequate groundwater in the Basin to supply the Project needs during normal, single dry, and multiple dry year periods.

Groundwater recharge occurs primarily due to runoff from the mountains along the north and west sides of the groundwater basin. The Project site is not located within these primary recharge areas. However, some recharge may occur through the soils and existing jurisdictional drainages on the Project site. The total area to be covered by the impermeable soil cover for Cell 4 and the leachate pond is less than 50 acres, which is an extremely small fraction (less than 0.02 percent) of the 233,000-acre Basin area.

Therefore, during construction, operation, closure and post-closure maintenance, the proposed Project would not interfere with or measurably reduce groundwater recharge. Impacts would not be significant and no mitigation would be required.

The Ocotillo-Clark Valley Groundwater Basin is classified as a very low priority basin by DWR, with no evidence of critical conditions of overdraft, for the purposes of the Sustainable Groundwater Management Act. Thus, there are no state-mandated sustainable groundwater management requirements for the Basin. However, Imperial County's comprehensive Groundwater Management Ordinance provides the County with various regulatory tools designed to avoid or minimize the impact of existing and proposed groundwater extraction on groundwater resources and other users. The existing groundwater well at the Facility is permitted in accordance with the County Ordinance. Any new extraction wells installed for the Project would also need to be permitted and comply with the Ordinance.

Impact 5.7-3: Substantial alteration of 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 result in

- a) **substantial erosion or siltation on- or off-site;**
- b) **flooding on- or off-site;**
- c) **substantial increase of surface runoff;**
- d) **exceedance of stormwater drainage system capacity;**
- e) **impede or redirect flood flows**

During construction, expansion of the monofill would result in the permanent loss of up to approximately 7.52 acres of jurisdictional drainages (e.g. waters of the State). During the operational and post-closure phases, stormwater runoff and floodwaters flowing northward toward the Project site would be diverted around Cell 4 by a proposed berm and drainage swale, similar to those that are currently present along the south and west sides of Cell 3. The berm would be designed to prevent overtopping, thus preventing erosion of Cell 4. The swale would be sized so that it could convey the peak flows from a Probable Maximum Precipitation event at velocities that would not result in erosion of the underlying soils.

While the proposed Project would result in an increase in impermeable surfaces, these areas would be small enough that they would not significantly increase the rate or amount of surface runoff, or that would exceed the capacity of the downstream jurisdictional drainages. Implementation of BMPs and compliance with the C-SWPPP and I-SWPPP would prevent erosion and minimize the potential for erosion and the generation of sediment-laden runoff.

While flood flows within the disrupted jurisdictional drainages would be redirected around Cell 4, the constructed drainage swale would be designed to convey the floodwaters without increasing flooding depths and without causing erosion.

Within Section 33, flood flows directed around Cell 4 would be returned to the disrupted jurisdictional drainages on the downstream (north) side of the Project site. These drainages have sufficient capacity to convey the redirected flood flows since they are currently functioning in that manner under the existing environmental setting.

Impact 5.7-4: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The current WDRs were issued in accordance with and to help implement the Water Quality Control Plan for the Colorado River Basin. Updated or new WDRs for the Project would also be required for the Proposed project, which must demonstrate consistency with the Water Quality Control Plan for the Colorado River Basin. Thus, the proposed Project would be consistent with, and not conflict with or obstruct implementation of, a water quality control plan.

The Ocotillo-Clark Valley Groundwater Basin does not fall within the basin classification that requires implementation of a sustainable groundwater management plan (also known as a groundwater sustainability plan, or GSP, under the Sustainable Groundwater Management Act definitions). However, the County's Groundwater Management Ordinance is intended to minimize the impact of existing and proposed groundwater extraction. The monofill's current operations are consistent with the Ordinance by way of an attachment to the current CUP that limits the amount of water that can be produced from the existing well. The new CUP would also include an attachment, as required by the Ordinance, to maintain sustainable conditions within the groundwater basin. Impacts would be less than significant.

5.7.4 Mitigation Measures

The following Mitigation Measures would reduce impacts to below a level of significance.

Mitigation Measure HWQ -1: Water Quality Monitoring for Iron

The Applicant shall monitor for iron in qualifying storm events at Cell 4 after initiation of the Project, as required under the Industrial General Permit. If iron

concentrations exceed the annual numeric action level for two successive years, DVC shall implement an investigation program that consists of the following:

- Analyze the stormwater samples for both total and dissolved iron.

If the stormwater analysis indicates that the iron is primarily in suspended (i.e. total iron result) form, then additional BMPs should be installed to minimize the amount of fine sediment present in the qualifying storm event samples, and the I-SWPPP should be revised accordingly.

If the stormwater analysis indicates that the iron is primarily dissolved, then DVC shall conduct the following additional testing:

- Analyze soils samples for soluble iron using a deionized water leach (e.g. DI-WET). Samples should be collected from the stormwater swale within the facility boundary, from the liner/cap material at the perimeter of Cell 4, from the stormwater diversion berm installed along the south and west sides of Cell 4, and from the waste material.

Based on the results of the additional testing, DVC shall propose measures to minimize stormwater contact with the specific soil or waste medium that is leaching iron. These measures may include use of a different soil material, where applicable, or covering of the source soils with soils that do not leach iron. These measures should be submitted to the County and to the Regional Water Quality Control Board for review and approval before implementation.

To assist the County in verifying compliance with Mitigation Measure H-1, the qualifying storm event sampling results should be submitted not only to the State Water Resources Control Board's Storm Water Multiple Application and Report Tracking System (SMARTS) but also to the County for review.

The actions required under this mitigation measure would be in addition to, but could supplement, any requirements for Exceedance Response Actions associated with the industrial stormwater permit.

Level of Significance After Mitigation

Impacts would be less than significant.



SOURCE: EMKO, 2019.



Ocotillo-Clark Valley Groundwater Basin
Desert Valley Company Monofill Expansion Project, Cell 4
Figure 5.7-1

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5.8. Land Use and Planning

This section addresses potential land use and planning impacts that may result from construction, operation, closure and post-closure maintenance of the Desert Valley Company Monofill Expansion Project, Cell 4. The following discussion addresses the existing conditions on the Project site, identifies applicable regulations, identifies and analyzes environmental impacts, and recommends measures to reduce or avoid adverse impacts anticipated from implementation of the proposed Project, as applicable. This section also examines the proposed Project's consistency with applicable plans and policies and describes potential land use and planning impacts that would result from implementation of the proposed Project.

Scoping Issues Addressed

During the scoping period for the proposed Project, a public scoping meeting was conducted, and written comments were received from public agencies. No comments related to land use and planning were received.

Issues Scoped Out

None.

5.8.1. Environmental Setting

The Desert Valley Company (DVC) Monofill Facility is located at 3301 West Highway 86, Brawley, California, 92227. The Project site is located on private lands north of Superstition Hills and south of State Route 86 (Highway 86), approximately 12 miles (19.3 km) west of the City of Westmoreland and 4 miles (6.4 km) south of the Salton Sea in the County of Imperial, California. The Project site is located in Section 33, Range 11 East, Township 12 South within USGS Kane Spring, California 7.5-minute topographic quadrangle (APN 019-100-004-001).

The area surrounding the Project site is very similar to the site on which the existing monofill is located. Man-made disturbances are evident in some sections but not to a major extent. The most prominent feature in the area is State Route 86 (Highway 86), which is located to the north and east of the existing monofill. Kane Springs Jeep Trail crosses Section 29 northeast of the Project site. An Imperial Irrigation District electrical transmission line and its maintenance road cross Sections 27, 28 and 34, running diagonally from northwest to southeast less than a mile from the Project site. Aside from the Kane Jeep Trail, no other man-made features are evident in the immediate area. The Elmore Desert Ranch Community is approximately 1.75 miles northeast of the Project site. The predominant land use surrounding the project area is limited to desert open space and vehicle-oriented recreation.

The Project is located within the unincorporated area of Imperial County and is immediately adjacent to the existing Desert Valley Company Monofill and is surrounded by open desert on the

north, south and west. Surrounding properties exhibit the same desert features as the Project site, namely sparse vegetation, seasonal washes, and with the exception of the monofill facilities, few man-made uses. The Project site is located within a Flat-tailed Horned Lizard Rangewide Management Area. The closest airport is the Salton Sea Airport, located 13 miles northwest the Project site. The Imperial County General Plan designates the Project site as "Recreation and Open Space", and the site is zoned "S-2 (Open Space/Preservation)".

5.8.2. Regulatory Setting

Federal

Flat-tailed Horned Lizard Rangewide Management Strategy

The Flat-tailed Horned Lizard Rangewide Management Strategy has been prepared to provide guidance for the conservation and management of sufficient habitat to maintain extant populations of flat-tailed horned lizards in five (5) Management Areas - four in California and one in Arizona. The Project site is located within the West Mesa Management Area. Surface disturbing activities are limited in these areas and mitigation and compensation are automatically required. The mitigation and compensation measures within the Rangewide Management Strategy are incorporated into land management plans.

Local

Imperial County General Plan

The purpose of the Imperial County General Plan is to guide growth throughout the County. Urban development is directed to areas where public infrastructure can be readily extended to areas with limited health and safety hazards. Likewise, development should avoid natural, cultural, and economic resources.

The General Plan includes ten elements: Land Use; Housing; Circulation and Scenic Highways; Noise; Seismic and Public Safety; Conservation and Open Space; Agricultural; Renewable Energy and Transmission; Water; Parks and Recreation. These elements satisfy the California Government Code requirements for general plan elements. Each element includes goals, objectives, and implementing policies and programs. Relevant County of Imperial General Plan policies related to land use are provided below. **Table 5.8-1** summarizes the project's consistency with the County's General Plan policies.

While this EIR analyzes the project's consistency with the General Plan pursuant to State CEQA Guidelines Section 15125(d), the Imperial County Board of Supervisors ultimately determines consistency with the General Plan.

Imperial County Land Use Ordinance – Title 9

The County of Imperial Land Use Ordinance (Title 9) provides the physical land use planning criteria, development standards, and zoning regulations for development in the unincorporated areas of the County. Title 9 specifies permitted and conditional uses for the various zoning designations within unincorporated areas of the County. Development and performance standards included in Title 9 are adopted to protect the health, safety, and general well-being of the public through the orderly regulation of land uses within the County.

TABLE 5.8-1: CONSISTENCY WITH GENERAL PLAN LAND USE GOALS AND OBJECTIVES

General Plan Policies	Consistency	Analysis
Land Use Element (LUE)		
<p>LUE Goal 3: Achieve balanced economic and residential growth while preserving the unique natural, scenic, and agricultural resources of Imperial County.</p>	Yes	The proposed Project includes mitigation measures that reduce impacts on natural resources to below a level of significance. No impacts to scenic or agricultural resources would occur.
<p>LUE Goal 6: Promote orderly industrial development with suitable and adequately distributed industrial land.</p>	Yes	The proposed Project promotes orderly industrial development by locating the proposed monofill expansion adjacent to the existing disposal site.
<p>LUE Goal 8: Coordinate local land use planning activities among all local jurisdictions and state and federal agencies.</p> <ul style="list-style-type: none"> • Objective 8.5 At a minimum, provide adequate sites for solid/liquid and hazardous waste facilities to meet the current and projected demands of the County population and consistent with the County Solid Waste and Hazardous Waste Management Plans. 	Yes	The proposed Project includes an expansion of the existing Desert Valley Company Monofill to meet the projected demand for the disposal of geothermal wastes produced at CalEnergy geothermal plants in Imperial County. The proposed expansion would provide additional capacity of the disposal of CalEnergy’s Geothermal plants until the year 2060.
<p>LUE Goal 9: Identify and preserve significant natural, cultural, and community character resources and the County's air and water quality.</p>	Yes	The biological, cultural resources, air quality and hydrology/water quality reports prepared for the Project include mitigation measures to reduce significant impacts to below a level of significance. No significant aesthetic/community character resources occur within the project vicinity
<ul style="list-style-type: none"> • LUE Objective 9.6: Incorporate the strategies of the Imperial County Air Quality Attainment Plan (AQAP) in land use planning decisions and as amended. • LUE Objective 9.7: Implement a review procedure for land use planning and discretionary project review which includes the Imperial County Air Pollution Control District. 	Yes	The Air Quality report for the Project includes an evaluation of the Project’s consistency with the AQAP. The AQAP includes the rules and regulations promulgated by the ICAPCD that are applicable to land use projects in Imperial County. The proposed Project must comply with applicable ICAPCD rules and regulations, either through project design or inclusion of mitigation, to qualify for the necessary permits to implement construction and operation.

TABLE 5.8-1: CONSISTENCY WITH GENERAL PLAN LAND USE GOALS AND OBJECTIVES

General Plan Policies	Consistency	Analysis
		As identified on Table 4-2 of this EIR, the Imperial County Air Pollution Control District is identified as a Responsible Agency for the proposed project and as such is included in the discretionary review of the proposed Project.

Source: County of Imperial Land Use Element, 2015.

Imperial County Airport Land Use Compatibility Plan

The public use airport nearest the Project site is the Salton Sea Airport, which is located 13 miles northwest of the Project site. The Project site is outside this airports “compatibility area, that is, it is located outside of the area that could be negatively affected by aircraft operations. It should also be noted that the Imperial County Airport Land Use Compatibility Plan has not adopted any measures (e.g., building height limitations) specifically focusing on airport/land use compatibility for the Salton Sea Airport (County of Imperial, 1996).

5.8.3. Analysis of Project Effects and Significance Determination

Guidelines for Determination of Significance

A project would be considered to have a significant impact if it would:

1. Physically divide an established community?
2. 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?

Impact Analysis

Impact 5.8-1: Physical division of an established community.

The proposed Project includes the expansion of the existing Desert Valley Company Monofill, with the addition of a new Cell 4. The expansion would occur adjacent to the existing monofill and would not result in the division of an established community. Therefore, the Project would not result in a physical division of any established communities and there would be no impact.

Impact 5.8-2: 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.

Flat-tailed Horned Lizard Rangewide Management Strategy

The Project site is located within the boundaries of the West Mesa Area of the Flat-tailed Horned Lizard Rangewide Management Strategy Plan. According to the Flat-tailed Horned Lizard

Rangewide Management Strategy, Management Areas require mitigation that will minimize loss or degradation of habitat. With implementation of **MM-BIO-1a** (Mitigation of Impacts to flat-tailed horned lizards, Palm Springs pocket mouse, and their habitat) the Project would not conflict with Flat-tailed Horned Lizard Rangewide Management Strategy, and therefore no significant environmental impacts related to a conflict would occur.

Imperial County General Plan

The Project will require an amendment to Imperial County's General Plan Land Use Element to change the land use designation on the remainder of Section 33 from "Recreational/ Open Space" to "Special Purpose Facility". The "Recreational/Open Space" land use designation does not allow landfills or hazardous waste facilities within this category, with the exception of maintaining existing facilities. The Special Purpose Facility land use designation allows Class II solid waste facilities, with the approval of a Conditional Use Permit. With an amendment to Imperial County's General Plan Land Use Element to change the land use designation to "Special Purpose Facility" and approval of a Conditional Use Permit, the proposed Project would be consistent with the General Plan.

An analysis of the project's consistency with the General Plan goals and objectives relevant to the project is provided in **Table 5.8-1**, Consistency with General Plan Land Use Goals and Objectives. While **Table 5.8-1** demonstrates the project's consistency with the Land Use Element of the General Plan pursuant to CEQA Guidelines Section 15125(d), the Imperial County Planning Commission and Board of Supervisors retain ultimate authority for the determination of the project's consistency with the General Plan.

Imperial County Land Use Ordinance – Title 9

The Project will require a Zone Change to change the zoning from S-2 (Open Space/Preservation) to M-2 (Medium Industrial). The purpose of the S-2 Zone is to preserve the cultural, biological, and open space areas that are rich and natural as well as cultural resources. Solid waste facilities are a permitted use within the M-2 Zone, with the approval of a Conditional Use Permit.

With the approval of a Zone Change to M-2 and the approval of a Conditional Use Permit, the proposed Project would not conflict with the County's Land Use Ordinance.

The proposed General Plan Amendment and Zone Change would place the project in conformance with county land use policies. Processing of a CUP for the Monofill Facility and the new water well ensures that only compatible uses are allowed.

Imperial County Airport Land Use Compatibility Plan

The Project is not located within the Airport Land Use Compatibility Plan for Imperial County Airports (ALUCP) or within two miles of a public airport or public use airport (County of Imperial,

1996). The nearest public use airport, Salton Sea Airport, is located 13 miles northwest the Project site. Therefore, the proposed project would not conflict with the Imperial County ALUCP, and no significant impact would occur.

5.8.4. Mitigation Measures

No mitigation is required.

5.9. Noise

This section addresses potential noise impacts that may result from construction, operation, closure and post-closure maintenance of the Desert Valley Company Monofill Expansion Project, Cell 4. The following discussion addresses the existing conditions at the Project site, identifies applicable regulations, identifies and analyzes environmental impacts, and recommends measures to reduce or avoid adverse impacts anticipated from implementation of the Project, as applicable.

Information used in preparing this section and in the evaluation of potential noise impacts was derived from the Desert Valley Monofill Expansion Project Noise Study (October 2020) prepared by Birdseye Planning Group, (Birdseye Planning Group, 2020b: provided in Appendix M).

Scoping Issues Addressed

During the scoping period for the Project, a public scoping meeting was conducted, and written comments were received from public agencies. The following issues related to noise were raised by the California Department of Resources Recycling and Recovery and the California Department of Fish and Wildlife are addressed in this section:

- All operational activity hours should be identified and analyzed in the DEIR.
- An evaluation of impacts to adjacent open space lands from construction, long-term operations and maintenance.

Issues Scoped Out

The Imperial County Planning and Development Services Department determined in the Initial Study, located in Appendix A-1, that the following environmental issue area resulted in “No Impact” and was scoped out of requiring further review in this DEIR. Please refer to Appendix A-1 of this DEIR for a copy of the Initial Study and additional information regarding this issue.

- 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? The Project site is not located within the vicinity of a private airstrip and the nearest privately-owned/public use airport, Salton Sea Airport, is located 13 miles northwest the Project Site. Additionally, the Project is not located within the Imperial County Airport Land Use Compatibility Plan (County of Imperial 1996). For these reasons, the Project would not expose people residing or working in the area to excessive noise levels; therefore, no impact would occur.

5.9.1. Environmental Setting

The proposed Project would be located in County of Imperial, which is situated in the southeasternmost portion of the State of California. The County encompasses an approximately 4,597-square-mile area and is bordered by Riverside County to the north, the State of Arizona on the east, Mexico to the south, and San Diego County to the west.

The existing monofill is located east of the Project site. State Route 86 (Highway 86) is located to the north and east of the existing monofill. Kane Springs Jeep Trail crosses Section 29 northeast of the Project site and an Imperial Irrigation District electrical transmission line and its maintenance road cross Sections 27, 28 and 34, running diagonally from northwest to southeast less than a mile from the Project site. Aside from the Kane Jeep Trail, no other man-made features are evident in the immediate area. The Elmore Desert Ranch Community is approximately two (2) miles northeast of the Project site.

All parcels in the vicinity of the Project site are zoned General Agricultural (A-2), Medium Industrial (M-2), Military and Bureau of Land management (BLM). The General Plan land use designation for all parcels in the immediate vicinity of the Project site is Government/Special Purpose, Recreation/Open Space and Special Purpose Facility. The predominant land use surrounding the project area is limited to desert open space and vehicle-oriented recreation.

Overview of Sound Measurement

Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz).

Sound pressure level is measured on a logarithmic scale with the 0 dB level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound pressure level). Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dBA, and a sound that is 10 dBA less than the ambient sound level has no effect on ambient noise. Because of the nature of the human ear, a sound must be about 10 dBA greater than the reference sound to be judged as twice as loud. In general, a 3 dBA change in community noise levels is noticeable, while 1-2 dB changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40-50 dBA, while arterial streets are in the 50-60+ dBA range. Normal conversational levels are in the 60-65 dBA range, and ambient noise levels greater than 65 dBA can interrupt conversations. Noise levels typically attenuate (or drop off) at a rate of 6 dBA per doubling of distance from point sources (i.e., industrial machinery). Noise from lightly traveled roads typically attenuates at a rate of about 4.5 dBA per doubling of distance. Noise from heavily traveled roads typically attenuates at about 3 dBA per doubling of distance. Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the

receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA. The manner in which older homes in California were constructed (approximately 30 years old or older) generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units and office buildings construction to California Energy Code standards is generally 30 dBA or more.

In addition to the actual instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance (average noise level). Typically, equivalent continuous sound level (Leq) is summed over a one-hour period. Lmax is the highest root mean squared (RMS) sound pressure level within the measuring period, and Lmin is the lowest RMS sound pressure level within the measuring period. The time period in which noise occurs is also important since noise that occurs at night tends to be more disturbing than that which occurs during the day. Community noise is usually measured using Day-Night Average Level (Ldn), which is the 24-hour average noise level with a 10-dBA penalty for noise occurring during nighttime (10 PM to 7 AM) hours, or Community Noise Equivalent Level (CNEL), which is the 24-hour average noise level with a 5 dBA penalty for noise occurring from 7 PM to 10 PM and a 10 dBA penalty for noise occurring from 10 PM to 7 AM. Daytime Leq levels are louder than Ldn or CNEL levels; thus, if the Leq meets noise standards, the Ldn and CNEL are also met.

Existing Noise Sources

The predominant sources of noise in the Project area are from operation of the existing DVCM facility. This includes noise generated by the trucks, transporting the filter-cake and mud-sump materials from the four geothermal power plants, to the facility, by the diesel-powered bulldozer or tractor grading and compacting the material, by the truck spraying the soil sealant, and by employees commuting to the facility. Other sources of noise in the vicinity are motor vehicles (e.g., automobiles and trucks) on State Route (SR)-86. An earthen levee between SR-86 and the existing DVCM facility serves as a noise barrier to the nearest sensitive receptors, the Elmore Desert Ranch, which is approximately two (2) miles northeast of the Project site.

The Project area is located within the Pacific Flyway, a north-south flyway for migratory birds. Further, the Sonny Bono Salton Sea National Wildlife Refuge is located at the south end of the Salton Sea approximately 10 miles northeast of the Project area. This is an 826-acre area comprised of manageable wetland units providing habitat for resident and migratory bird species including waterfowl, shorebirds and wading birds.

5.9.2. Regulatory Setting

Federal

The Federal Noise Control Act (1972) addressed the issue of noise as a threat to human health and welfare. To implement the Federal Noise Control Act, the U.S. EPA undertook a number of studies related to community noise in the 1970s. The EPA found that 24-hour averaged noise levels less than 70 dBA would avoid measurable hearing loss, levels of less than 55 dBA outdoors and 45 dBA indoors would prevent activity interference and annoyance (EPA 1972).

The U.S. Department of Housing and Urban Development (HUD) published a Noise Guidebook for use in implementing the Department's noise policy. In general, HUD's goal is exterior noise levels that are less than or equal to 55 dBA Ldn. The goal for interior noise levels is 45 dBA Ldn. HUD suggests that attenuation be employed to achieve this level, where feasible, with a special focus on sensitive areas of homes, such as bedrooms (HUD 2009).

State

Title 24 of the CCR establishes standards governing interior noise levels that apply to all new single-family and multi-family residential units in California. These standards require that acoustical studies be performed before construction at building locations where the existing Ldn exceeds 60 dBA. Such acoustical studies are required to establish mitigation measures that will limit maximum Ldn levels to 45 dBA in any habitable room. Although there are no generally applicable interior noise standards pertinent to all uses, many communities in California have adopted an Ldn of 45 as an upper limit on interior noise in all residential units.

In addition, the State of California General Plan Guidelines, provides guidance for noise compatibility. The guidelines also present adjustment factors that may be used to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

Local

County of Imperial Noise Ordinance

The monofill is subject to noise ordinance established by the Imperial County Board of Supervisors. Section 90702 of Title 9, of the Land Use Ordinance for the County of Imperial, limits general industry to a noise limit of 75 decibels (based on a one-hour average).

Construction Noise Standards

Construction noise, from a single piece of equipment or a combination of equipment, shall not exceed 75 dB Leq when averaged over an 8-hour period, and measured at the nearest sensitive

receptor. This standard assumes a construction period, relative to an individual receptor of days or weeks.

Construction equipment operation shall be limited to the hours of 7 AM to 7 PM, Monday through Friday, and 9 AM to 5 PM Saturday. No construction operations are permitted on Sundays or holidays.

County of Imperial General Plan

The County of Imperial General Plan’s Noise Element outlines the goals and objectives for identifying and managing existing and future noise sources in County of Imperial. The General Plan also contains plans and policies to protect the public from noise intrusion. **Table 5.9-1** identifies applicable General Plan policies, goals, and objectives applicable to the Project’s consistency with the General Plan. While this DEIR analyzes the Project’s consistency with the County of Imperial General Plan pursuant to CEQA Guidelines, Section 15125(d), the County of Imperial Planning Commission will determine the Project’s consistency with the General Plan.

TABLE 5.9-1: CONSISTENCY WITH APPLICABLE GENERAL PLAN NOISE GOALS AND POLICIES

General Plan Policies	Consistency	Analysis
Noise Element (NE) ^(a)		
NE Goal 1: Provide an acceptable noise environment for existing and future residents in Imperial County. <ul style="list-style-type: none"> • NE Objective 1.1: Adopt noise standards which protect sensitive noise receptors from adverse impact. • NE Objective 1.3: Control noise levels at the source where feasible. • NE Objective 1.5: Identify sensitive receptors with noise environments which are less than acceptable, and evaluate measures to improve the noise environment. • NE Objective 1.6: Collect data for existing noise sources in the County in order to improve the data base and enhance the ability to evaluate proposed projects and land uses. 	Yes	The proposed Project would not exceed adopted noise standards.
NE Goal 2: Review proposed projects for noise impacts and require design which will provide acceptable indoor and outdoor noise environments.	Yes	The Noise Study prepared for the Desert Valley Monofill Expansion Project (October 2020; Appendix M) provides an analysis of project noise levels. No significant noise impacts were identified.

TABLE 5.9-1: CONSISTENCY WITH APPLICABLE GENERAL PLAN NOISE GOALS AND POLICIES

General Plan Policies	Consistency	Analysis
NE Goal 3: Provide for environmental noise analysis inclusion in long range planning activities which affect the County.	Yes	The Noise Study prepared for the Desert Valley Monofill Expansion Project (October 2020; Appendix M) provides an analysis of project noise levels. No significant noise impacts were identified.
Conservation and Open Space Element (COSE) ^(b)		
COSE Objective 2.6: Attempt to identify, reduce, and eliminate all forms of pollution; including air, noise, soil, and water.	Yes	The Noise Study prepared for the Desert Valley Monofill Expansion Project (October 2020; Appendix M) provides an analysis of project noise levels. No significant noise impacts were identified.

Source:

- (a) County of Imperial General Plan Noise Element, 2016
- (b) County of Imperial Conservation and Open Space Element, 2016.

Vibration Standards

Vibration is a unique form of noise as the energy is transmitted through buildings, structures and the ground whereas audible noise energy is transmitted through the air. Thus, vibration is generally felt rather than heard. The ground motion caused by vibration is measured as particle velocity in inches per second and is referenced as vibration decibels (VdB). The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels.

The Noise Ordinance of the County’s Codified Ordinances and General Plan Noise Element do not provide vibration standards. The Federal Transit Administration’s (FTA) uses a threshold of 65 VdB for buildings where low ambient vibration is essential for interior operations. These buildings include hospitals and recording studios. A threshold of 72 VdB is used for residences and buildings where people normally sleep (i.e., residences and hotels). A threshold of 75 VdB is used for institutional land uses where activities occur primarily during the daytime (i.e., churches and schools). With respect to ground-borne vibration impacts on structures, the FTA states that ground-borne vibration levels in excess of 100 VdB would damage fragile buildings and levels in excess of 95 VdB would damage extremely fragile historic buildings.

5.9.3. Analysis of Project Effects and Significance Determination

Guidelines for Determination of Significance

A project would be considered to have a significant impact if it would:

1. Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
2. Result in generation of excessive groundborne vibration or groundborne noise levels?

Impact Analysis

Impact 5.9-1: Generation of a substantial temporary or permanent increase in ambient noise levels

Temporary Construction Noise

Construction noise estimates are based upon noise levels reported by the Federal Highway Administration for construction equipment and the distance between sensitive properties and SR-86. Reference noise levels are used herein to estimate noise levels at nearby sensitive receptors based on a standard noise attenuation rate of 3 dBA for line sources such as haul roads and 6 dB per doubling of distance (line-of-sight method of sound attenuation) for stationary sources and construction equipment. As referenced, the Project would not increase traffic volumes from baseline conditions nor would operation of the facility change with the Project. The only noise associated with the proposed Project that is not part of the ambient condition would be construction of the new facilities.

The primary noise source during construction activities would be associated with site preparation, grading, excavation and movement of soil material to/from the borrow area. This would include use of excavators, graders, loaders, compressors, generators, and various trucks for mobilizing crews, transporting construction material and debris, line work, and site watering. Average noise levels associated with the use of heavy equipment at construction sites can range from about 81 to 95 dBA at 25 feet from the source, depending upon the types of equipment in operation at any given time and phase of construction.

The nearest noise-sensitive to the Project site are single-family residences located on the Elmore Desert Ranch approximately two (2) miles northeast of the site. The noise level used to estimate the maximum noise level that could occur is based on use of an excavator, grader and dump truck. The combined noise from an excavator, grader and dump truck operating in proximity to one another would generate approximately 81 decibels at 100 feet. Actual noise levels will fluctuate throughout the day and may periodically exceed 81 dBA at 100 feet from the sources depending on the type and location of equipment used simultaneously in the same area. However, construction noise levels would attenuate to the 70 dBA criterion at approximately 400 feet from the source. Noise received at the property line of a residence is limited to 50 dBA Leq in the daytime and 45 dBA Leq at night.

Construction noise may be audible at the nearest residences neighboring the site; however, because the nearest residential uses are located two (2) miles from the Project site and because noise and vibration levels reduce by approximately 6 dBA with the doubling of distance between the noise

source and the receptors, noise levels at the nearest residences would be approximately 40 dBA and would not exceed the 50 dBA threshold. Therefore, construction noise impacts would be less than significant.

As referenced, the Noise Element of the County of Imperial General Plan defines a construction noise impact as noise generated from a single piece of construction equipment or a combination of equipment that exceeds 75 dBA Leq when averaged over an 8-hour period (Leq(8)) and measured at the nearest sensitive receptor (e.g., homes, schools, hospitals, parks, and office buildings, and for certain non-human species, including riparian bird species). Due to the proposed Project area being located within the Pacific Flyway and within 10 miles of the Sonny Bono Salton Sea National Wildlife Refuge, the DEIR evaluated potential noise impacts on birds.

The Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711) is an international treaty that makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Sections 3503, 3503.5, and 3800 of the California Department of Fish and Wildlife Code prohibit the take, possession, or destruction of birds, their nests, or eggs. Disturbances that cause nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) or loss of habitat upon which the birds depend could be considered “take” and constitute a violation of the MBTA.

Construction-related noise levels are estimated to be 81 dBA at 100 feet and 70 dBA at 400 feet from the noise source. No known nest sites or nesting habitat (i.e., shrubs/trees) occur on or in proximity to the Project site. Additionally, construction would occur more than 10 miles from the Salton Sea National Wildlife Refuge. Because noise levels are reduced by approximately 3 dBA with the doubling of the distance, construction noise would be imperceptible at the wildlife refuge and would have no impacts on nesting birds. No mitigation would be required to address nesting birds prior to construction.

Long-Term Operational Noise

Long-term operation of the proposed Project was evaluated for potential exterior traffic related impacts caused by operation of the heavy equipment, truck trips and employee/vendor traffic along SR-86.

Employee and construction-related support vehicle traffic and ongoing haul trips are the primary noise source that would be generated by the proposed Project. The current solid waste facility permit allows up to 38 daily waste transporting truck trips, which is considered baseline conditions. No increase in daily truck trips would occur with the proposed expansion. Up to 8 (16 two-way) employee trips occur daily and various vendor trips occur throughout a typical week. For the purpose of evaluating traffic noise, it was assumed that all employees/contractors, vendor and truck haul trips are included in existing traffic counts for SR-86. Based on these assumptions, project-related traffic

on SR-86 contributes to an ambient noise level of 62.3 dBA at 100 feet from the center line of SR-86 in the Project vicinity. This is within the compatible limits for residential receivers. Baseline/existing conditions are, and would remain, within the compatibility range required by Imperial County Code for traffic sources. The Project would have no effect on noise levels at noise sensitive receivers.

Operation of the facility would require the ongoing use of heavy equipment. Assuming a similar mix of equipment is used on-site during operation, noise levels would attenuate to 70 dBA or less at 400 feet from the Project. This would be inaudible at the nearest receiver. Thus, no significant permanent increase in noise levels would occur as a result of the project and a less than significant impact would occur.

Impact 5.9-2: Generation of excessive groundborne vibration or groundborne noise levels?

Construction and operational activities such as demolition and excavation have the potential to generate ground vibrations. Vibration levels will attenuate to approximately 69 VdB at 200 feet from the source assuming a grader and excavator are the heaviest pieces of equipment used during grading or site clearing. As discussed, 100 VdB is the threshold where minor damage can occur in fragile buildings. Vibration levels are projected to be under this threshold; thus, structural damage is not expected to occur as a result of construction activities associated with the proposed Project. Vibration levels would be below the groundborne velocity threshold level of 72 VdB for residences and/or buildings where people sleep at the property line of the nearest sensitive receptor, two (2) miles from the Project site. Vibration would not be perceptible at the nearest receiver. Vibration-related impacts would be less than significant.

No demolition or excavation activities would occur during the closure or post-closure maintenance phases. Therefore, no vibration impacts are anticipated.

5.9.4. Mitigation Measures

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

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5.10. Transportation/Traffic

This section addresses potential transportation and traffic impacts that may result from construction, operation, closure and post-closure maintenance of the Desert Valley Company Monofill Expansion Project, Cell 4. The following discussion addresses the existing traffic in the Project area, identifies applicable regulations, identifies and analyzes environmental impacts, and recommends measures to reduce or avoid adverse impacts anticipated from implementation of the Project, as applicable.

Information used in preparing this section and in the evaluation of potential transportation/traffic was derived from the Traffic Impact Study prepared by the KOA Corporation (KOA Corporation, 2020: Appendix P).

Scoping Issues Addressed

During the scoping period for the Project, a public scoping meeting was conducted, and written comments were received from agencies. The California Department of Resources Recycling and Recovery requested that all operational activity hours be identified and analyzed in the DEIR. No other comments related to transportation or traffic were received.

Issues Scoped out as part of the Initial Study

None.

5.10.1. Environmental Setting

The Desert Valley Company (DVC) Monofill Facility is located at 3301 West Highway 86, Brawley, California, 92227. Geothermal non-hazardous waste and byproducts generated by CalEnergy geothermal power plant are weighed on scales located at the CalEnergy plants and delivered to the DVM by truck. Wastes are accepted at the monofill during normal operating hours of Monday through Sunday, 6:00 AM to 6:00 PM.

Truck haul routes used to transport the waste stream to the monofill are described on **Table 3-6** and depicted on **Figure 3-4**. The covered loads are transported from the Salton Sea area, via a designated truck haul route (Designated Route A) that includes Sinclair Road, Gentry Road, Bowles Road, Lack Road and State Routes 78 / 86 and the Monofill Access Road. The use of alternate truck routes for deliveries to the DVM (Alternate Routes “B” and “C”) also include Forrester Road and Bannister Road. In the event CalEnergy Scales are out-of-service, scales at the Double Eagle Scale and Fuel company, located at 701 N Sorensen Ave, Calipatria, would be used, and trucks would use the Alternate Route For Weighing Trailers to access the DVM. The one way distance of the haul routes range from 28 to 38 miles in length.

Each of the roadways included in the haul routes is further described below.

State Route 86/78 (SR-86/78) is a four lane divided highway and a posted speed limit of 65 miles per hour (mph). A dedicated right-turn lane and a dedicated left turn lane are provided at the entrance to the Monofill Access Road.

State Route 111 (SR-111) begins at the International Border between Mexico and the United States traveling north with two travel lanes in each direction to SR-78/Brawley Bypass. North of Brawley, SR-111 is a two lane roadway. SR-111 is considered to be the “backbone” route of Imperial County as it connects the three largest cities and acts as a major goods movement route, particularly for agricultural products and cross-border goods and services.

County Road 30 is classified as a major collector and includes Forrester Road, O Brian Road and Gentry Road. These are two lane roadways with shoulders that are well maintained by the County.

Bannister Road is a two-lane minor local collector roadway which connects State Route 86 (SR-86) east to Brandt Road. It has no median and a posted speed limit of 55 mph. No sidewalks or bicycle facilities are present on either side of the roadway. The width of the roadway is generally 24 feet.

Bowles Road, and **Lack Road** are two-lane minor collector roadways with shoulders.

Gentry Road is a two-lane north-south facility which connects Forrester Road, north of the City of Westmorland north to Eddins Road. A portion of Gentry Road from Sinclair Road to the City of Westmorland is designated a Class II bike route.

Sinclair Road is a two-lane east-west facility which connects Gentry Road to SR 111. A portion of Sinclair Road from SR-111 to Gentry Road is designated as a Class II bike route.

Airports

The Salton Sea Airport, located approximately 13 miles northwest the Project site, is the nearest public airport.

Transit Service

Imperial Valley Transit (IVT) is a fixed route public bus service created in 1989. It began operations as a five (5) route system and as of 2020 had 12 routes and over 20 buses in operation. While the IVT offers bus services along several roads included in the Designated and Alternate haul routes, no transit services is provided in the immediate vicinity of the Project site.

Bicycle and Pedestrian Facilities

No bike lanes are provided along any of the designated haul routes. However, Gentry Road and Sinclair Road are designated as Class II bike routes.

5.10.2. Regulatory Setting

State

California Department of Transportation

The California Department of Transportation (Caltrans) has jurisdiction over state highways and establishes maximum load limits for trucks and safety requirements for oversized vehicles that operate on highways. Transportation and traffic impacts are regulated by Caltrans codes pertaining to licensing, size, weight, and load of vehicles operated on highways (California Vehicle Code (CVC), division 15, chapters 1 through 5) as well as the Street and Highway Code (Code §§660-711, 670-695) which requires permits from Caltrans for any roadway encroachment during truck transportation and delivery. The Street and Highway Code includes regulations for the care and protection of state and county highways and provisions for the issuance of written permits and requires permits for any load that exceeds Caltrans weight, length, or width standards for public roadways

Senate Bill 743

Senate Bill 743/State CEQA Guidelines Senate Bill (SB) 743, signed in 2013, required a change in the way that transportation impacts are analyzed under CEQA. Historically, environmental review of transportation impacts has focused on the delay vehicles experience at intersections and roadway segments, as expressed in Levels of Service (LOS). The legislation established that once new guidelines were certified by the Secretary of the Natural Resources Agency, automobile delay, as described solely by LOS or other similar measures of traffic congestion shall not be considered a significant impact on the environment. Local jurisdictions are allowed to consider LOS with regard to local general plan policies, zoning codes, conditions of approval, thresholds, and other planning requirements. New criteria for measuring traffic impacts under CEQA are to focus on the reduction of greenhouse gas emissions, the development of multi-modal transportation networks, and a diversity of land uses.

State CEQA Guidelines Section 15064.3 was adopted in December 2018 to implement SB 743. In addition to establishing VMT as the most appropriate measure of transportation impacts, and shifting away from LOS, the primary elements of this section are as follows:

- Reiterates that a project's adverse effect on automobile delay shall not constitute a significant environmental impact;
- Creates a rebuttable presumption of no significant transportation impacts for (a) land use projects within 0.5-mile of either an existing major transit stop or a stop along an existing high-quality transit corridor, (b) land use projects that reduce VMT below existing conditions, and (c) transportation projects that reduce or have no impact on VMT;
- Allows a lead agency to qualitatively evaluate VMT if existing models are not available; and

- Gives lead agencies discretion to select a methodology to evaluate a project’s VMT, but requires disclosure of that methodology in the CEQA documentation. Lead agencies are required to comply with CEQA Guideline revisions no later than July 1, 2020. To assist lead agencies in this endeavor, the State Office of Planning and Research published a Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018), to provide guidance in the calculation and application of VMT analyses within CEQA documents.

Local

The Imperial County General Plan Circulation and Scenic Highways Element (CSHE) is intended to provide a plan to accommodate a pattern of concentrated and coordinated growth, providing both, regional and local linkage systems between unique communities, and its neighboring metropolitan regions while protecting and enhancing scenic resources within both rural and urban scenic highway corridors. The CSHE policies related to the proposed Project are outlined below. **Table 5.10-1** summarizes the proposed Project’s consistency with the applicable General Plan policies.

While this DEIR analyzes the proposed Project’s consistency with the General Plan pursuant to CEQA Guidelines Section 15125(d), the Imperial County Planning Commissioners and Board of Supervisors ultimately determines consistency with the General Plan.

**TABLE 5.10-1: CONSISTENCY WITH GENERAL PLAN
TRANSPORTATION GOALS AND OBJECTIVES**

General Plan Policies and Objectives	Consistency	Analysis
Circulation and Scenic Highways Element (CSHE)		
<p>CSHE Goal 1: The County will provide and require an integrated transportation system for the safe and efficient movement of people and goods within and through the County of Imperial with minimum disruption to the environment.</p> <ul style="list-style-type: none"> • CSHE Objective 1.2 Require a traffic analysis for any new development which may have a significant impact on County roads. • CHSE Objective 1.12 Review new development proposals to ensure that the proposed development provides adequate parking and would not increase traffic on existing roadways and intersection to a level of service (LOS) worse than “C” without providing appropriate mitigations to existing infrastructure. 	<p>Yes</p>	<p>A Traffic Impact Report has been prepared (Appendix P) which demonstrates that the proposed Project would not cause existing roadways or intersections to operate below a Level of Service “C”.</p> <p>Additionally, the proposed expansion of the monofill would be located adjacent to the existing monofill and would not affect the waste generation location, volume or haul routes. For this reason, no increase in VMTs, over existing levels, would occur.</p> <p>Traffic impacts would not be significant. No mitigation is required.</p>

Source: County of Imperial Circulation and Scenic Highway Element, 2019.

5.10.3. Analysis of Project Effects and Significance Determination

This section presents the significance criteria used for considering project impacts related to transportation and traffic, the methodology employed for the evaluation, an impact evaluation, and mitigation requirements, if necessary.

Methodology

The analysis prepared in this section is based on a Traffic Impact Study prepared by KOA Corporation (KOA Corporation, 2020: Appendix P). The analysis considers potential changes in existing LOS based on peak hour and average daily traffic volumes and provides an analysis of site operation and site construction in order to describe the traffic volumes associated with the construction, operation, post-closure maintenance of Cell 4A and Cell 4B.

The existing Solid Waste Facility permit (Permit No. 13-AA-0022) and Conditional Use Permit (No. 05-0020) limit the type of waste that can be accepted at the monofill, the maximum number of daily truck deliveries, the daily and annual volumes of non-hazardous geothermal wastes and byproducts that can be accepted at the landfill, the approved haul routes. The SWFP also specifies the monofill's hours and days of operation. Specifically:

- The waste stream accepted at the DVCM is limited to geothermal filter cake, drilling mud materials and cuttings, soils containing geothermal materials from CalEnergy geothermal plants along with incidental plastic sheeting used as truckbed liners by the waste transport trucks.
- The number of daily truck deliveries are limited to 38 waste transporting trucks per day.
- The volumes of non-hazardous wastes that can be received is limited to a maximum of 750 tons per day and 273,750 tons annually.
- The permitted hours and days of operation are limited to 6:00 AM to 6:00 PM, Monday through Sunday.
- Vehicles carrying waste exit off Highway 86 and travel 1.25 miles south off the highway to the Monfill site. Truck travel to and from the facility shall only occur on approved routes. The truck lights are to remain on at all times while in motion.

None of these features would be changed under the proposed Project. For this reason, the traffic analysis evaluated potential impacts based on the generation of up to 38 waste transporting truck trips/day and up to 4 trips for employees and vendors (or 38 one-way trips). Changes in LOS were then compared to LOS thresholds set by Imperial County Public Works.

Level of Service Approach

Level of Service (LOS) is the term used to denote the different operating conditions that occur on a given roadway segment or intersection under various traffic volume loads. It is a qualitative measure used to describe a quantitative analysis, taking into account factors such as roadway geometries, signal phasing, travel speed, travel delay, freedom to maneuver, and safety. LOS provides an index to the operational qualities of a roadway segment or an intersection. LOS designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. LOS designation is reported differently for unsignalized intersections, signalized intersections, street segments, and freeways. The following describes the LOS designations for a state highway.

State Highway Level of Service (LOS) and performance is based upon procedures developed by Caltrans District 11 that are derived from the 2000 State Highway Capacity Manual. The procedure for calculating freeway LOS involves estimating a peak hour volume to capacity (V/C) ratio. Peak hour volumes are estimated from the application of design hour (K), directional (D) and heavy vehicle factors to ADT volumes. The resulting V/C is then compared to acceptable ranges of V/C values corresponding to the various LOS for each facility classification as shown on **Table 5.10-2**. The corresponding LOS represents an approximation of existing or anticipated future freeway operating conditions in the peak direction of travel during the peak hour. LOS C or better is used in this EIR as the threshold for acceptable freeway operations based upon Caltrans and County of Imperial requirements.

TABLE 5.10-2: STATE HIGHWAY SEGMENT LEVEL OF SERVICE DEFINITIONS

LOS	V/C	Congestion/ Delay	Traffic Description
"A"	< 0.41	None	Free flow.
"B"	0.42-0.62	None	Free to stable flow, light to moderate volumes.
"C"	0.63-0.80	None to minimal	Stable flow, moderate volumes, freedom to maneuver noticeably restricted.
"D"	0.81-0.92	Minimal to substantial	Approaches unstable flow, heavy volumes, very limited freedom to maneuver.
"E"	0.93-1.00	Significant	Extremely unstable flow, maneuverability and psychological comfort extremely poor.
"F"	< 1.00	Considerable	Forced or breakdown flow. Delay measured in average travel speed (MPH). Signalized segments experience delays >60.0 seconds/vehicle.

Source: KOA, 2020 (Appendix P).

Table 5.10-3 summarizes LOS criteria for unsignalized intersections using the Chapter 17 methodology of the 2000 Highway Capacity Manual.

TABLE 5.10-3: LEVEL OF SERVICE CRITERIA - UNSIGNALIZED INTERSECTIONS

Average Control Delay (sec/veh)	Level of Service (LOS)
<10	A
>10 and <15	B
>15 and <25	C
>25 and <35	D
>35 and <50	E
>50	F

Source: KOA, 2020 (Appendix P).

Trip Generation

Trip generation associated with current operations of the monofill are presented on **Table 5.10-4**. During operations of the DMV, a there would be 198 passenger car equivalents (PCE) traveling to and from the monofill, which includes trips resulting from waste truck trips and waste storage workers (on-site employees). As shown on **Table 5.10-4**, operation of the DMV results in 25 PCE trips during and AM and PM peak hours respectively. Waste disposal trucks would be required to use the designed or alternate haul routes identified on **Table 3-4**.

TABLE 5.10-4: TRIP GENERATION – OPERATIONS (DAILY & PEAK HOUR)

Source	No.	Unit	Daily Rate ⁽¹⁾	Daily Round Trips (PCE)		AM Peak Hour			PM Peak Hour		
						Total	In	Out	Total	In	Out
Waste Storage Workers	4	Employee	2	8	Rate	1.00	100%	0%	1.00	0%	100%
					Trips	4	4	0	4	0	4
Waste Truck trips	38	Truck	2	190	Rate	0.11	50%	50%	0.11	50%	50%
					Trips	21	11	11	21	11	11
TOTAL				198	Trips	25	15	11	25	11	15

Notes:

PCE Passenger Car Equivalent– One truck is equivalent to 2.5 passenger cars.

Source: KOA, 2020 (Appendix P).

During construction of Cell 4A or Cell 4B, the traffic analysis assumed that 25 construction workers would be required per day during construction of Cell 4A and during construction of Cell 4B, and five (5) daily equipment deliveries (**Table 5.10-5**). This results in a total of 63 PCE trip ends with 26 PCE trips occurring during the AM and PM peak hours, respectively.

TABLE 5.10-5: CONSTRUCTION TRIP GENERATION (DAILY & PEAK HOUR)

Source	No.	Unit	Daily Rate ⁽¹⁾	Daily Round Trips (PCE)		AM Peak Hour			PM Peak Hour		
						Total	In	Out	Total	In	Out
Peak Construction Workers	25	Employee	2	50	Rate	1.00	100%	0%	1.00	0%	100%
					Trips	25	25	0	25	0	25
Equipment Deliveries & Construction Truck Trips (PCE)	5	Truck Trips/Day	1	13	Rate	0.13	75%	25%	0.13	25%	75%
					Trips	1	1	0	1	0	1
TOTAL				63	Trips	26	26	0	26	0	26

Notes:
 PCE Passenger Car Equivalent– One truck is equivalent to 2.5 passenger cars.
 Source: KOA, 2020 (Appendix P).

Disposal operations at Cell 3 would be on-going during the construction of Cell 4A. Likewise, disposal operations at Cell 4A would be on-going during construction of Cell 4B. For this reason, the traffic analysis estimated total trips, during construction and operations (**Table 5.10-6**). As shown on **Table 5.10-6**, during that period when operations and construction of either Cells 4A or Cell 4B would occur, a total 261 PCE trips, and 51 PCE peak hour trips are anticipated.

TABLE 5.10-6: TOTAL TRIPS TO THE SITE (CONSTRUCTION + OPERATIONS)

Source	Daily Round Trips (PCE)	AM Peak Hour			PM Peak Hour		
		Total	In	Out	Total	In	Out
Existing Operational Trips	198	25	15	11	25	11	15
New Construction Trips	63	26	26	0	26	0	26
TOTAL	261	51	41	11	51	11	41

Notes:
 PCE Passenger Car Equivalent– One truck is equivalent to 2.5 passenger cars.
 Source: KOA, 2020 (Appendix P).

Guidelines for Determination of Significance

A project would be considered to have a significant impact if it would:

1. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.
2. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).
3. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
4. Result in inadequate emergency access.

Impact 5.10-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

Traffic operations for the entrance to the site from SR 86/78 were analyzed for the construction years of 2023 and 2050. In order to reflect pre-COVID-19 traffic conditions, the traffic analysis used traffic count data from the Caltrans 2018 traffic census and the existing monofill's traffic generation to estimate turning movements to and from the site driveway.

Construction of Cell 4A - Construction Year 2023

This discussion documents the addition of construction traffic for Cell 4A plus existing operations onto year 2023 conditions to document the scenario with both construction of Cell 4A and operations of Cell 3 occurring simultaneously. An annual ambient growth of 2.0% was utilized to account for traffic growth between the year of traffic counts (2018) and the construction year of 2023. The segment analysis was completed for the segment of SR 86/78 at the site entrance. The intersection analysis was completed at the intersection of the site drive and SR 86/78. As shown on **Table 5.10-7**, the temporary addition of project traffic associated with construction of Cell 4A would not reduce the level of service of street segments or intersections. Impacts would not be significant and no mitigation would be required.

**TABLE 5.10-7: NEAR-TERM ROADWAY SEGMENT OPERATIONS
(CELL 3 OPERATIONS + CELL 4A CONSTRUCTION – YEAR 2023)**

Roadway Segment	Operations of Cell 3 (without Cell 4A Construction)			Operations of Cell 3 + Cell 4A Construction			Net Change V/C ^(a)	Sign. ?
	ADT ⁽¹⁾	LOS ⁽²⁾	V/C ⁽³⁾	ADT	LOS	V/C		
SR 86	15,102	A	0.26	15,075	A	0.26	0.00	No

Notes:

(1) ADT = Average Daily Traffic Volumes

(2) LOS = Level of Service

(3) V/C = Volume ÷ Capacity

Sign.? = Significant?

Source: KOA, 2020 (Appendix P).

Construction of Cell 4A (Construction Year 2050)

Tables 5.10-8 and **5.10-9** document traffic conditions when Cell 4A is operational and Cell 4B is under construction. The analysis assumed that Cell 4A would be operational by 2024 and would have an approximately 28 year life span. Thus, Cell 4A would reach capacity by 2052 would cease receiving waste. Because construction of Cell 4B is proposed to commence two (2) years prior to the closure of Cell 4A, the analysis assumes that construction of Cell 4B would commence in the Year 2050. An annual ambient growth of 2.0% was utilized to account for traffic growth between the year of traffic counts (2018) and the year when Cell 4 B would be constructed (Year 2050). The intersection analysis was completed at the intersection of the Project site entrance and SR 86/78. The segment analysis is shown in **Table 5.10-8** and intersection analysis in **Table 5.10-9**.

As shown on **Tables 5.10-8** and **5.10-9**, once Cell 4A is operational, the temporary addition of project traffic associated with construction of Cell 4B would not reduce the level of service of street segments or intersections. Future roadway and intersection impacts would not be significant and no mitigation would be required.

**TABLE 5.10-8: FUTURE ROADWAY SEGMENT OPERATIONS
(CELL 4A OPERATIONS + CELL 4B CONSTRUCTION – YEAR 2040)**

Street Segment	Operations of Cell 4A (without Cell 4B Construction)			Operations of Cell 4A + Cell 4B Construction			Net Change V/C ^(a)	Sign. ?
	ADT	LOS	V/C	ADT	LOS	V/C		
SR 86	21,489	A	0.38	21,552	A	0.38	0.00	No

Notes:

(1) ADT = Average Daily Traffic Volumes

(2) LOS = Level of Service

(3) V/C = Volume ÷ Capacity

*As shown in Imperial County Circulation and Scenic Highways Element (2008) and Imperial County Long Range Transportation Plan 2013 Update.

Source: KOA, 2020 (Appendix P).

**TABLE 5.10-9: FUTURE INTERSECTION OPERATIONS
(CELL 4A OPERATIONS + CELL 4B CONSTRUCTION - YEAR 2040)**

Scenario	Intersection	Control	AM Peak Hour				PM Peak Hour			
			NB		WB LT		NB		WB LT	
			Delay (a)	LOS (b)	Delay (a)	LOS (b)	Delay (a)	LOS (b)	Delay (a)	LOS (b)
Operations of Cell 4A (without Cell 4B Construction)	Site Driveway/ SR 86	SSS	18.1	C	12	B	14	B	9.8	A
Operations of Cell 4A + Cell 4B Construction	Site Driveway/ SR 86	LT	12.3	B	13.2	B	16.4	C	9.8	A

Notes:

(a) = Average delay expressed in seconds per vehicle

(b) = LOS = Level of Service

NB = North Bound

WB LT = Westbound Left Turn

SSS = Side Street Stop

LT = Uncontrolled left turn

Source: KOA, 2020 (Appendix P).

In summary, implementation of the proposed Project would add traffic to roadway segments and intersections along the project haul routes during construction and operation. However, the additional traffic would not result in an exceedance of LOS C. Additionally, the proposed Project would not affect bicycle facilities, pedestrian facilities or public transit. Therefore, no conflicts with

the Imperial County General Plan Circulation and Scenic Highways Element would occur. Impacts would not be significant.

Impact 5.10-2: Conflict(s) or inconsistency with CEQA Guidelines Section 15064.3, subdivision (b) relative to Vehicle Miles Traveled

The current Solid Waste Facility Permit for the DVCM (13-AA-0022) and Conditional Use Permit (No. 05-0020) allows up to 38 waste transporting vehicles per day for incoming waste materials from the CalEnergy Geothermal plants. The Project does not propose to increase the number of allowable daily vehicle trips nor does not propose to increase the daily or annual volumes of waste that can be received above the 750 daily tons or 273,750 annual tons limit identified in the permits. Additionally, the proposed Project would not substantially increase the number of on-site personnel over existing conditions. As shown on **Table 3-4**, the proposed Project would utilize the designated and alternate haul routes approved for the existing monofill. Depending on which haul routes are used, the one-way distance of the haul routes range from 28 to 38 miles in length. Assuming the longest haul route is used, the waste delivery trucks would generate 608 vehicle miles traveled (VMT) per day (38 waste transporting trucks x 38 miles x 2 = 608 miles). Given that operations of the proposed expansion would not increase the daily number of vehicle trips nor the daily or annual volume of waste that could be received at the expanded landfill, no increase in VMT would result. A slight increase in VMT would occur during construction of Cells 4A or 4B from construction workers commuting to the site and equipment/material deliveries; however, these increases would be temporary and would cease upon completion of construction. It should also be noted that SB 743 focuses on land use and transportation projects and does not consider temporary construction trips.

With the exception of temporary construction trips, the proposed Project would not increase miles traveled and would result in a less than significant transportation impact.

Impact 5.10-3: Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The proposed Project would include the expansion of the existing monofill via the construction and operation of a new waste cell (Cell 4). Waste disposal trucks, similar to those that are currently being used for waste disposal at the existing monofill would continue to be used to haul geothermal waste to the Project site. No increase in the number of daily waste disposal trucks would be required. While implementation of the Project would require the installation of a new internal access road to access Cell 4B; this improvement would be located within the fence line of the monofill. No off-site roadway improvements would be required.

Therefore, the Project would include no hazardous design features, such as sharp curves or dangerous intersections, that would create a traffic hazard. As a result, impacts related to the increase of traffic hazards as a result of the Project would be less than significant. No mitigation measures are required.

Impact 5.10-4: Inadequate Emergency Access.

The Project would not block any major thoroughfares and would not result in inadequate emergency access to the monofill. Waste haul trucks would continue to use the designated and alternative truck haul routes approved in the *Addendum to the Final EIR for the Desert Valley Company, SCH No. 1989032206* (County of Imperial, 2008a). No impact is anticipated.

5.10.4. Mitigation Measures

The Project would not result in significant transportation/traffic impacts. No mitigation is required.

5.11. Tribal Cultural Resources

This section addresses potential tribal cultural resource impacts that may result from construction, operation, closure and post-closure maintenance of the Desert Valley Company Monofill Expansion Project, Cell 4. The following discussion addresses the existing conditions in the project area, identifies applicable regulations, identifies and analyzes environmental impacts, and recommends measures to reduce or avoid adverse impacts anticipated from implementation of the project, as applicable.

The analysis in this section is based on the *Phase I Cultural Resources Study* and the *Phase II Archaeological Testing Report* prepared by Chambers Group in 2019, and 2020, respectively. The Phase I and Phase II Cultural Reports were peer reviewed by ASM Affiliates and BRG Consulting, Inc. and are included as Appendix H-1 and Appendix H-2 of the EIR, respectively. A Native American monitor representing the Viejas Band of Kumeyaay Indians, accompanied the Chambers Group during the subsurface archaeological testing of six (6) archaeological site.

Scoping Issues Addressed

During the scoping period for the Project, a scoping meeting was conducted, and written comments were received from regulatory agencies. The following issues related to Cultural Resources and Native American Tribal Consultations were raised by the Native American Heritage Commission and are addressed in this section:

- AB 52 applies to any project for which a NOP, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.
- NAHC recommends that lead agencies consult with California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the Project.
- Both SB 18 and AB 52 have tribal consultation requirements.
- NAHC provided recommendations for preparing cultural resource assessments.

Issues Scoped Out

None.

5.11.1. Environmental Setting

Please refer to Section 5.3 Cultural Resources of this EIR for a detailed description of the history and background of the Project site. The Project area was occupied by the Kumeyaay, and Cahuilla, Cocopah and Quechan people. The three general time periods accepted in the region are the San Dieguito Complex, the Archaic period, and the Late Prehistoric period.

5.11.2. Regulatory Setting

Federal

Native American Graves Protection and Repatriation Act (United States Code, Title 25, Sections 3001 et seq.)

The Native American Graves Protection and Repatriation Act is a federal law passed in 1990 that provides a process for museums and federal agencies to return certain Native American cultural items, such as human remains, funerary objects, sacred objects, or objects of cultural patrimony, to lineal descendants and culturally affiliated Indian tribes.

State

Assembly Bill 52

California Assembly Bill 52 of 2014 (AB 52) was enacted on July 1, 2015 and expands CEQA by defining a new resource category, “tribal cultural resources.” AB 52 establishes that “A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment” (PRC Section 21084.2). It further states that the lead agency avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3). PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources:

1. “Sites, features, places, cultural landscapes, sacred places and objects with cultural value to a California Native American tribe” and meets either of the following criteria: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
2. A cultural 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.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified. AB 52 requires that lead agencies “begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project.” Native American tribes to be included in the formal consultation process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

Senate Bill 18 (SB 18)

SB 18 of 2004 (California Government Code §65352.3) requires local governments to contact, refer plans to and consult with tribal organizations prior to making a decision to adopt or amend a general or specific plan. The tribal organizations eligible to consult have traditional lands in a local government's jurisdiction and are identified, upon request, by the Native American Heritage Commission (NAHC). As noted in the California Office of Planning and Research's Tribal Consultation Guidelines (2005), "The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places."

Native American Historic Resource Protection Act

Public Resources Code Sections 5097 et seq. codify the procedures to be followed in the event of the unexpected discovery of human remains on nonfederal public lands. Section 5097.9 states that no public agency or private party on public property shall "interfere with the free expression or exercise of Native American Religion." The code further states that:

"No such agency or party [shall] cause severe or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine... except on a clear and convincing showing that the public interest and necessity so require. County and city lands are exempt from this provision, except for parklands larger than 100 acres."

California Health and Safety Code

California Health and Safety Code, Section 7050.5 requires that if human remains are discovered in the project site, disturbance of the site shall halt and remain halted until the coroner has conducted an investigation into the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. If the coroner determines that the remains are not subject to his or her authority and recognizes or has reason to believe the human remains are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

Local

County of Imperial General Plan

The County of Imperial General Plan (General Plan) provides goals, objectives, and policies for the identification and protection of significant cultural resources. Specifically, the Conservation and Open Space Element of the General Plan calls for the protection of cultural resources and scientific sites and contains requirements for cultural resources that involve the identification and

documentation of significant historic and prehistoric resources and the preservation of representative and worthy examples. The Conservation and Open Space Element also recognizes the value of historic and prehistoric resources and the need to assess current and proposed land uses for impacts upon these resources.

**TABLE 5.11-1: CONSISTENCY WITH APPLICABLE GENERAL PLAN
TRIBAL CULTURAL RESOURCES GOALS AND POLICIES**

General Plan Policies	Consistency	Analysis
Conservation and Open Space Element (COSE)		
Conservation of Environmental Resources for Future Generations, COSE Goal 1: <ul style="list-style-type: none"> Environmental resources shall be conserved for future generations by minimizing environmental impacts in all land use decisions and educating the public on their value 	Yes, with mitigation	Cultural resource investigations and testing have been conducted for the proposed Project and potential impacts have been minimized. The Project is in compliance with this goal through incorporation of mitigation measures MM CUL-1 through MM CUL-4 .
Preservation of Cultural Resources, COSE Goal 3: <ul style="list-style-type: none"> Objective 3.1: Protect and preserve sites of archaeological, ecological, historical, and scientific value, and/or cultural significance. 	Yes, with mitigation	Cultural resource investigations and testing have been conducted for the proposed Project. The Project is in compliance with this goal through incorporation of mitigation measures MM CUL-1 through MM CUL-4 .
Preservation of Cultural Resources, COSE Goal 3: <ul style="list-style-type: none"> Objective 3.3: Engage all local Native American Tribes in the protection of tribal cultural resources, including prehistoric trails and burial sites. 	Yes	Pursuant to Assembly Bill 52 and Senate Bill 18, letters were distributed to 18 local Native American tribes and their representatives to engage and offer them of an opportunity to consult with the County on the Project’s potential to impact Tribal Cultural Resources, to determine whether or not Tribal Cultural Resources are present within the project area, and if so, to determine the most appropriate way to avoid or mitigate impacts. Copies of the letters are included in Appendices H-2 and H-3 of the EIR. Appendix H-4 includes a summary of tribal outreach efforts conducted for the Phase II Archaeological Testing Report.

Source: County of Imperial, 2016.

While this Draft EIR analyzes the Project’s consistency with the County of Imperial General Plan pursuant to California Environmental Quality Act (CEQA) Guidelines, Section 15125(d), the Imperial County Planning Commission ultimately determines consistency with the General Plan.

5.11.3. Analysis of Project Effects and Significance Determination

This section presents the significance criteria used for considering project impacts related to tribal cultural resources, the methodology employed for the evaluation, an impact evaluation, and mitigation requirements, if necessary.

Guidelines for Determination of Significance

A project would be considered to have a significant impact if it would:

1. 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:
 - a) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or
 - b) 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.

Impact 5.11-1: Cause a substantial adverse change in the significance of a Tribal Cultural Resource

Pursuant to Public Resources Code (PRC) Section 21080.3.1, upon determining that an Initial Study (IS) would be prepared for the proposed Project, the County initiated a plan to conduct consultation with California Native American Tribes traditionally and culturally affiliated with the project area. In addition to the Native American contact program conducted for the cultural resource investigations, and in conformance with rules enacted under AB 52 and SB 18, the County, as CEQA lead agency for the proposed Project, initiated consultation with local Native American representatives to identify tribal cultural resources that may be affected by the Project. On November 19, 2018, the County sent notification letters to two (2) California Native American Tribes and/or their representatives initiating the 30-day period required by AB 52. Similarly, on November 21, 2018 the County sent notification letters to seventeen (17) federally-recognized California Native American Tribes and/or their representatives initiating a 45-day period required under SB 18. Copies of the AB 52 and SB 18 notification letters and responses are provided in Appendix H-3 and H-4, respectively.

As of the date of publication of the Draft EIR, no responses have been received and formal consultation has been closed. However, based on knowledge of areas used by their ancestors and the stated potential to encounter resources during project construction, construction monitoring required under **MM CUL-1** includes a Qualified Archaeologist who meets or exceeds the Secretary

of the Interior Professional Qualifications Standards as an archaeologist and a TCA (traditionally and culturally affiliated) Native American Monitor. With implementation of **Mitigation Measures CUL-1** through **CUL-4**, the Project's impact on tribal cultural resources would be less than significant.

Impact 5.11-2: Substantial adverse change in the significance of a tribal cultural resource with cultural value to a California Native American tribe determined to be significant the County of Imperial.

Based on coordination to date, Native American representatives have not provided information indicating there are resources that are significant to a California Native American tribe or otherwise qualify as Tribal Cultural Resources, as defined in Public Resources Code Section 5024.1. Nevertheless, based on the number of archaeological resources recorded in the project vicinity, the Project site is considered sensitive for potential buried cultural resources and/or subsurface deposits. Therefore, there is the potential for inadvertent discovery of a resource that could be impacted by project implementation. Impacts would be considered potentially significant. With implementation of Mitigation Measures **MM CUL-1** through **MM CUL-4**, potential impacts to buried cultural resources and/or subsurface deposits would be less than significant.

5.11.4. Mitigation Measures

Implementation of Mitigation Measures **MM CUL-1** through **MM CUL-4** would reduce potentially significant impacts to tribal cultural resources to below a level of significance because these measures require the performance of professionally accepted and legally compliant procedures for the discovery of previously undocumented significant archaeological resources and human remains.

Level of Significance After Mitigation

Less than significant.

5.12. Utilities and Service Systems

This section addresses potential utility and service system impacts that may result from construction, operation, closure and post-closure maintenance of the Desert Valley Company Monofill (DVCM) Expansion Project, Cell 4. The following discussion addresses the existing utility and service systems in the vicinity of the Project site and identifies the potential physical environmental impacts that would result from provision of services to the proposed Project.

Information used in preparing this section is based on information obtained from service providers as well as the Water Supply Assessment (Appendix N) prepared for the Project by EMKO Environmental, Inc, July 10, 2019.

Scoping Issues Addressed

During the scoping period for the Project, a public scoping meeting was conducted, and written comments were received from public agencies. No comments related to utilities and service systems were received.

Issues Scoped Out

The Imperial County Planning and Development Services Department determined in the Initial Study (IS), located in Appendix A-1, that the following environmental issue areas resulted in no impact were scoped out of requiring further review in this draft EIR. Please refer to Appendix A-1 of this DEIR for a copy of the NOP/IS and additional information regarding this issue.

- 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. Wastewater treatment services for the existing DVCM are provided by an on-site septic system and leach field. This same infrastructure would be used for the proposed Project.
- Require or result in the relocation or construction of new or expanded electric power, natural gas or telecommunication facilities. The DVCM has existing infrastructure, including septic, electrical power and telecommunication facilities that would be used by the proposed Project. No new construction would be required for these utilities/service systems, and no impacts would result.

Therefore, these issue areas will not be discussed further.

5.12.1. Environmental Setting

The Imperial Valley area is located within the south-central part of Imperial County and is bound by Mexico on the south, the Algodones Sand Hills on the east, the Salton Sea on the north and San Diego County on the northwest, and the alluvial fans bordering the Coyote Mountains and the Yuha

Desert to the southwest. The IID supplies water and power to most users in the Imperial Valley. Operations are divided between a water division responsible for distribution and collection of water, and a power division responsible for generation and distribution of electrical power. The majority of the public water supply is imported from the Colorado River. Natural gas service in the area is provided by the Southern California Gas Company.

The DVCM has existing infrastructure, including water, wastewater, electrical power and telecommunication facilities. The existing water well would continue to be used for the site personnel. A new water well would be drilled for use in construction. The existing on-site septic tank/leach field would continue to be used for disposal of sanitary waste generated by site personnel. An Imperial Irrigation District electrical transmission line and its maintenance road cross Sections 27, 28 and 34, running diagonally from northwest to southeast less than a mile from the Project site.

Groundwater

The DVC Monofill Facility is located within the Ocotillo-Clark Valley Groundwater Basin. The basin is bounded by the Santa Rosa Mountains to the north and northeast, Coyote Creek and Superstition Mountain faults to the west and south, and the Salton Sea and surface drainage divides to the east. The total surface area is approximately 223,000 acres (348 square miles), while the estimated groundwater storage capacity of the Ocotillo Valley part of the groundwater basin is 5,800,000 acre-feet (EKMO, 2019b; Appendix P).

Clark Valley drains toward Clark Dry Lake, to the northeast of Borrego Springs (see Figure 5.12-1). The eastern part of the groundwater basin drains toward the Salton Sea. The basin is an alluvial filled valley of stream, alluvial fan, lake and aeolian deposits. Recharge occurs due to runoff from the mountains along the north and west sides of the basin and is estimated to be 1,200 acre-feet per year for the Clark Valley part of the basin and 1,100 acre-feet per year for the Ocotillo Valley part of the basin. The Ocotillo-Clark Valley Groundwater Basin has not been adjudicated.

Two aquifers are present within the Ocotillo Valley area of the groundwater basin. Northwest of San Felipe Creek, shallow groundwater is encountered at depths ranging from 40 feet to 90 feet below ground surface, with depths generally increasing toward the west. The depth to groundwater in the lower aquifer is approximately 100 feet deeper than that in the shallow aquifer. Thus, in the area west of San Felipe Creek, the shallow groundwater zone is generally unconfined and perched, while the lower aquifer is confined. Groundwater from the shallow zone may discharge at springs along Fish Creek and San Felipe Creek, suggesting that groundwater flow is toward the east-southeast in the western area of the Ocotillo Valley part of the groundwater basin.

At the Project site, shallow groundwater is present at depths ranging from 50 feet to 60 feet below ground surface. The shallow groundwater flows toward the northeast with a hydraulic gradient of approximately 0.0164 ft/ft and at a velocity of approximately 3.86 feet per year (DVC, 2019). While the lower aquifer is not encountered until a depth of approximately 490 feet below ground surface,

the static water level is approximately 44 feet below ground surface, indicating that the lower aquifer is under confined conditions.

Existing Supply Well and Historic Water Volumes Pumped

In 2005, DVC installed a new water supply well for operation of Cell 3. The well was drilled to a total depth of 605 feet and completed with 5-inch Schedule 80 PVC casing. A three (3)- horsepower, three-phase submersible pump was installed at a depth of 461 feet. The pump provides up to 38 gallons per minute of groundwater from the deeper aquifer zone. Two 5,000-gallon above ground water tanks are used to store pumped groundwater before use onsite.

The water well attachment to CUP 05-0020 allows up to 8.5 acre-feet of groundwater per year to be produced from the supply well. Over the past decade, the maximum annual water use reported by DVC was 8.02 AFY in 2010. Since 2012, the peak annual water use has been 5.57 AFY while the minimum annual water use has been 3.58 AFY. The median water use over the past seven years has been 5.45 AFY.

Project Water Demand

Project water demand would include water needed for dust control and construction (e.g., soil compaction) during installation of Cell 4, closure of existing Cell 3, and for subsequent operation of Cell 4. Current Cell 3 and future Cell 4 operational water demand is for dust control and makeup water for soil stabilization polymers applied to the filter cake in the active cell, as required in the CUP. Water would be supplied from the existing groundwater well and a new well, as described in Section 4.4.3 of this EIR. Potable water for on-site personnel and sanitary use at the office/administration building would continue to be provided by a water delivery service and stored in an existing aboveground water storage tank separate from the pumped groundwater. Water use for dust control and operation of Cell 3 since 2012 has ranged from 3.58 to 5.57 AFY, with a median value over that period of 5.45 acre-feet/ year, as discussed in **Section 4.4.3** of this EIR. The historic maximum use for Cell 3 was 8.02 AFY, in 2010. To provide a conservative estimate, the Water Supply Assessment, assumed that water use for dust control and operation of Cells 4A and 4B could be twice the median value of water used over the past seven (7) years, or about 11 AFY (5.45 AFY x 2 ≈ 11 AFY).

For construction of Cell 4A water would be necessary for moisture conditioning of fill material for the liner and for dust control. Over an approximate 12-month period, it is estimated that the total water demand to construct Cell 4A may range from 25 million to 32 million gallons, or approximately 75 to 100 acre-feet. The average daily water demand is estimated to range from 135,000 to 155,000 gallons per day (gpd), while the maximum daily water demand is estimated to range from 155,000 to 180,000 gallons per day. The average daily water demands are equivalent to pumping rates of about 90 gallons per minute (gpm) to 105 gpm. The maximum daily water demands are equivalent to pumping rates of about 105 gpm to 125 gpm. These pumping rates assume pumping

would occur 24 hours per day and not just during working hours. Water use for construction, operation and closure of Cell 4B was assumed to be similar in quantity and duration to that of Cell 4A.

For the closure of Cell 3, water would be necessary for moisture conditioning of the cap material and for dust control. Cell closure is estimated to require up to 6- months to complete. Over that period, it is estimated that 30 to 40 acre-feet of water would be required. The average daily water demand is estimated to range from 85,000 to 110,000 gallons per day, while the maximum daily water demand is estimated to range from 95,000 to 120,000 gallons per day. The average daily water demands are equivalent to pumping rates of about 60 gpm to 75 gpm. The maximum daily water demands are equivalent to pumping rates of about 65 gpm to 85 gpm. These pumping rates assume pumping would occur 24 hours per day and not just during working hours.

Closure of Cell 3 would not occur until after Cell 4A has been constructed and becomes available for use. Thus, the water demand to construct Cell 4A and to close Cell 3 would not occur simultaneously.

According to the American Water Works Association, water use in a commercial setting for toilets and faucets using water-efficient fixtures) is approximately 20 gallons per worker per day. Eight (8) persons are employed at the project site. Therefore, the anticipated sanitary water demand is anticipated to be 160 gallons per day for 365 days per year, which is about 0.18 acre-feet/year.

Based on the above information, the total water demand for the project will be 75 to 100 acre-feet during the year that Cell 4A is constructed and 30 to 40 acre-feet during the six-month period while Cell 3 is being closed. The on-going operational water use for dust control and cell operation will be up to 11 acre-feet/year, while the on-going potable water use will continue to be 0.12 acre-feet/year. Based on these values, the maximum annual water use would be up to 111.12 acre-feet/year during the year that Cell 4A is constructed. The on-going long-term water demand, once cell construction and closure construction are completed, will be up to 11.12 acre-feet/year.

5.12.2. Regulatory Setting

Water Supply State Department of Water Resources

Major responsibilities of the California Department of Water Resources include preparing and updating the California Water Plan to guide development and management of the state's water resources and planning, and designing, constructing, operating, and maintaining the State Water Resources Development System. In addition, the Department of Water Resources cooperates with local agencies on water resources investigations, supports watershed and river restoration programs, encourages water conservation, explores conjunctive use of ground and surface water, facilitates voluntary water transfers, and, when needed, operates a state drought water bank.

Senate Bill 610, 221 and 1262

Senate Bill (SB) 610 (Chapter 643, Statutes of 2001) and SB 221 (Chapter 642, Statutes of 2001) amends Sections 10910 through 10915 of the Water Code by requiring preparation of a WSA for development projects subject to CEQA and other criteria, as discussed below. SB 610 also amends Section 10631 of the Water Code, which relates to Urban Water Management Plans (UWMPs). The WSA process under SB 610 is designed to rely on the information typically contained in UWMPs, where available. On September 24, 2016, SB 1262 further amended Section 10910 of the Water Code to require additional information related to adjacent public water systems and the status of the groundwater basin. These amendments provide additional consistency with the Sustainable Groundwater Management Act of 2014.

SB 610, SB 221, and SB 1262 are companion measures that seek to promote more collaborative planning between local water suppliers and cities and counties. These statutes require detailed information regarding water availability to be provided to city and county decision-makers prior to approval of specified large development projects. They also require this detailed information to be included in the administrative record that serves as the evidentiary basis for an approval action by the city or county on such projects.

The first steps in the water supply assessment (WSA) process are to determine whether SB 610 applies to the proposed Project. If so, then documentation of available water supplies, anticipated Project demand, and the sufficiency of supplies must be conducted. The WSA confirms that SB 610 applies because the proposed Project would be an industrial development occupying more than 40 acres of land. Since groundwater would be a source of supply for the Project, an assessment of groundwater conditions is also required, in accordance with Section 10910 (f) of the California Water Code.

Local

Groundwater Management Ordinance

In 1998, the County adopted, and in 2015 amended, a comprehensive Groundwater Management Ordinance to preserve and manage groundwater resources within the County. The Groundwater Ordinance, codified as Division 22 of Title 9 of the Imperial County Code, is implemented by the Planning Commission acting upon the direction of the Board of Supervisors. The Groundwater Ordinance provides the County with various regulatory tools that are designed to avoid or minimize the impact of existing and proposed groundwater extraction activities on groundwater resources and other users, such as overdraft or excessive drawdown.

The Groundwater Ordinance requires that existing extraction facilities be permitted and registered with the County. The existing groundwater well at the DVC Monofill Facility is permitted and

regulated by an attachment to CUP 05-0020, which establishes site-specific conditions for the onsite well.

County of Imperial General Plan

The Imperial County General Plan provides goals, objectives, policies, and programs regarding the preservation and use of water. **Table 5.12-1** provides a consistency analysis of the applicable Imperial County General Plan goals and objectives as they relate to the proposed project. While the EIR analyzes the project’s consistency with the General Plan pursuant to CEQA Guidelines Section 15125(d), the Imperial County Board of Supervisors ultimately determines consistency with the General Plan.

TABLE 5.12-1 CONSISTENCY WITH APPLICABLE GENERAL PLAN UTILITY GOALS AND POLICIES

General Plan Policies	Consistency	Analysis
Conservation and Open Space Element (COSE)		
<ul style="list-style-type: none"> COSE Goals 6: The County will conserve, protect, and enhance water resources in the County. COSE Objective 6.1: Ensure the use and protection of all the rivers, waterways, and groundwater sources in the County for use by future generations. COSE Objective 6.4: Eliminate potential surface and groundwater pollution through regulations as well as educational programs. 	Yes	The proposed Project will comply with the General Stormwater Construction Permit and the Industrial Discharge permit to ensure that water runoff from the site would not pollute surface or groundwater resources
Water Element (WE)		
<ul style="list-style-type: none"> WE Goal 1: The County will secure the provision of safe and healthful sources and supplies of domestic water adequate to assure the implementation of the County General Plan and the long-term continued availability of this essential resource. WE COSE Objective 1.1 The efficient and cost-effective utilization of local and imported water resources through the development and implementation of urban use patterns. Coordinated Water Management Policy: Encourage and provide inter-agency and inter-jurisdictional coordination and cooperation for the management and wise use of water resources for contact and noncontact recreation, groundwater recharge, hydroelectric energy production, and wildlife habitat as well as for domestic and irrigation use. 	Yes	The WSA determined that there would be sufficient water available to meet Project’s demands during normal and dry years.

Source: County of Imperial, 1997; County of Imperial, 2016.

5.12.3. Analysis of Project Effects and Significance Determination

Guidelines for Determination of Significance

A project would be considered to have a significant impact if it would:

1. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage facilities, the construction or relocation of which could cause significant environmental effects?
2. Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?
3. 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?
4. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Impact Analysis

Impact 5.12-1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage facilities, the construction or relocation of which could cause significant environmental effects?

Site Preparation and Construction

The DVCM has existing infrastructure, including wastewater, electrical power and telecommunication facilities that would be used by the proposed Project. No new or relocated wastewater, electrical power or telecommunication facilities would be required during site preparation and construction, and no impacts would result. However,

A new groundwater well would be installed for use during construction of Cell 4A and 4B as well as during closure and capping of Cell 3. Construction of the groundwater well could cause significant impacts to air quality, biological resources, cultural/tribal resources, paleontological resources and water quality. These impacts would be reduced to below a level of significance with the implementation of mitigation measures detailed in Sections 5.1, 5.2, 5.3, 5.4 and 5.7 of this EIR. No additional mitigation would be required.

Site Operations

Existing wastewater, electrical power and telecommunication facilities would be used during the operation of Cells 4A and 4B. Drinking water for on-site personnel and sanitary use at the office/administration building would continue to be provided by a water delivery service and stored in an existing aboveground water storage tank.

To maintain operational integrity, a series of diversion berms would be extended and/or constructed around the south and western perimeter of Cell 4 to divert stormwater runoff from multiple existing ephemeral surface water features around the Project site. The surface water flow would be routed around the landfill facilities and allowed to rejoin the existing surface waters downstream. A 50-foot buffer would also be established along the outer edge of Cell 4 and a new leachate pond would be constructed along the eastern edge of Cell 4B. Construction of these features could cause significant impacts to air quality, biological resources, cultural/tribal resources, paleontological resources and water quality. These impacts would be reduced to below a level of significance with the implementation of mitigation measures detailed in Sections 5.1, 5.2, 5.3, 5.4 and 5.7 of this EIR.

During the operation of Cells 4A and 4B, water would be needed for dust control, and for mixing the acrylic polymer stabilization/sealant applied to the monofill working surface. Operational water would be obtained from the new groundwater well installed during construction of Cell 4A. No additional disturbance would occur, and no mitigation would be required.

Site Closure and Post-Closure Maintenance

Site closure and post-closure maintenance would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage facilities. No additional disturbance would occur, and no mitigation would be required.

Impact 5.12-2: Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Project water demand would include water for dust control (e.g., soil during construction compaction), operation and closure of Cell 4 and Cell 4B.

Site Preparation and Construction

Non-potable water for the existing monofill is provided via an existing on-site water well. A new water well would be installed for use during construction, operation, closure and post-closure maintenance of Cell 4A and Cell 4B. The Project shall obtain a Conditional Use Permit and an extraction permit for the new well proposed for use during construction of Cell 4A and Cell 4B, in compliance with the County's Groundwater Ordinance.

According to the Water Supply Assessment prepared for the Project sufficient water would be available for the Project during single dry-year and multiple dry-year periods over the next 20 years and beyond (EMKO, 2019b). The maximum annual water use would be up to 111.12 acre-feet/year during the year that Cell 4A or Cell 4B is constructed and the on-going long-term water demand, once cell construction and closure construction are completed, will be up to 11.12 acre-feet/year.

The long-term sustainable supply of groundwater in the basin is in the range of 800 acre-feet per year. As noted above, the maximum single-year water demand for the Project of 111.12 acre-feet

per year during Cell 4A or Cell 4B construction and the ongoing water demand of 11.12 acre-feet per year are both well below the long-term sustainable supply of 800 acre-feet per year. Thus, there is more than adequate groundwater to supply the Project water needs during normal, single dry, and multiple dry year periods. Water supply impacts would not be significant, and no mitigation would be required.

Impact 5.12-3: Would the project 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?

Wastewater treatment for the existing DVCM is provided by an on-site septic system and leach field. This same infrastructure would be used for the proposed Project. No impacts would occur, and no mitigation would be required.

Impact 5.12-4: Would the project 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?

Solid waste generation would be minor for the construction, operation and closure of the Project. Solid waste would be disposed of using a locally-licensed waste hauling service. It is anticipated that solid waste would be hauled to the landfill nearest the Project site. The Salton City Solid Waste Site (13-AA-0011) is located at 935 W. Highway 86 Salton City, CA 92275. As of September 2018, this landfill had approximately 1,264,170 cubic yards of remaining capacity and was estimated to remain in operation through 2038 (CalRecycle, 2019b.). The County has sufficient landfill capacity to receive the minor amount of solid waste generated by construction and operation of the Project. Also, because construction and operation the proposed Project would generate solid waste, the Project must comply with state and local requirements for waste reduction and recycling. A less than significant impact would occur. No mitigation would be required.

Impact 5.12-5: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The Applicant will continue to comply with federal, state and local statutes related to solid waste. No impacts would occur. No mitigation would be required.

5.12.4. Mitigation Measures

The proposed Project would not result in any significant public utility or service system impacts. No mitigation would be required.

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6.0 ANALYSIS OF LONG-TERM EFFECTS

This section of the Draft Environmental Impact Report (EIR) discusses additional topics statutorily required under the California Environmental Quality Act (CEQA): significant and unavoidable environmental impacts and growth-inducing impacts.

6.1 Growth-Inducing Impacts

CEQA Guidelines, Section 15126.2[d], requires that an EIR evaluate a proposed action's potential to cause growth-inducing impacts. The growth-inducing impacts discussion should include direct and indirect ways the Project could foster economic or population growth, the construction of additional housing, or remove obstacles to population growth. CEQA Guidelines define a "growth-inducing impact" as follows:

. . . the way in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth . . . It is not assumed that growth in an area is necessarily beneficial, detrimental, or of little significance to the environment.

Direct growth-inducing impacts typically include the provision of public services, utilities, and roads to a previously undeveloped area. The introduction of infrastructure and services can result in growth inducing impacts by reducing development constraints for nearby areas, thereby inducing other landowners in the area to convert their properties to other uses. Direct growth inducing impacts can also result from growth in the surrounding population that taxes existing public services, or a particular development that increases the pace or density of surrounding developments.

CEQA Guidelines also specify that the environmental effects of induced growth are considered indirect impacts of the proposed action. The additional demand for housing, commodities and services that new development causes or attracts by increasing population in the area are examples of indirect growth-inducing impacts or secondary effects of growth.

If the growth is not consistent with or accommodated by local land use plans and growth management plans and policies for the area affected, then the growth inducement may constitute an adverse impact. Local land use plans provide for land use development patterns and growth policies that allow for the orderly expansion of urban development supported by adequate urban public services. A project that would conflict with the local land use plans (i.e., "disorderly" growth) could indirectly cause additional adverse environmental impacts and other public services impacts. To assess whether a growth-inducing project would result in adverse secondary effects, the growth accommodated by a project must be assessed to determine if it would or would not be consistent with applicable land use plans.

The proposed Project would involve the expansion of the Desert Valley Monofill (see Chapter 4.0, Project Description). This Project does not include the construction of any housing, no increase in permanent employment, nor otherwise result in direct growth inducement.

While the Project would require an amendment to Imperial County's General Plan Land Use Element to change the land use designation on the remainder of Section 33 from "Recreational/Open Space" to "Special Purpose Facility" and a Zone Change to change the zoning from S-2 (Open Space/Preservation) to M-2 (Medium Industrial), approval of a Conditional Use permit would enable the Project to be consistent with the General Plan.

With the exception of the installation of a new water well for onsite use only, the proposed Project would utilize existing infrastructure, such as roadways and IID's existing electrical distribution system, and would not support the development of adjacent properties by extending infrastructure to areas not previously served. Therefore, the proposed Project would have no indirect growth inducing effects.

6.2. Mandatory Findings Of Significance

CEQA Guidelines, Section 15065, identify four mandatory findings of significance that have to be considered as part of the environmental review process. These findings are identified below with an analysis of the Project's relationship to these findings.

1. Does the project have the potential to 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, 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?

Sections 5.1, 5.2, 5.3, 5.4, 5.5, 5.7, and 5.11 this Draft EIR, evaluate the Project's impacts on air quality, biological resources, cultural/tribal resources, geology and soil and hydrology/water quality, respectively. Mitigation measures in Section 5.1, 5.2, 5.3, 5.4, 5.7, and 5.11 are identified to reduce impacts to air quality, biological resources, cultural and paleontological resources, geology and soils, hydrology/water quality and tribal cultural resources. When the mitigation measures identified in these sections are implemented, impacts to the quality of the environment, habitat of fish and wildlife species, fish and wildlife species populations, plant and animal communities, the number and range of protected species, and cultural resources would be less than significant.

2. Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?

The Project would not result in the achievement of short-term environmental goals to the disadvantage of long-term environmental goals. This Draft EIR includes analysis of the potential

short-term (construction phase) and long-term (operation and maintenance/post-closure phase) impacts that could occur as a result of implementation of the proposed Project. The analysis contained in Sections 5.1 through 5.12 is based on existing environmental setting conditions, policy and regulatory conditions, proposed Project's characteristics, and, where applicable, Project-specific technical studies detailing both long- and short-term potential impacts. The proposed Project would:

- be required to implement mitigation measures to reduce impacts to less than significant levels;
- be required to comply with all applicable regulatory requirements; and
- would require two (2) Conditional Use Permits (CUP) and other entitlements for approval.

Implementation of the proposed Project would not preclude the state from meeting its long-term environmental goals. Rather, since the monofill supports existing operations at geothermal plants in Imperial County, the proposed expansion would assist the state in meeting its long-term environmental goals for achieving greenhouse gas reductions in compliance with AB 32 by supporting the continued generation of renewable geothermal energy at the CalEnergy plants in Imperial County. Renewable energy generation supports California's renewable performance standard (RPS) goal of 33 percent renewable energy delivery by 2020, 60 percent by 2030 and 100 percent by 2040.

3. 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 project.

Chapter 7 of this EIR evaluates the proposed Project's potential cumulative impacts. Cumulative impacts related to each technical discussion area are evaluated. No cumulatively considerable impacts were identified.

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

Potential human-related impacts are discussed and evaluated in Section 5.6, Hazards and Hazardous Materials, 5.10 Noise and 5.11 Transportation/Traffic. Each one of these sections identifies mitigation measures, where needed, to reduce significant impacts associated with these resource areas. Direct and indirect project impacts to human beings are anticipated to be less than significant upon implementation of the mitigation measures identified in these sections. The proposed Project would comply with all required regulatory/legal requirements and mitigation measures.

6.3. Significant Irreversible Environmental Changes

CEQA Guidelines, Section 15126(c), requires an EIR to discuss any irreversible changes to the environment possibly resulting from the implementation of the proposed Project. Irreversible commitments of several limited resources would result from the proposed Project. Such resources include, but are not limited to sand, gravel, petrochemicals construction materials, steel, copper, lead and other metals, and water consumption during construction and operation of the proposed Project.

During project operations, oil, gas, and other nonrenewable resources would be consumed. Therefore, an irreversible commitment of some nonrenewable resources would occur as a result of long-term project operations. However, the proposed Project would support the continued operation of renewable energy resources (geothermal energy) in the County. The Project facilitates the continued implementation of state goals and policies directed at moving away from reliance upon fossil fuels, and encouraging renewable energy. With implementation of mitigation measures identified in in Section 5.0 of this Draft EIR, no significant irreversible environmental changes would result.

6.4. Significant and Unavoidable Environmental Effects

CEQA Guidelines, Section 15126.2(b), requires an EIR to address any unavoidable significant environmental effects, including those that can be mitigated but not reduced to a level of insignificance. Section 15093(a) of CEQA Guidelines allows the decision-making agency to determine if the benefits of a proposed project outweigh the unavoidable adverse environmental impacts of implementing the project. A Statement of Overriding Considerations can be prepared by the County of Imperial to approve a project with unavoidable adverse impacts if it sets forth the specific reasons for making such a judgment.

The impact analysis, as detailed in Section 5.0 of this Draft EIR, concludes that no unavoidable significant impacts were identified. Where significant impacts have been identified, mitigation measures are proposed, that when implemented, would reduce the impact levels to less than significant. Thus, the proposed Project would not result in any significant and unavoidable adverse impacts.

7.0 CUMULATIVE IMPACTS

This chapter of the Environmental Impact Report (EIR) provides an analysis of the contribution to cumulative environmental effects that could result from the construction and operation of the Desert Valley Company Monofill Expansion Project, Cell 4 (proposed Project). The proposed Project would result in direct impacts that are less than significant for several environmental resource areas; however, the projects may incrementally impact the environment when combined with other past, current, and reasonably foreseeable projects. As required by Section 15130 of California Environmental Quality Act (CEQA) Guidelines, the following discussion considers the cumulative impacts for relevant environmental issue areas.

7.1. CEQA Requirements For Cumulative Impact Analysis

The following analysis evaluates the potential for the proposed Project's environmental impacts to be cumulatively significant. CEQA requires that an environmental impact report contain an assessment of the cumulative impacts that could be contributed to by the proposed Project. "Cumulative impacts" are defined as "two or more individual effects which, when considered together, are considerable or . . . compound or increase other environmental impacts." (CEQA Guidelines, § 15355.) Stated another way, "A cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts." (CEQA Guidelines, § 15130, subd. (a)(1)). Cumulative impacts occurs from a change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor, but collectively significant, projects taking place over a period of time. (CEQA Guidelines, § 15355, subd. (b)).

In addition, CEQA Guidelines, Section 15130(b), identify three elements that are necessary for an adequate cumulative analysis:

1. Either:
 - a. A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or
 - b. A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.
2. A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and

3. A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

Where a lead agency is examining a project with an incremental effect that is not cumulatively considerable, a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

7.2. Geographic Scope and Timeframe of the Cumulative Effects Analysis

The geographic area of cumulative effects varies by each resource area considered in Chapter 5. For example, air quality impacts tend to disperse over a large area, while traffic impacts are typically more localized. Similarly, impacts on the habitats of special-status wildlife species need to be considered within its range of movement and associated habitat needs. The analysis of cumulative effects in this EIR considers a number of variables including geographic (spatial) limits, time (temporal) limits, and the characteristics of the resource being evaluated. The geographic scope of each analysis is based on the topography surrounding the project sites and the natural boundaries of the resource affected, rather than jurisdictional boundaries. The geographic scope of cumulative effects will often extend beyond the scope of the direct effects of a project, but not beyond the scope of the direct and indirect effects of that project. Because the setting for cumulative analysis varies from resource to resource and is attributable to the specific characteristics of each resource being evaluated, the cumulative setting for each resource has been defined separately for the purposes of this EIR.

The cumulative development scenario includes projects that extend through year (2068), which is the planning horizon of the proposed Project. Because of uncertain development patterns that are far in the future, it is too speculative to accurately determine the type and quantity of cumulative projects beyond this timeframe.

7.3. Cumulative Analysis Approach

As stated above, CEQA Guidelines require the use of a list of past, present, and probable future projects and/or the use of adopted projections from a general plan, other regional planning document, or a certified EIR. The list approach has been used in this EIR.

This cumulative impact analysis utilizes an expanded list method (as defined under CEQA) and considers environmental effects associated with those projects identified in **Table 7-1** in conjunction with the impacts identified for the project in Chapter 5 of this EIR. **Table 7-1** includes projects known at the time of release of the NOP of the EIR, as well as additional projects that have been proposed since the NOP date. **Figure 7-1** provides the general geographic location for each of these projects. Some of the cumulative impacts associated with the proposed Project are more localized in nature (e.g., noise) and, thus, are analyzed at a project level. Other cumulative

impacts are regional in nature (e.g., air quality, greenhouse gases and climate change) and, therefore, are analyzed at a regional level. Because of this variance in impact range, each resource area has been evaluated and an appropriate Cumulative Effects Study Area (CESA) has been defined for each resource. (CEQA Guidelines, § 15130, subd. (b)(3).)

The analysis of cumulative effects considers a number of variables including geographic limits, temporal limits, and the characteristics of the resource being evaluated. The geographic scope of each analysis is based on the topography surrounding the projects and the natural boundaries of the resource affected, rather than jurisdictional boundaries. The geographic scope of cumulative effects will often extend beyond the scope of the direct effects, but not beyond the scope of the direct and indirect effects of the Project. In addition, each cumulative project has its own implementation schedule, which may or may not coincide or overlap with the proposed Project. However, to be conservative, the cumulative analysis assumes that all projects in the cumulative scenario are built and operating during the operating lifetime of the Project.

7.4. Environmental Consequences, Impacts, And Mitigation Measures

According to CEQA Guidelines, Appendix G, the proposed Project would be expected to result in a cumulative impact if the projects would have impacts that are individually limited, but cumulatively considerable. CEQA Guidelines, Appendix G, further states, “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 probably future projects.

The following cumulative impacts analysis used the above standard of significance in combination with project standards of significance for each environmental resource area evaluated in the EIR.

A proper cumulative impacts analysis requires a two-step inquiry. The first question is whether the combined effects from both the proposed project and other projects would be cumulatively significant. If the agency answers this question in the affirmative, the second question is whether “the proposed project’s incremental effects are cumulatively considerable.” (*Communities for a Better Environment v. California Natural Resources Agency* (2002) 103 Cal.App.4th 98, 120.) Thus, agencies should not merely compare the incremental effect of a proposed project against the collective impacts of all other relevant projects, yielding the proposed project’s “relative” impact vis-à-vis the impacts of the other projects. Rather, in making the first required inquiry, the lead agency must add the project’s incremental impact to the anticipated impacts of other projects. (*Id.* at pp. 117-121.) See also, CEQA Guidelines section 15130, subdivision (h)(1), which states that “[w]hen assessing whether a cumulative effect requires an EIR, the lead agency shall consider whether the cumulative impact is significant and whether the effects of the project are cumulatively considerable.” However, “[t]he mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project’s incremental effects are cumulatively considerable.” (CEQA Guidelines, § 15130, subd. (h)(4)). It is not

necessarily true that, even where cumulatively significant impacts are significant, any level of incremental contribution must be deemed cumulatively considerable. (*Communities for a Better Environment, supra*, 103 Cal. App.4th at p. 120.)

7.5. Cumulative Impact Analysis

The following text provides the analysis of impacts to each resource section, based upon the study area definitions above.

7.5.1. Air Quality

The CESA for comprehensive air quality analysis includes the entire Imperial Valley under the jurisdiction of the Imperial County Air Pollution Control District (APCD). Although a single project would rarely cause a violation of a federal or state criteria pollutant standard, a new source of pollution may contribute to violations of criteria pollutant standards due to existing background sources or foreseeable future projects.

The Project's contribution to cumulative air quality impacts would be different during construction and operations. The overall construction schedule for Cells 4A and 4B is approximately 12-months. The combined lifespan for both cells is estimated to be 56 years. All existing and foreseeable projects in **Table 7-1** may contribute to cumulative effects for air quality.

The Salton Sea air basin is currently designated as being in nonattainment for O₃ and PM₁₀ under both the National and California Ambient Air Quality Standards. This is considered a significant cumulative impact. During both construction and operations, the proposed Project would emit PM₁₀ and NO_x (an ozone precursor).

Based on the anticipated construction schedule and phasing of the proposed construction activities, the maximum construction emissions for Cell 4A and Cell 4B would be range from 8.6 to 19.4 lbs/day of PM₁₀, which would not exceed the ICAPCD's threshold of 150 lbs/day. Construction of Cells 4A and 4B would also result in NO_x emissions (an ozone precursor) that range from 10.1 to 32.4 lbs/day. Similar to the PM₁₀ emissions, the maximum NO_x emissions would not exceed the ICAPCD's threshold of 100 lbs/day. During normal operations, the maximum emissions for Cell 4A or Cell 4B would be 2.4 lbs/day of PM₁₀ and 8.1 lbs/day of NO_x, which would not exceed established thresholds.

Project impacts would be reduced through the implementation of mitigation measures consisting of standard construction and operation measures required by the Imperial County Air Pollution Control District; therefore, the proposed Project would not make a cumulatively considerable incremental contribution to an existing significant cumulative air quality impact.

7.5.2. Biological Resources

Generally, the CESA for biological resources includes the entirety of the Imperial Valley. This extent (the entire Imperial Valley region) makes it possible to account for impacts to biological resources that may have restricted migration to and from adjacent physiographic regions due to habitat changes from region to region. The duration of time that the projects would contribute to cumulative effects would be approximately 56 years, which reflects the combined lifespans of Cell 4A and 4B.

All existing and foreseeable future projects in **Table 7-1** may contribute to cumulative effects for biological and natural resources.

In conjunction with other development projects in the project vicinity (Table 7-1), the proposed Project would not have a cumulatively considerable impact on biological resources. With the implementation of mitigation measures, the Project would be consistent with applicable policies of the Flat-tail horned lizard Management Strategy. In addition, impacts to the unvegetated, non-wetland, ephemeral waters (on-site) and would be fully mitigated and no-net-loss of wetlands would occur. Potential impacts to burrowing owl, Le Conte Thrasher and Pocket mouse would be avoided with implementation of **MM BIO-1** through **MM BIO-5**. Lastly, the Projects water use during construction, operations, closure and post-closure maintenance activities would not affect San Felipe Creek, a groundwater dependent ecosystem. For the above reasons, the Project's impacts on biological resources would be reduced to less than cumulatively considerable with mitigation.

7.5.3. Cultural and Tribal Resources

The CESA for cultural and paleontological resources consists of the Imperial Valley, including the southern portion of Riverside County. This geographic scope is appropriate because it is likely that cultural resources similar to those in the project area are present throughout the Imperial Valley, and that ground disturbance required for existing, approved, and reasonably foreseeable projects would likely have impacted or would impact similar resources. The occurrence of the impact would be primarily during construction of the Cell 4A and Cell 4B or any of the foreseeable projects, but impacts would be permanent. All foreseeable projects on Table 7-1 may contribute to cumulative effects for cultural and tribal resources, because all are likely to involve ground-disturbing activities to some extent during construction.

The proposed Project, in combination with existing, approved, proposed, and other reasonably foreseeable projects in the CESA, could result in impacts to prehistoric resources, historic resources, paleontological resources, and human remains.

Construction of multiple projects in the region could result in the loss and/or degradation of cultural or tribal cultural resources regionally, and could also result in the disturbance of human

remains. Without proper mitigation, the cumulative effects of these types of large-scale development projects on cultural resources could be significant.

While the historical resources that meet the criteria for listing on the California Register of Historic Resources identified in the Project vicinity would be avoided by the Project, it is possible that subsurface resources are present that have not yet been identified. Although unlikely, Project-related ground-disturbing activities could uncover previously unknown prehistoric, historic, as well as paleontological resources within Project boundaries. Therefore, the proposed Project have the potential to incrementally contribute to the disturbance of previously unknown cultural and paleontological resources.

The proposed Project will be required to implement mitigation measures MM CUL-1.1 through MM CUL 1.4; MM CUL-3.1; and MM CUL-4.1 to reduce potential impacts to archaeological, historical and paleontological resources during construction of the proposed Projects to below a level of significance. Existing, approved, proposed, and other reasonably foreseeable projects with potentially significant impacts to archaeological, historical and tribal cultural resources would be required to comply with federal, state, and local regulations and ordinances protecting cultural resources through implementation of similar mitigation measures during construction. Therefore, with implementation of regulatory requirements and standard conditions of approval, and Mitigation Measures MM CUL-1. through MM CUL 4; (Section 5.3), the proposed Project's contribution to impacts to cultural and tribal cultural resources would not be cumulatively considerable.

7.5.4. Geology and Soils

Geology and Soils

The CESA for geology, soils, is confined to the Project site. This is because geologic materials, and soils occur at specific locales and are generally unaffected by activities not acting on them directly or immediately adjacent to them, and any impacts of the proposed Project would be site-specific. The time component of potential impacts would be the combined lifespan of Cells 4A and 4B of the two projects.

Only the Closure Activities associated with Cell 3 occur on the Project site and therefore would be the only other project that could contribute to cumulative impacts on this resource at this location.

The proposed Project would not make a cumulatively considerable contribution to a significant cumulative impact to geology and soils.

Soils associated with the Project site are similar to other soils in the area. Site-specific conditions result in impacts associated with fault rupture and strong seismic ground shaking, seismic-related ground failure, including liquefaction and unstable soils, landslides, and shallow groundwater.

These inherent conditions are the result of natural historical events that occur through vast periods of geologic time and are not based on cumulative development.

The proposed Project will require grading of portions of the Project site to allow for installation of the cell liners. It is expected that the Project and other area development will comply with the IBC and the CBC. Thus, the proposed Project, when considered in combination with other past, present, and reasonably foreseeable projects within the vicinity, would not result in significant cumulative impacts. Accordingly, the Project's contribution to a significant cumulative geology and soils impact is less than cumulatively considerable.

Paleontological Resources

The geographic scope of the cumulative setting for paleontological resources includes Lake Cahuilla, which encompasses the entire Imperial Valley. Paleontological resources of the Lake Cahuilla Beds are considered significant because of the paleoclimatic and paleoecological information they can provide. These deposits are therefore assigned a "High" paleontological sensitivity rating. Cumulative development occurring within the boundaries of Lake Cahuilla has the potential to destroy or otherwise impact paleontological resources. Excavation activities associated with the Project, in conjunction with other large-scale proposed, approved, and reasonably foreseeable projects in the region, could contribute to the progressive loss of fossil remains. If present, paleontological resources beneath the Project area, as well as within the boundaries of the cumulative projects listed in Table 7-1, could be impacted during construction. A cumulative impact would occur if the Project, in combination with other cumulative projects, would damage or destroy paleontological resources. However, with the implementation of **MM PAL-1** through **MM PAL-4**, the Project would have a less than cumulatively considerable contribution to impacts to paleontological resources during construction. Likewise, other projects in the cumulative setting would be required to comply with existing regulations and undergo CEQA review to assure that any paleontological impacts are appropriately evaluated and, if necessary, mitigated on a project-by-project basis. Therefore, through compliance with regulatory requirements and standard conditions of approval, cumulative impacts to paleontological resources during construction are considered less than cumulatively considerable.

7.5.5. Greenhouse Gas Emissions

In considering greenhouse gas impacts, it is necessary to consider both anthropogenic and natural sources. For the proposed Project the CESA is the Imperial County portion of the Salton Sea Air Basin. In confining the analysis to this extent, it is possible to accurately calculate cumulative emissions and track the region's contribution to climate change. The duration of impacts would be the lifetime of the project, but there would be different potential impacts during construction and operations.

All existing and foreseeable projects listed in **Table 7-1** may have a cumulative effect on climate change. The climate change analysis conducted in the Greenhouse Gas Emission section is equivalent to a cumulative analysis. Please see Section 5.5.3 of this EIR.

7.5.6. Hazards and Hazardous Materials

For the purposes of this cumulative analysis, risk from the transport, use, and disposal of hazardous materials during construction would be limited to areas where concurrent construction or operations are occurring in very close proximity to each other. Therefore, the only project that may contribute to cumulative hazards and effects on public safety as a result of the transport, use, and disposal of hazardous materials are those that would occupy the same site which is Cell 3 Closure Activities.

Transport, Use, and Disposal of Hazardous Materials

Existing, approved, proposed and reasonably foreseeable projects in the CESA would not create a significantly cumulative hazard to the public through the routine transport, use, or disposal of hazardous materials.

A significant cumulative hazardous materials impact occurs if there is simultaneous uncontrolled release of hazardous materials from multiple locations in a form (gas or liquid) that could cause a significant impact where the release of one hazardous material alone would not cause a significant impact. For a significant impact of this nature to occur, the releases have to occur in a centralized location.

It is unlikely for an event such as this to occur during construction of Cells 4A or Cell 4B because spills and releases tend to be localized and would be smaller than one that could occur during operations because they would only be the volume of a container used at any one time. In addition, they would be addressed immediately per a SWPPP or Hazardous Material Business Plan.

During operations, a potential cumulative significant event could occur if an upset event at a nearby development had a cascading effect that caused an upset at the Project site. While this is theoretically possible, it is not very probable. The proposed Project will have its own fire suppression systems and hazardous materials business plan.

Other projects listed in Table 7-1 would be or have been subject to similar project-specific or legally required control and mitigation measures and therefore there is no substantial evidence of a significant cumulative effect relating to hazards and public safety from the transport, use, and disposal of hazardous materials.

Interference with an Emergency Response Plan

Existing, approved, proposed and reasonably foreseeable projects in the CESA would not result in a significant cumulative impact associated with interference with an Emergency Response Plan. Cumulative impacts that would cause an interference with Emergency Response Plans would include infrastructure additions, such as adding a new railway crossing, road closures, road segment removal, or other such modifications. There is no substantial evidence indicating there is significant cumulative impact relating to the hindrance of emergency responses. Moreover, the proposed Project does not include any improvements that would physically interfere with an adopted emergency response plan or emergency evacuation plan

7.5.7. Hydrology and Water Quality

The CESA for hydrology and water quality is the Ocotillo-Clark Valley Groundwater Basin (Basin Number 7-25), as defined by the *California's Groundwater, Bulletin 118 – Update 2003, Ocotillo-Clark Valley Groundwater Basin* (2004). The basin is bounded by the Santa Rosa Mountains to the north and northeast, Coyote Creek and Superstition Mountain faults to the west and south, and the Salton Sea to the east.

Projects that may contribute to cumulative effects for hydrology and water quality include:

- 9. Seville Solar Farm Complex (10.4 miles west)
- 19. Titan Solar II/Seville Solar 4 (9 miles west)
- 24. Desert Highway Farms Cannabis Cultivation (10.5 miles northwest)
- 28. Truckhaven Geothermal Exploratory Well Drilling (11.5 miles northwest)
- 29. Truckhaven Geothermal Seismic Exploration (8.9 miles northeast)
- 30. US Gypsum Company Expansion/Modernization Project (19 miles southwest)

The proposed Project would not make a cumulatively considerable contribution to a significant cumulative impact to hydrology and water quality.

Existing, approved and reasonably foreseeable projects would have to comply with SWPPPs during construction to ensure they would not violate any water quality standards or waste discharge requirements. Such projects would also have to comply with their respective NPDES Municipal Stormwater Permits, which require that water quality control measures be incorporated into project design to reduce discharges of site runoff over the life of the project. Large scale foreseeable projects would also have to include stormwater retention basins. During operations, the proposed Project will comply with and obtain coverage under the General Industrial Stormwater Permit which will require preparation of an Industrial SWPPP (I-SWPPP). The I-SWPPP will identify appropriate best management practices (BMPs) to prevent erosion and the mobilization of pollutants in stormwater runoff, define primary and alternative sampling locations, and describe

monitoring and maintenance that will be implemented over the life of the Project. As a result, the proposed Project's contribution to water quality impacts would not be cumulatively considerable.

7.5.8. Land Use

The CESA for the analysis of cumulative impacts related to land use compatibility is the rural agricultural areas on the west side of the Salton Sea within the County of Imperial's jurisdiction.. Cumulative impacts could result from the physical division of an established community or from conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating environmental impacts. As there would be no communities divided by the proposed Project, nor would there be a conflict with a land use plan, policy, or regulation, there is no cumulative impact.

7.5.9. Noise

The CESA for the analysis of cumulative impacts related to noise is generally limited to areas within approximately one mile of the Project site, the haul routes used for transporting waste materials, equipment and people to the Project site for the construction and operation and maintenance phases. This extent is appropriate because noise impacts are generally localized; however, it is possible that noise from different sources could combine to create a significant impact to receptors at any point between the projects, as well as along the common roadways utilized by the projects. At distances greater than one mile, impulse noise may be briefly audible and steady construction and/or operational noise would generally dissipate such that the level of noise would reduce to below County of Imperial noise limits and blend in with background noise levels.

With the exception of the Cell 3 Closure activities, there are no potential cumulative projects within one-mile of the Project site or haul routes. The construction, operation and post closure maintenance of Cells 4A and 4B, in combination with post-closure maintenance of Cell 3 would increase ambient noise or groundborne vibration.

Cumulatively considerable noise impacts would occur during construction or operations if noise levels at sensitive receptors exceed 70 dBA at a receptor boundary. Noise effects are not additive because noise attenuates over distance, as does groundborne vibration; therefore, only noise or vibration generated in close proximity could contribute to the noise heard or vibration felt at a receptor.

The only foreseeable project near enough to the Project site to be included in the cumulative analysis is the Cell 3 Closure activities (i.e., at the proposed Project site). Given the nature of this foreseeable project, and its distance from the Sonny Bono Salton Sea National Wildlife Refuge and the Elmore Desert Ranch, and the County noise restrictions, noise from this cumulative project and proposed Project would not likely combine to create noise above 70 dBA or perceptible

groundborne vibration during construction or operations at these receptors. Thus, the noise levels in the area would be less than cumulatively considerable.

7.5.10. Transportation

The CESA for cumulative effects on transportation and circulation includes the local roadway network considered for analysis of the proposed project's direct impacts including SR 86/SR-78; SR 111; Forrester Road, Gentry Road, Bannister Road, Bowles Road, Lack Road and Sinclair Road.

The proposed Project would make a cumulatively considerable contribution to a significant cumulative traffic impact on future (2040) operations.

During construction and operations, the proposed Project would add 63 and 198 daily trips to the regional transportation system, respectively. According to the traffic impact study developed by KOA Corporation, all affected road segments, key intersections, and affected highways would operate at acceptable levels of service during construction and operation of the Project. The Project would not contribute to a cumulatively significant impact during construction.

7.5.11. Utilities and Service Systems

Impacts to utilities and service systems can occur if new facilities need water or power or generate wastewater requiring treatment that exceeds the existing or planned capacity of the local service providers. Service providers serving the Project site are located in Imperial County; therefore, the CESA for cumulative impacts to utilities and services is limited to Imperial County. The duration of impacts would be the lifetime of the projects, but there would be different potential impacts during construction and operations.

All existing and foreseeable projects in Table 7-1 may contribute to cumulative effects for utilities and services.

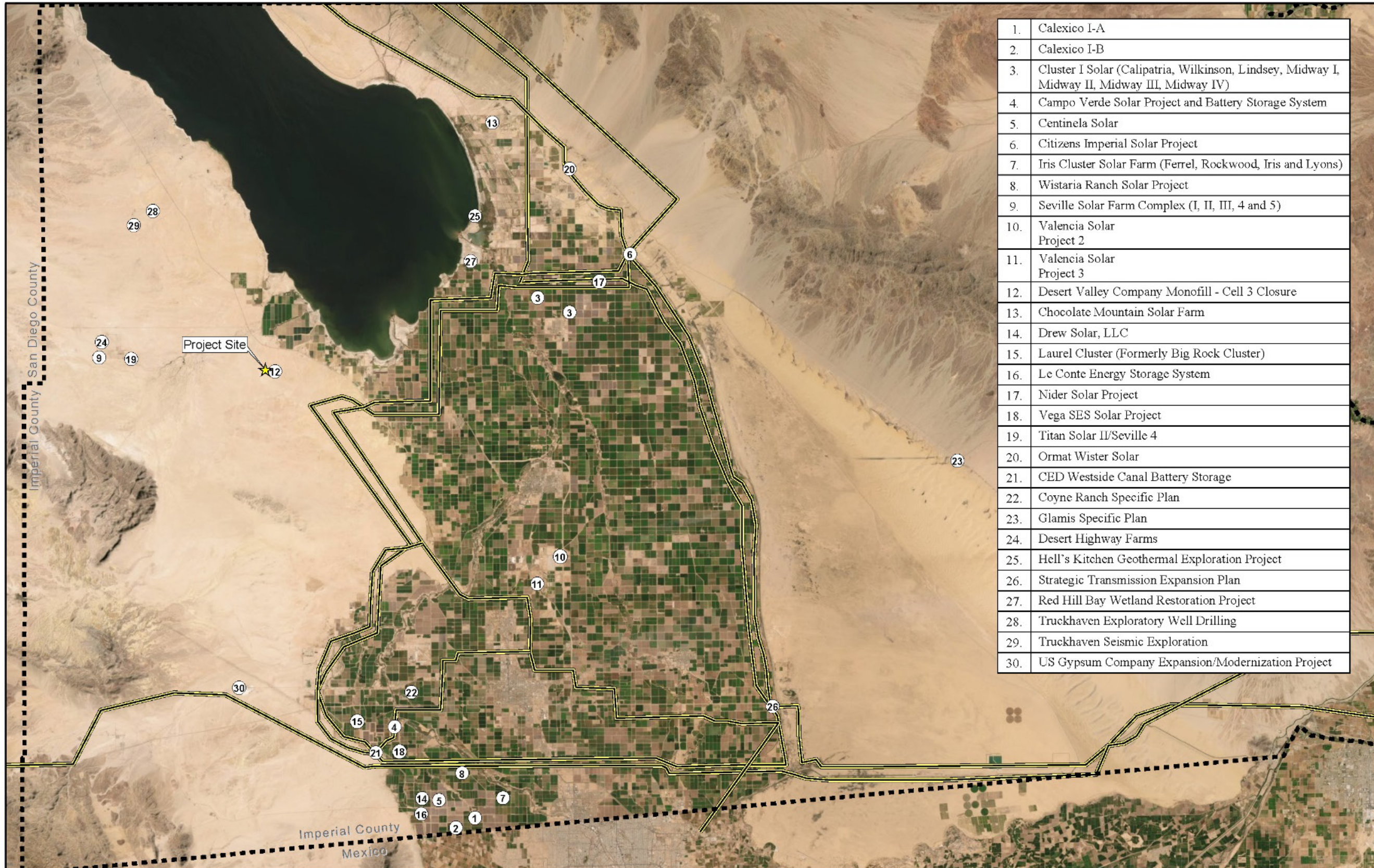
The proposed Projects would not make a cumulatively considerable contribution to a significant cumulative impact to utilities and services.

Construction and operation of the proposed Project would not require the construction or expansion of municipal water, wastewater treatment, or stormwater drainage facilities. The Project would exceed capacity of local landfills.

Construction of the proposed Project would require up to 111 AFY during construction of each phase and 11 AFY during operations, which would be obtained via groundwater from the Ocotillo-Clark Valley groundwater basin. Concurrent construction/operation of the other foreseeable projects within the basin, including Cell 3 closure and post-closure maintenance activities, will also meet water requirements with groundwater (Veizades & Associates, 2015).

The WSA prepared for the project took these projects, along with the water needed for Cell 3 closure activities, into consideration when it determined that there is sufficient water available during both normal and single dry years.

Because there are sufficient existing supplies to serve the anticipated need of projects within the groundwater basin into the future, the proposed Project's incremental demand for water would not be cumulatively considerable.



SOURCE: Basemap-ESRI; ICPDS, 2015, 2018



Location of Potential Cumulative Projects
Desert Valley Company Monofill Expansion Project, Cell 4
Figure 7-1

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TABLE 7-1: POTENTIAL CUMULATIVE PROJECTS – DESERT VALLEY MONOFILL EXPANSION PROJECT (CELL 4) EIR

Map No.	Project Name	Applicant	Summary Project Description	Status	Distance to Project Site
EXISTING PROJECTS					
1.	Calexico I-A ^{(d)(v)}	8 Minute Energy	100 MW PV solar facility and supporting structures on approx. 666 acres.	Under Construction	29.3 miles southeast
2.	Calexico I-B ^{(d)(v)}	8 Minute Energy	100 MW PV solar facility and supporting structures on approx. 666 acres.	Under Construction	29.5 miles southeast
3.	Cluster I Solar (Calipatria, Wilkinson, Lindsey, Midway I, Midway II, Midway III, Midway IV) ^{(k)(v)}	8 Minute Energy	Three (3) PV solar farms generating up to 255 MW on approximately 1,731 acres.	Portions are Operational, Portions are Pending Construction, and Portions are Under Construction	17.0 miles northeast
4.	Campo Verde Solar Project and Battery Storage System ^{(e)(i)(v)}	Southern Power Company	The solar component consists of a 140 MW PV solar facility and supporting structures on 1,990 acres. The Battery Storage component consists of a utility-scale battery energy storage facility to store 105 MWH of energy within the footprint of the existing solar Project.	Operational	23.1 miles southeast
5.	Centinela Solar ^{(b)(v)}	Centinela Solar Energy, LLC	A 275 MW PV solar facility and supporting structures on approx. 2,067 acres.	Portions are Operational, Portions Pending Construction	26.6 miles southeast
6.	Citizens Imperial Solar Project ^{(m)(v)}	Citizens Imperial Solar, LLC	A 30 MW PV solar facility and supporting structures on approx. 223 acres.	Operational	23.9 miles northeast
7.	Iris Cluster Solar Farm (Ferrel, Rockwood, Iris and Lyons) ^{(g)(v)}	8 Minute Energy	Four (4) separate solar farms and supporting structures on 1,400 acres.	Operational	27.9 miles southeast
8.	Wistaria Ranch Solar Project ^{(f)(v)}	Wistaria Ranch Solar, LLC	A 250 MW PV or CPV solar facility and supporting structures on approx. 2,793 acres.	Portions Are Operational, Portions Are Pending Construction	26.6 miles southeast

TABLE 7-1: POTENTIAL CUMULATIVE PROJECTS – DESERT VALLEY MONOFILL EXPANSION PROJECT (CELL 4) EIR

Map No.	Project Name	Applicant	Summary Project Description	Status	Distance to Project Site
9.	Seville Solar Farm Complex (I, II, III, 4 and 5) ^{(e)(v)}	Imp. Solar Holding, LLC	Five (5) PV solar projects generating 135 MW on approx. 1,238 acres.	Portions Are Operational, Portions Under Construction	10.4 miles west
10.	Valencia Solar Project 2 ^{(h)(v)}	IGS, LLC	3MW PV solar facility and associated structures on a portion of a 17-acre property.	Operational	21.1 miles southeast
11.	Valencia Solar Project 3 ^{(i)(v)}	IGS, LLC	3MW PV generation facility on a portion of a of a 40-acre property.	Operational	21.7 miles southeast
PROBABLE FUTURE PROJECTS					
12.	Desert Valley Company Monofill - Cell 3 Closure ^(ee)	CalEnergy	Installation of Cell 3 Final Cover; continued leachate monitoring and collection; continued sampling of groundwater monitoring wells; installation and monitoring of vents for radon gas; inspections of the final cover, dikes, drainage systems, leachate system, leak detection, access road, landfill structures and site security; and implementation of corrective actions, as necessary.	Anticipated to Commence 2025	Adjacent to Project site
13.	Chocolate Mountain Solar Farm ^(v)	8 Minute Energy	50 MW PV solar facility and supporting structures on approx. 320 acres.	Pending Construction	20.2 miles northeast
14.	Drew Solar, LLC ^{(s)(v)}	Drew Solar, LLC	100 MW PV solar facility and supporting structures on approx. 808 acres.	Under Construction	27.6 miles southeast
15.	Laurel Cluster (Formerly Big Rock Cluster) ^{(n)(v)}	8 Minute Energy	325 MW PV solar facility and supporting structures on approx. 1,380 acres.	Pending Construction	21.2 miles southeast
16.	Le Conte Energy Storage System ^{(u)(v)}	Centinela Solar Energy, LLC	Battery energy storage system with up to 125 MW of electric storage capacity.	Pending Construction	29.5 miles southeast
17.	Nider Solar Project ^(v)	8 Minute Energy	100 MW PV solar facility and supporting structures on approx. 320 acres	Pending Entitlement (on hold)	21.0 miles northeast

TABLE 7-1: POTENTIAL CUMULATIVE PROJECTS – DESERT VALLEY MONOFILL EXPANSION PROJECT (CELL 4) EIR

Map No.	Project Name	Applicant	Summary Project Description	Status	Distance to Project Site
18.	Vega SES Solar Project ^{(t)(v)}	Vega SES, LLC	100 MW PV solar energy facility, supporting structures, and 100 MW battery storage system on approx. 574 acres.	Pending Construction	24.2 miles southeast
19.	Titan Solar II/ Seville 4 ^(o)	Titan Solar II, LLC	A 20 MW PV solar facility on approx. 175 acres.	Under Construction	9 miles west
20.	Ormat Wister Solar ^(w)	Orni 22 LLC/Ormat	A 20 MW PV solar facility on 100 acres.	Under Construction	22.5 miles northeast
21.	CED Westside Canal Battery Storage ^(q)	CED Westside Canal, LLC	Battery energy storage system with up to 2,025 MW of electric storage capacity.	Pending Entitlement	22.1 miles southeast
22.	Coyne Ranch Specific Plan ^(aa)	Marty Coyne	A residential project with up to 546 residential units.	In process	22.2 miles southeast
23.	Glamis Specific Plan ^(x)	Polaris Inc.	General Plan Amendment and Specific Plan for the Glamis Specific Plan Area.	Application Submitted EIR in Progress	35+ miles east
24.	Desert Highway Farms ^(p)	Solana Energy Farms 1, LLC	Cannabis cultivation on approx. 320 acres.	Approved, EIR in Progress	10.5 miles northwest
25.	Hell’s Kitchen Geothermal Exploration Project ^(l)	Controlled Thermal Resources	Construction, operations and testing of geothermal exploration wells.	In process	16.2 miles northeast

TABLE 7-1: POTENTIAL CUMULATIVE PROJECTS – DESERT VALLEY MONOFILL EXPANSION PROJECT (CELL 4) EIR

Map No.	Project Name	Applicant	Summary Project Description	Status	Distance to Project Site
IMPERIAL IRRIGATION DISTRICT					
26.	Strategic Transmission Expansion Plan ^(v)	Imperial Irrigation District	A multiregional strategic transmission expansion Plan which includes: <ul style="list-style-type: none"> new double circuit 230 kV collector system, connecting six substations; two new substations; new 1 500-kV AC line to connect Arizona Public Service's North Gila substation to IID's Highline substation; and, a new 500 kV DC transmission line from the Salton Sea area to the San Onofre Nuclear Generating Station substation. 	Plan Approved	Nearest segment of transmission alignment 3.9 miles southeast Nearest substation 6.5 miles southeast
27.	Red Hill Bay Wetland Restoration Project ^(z)	IID and USFWS Sonny Bono Salton Sea National Wildlife Refuge	Project includes 621 acres of shallow saline ponds for shallow shorebird and wading bird habitat.	Approved. Notice of Determination filed February 2018	14.5 miles northeast
31.	ALTiS Plant ^(ff)	Energy-Source Minerals, LLC	Construction and operation of plant using brine from Hudson Ranch Power I Geothermal Plant to produce lithium hydroxide, zine and manganese products. Facilities will be located at 477 West McDonald Road, Calipatria, CA.	Pending Entitlement	17 miles northeast
BUREAU OF LAND MANAGEMENT					
28.	Truckhaven Exploratory Well Drilling ^{(a)(bb)}	Orni 5, LLC	Drilling of four geothermal exploratory wells within Truckhaven Geothermal Leasing Area.	Approved	11.5 miles northwest
.29.	Truckhaven Seismic Exploration ^{(a)(cc)}	Orni 5, LLC	Orni 5, LLC proposes to conduct a three dimensional (3D) seismic survey to evaluate the geology of the Truckhaven Geothermal Leasing area.	Approved	8.9 miles northeast

TABLE 7-1: POTENTIAL CUMULATIVE PROJECTS – DESERT VALLEY MONOFILL EXPANSION PROJECT (CELL 4) EIR

Map No.	Project Name	Applicant	Summary Project Description	Status	Distance to Project Site
30.	US Gypsum Company Expansion/ Modernization Project ^{(r)(dd)}	United States Gypsum Company (USG)	Proposed Action includes expanding existing gypsum quarry, replacing the existing plant water supply pipeline, and constructing a new water supply pipeline for the Quarry. Proposal also includes mitigation measures to reduce groundwater impacts to individual wells in the Ocotillo-Coyote Wells Groundwater Basin.	Record of Decision published Jan. 2020 Addendum #2 to Final EIS/EIR	19 miles southwest

Notes: ICAPCD = Imperial County Air Pollution Control District. IID = Imperial Irrigation District kV = kilovolt
 MW = megawatt MWH = megawatt hour NEPA = National Environmental Policy Act.
 PV = photovoltaic USFWS = United States Fish and Wildlife Service

Sources:

- (a) Bureau of Land Management ePlanning Project Search. https://eplanning.blm.gov/epl-front-office/eplanning/nepa/nepa_register.do. Accessed on February 4, 2020.
- (b) County of Imperial, 2011. Final Environmental Impact Report for the Centinela Solar Energy Project. December 2011.
- (c) County of Imperial, 2012a. Final Environmental Impact Report for Campo Verde Solar Project. July 2012.
- (d) County of Imperial, 2012b. Final Environmental Impact Report for the Mount Signal and Calxico Solar Farm Projects Imperial County, California. March 2012.
- (e) County of Imperial, 2014a. Final Environmental Impact Report for Seville Solar Farm Complex. October 2014.
- (f) County of Imperial, 2014b. Final Environmental Impact Report Wistaria Ranch Solar Energy Center Project. December 2014.
- (g) County of Imperial, 2015a. Final Environmental Impact Report for Iris Cluster Solar Farm Project. January 2015.
- (h) County of Imperial, 2015b. Mitigated Negative Declaration for Valencia 2 Solar Project. August 2015.
- (i) County of Imperial, 2015c. Mitigated Negative Declaration for Valencia 3 Solar Project. August 2015.
- (j) County of Imperial, 2016. Final Supplemental Environmental Impact Report for the Campo Verde Battery Energy Storage System. December 2016.
- (k) County of Imperial, 2017a. Initial Study and Environmental Analysis for Midway Solar Farm III (CUP #17-0013). August 30, 2017.
- (l) County of Imperial, 2017b. Initial Study, Environmental Analysis for Hell’s Kitchen Exploratory Wells Project. April 2017
- (m) County of Imperial, 2018a. Final Environmental Impact Report for the Citizens Imperial Solar, LLC Project. August 2018.
- (n) County of Imperial, 2018b. Final Environmental Impact Report Laurel Cluster Solar Farms Project. August 2018.
- (o) County of Imperial, 2018c. Final Environmental Impact Report Seville 4 Solar. October 2018.
- (p) County of Imperial, 2018d. Initial Study & Environmental Analysis for Desert Highway Farms, LLC Project. November 2018.
- (q) County of Imperial, 2019a. Conditional Use Permit 19-005. CED Westside Canal Battery Storage. July 22, 2019.
- (r) County of Imperial, 2019b. Environmental Initial Study for U.S. Gypsum Company Expansion/Modernization Project Addendum #2., February 2019.
- (s) County of Imperial, 2019c. Final Environmental Impact Report for the Drew Solar Project. November 2019.
- (t) County of Imperial, 2019d. Final Environmental Impact Report VEGA SES Solar Energy Project. January 2019.
- (u) County of Imperial, 2019e. Final Supplemental EIR for Le Conte Battery Energy Storage System. October 2019.

TABLE 7-1: POTENTIAL CUMULATIVE PROJECTS – DESERT VALLEY MONOFILL EXPANSION PROJECT (CELL 4) EIR

Map No.	Project Name	Applicant	Summary Project Description	Status	Distance to Project Site
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Sources (Continued):

- (v) County of Imperial, 2019f. Imperial County Planning & Development Service’s Renewable Energy GIS Mapping Application. Accessed on February 6, 2019.
- (w) County of Imperial, 2019g. Initial Study and NOP Wister Solar Energy Facility Project. November 2019.
- (x) County of Imperial, 2019h. Request for Proposal – For an Environmental Impact Report (EIR) for the Glamis Specific Plan. December 9, 2019.
- (y) IID, 2014. Strategic Transmission Expansion Plan Fact Sheet, February 2014. Available at: <https://www.iid.com/home/showdocument?id=8596>. Accessed on February 4, 2020.
- (z) IID, 2017. Red Hill Bay Wetlands Restoration Project Draft Initial Study, November 2017.
- (aa) Richard Pata Engineering, Inc. 2017. Coyne Ranch Specific Plan. Revised August 1, 2017.
- (bb) U.S. Dept. of the Interior BLM, 2019. Truckhaven Geothermal Exploration Well Project Final EA and FONSI (DOI-BLM-CA-D070-2019-0016-EA). October 2019.
- (cc) U.S. Dept. of the Interior BLM, 2019. Truckhaven Seismic Exploration Categorical Exclusion (DOI-BLM-CA-D070-2019-0005-CX). 2019.
- (dd) U.S. Dept. of the Interior BLM, 2020. US Gypsum Company Expansion/Modernization Project Final Supplemental EIS (DOI-BLM-CA-D070-2018-0049-EIS. 2020.
- (ee) Veizades & Associates, 2015. Preliminary Closure/Post Closure Maintenance Plan for the Desert Valley Company Phase III (Cell 3). November 2015.
- (ff) County of Imperial, 2021. Initial Study, Environmental Analysis for Energy Source Minerals ATLis Project. January 2021.

8.0 EFFECTS FOUND NOT TO BE SIGNIFICANT

Section 15128 of the California Environmental Quality Act (CEQA) Guidelines requires an EIR to contain a brief statement indicating the reasons that various possible significant effects of a project were determined not to be significant and therefore not discussed in detail in the EIR. The proposed Project would not have the potential to cause significant impacts to the resources discussed below.

8.1 Aesthetics

The current monofill site is bounded by open land on three (3) sides and is adjacent to Highway 86 on the North side. However, the facility is sufficiently distanced from Highway 86 such that it is not easily viewed by vehicles traveling along the highway. In addition, the tan color of the waste disposed of at the site blends into the treeless sandy desert landscape, with rock outcropping, such that the monofill blends with the background and does not present a negative visual impact.

The project would be considered to have a significant impact if it would:

- 1) Have a substantial adverse effect on a scenic vista.
- 2) Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway.
- 3) 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.
- 4) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

Analysis

Impact 8.1-1: Have a substantial adverse effect on a scenic vista.

The Project site, which is surrounded by open desert to the north, south and west, and by the existing DVC monofill on the east, is not considered to be a scenic vista nor is it an area designated as a scenic route in Imperial County (County of Imperial, 2008). There are no designated scenic vistas or viewpoints on or near the Project site that would include views of the proposed expansion area. No adverse impacts on a scenic vista would occur and impacts would be less than significant.

Impact 8.1-2: Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway.

The project area does not have scenic resources, trees, rock outcroppings, historic buildings, or state scenic highways; therefore, there are no impacts on these features.

Impact 8.1-3: Substantially degrade the existing visual character or quality of public views of the site and its surroundings. If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality.

State Route (Highway) 86, the highway nearest the Project site, is located more than 1 ¼ miles from the northern and western boundary of the existing DVC Monofill. State Route (Highway) 86 is not designated, nor is it eligible for designation, as a State scenic highway per Caltrans State Scenic Highway Program (Caltrans, 2017). The Project site does not contain scenic resources, including but not limited to trees, rock outcroppings, and historic buildings, or state scenic highways. No impacts would occur.

Impact 8.1-4: Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

The DVC Monofill is an existing facility in operation since 1991 and has become an established and accepted part of the landscape. The Project includes the addition of a new solid waste disposal cell (Cell 4) immediately west of, and adjacent to the existing monofill. Similar to the existing monofill, the final heights of the perimeter dikes and the waste disposal cells would be approximately 20 feet and 30 feet above existing grades, respectively (Veizades & Associates, 2019). Given the distance between the Project site and the nearest public viewers (motorists on State Route [Highway] 86) and the similarity in the height of existing and proposed features, the visual character and quality of public views of the Project site and its surroundings would not be substantially degraded. Impacts would be less than significant.

8.2 Agriculture and Forestry Resources

The project would be considered to have a significant impact if it would:

- 1) 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.
- 2) Conflict with existing zoning for agricultural use, or a Williamson Act contract.
- 3) 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)).

- 4) Result in the loss of forest land or conversion of forest land to non-forest use.
- 5) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.

Analysis

The Project site is raw desert and has not been used for farming. The land has been owned by CalEnergy for many years and is not included in the California Department of Conservation's Farmland Mapping and Monitoring Program database. No impacts to agricultural resources would occur.

Impact 8.2-1: 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.

According to the Farmland Mapping and Monitoring Program Map for Imperial County (2018), the Project site does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance (California Dept. of Conservation, 2018). No impacts related to the conversion of FMMP farmlands to non-agricultural use would occur.

Impact 8.2-2: Conflict with existing zoning for agricultural use, or a Williamson Act contract.

The Project site is located within the "S-2 Zone", which is considered to be the Open Space Preservation Zone. While the storage of agricultural products is an allowable use within the S-2 Zone, agricultural operations or other agricultural uses are not allowed (County of Imperial, 2017). Additionally, the Project site is not covered under a Williamson Act contract (California Dept. of Conservation, 2016). For these reasons, the Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. No impact would occur under this threshold.

Impact 8.2-3: 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)).

Neither the Project site nor surrounding areas are used for timber production or are defined as forest lands. The project would not conflict with any zoning designations designed to preserve timber or agricultural resources. No impact would occur under this threshold.

Impact 8.2-4: Result in the loss of forest land or conversion of forest land to non-forest use.

There are no existing forest lands either on-site or in the immediate vicinity of the Project site. The Project would not result in the loss of forest land or conversion of forest land to non-forest use; therefore, no impacts would occur.

Impact 8.2-5: Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.

The Project does not include changes in the existing environment which, due to their location or nature would result in the conversion of neighboring farmland to non-agricultural use. The Project site is surrounded by open desert and the nearest agricultural lands occur approximately one mile to the north, across State Route 86/Highway 86. The Project would not result in the conversion of farmlands off-site to non-agricultural uses and no impact would occur.

8.3. Energy

The project would generally be considered to have a significant effect if it would:

- 1) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
- 2) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Analysis

Impact 8.3-1 Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

During construction, energy usage will primarily be diesel engines, and during operations energy use will not change significantly from current consumption levels. No wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation would occur, therefore the project would have a less than significant impact.

Impact 8.3-2 Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Approval of the Project would allow the continued operations of CalEnergy's geothermal facilities; which contribute positively to California's renewal energy goal. The Project would support California's Renewable Portfolio Standard goal of increasing the percentage of electricity procured from renewable sources to 50 percent. The Project would comply with fuel and energy efficiency regulations, it would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency and no impact would occur.

8.4 Mineral Resources

The project would generally be considered to have a significant effect if it would:

- 1) 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.
- 2) 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.

Analysis

Impacts 8.4-1 & 8.4.2 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; 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.

A number of mineral resources are currently being extracted in Imperial County including gold, gypsum, sand, gravel, lime, clay, stone, kyanite, limestone, sericite, mica, tuff, salt, potash, and manganese. According to the Existing Mineral Resources Map (Figure 8) in the Conservation and Open Space Element of the County of Imperial General Plan (2016), no known mineral resources occur within the Project vicinity nor are there any mapped mineral resources within the boundary of the Project site (County of Imperial, 2016). Thus, no impacts related to the loss of availability of a known or locally important mineral resource would occur.

8.5 Population and Housing

The Project would generally be considered to have a significant effect if it would:

- 1) 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 road or other infrastructure).
- 2) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

Analysis

Impact 8.5-1: Induce substantial unplanned population growth in an area, either directly or indirectly.

The Project is an expansion of an existing CalEnergy solid waste disposal facility and does not include the demolition of existing housing, nor the construction of new housing or public infrastructure that would directly or indirectly induce unplanned population growth. Operations of

proposed Cell 4 would be similar to current operations at Cell 3. Increases in personnel would only be required during construction which would not result in population growth in the area. No impacts are expected.

Impact 8.5-2: Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

The Project does not involve any housing and is not expected to displace substantial number of people; therefore, no impacts are expected.

8.6 Public Services

The project would generally be considered to have a significant effect if it would 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 public services including:

- 1) Fire protection
- 2) Police protection
- 3) Schools
- 4) Parks
- 5) Other public facilities

Analysis

Impacts 8.6-1 through 8.6-5: Fire Protection, Police Protection, Schools, Parks, Other Public Facilities.

Fire Protection

Fire protection in the project area is provided by the Westmorland Volunteer Fire Department under contract with the County of Imperial. The Westmorland Fire Station is located at 230 W Main St, Westmorland, CA 92281, approximately 15 miles from the Project site. The projected emergency response time to the Project site is 20 minutes (ERC Environmental and Energy Services Co., 1990). Secondary response for a major fire would come from the Salton City station, located north of the Project site at 1520 Nile Dr, Salton City, CA 92275. The Project could result in continued demand for fire protection associated with the extended life of the landfill. However, it is anticipated that existing personnel and equipment would be adequate to provide fire protection services to the DVM under the proposed Project. Therefore, impacts related to fire protection would be considered less than significant.

Police Protection

Police services are provided by the Imperial County Sheriff's Department. Staff includes 56 sworn officers, including the Sheriff, resulting in a level of service ratio of 1 sworn officer to 532 residents (ERC Environmental and Energy Services Co., 1990). The nearest substations are located in Salton City, 2101 S Marina Dr, Salton City, CA 92274, and in Brawley, 220 Main St, #207 Brawley, CA 92227, approximately 25 and 27 miles from the Project site, respectively. The projected emergency response time to the Project area is approximately 20 minutes from both stations. Existing law enforcement service in the area would be adequate to meet the demand for police protection services for Project because extending the life of the landfill would not require additional services beyond those currently provided. Therefore, no impacts related to police protection would occur.

Schools

The Project would not adversely impact schools because no population increase or shifts in population would occur as a result of Project implementation. Therefore, no impacts related to schools would occur.

Parks

The Project would not entail the construction of residential or commercial uses that would result in an increase in park usage or the need for new/altered parks. Therefore, no impacts related to parks would occur.

Other Public Facilities

The Project is not anticipated to adversely affect the County's overall ability to provide services countywide. The need for new or altered government facilities or services is not anticipated. Therefore, no impacts related to other public facilities would occur.

The expansion of the monofill would not affect access to public services in any areas of the county. The project would not induce substantial unplanned population growth in an area which would result in the need for new or expanded facilities. The expansion of the monofill would not increase police or fire protection needs at the site. No impacts would occur.

8.7 Recreation

The project would generally be considered to have a significant effect if it would:

- 1) 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?
- 2) Include recreational facilities or require the construction or expansion of recreational facilities, which have an adverse physical effect on the environment?

Analysis

Impact 8.7-1: 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.

The proposed expansion of the DVCM does not generate users of park or other recreational facilities except for a small number of employees who may utilize these facilities during off-duty hours. No impact would occur.

Impact 8.7-2: Include recreational facilities or require the construction or expansion of recreational facilities, which have an adverse physical effect on the environment.

No recreational facilities are included in the Project nor would it require the need to construct or expand existing recreational facilities; therefore, no impacts are expected.

8.8 Wildfires

The project would generally be considered to have a significant effect if it is located in or near state responsibility areas or lands classified as very high fire hazard severity zones and would:

- 1) Substantially impair an adopted emergency response plan or emergency evacuation plan
- 2) Exacerbate wildfire risks and expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, and other factors.
- 3) 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.
- 4) 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.

Analysis

Impact 8.8-1: Substantially impair an adopted emergency response plan or emergency evacuation plan.

According to the Draft Fire Hazard Severity Zone Map for Imperial County prepared by the California Department of Forestry and Fire Protection, the Project site is not located in or near state responsibility areas or lands classified as very high hazard severity zones (California Department of Forestry and Fire Protection, 2007). The Project site is not located in or near a state responsibility area and is not classified as a very high severity zone in the Draft Local Responsibility Area for

Imperial County. As noted in Section 4.6 Hazards and Hazardous Materials, the proposed Project would not substantially impair an adopted emergency response plan or emergency evacuation plan. No impact would occur.

Impact 8.8-2: Exacerbate wildfire risks and expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, and other factors.

The Project site is not located in or near state responsibility areas or lands classified as very high hazard severity zones (California Department of Forestry and Fire Protection, 2007). Therefore, the proposed Project would not exacerbate wildfire risks. No impact would occur.

Impact 8.3-3: 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.

The Project site is not located in or near state responsibility areas or lands classified as very high hazard severity zones (California Department of Forestry and Fire Protection, 2007). The proposed Project would not require the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. No impact would occur.

Impact 8.4-4: 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.

The Project site is not located in or near a state responsibility area or within lands classified as very high hazard severity zones (California Department of Forestry and Fire Protection, 2007). The Project would not 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. No impact would occur.

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9.0 ALTERNATIVES ANALYSIS

9.1 Introduction

The California Environmental Quality Act (CEQA) requires that an EIR include a discussion of reasonable project alternatives that would “feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives” (CEQA Guidelines Section 15126.6). This chapter identifies potential alternatives to the proposed Project and evaluates them, as required by CEQA.

Regulatory Requirements for Identifying and Analyzing Project Alternatives

Key provisions of the CEQA Guidelines on alternatives are summarized below to explain the foundation and legal requirements for the alternatives analysis in the EIR (Sections 15126.6(a) through (f)).

- “The discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly.” (Section 15126.6(b))
- “The specific alternative of ‘No Project’ shall also be evaluated along with its impact.” (Section 15126.6(e)(1))
- “The No Project analysis shall discuss the existing conditions at the time the NOP is published, and at the time the environmental analysis is commenced, as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” (Section 15126.6(e)(2))
- “The range of alternatives required in an EIR is governed by a ‘rule of reason’ that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project.” (Section 15126.6(f))
- “Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent).” (Section 15126.6(f)(1))
- “For alternative locations, “only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.” (Section 15126.6(f)(2)(A))

- “An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.” (Section 15126.6(f)(3))

9.2. Alternatives Analysis Format and Methodology

CEQA Guidelines Section 15126.6(d) provides that the degree of analysis required for each alternative need not be exhaustive, but rather should be at a level of detail that is reasonably feasible and shall include “sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project.” Under CEQA Guidelines Section 15151, the EIR must contain “a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences.” Hence, the analysis of environmental effects of the Project alternatives need not be as thorough or detailed as the analysis of the Project itself.

The level of analysis in the following sections is sufficient to determine whether the overall environmental impacts would be less, similar, or greater than the corresponding impacts of the proposed Project. In addition, each alternative is evaluated to determine whether the Project objectives, identified in Section 6.2, would be substantially attained by the alternative.

The evaluation of each alternative also considers the anticipated net environmental impacts after implementation of feasible Mitigation Measures. The net impacts of the alternatives for each environmental issue area are classified as either having no impact, a less-than-significant impact, or a significant and unavoidable impact. These impacts are then compared to the corresponding impact for the Project in each environmental issue area. To facilitate the comparison, the analysis identifies whether the net incremental impact would clearly be less, similar, or greater than that identified for the Project. Finally, the evaluation provides a comparative analysis of the alternative and its ability to attain the basic Project objectives.

9.3. Alternatives Development and Screening

This section outlines the process used by the ICPDSD to develop the alternatives to be analyzed in this Draft EIR. Alternatives considered by the Applicant and the ICPDSD were evaluated using the CEQA criteria and requirements listed below. No project alternatives were suggested during the public scoping process.

- Does the alternative fulfill all or most of the Project Objectives?
- Does the alternative avoid or reduce adverse effects to human/environmental resources associated with the Project, or, conversely, would the alternative create adverse effects potentially greater than those of the Project?
- Is the alternative feasible to construct, operate, and perform post-closure maintenance?
- Are there any conflicts between the alternative and the objectives of federal, state or local land use plans, policies, or regulations for the area concerned?

Alternatives that met most or all of the criteria listed above were carried forward for analysis and are detailed in Section 9.5. Those that did not meet the above criteria or were eliminated from further analysis.

9.4. Potentially Significant Impacts of the Project

A primary consideration in defining project alternatives is their potential to reduce or eliminate significant impacts and to meet most of the objectives of the proposed project. Pursuant to CEQA Guidelines Section 15126.6[b], alternatives to the proposed project include those that are capable of avoiding or substantially lessen any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly.

The proposed Project has the potential to have significant adverse impacts on biological resources; cultural and tribal cultural resources; geology and soils; paleontological resources; and hydrology/water quality within the County. However, mitigation measures described in Chapter 5 of this EIR would reduce impacts for these resource areas to less than significant. Therefore, per the CEQA Guidelines, this alternatives analysis focuses on alternatives that are capable of avoiding or substantially lessening project effects listed above.

Section 9.5, below, restates the applicants' project objectives. Section 9.6 presents alternatives to the proposed Project that were considered but eliminated for further analysis. Section 9.7 presents alternatives fully analyzed in this EIR and provide a comparison of alternatives. Section 9.8 makes a determination about the environmentally superior alternative.

9.5. Project Objectives

As described in Chapter 4, Project Description, of this EIR, the following objectives have been established for the proposed Project and will aid decision makers in the review of the project and associated environmental impacts:

- Maintain and expand cost-effective disposal for CalEnergy's geothermal facility operations beyond 2025;
- Minimize haul distances for waste collection vehicles to reduce traffic, air quality, energy, and climate change impacts by providing up to 2.6 million cubic yards of additional waste disposal capacity at the Desert Valley Company Monofill;
- Utilize existing disposal facilities to minimize land use conflicts and impacts to the environment;
- Minimize the negative impacts if waste disposal at the expanded monofill through an environmentally sound operation that incorporates modern engineering and design techniques.

9.6. Alternatives Rejected from further Consideration

Alternatives may be eliminated from detailed consideration in an EIR if they fail to meet most of the basic project objectives, are infeasible, or do not avoid or substantially reduce any significant environmental effects (CEQA Guidelines, Section 15126.6[c]). Alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, also do not need to be considered (CEQA Guidelines, Section 15126[f][2]). Imperial County considered several alternatives to reduce project impacts on biological resources, cultural and tribal cultural resources, paleontological resources, and hydrology/water quality, (please refer to Sections 5.2, 5.3, 5.4, 5.7, and 5.11 of this EIR for more information on these resource areas). Per CEQA, the lead agency may make an initial determination as to which alternatives are feasible and warrant further consideration and which are infeasible. The following alternatives were initially considered but were eliminated from further consideration in this EIR because the alternatives do not meet project objectives or were infeasible.

9.6.1. Modified Footprint to Avoid Cultural Impacts (Alternative A)

An alternative site plan (Option 2) for proposed Cells 4A/4B was developed avoids all archaeological sites, whether or not they would be considered significant under CEQA. The purpose of the alternative to evaluate the feasibility of providing the same size/capacity of the proposed Project.

The proposed Project consists of two new Cells, 4A and 4B, which required a total of 45 acres plus an approximate 14-acre drainage diversion berm and swale to route stormwater from existing drainages north and west of the expanded monofil. In order to avoid the archaeological sites, the western limits of grading for the diversion berm and swale were moved eastward. This area constrained on its eastern side due to 200 -foot fault setback requirements, which required a narrowing of the footprint to avoid archaeological resources. The length of Cell 4B was extended northward to compensate for the reduced width while still maintaining the same capacity.

Figures 9.1 and 9.1a present the site plan for the Modified footprint, with each of the two cells having equal areas of 22.5-acres for a total of 45-acres. The Modified Footprint Alternative does not provide a functional configuration for construction or operations. Cell A would be an irregular shape that could not facilitate installation of the multiple layers of synthetic liner, leachate collection and ultraviolet protection materials. The cell would be too narrow for truck access into and out of the cell.

The extension of Cell B to the north also presents other concerns. The land required for the cell would extend beyond Section 33 into Section 28. The extension would require disturbance/diversion of three additional existing drainages, compared to the proposed Project. This would result in additional biological resources impacts and the additional drainages would require the size of the diversion swale(s) to be increased.

Another item that would require evaluation would be to extend the faulting studies to the North in order to identify if any fault setbacks would restrain the extension of the site.

In summary, while modification of the landfill footprint would reduce impacts to know cultural resources, it would also result increased biological resource impacts compared to the proposed Project. The Modified Footprint Alternative would accomplish the project objectives, it would not provide a functional configuration for construction or operations. For these reasons, the Modified Footprint Alternative was not eliminated from further consideration in the EIR.

9.6.2. Reduced Waste Generation - Operational Modifications to Geothermal Plants (Alternative B)

Since the waste being transported to the monofill results from the normal use of geothermal brine to provide steam that generates power, there are few opportunities for reducing solid waste that precipitates as brine is cooled after steam for power generation is extracted from the process.

Minor additional quantities of waste are generated when the plant is shut down for an outage and solids that would have been reinjected to the geothermal reservoir are instead cooled to ambient temperatures such that the material is no longer in suspension and has to be disposed of as a solid waste from the geothermal brine pond where brine is routed during startup, shutdown and upset conditions. It should, however, be noted that solid waste generated during upset conditions or maintenance outages are normally disposed of as hazardous waste, based on California's hazardous waste criteria, and these wastes are not sent to the Desert Valley Company monofill. As such no operational changes are possible, given the existing equipment, that would reduce solid waste generation and disposal at the Desert Valley Company monofill. For these reasons, a reduced waste generation alternative through the modification of operations at CalEnergy geothermal plant is considered infeasible pursuant to State CEQA Guidelines 15126.6(c) and is eliminated from detailed consideration in this EIR.

9.6.3. Additional Compaction to Reduce Required Footprint (Alternative C)

The current method of placing the geothermal waste into the monofill involves moisture conditioning of the material and installing/compacting it in 6-inch lifts with a large rubber tire front end loader. The initial process is followed up with regular watering and compacting until future loads are delivered. Previous testing of the compacted material yielded results exceeding 95% relative compaction which is the maximum standard for engineered structural fills. Waste sites normally have a lower compaction requirement.

In summary, because the current method of installing the geothermal waste provides the maximum compaction that can be realized, this is not a feasible alternative to extend the life of Cell 3, nor to reduce the overall volume/size of the new Cells 4A/4B. For these reasons, the additional compaction

alternative is considered infeasible pursuant to State CEQA Guidelines 15126.6(c) and is eliminated from detailed consideration in this EIR.

9.7. Alternatives to Be Analyzed

9.7.1. No Project/No Expansion Alternative (Alternative 1)

Alternative 1 is the No Project, No Build Alternative. Consideration of the No Project Alternative is required by Section 15126.6(e) of the CEQA Guidelines. The analysis of the No Project Alternative must discuss the existing conditions at the time the Notice of Preparation was published (April 2, 2012), as well as: “what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services” [CEQA Guidelines Section 15126.6 (e) (2)]. The requirements also specify that: “If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this ‘no project’ consequence should be discussed” [CEQA Guidelines Section 15126.6 (e) (3) (B)].

The purpose of describing and analyzing a No Project Alternative is to allow decision-makers to compare the impacts of approving a proposed project with the impacts of not approving the proposed project. The No Project, No Build Alternative analysis is not the baseline for determining whether the environmental impacts of a proposed project may be significant, unless the analysis is identical to the environmental setting analysis that does establish that baseline.

Under the No Project Alternative, the monofill would not be expanded to provide a new Cell 4. Operations of the monofill would continue as authorized under the existing conditional use permit, solid waste facility permit and waste discharge report. Permitted non-hazardous geothermal waste from CalEnergy geothermal plants would continue to be disposed of within Cell 3, until its capacity is reached in January 2025. After that Cell 3 would be closed in accordance with the Preliminary Closure and Post Closure Maintenance Plan (Closure Plan) for Cell 3 (Desert Valley Company Joint Technical Report, 2016), which was approved by the Imperial County Division of Environmental Health in 2016. Once Cell 3 reaches capacity, the landfill cap will be installed, which will require four to six months to complete. All structures involved in the security, monitoring and maintenance and all existing environmental control (vadose zone monitoring wells, groundwater monitoring wells, ambient air monitoring stations, etc.) will remain in place during the post-closure period and will be maintained in accordance with the approved Closure Plan.

Impacts Compared to Project Impacts

The following compares environmental impacts associated with the No Project Alternative as compared to the impacts of the proposed Project.

Air Quality

The proposed Project would not conflict with or obstruct implementation of the applicable air quality plan. Estimated construction emissions from the proposed Project would not violate an air quality standard or contribute substantially to an existing or projected air quality violation. The proposed Project could result in a cumulatively considerable net increase of a criteria air pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone). The Project would not expose sensitive receptors to substantial pollutant concentrations and would not create objectionable odors affecting a substantial number of people.

However, under the No Project alternative, non-hazardous geothermal waste would be transported to the Copper Mountain Landfill in Arizona. Given the estimate 2,417 loads of waste that were disposed of in 2019, transporting wastes to a landfill in Arizona will result in an increase in carbon dioxide emissions of 833 tons per year and emission of all other pollutions (including volatile organic carbons, carbon monoxide, nitrogen oxides, and particulate matter emissions would also increase.

Therefore, greater long-term air pollution impacts would result from the No Project Alternative as compared to the proposed Project.

Biological Resources

According to biological surveys performed at the Project site, numerous sensitive plant and animal species have the potential to be located on the Project site. Under the No Project Alternative, no new construction and/or operational activities would occur. Therefore, implementation of the No Project Alternative would avoid project-level impacts to biological resources by minimizing the potential loss of sensitive species habitat on-site.

Cultural and Tribal Cultural Resources

Field surveys indicate the presence of several historic and prehistoric resources on the Project site. Mitigation measures are provided to reduce impacts to these resources to below a level of significance. Under the No Project Alternative, the Project site would remain as is, and no ground-disturbing activities would occur. Therefore, unlike the proposed Project, the No Project Alternative would not have the ability to accidentally uncover potentially significant cultural, archaeological, or paleontological resources which may be located beneath the surface Project site. There would be no impact to cultural resources, and no mitigation measures would be necessary.

Geology, Soils and Paleontological Resources

Implementation of the No Project Alternative would result in the closure of Cell 3 once capacity is reached. No change in geology or soils conditions would occur with this alternative. Therefore, the

geology and soils impacts associated with potential impacts to paleontological resources would be avoided under the No Project Alternative.

GHG Emissions

While the No Project Alternative would not involve construction activities, operation or maintenance at the Project site, transporting non-hazardous geothermal waste to Arizona would substantially increase GHG emissions by 2,725 tons per year. This impact would be significant and unmitigable. The No Project Alternative would not assist the County or the State in meeting California's emission reduction targets.

Therefore, the No Project Alternative would result in greater impacts to GHGs during the proposed Project's operational lifespan.

Hazards and Hazardous Materials

Under the No Project Alternative, the proposed Project would not be implemented. Therefore, no hazards or use of hazardous materials is expected.

Hydrology and Water Quality

The No Project Alternative would not result in either construction or operation of the proposed Project. The No Project Alternative would not result in alteration of the Project site's drainage patterns from current conditions and neither a SWPPP nor a drainage plan would be required. Accordingly, there would be fewer water quality and hydrology-related impacts from the No Project Alternative than the proposed Project.

Land Use and Planning

According to the County of Imperial General Plan, the Project site's land use is designated as "Recreational/ Open Space" and is zoned S-2 (Open Space/Preservation). Under the No Project Alternative, monofill operations would continue until Cell 3 reaches capacity. Similar to the proposed Project, the No Project Alternative would not physically divide an established community. Unlike the proposed Project, the No Project Alternative would not require CUPs. The Project site is not within the boundaries of any adopted HCP or natural community conservation plan; therefore, no impact would occur. Similar to the proposed Project, there would be no impacts to land uses under No Project Alternative.

Noise

Under the No Project Alternative, short-term construction activities and long-term operation of the proposed Project and post closure maintenance would not occur, and the associated noise levels would not be generated. Therefore, the No Project Alternative would avoid the short-term construction and long-term operation noise impacts discussed in Chapter 5.10.

Transportation and Traffic

In contrast to the proposed Project, there would be no development associated with the No Project Alternative. Therefore, the No Project Alternative would not have the potential to increase traffic volumes on nearby roadways during construction. However, transporting the non-hazardous waste to a landfill that accepts Class II wastes would be required, once cell 3 reaches capacity the nearest Class II Landfill is located in Arizona. This alternative would increase the round-trip haul route from 76 miles to 258 miles, an increase of 182 miles per trip.

Given the 2,417 loads of waste that were delivered to the monofill in 2019, (i.e., 6 waste transport trucks per day) and the increase in VMT of 182 miles, the No Project Alternative would result in an increase of 1,092 vehicle miles traveled (VMT) per day, compared to the proposed Project. This amounts to an increase of 398,580 VMT per year, which translates to an increase of 22,320,480 VMT over the 56-year combined lifespan of Cells 4A and 4B. This increase in VMT would be significant, unmitigable and would not occur with the proposed Project.

Transportation and traffic impacts associated with implementation of the No Project Alternative would be greater than impacts associated with the existing undeveloped site. Therefore, the No Project Alternative would result in greater VMT impacts as compared to the proposed Project.

Utilities/Service Systems

If the No Project Alternative is implemented, the proposed Project would not be constructed, operated, or maintained; therefore, there would be no impact related to Utilities and Service Systems.

Conclusion

Avoid or Substantially Lessen Project Impacts

The No Project Alternative would avoid the significant and potentially significant impacts of the proposed Project related to biological resources, cultural and tribal resources, geology/soils (paleontological resources); and hydrology and water quality each of which have been mitigated to below the level of significance. However, the No Project Alternative could also result in greater long-term impacts associated with air quality, GHG emissions and traffic/transportation due to the increased waste haul route.

Attainment of Project Objectives

Under the No Project Alternative, the none of the Project objectives would be met.

Comparative Merits

None of the impacts identified for construction, or decommissioning of the proposed Project would occur. While most of the operational impacts of the proposed Project would be avoided by the No

Project Alternative, transporting geothermal wastes to a permitted landfill would result in significant air quality and transportation impacts that would not occur with the proposed Project. Additionally, all of the objectives of the project objectives would remain unfulfilled under the No Project Alternative. This means that the Project's contribution to meeting California's renewable generation goals would not occur.

Significant Impacts of Alternative

The No Project Alternative would result in significant impacts to air quality, greenhouse gas emissions and transportation/ traffic.

9.7.2. Alternative Project Site (Section 27) (Alternative 2)

Section 27, a site owned by CalEnergy, was considered as an alternate candidate location for Cell 4 of the Desert Valley Company Monofill (See **Figure 9-2**). During the siting process, both Sections 27 and 33 were screened for multiple factors, including geology, biology, drainage, cultural resources, access, groundwater, water supply, location, and operations, to assess their viability as a future landfill site. One candidate site in each Section was identified for possible development. After review, the candidate site in Section 33 was selected as the preferred location. The candidate site in Section 27 is not considered a feasible alternative for development for the following aesthetic, economic, and environmental reasons.

Impacts Compared to Project Impacts

The following compares environmental impacts associated with the Alternative Project Site (Section 27) (Alternative 2) as compared to the impacts of the proposed Project.

Aesthetics

The candidate site in Section 27 is located close to Highway 86 and is likely to result in a greater impact on views from Highway 86. Development of Cell 4 in Section 33 would not be visible from Highway 86 as it would be located behind the existing DVC monofill.

Jurisdictional Drainage

Development of a landfill cell in either Section 33 or in Section 27 would result in permanent and temporary impacts to jurisdictional drainages. Runoff from storm events would need to be diverted around the new waste disposal cells through the construction of a berm and swale system. Storm runoff would be discharged back into jurisdictional drainages on the downgradient side of the cell. Within Section 33, flood flows directed around Cell 4 would be returned to the disrupted jurisdictional drainages on the downstream (north) side of the cell. These drainages have sufficient capacity to convey the redirected flood flows since they are currently functioning in that manner under existing conditions. Due to the configuration of the drainages within Section 27, it may not be feasible to reconnect the diverted flows back into the disrupted drainages. Instead, the flows

would be diverted to different jurisdictional drainages. As a result, constructing the new cell in Section 27 may cause storm runoff flow rates to increase in some drainages, while flows in the disrupted drainages would be permanently diminished. This diversion method could exceed the capacity of the adjacent jurisdictional drainages and potentially result in erosion within those features. Therefore, with regards to jurisdictional drainages, Section 33 is the environmentally preferred option.

Operational Costs

Development of Section 33 would allow existing facilities at DVC to be reused. Development of Section 27 could require the development of additional support structures (offices, roads, septic systems, material storage areas, etc.) which would result in greater ground disturbance that are already present at the existing monofill in Section 33.

Permitting

If selected as a new landfill site location, Section 27 would likely be classified as a new facility, requiring additional permitting. Development of Cell 4 adjacent to the existing Cells 1 through 3 on Section 33 would likely be viewed as an expansion to the existing monofill. Modification of the existing landfill permitting is expected to be faster and therefore and less expensive than obtaining a new permit.

9.7.3. Reduced Project Footprint Alternative (Alternative 3)

This alternative evaluated the environmental impact of developing only half of the area of the proposed expansion. Cell 4 is proposed to be developed in two phases, as Cell 4A and Cell 4B; this alternative would allow for development, use and closure of either Cell 4A or Cell 4B, but not both.

Under Alternative 3, Reduced Project Alternative, the same expansion of the monofill would occur as described for the proposed Project; however, it would only include the construction of one waste disposal cell, either Cell 4A or 4B (e.g., a maximum of total of 46.2 acres, a capacity of 1.3 million CY and a lifespan of 28.6 years. As a result, there would be less site disturbance compared to the proposed Project. Other features of the proposed project (water use, chemical use, etc.) would be reduced proportionally. All environmental protection features described in Chapter 4.0 would be similar to those of the proposed Project.

The Reduced Project Alternative was considered as a means to minimize the environmental impacts overall as compared to the proposed Project. It should be noted however, that the Reduced Project Alternative would only provide one-half of the disposal capacity of the proposed Project, and therefore would have one-half the lifespan.

Impacts Avoided and/or Reduced

The following discussion evaluates the potential environmental impacts associated with the Reduced Project Alternative (Alternative 3), when compared to the impacts of the proposed Project.

Air Quality

The Reduced Project Alternative could also violate an air quality standard and result in a cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment, although also like the proposed Project, these potentially significant impacts would be mitigated below the level of significance. During construction, fugitive dust emissions would likely be less than the proposed Project because of the smaller footprint, but daily combustion emissions would likely remain the same. During operations, air pollutant emissions from the Reduced Project Alternative would be similar to the proposed Project because the daily number of waste haul trips and the amount of waste disposed would not be reduced.

Biological Resources

Like the proposed Project, the Reduced Project Alternative has some potential to result in impacts to burrowing owls, Le Conte Thresher, flat-tailed horned lizards, migratory birds and jurisdictional waters of the state. However, with the mitigation measures outlined for the proposed Project these impacts would be reduced to a level of less than significant for both the proposed Project and the Reduced Project Alternative. Nonetheless, because the Reduced Project Alternative would develop less of the Project site as compared to the proposed Project, impacts from this alternative would be slightly less than the proposed Project.

Cultural and Tribal Resources

Under the Reduced Project Alternative, a reduced amount of grading and excavation would be required for construction, although potential impacts to previously unknown cultural and tribal resources associated with disturbance of undiscovered resources would be similar to the proposed Project because of the uncertainty about what might be uncovered. The same mitigation measures would apply to the Reduced Project Alternative as to the proposed Project.

Geology and Soils

Under the Reduced Project Alternative, similar, although slightly less, impacts associated with geologic hazards and soils would occur as under the proposed Project. Similar ground-working activities would occur that would result in soil erosion and potential paleontological resource impacts; however, the area of disturbance would be less for the Reduced Project Alternative. development of only Cell 4A or Cell 4B would decrease the amount of grading required. Seismic-related hazards would not change. The same mitigation measures would apply to the Reduced Project Alternative as to the proposed Project.

Hazards and Hazardous Materials

The Reduced Project Alternative would have similar, although slightly less, impacts associated potential for hazards to the public and the environment through the routine transport, use, or disposal of hazardous materials. The Reduced Project Alternative would require the same precautions to be implemented as would be required for the proposed Project. Overall, impacts regarding hazards and hazardous materials would be slightly less for this alternative as for the proposed Project.

Hydrology and Water Quality

The Reduced Project Alternative would disturb less land than the proposed Project, but would still result in changes to and drainage patterns of the Project site. Preparation of a SWPPP and drainage plan would still be required for the Reduced Project Alternative. Impacts to hydrology and water quality from the Reduced Project Alternative would be slightly reduced as compared to the proposed Project.

Land Use and Planning

According to the County of Imperial General Plan, the Project site's land use is designated as "Recreational/ Open Space" and is zoned S-2 (Open Space/Preservation). Similar to the proposed Project, the Reduced Project Alternative would require modification of the existing CUP, and general plan amendment and zone change. Likewise, the Reduced Project Alternative, would not conflict with any existing plans or ordinance and would not physically divide an established community or conflict with any applicable land use plans. The Project site is not within the boundaries of any adopted HCP or natural community conservation plan. Similar to the proposed Project, no impacts to land use would occur.

Noise

Under the Reduced Project Alternative, short-term construction/post-closure maintenance and long-term operations would be similar to the proposed Project. Therefore, the Reduced Project Alternative would result in the same maximum noise levels to surrounding areas proposed Project.

Traffic and Transportation

Although the Reduced Project Alternative may involve fewer construction and operational worker vehicle trips, potential impacts to traffic volumes on nearby roadways would not differ substantially in comparison to the proposed Project. Short-term construction-related traffic impacts would be similar to the proposed Project under the Reduced Project Alternative, as would long-term increases in vehicle traffic associated with material deliveries and employee trips.

Utilities

The Reduced Project Alternative would have similar potable water and wastewater systems as the proposed Project, thus similar impacts would occur regarding wastewater treatment, water supply, or wastewater capacity. Solid waste disposal needs and compliance with regulations related to solid waste would likely be proportionately reduced from the proposed Project if this alternative is implemented. Therefore, the Reduced Project Alternative impacts to utilities would be similar to or slightly less from the Reduced Project Alternative as compared to the proposed Project.

Greenhouse Gas Emissions

Construction-related GHG emissions from the Reduced Project Alternative would be proportionately reduced compared to emissions from the proposed Project. However, because the daily amount of waste received at the monofill would be the same as that under the proposed Project, operational GHG emissions would be the same. The Reduced Project Alternative would also assist in meeting AB 32 which would decrease the need for fossil-fueled energy generation plants, although to a lesser extent than the proposed Project.

Conclusion

Avoid or Substantially Lessen Project Impacts

Compared to the proposed Project, the Reduced Project Alternative would result in very similar, though slightly reduced, impacts to many environmental resources (aesthetics, agriculture resources, air quality, biological resources, cultural resources, geology, hydrology and water quality, traffic and transportation and GHGs).

Attainment of Project Objectives

Alternative 3, the Reduced Project Alternative, would meet all project objectives to a slightly lesser degree than the proposed Project. Because the alternative would be approximately half the size of the proposed Project, it would only provide half of the waste disposal capacity and therefore only half of the lifespan of the Proposed Project.

Comparative Merits

The Reduced Project Alternative would reduce impacts associated with air quality, biological resources, cultural resources, geology, hydrology and water quality, traffic and transportation, utilities and GHGs, when compared to the proposed Project. The Reduced Project Alternative would have equivalent or no impacts associated with land use and planning and noise when compared to the proposed Project.

Therefore, the Reduced Project Alternative would slightly reduce impacts in most environmental issue areas as compared to the proposed Project. Additionally, under Alternative 3 the Project would have a reduced capacity and lifespan.

9.8. Environmentally Superior Alternative

As required by CEQA Guidelines, Section 15126.6, an EIR must identify an “environmentally superior alternative,” which is the alternative that has the least impact on the environment or would be capable of avoiding or substantially lessening any significant impacts of the project. Table 9-1, Summary of Alternatives Compared to the Proposed Project, shows each alternative’s environmental impacts compared to the impacts of the proposed Project.

The alternative that results in the least environmental impact, considering both the frequency and magnitude of the impact, is the environmentally superior alternative. In cases where the No Project Alternative is environmentally superior, the EIR is required to identify the next environmentally superior alternative among the others evaluated. Alternative A (No Project/No Development) is the alternative that results in the least environmental impact.

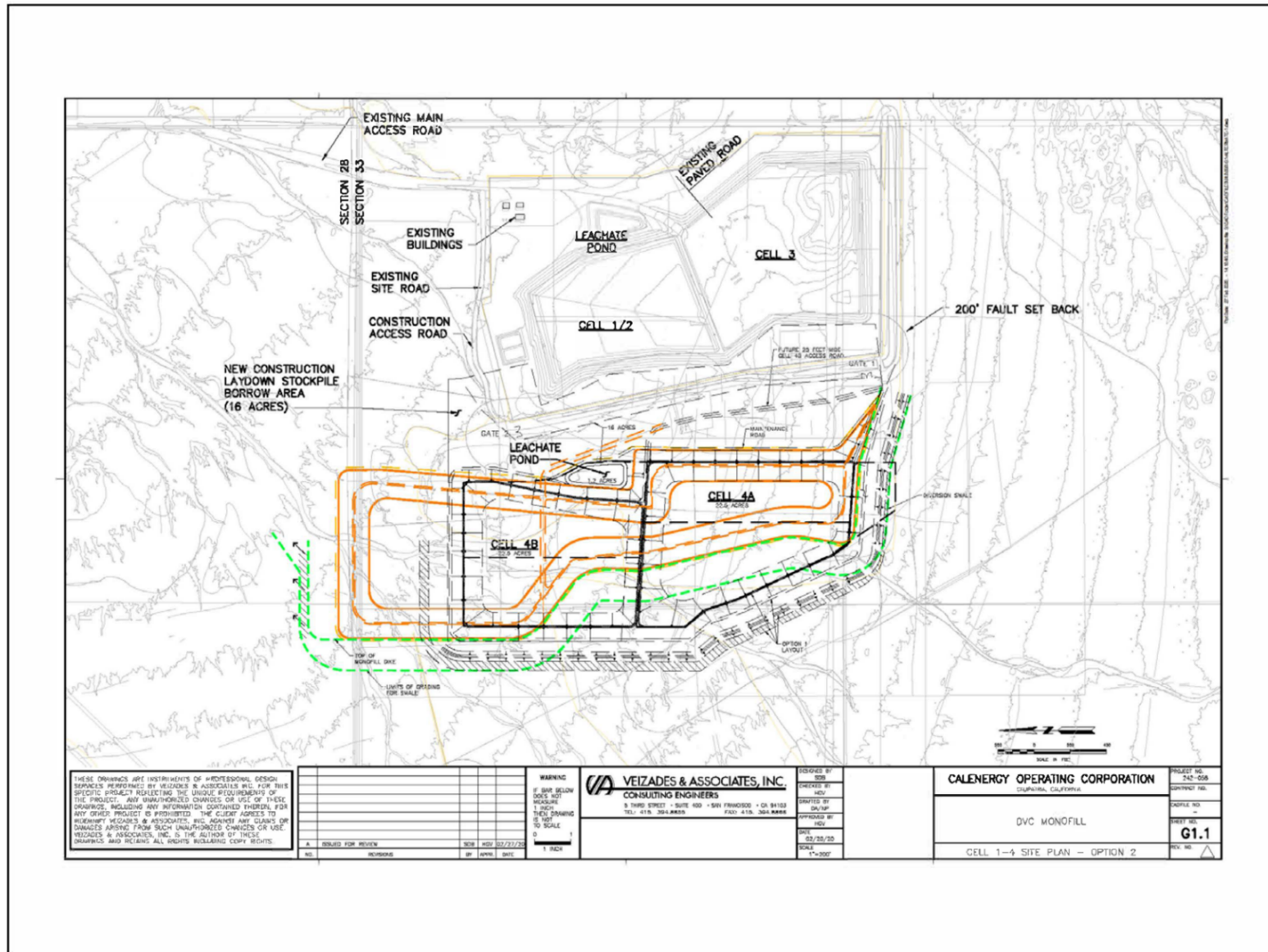
As shown in **Table 9-1**, Alternative 1 (No Project/No Expansion Alternative), would be environmentally superior to the proposed Project for 7 resource areas analyzed in the EIR. As required by CEQA, the next environmentally superior alternative is Alternative 3 (Reduced Footprint) Alternative. Therefore, Alternative 3 would be environmentally superior to the proposed Project under 4 resource areas and environmentally similar to the Project under 6 resource areas. However, Alternative 3 would not substantially lessen the significant air quality, biological, paleontological or hydrological resource effects of the Project; therefore, decision-makers are not obliged by CEQA to select this alternative.

TABLE 9-1: SUMMARY OF ALTERNATIVES COMPARED TO THE PROPOSED PROJECT

Environmental Resource	Proposed Project	No Project/ No Expansion (Alternative 1)	Alternative Project Site, Section 27 (Alternative 2)	Reduced Footprint Alternative (Alternative 3)
1. Air Quality	LTS-MM	SI / -	LTS-MM / =	LTS-MM / -
2. Biological Resources	LTS-MM	NI / +	LTS-MM / +	LTS-MM / -
3. Cultural Resources	LTS-MM	NI / +	LTS-MM / =	LTS-MM / -
4. Geology and Soils	LTS-MM	NI / +	LTS-MM / =	LTS-MM / -
5. Greenhouse Gas Emissions	LTS	SU / -	LTS / =	LTS / -
6. Hazards and Hazardous Materials	LTS	NI / +	LTS / =	LTS / =
7. Hydrology and Water Quality	LTS-MM	NI / +	LTS-MM / =	LTS-MM / =
8. Transportation and Traffic	LTS	SU / -	LTS / =	LTS / =
9. Tribal Cultural Resources	LTS-MM	NI / +	LTS-MM / =	LTS-MM / -
10. Utilities and Service Systems	LTS	NI / +	LTS-MM / +	LTS / =
TOTALS		+ 7 - 3 = 0	+ 2 - 0 = 8	+ 0 - 6 = 4
Meets Most of the Basic Project Objectives?	Yes	No	Yes	Yes

Notes:

- NI Finding of no environmental impact.
- LTS Finding of less than significant environmental impact.
- LTS-MM Finding of less than significant environmental impact with mitigation measure.
- SU Finding of significant and unmitigable impact.
- + Alternative is superior (reduced impacts compared) to the proposed Project.
- Alternative is inferior (greater impacts compared) to the proposed Project.
- = Alternative is environmentally similar to the proposed Project or there is not enough information to make a superior or inferior determination.

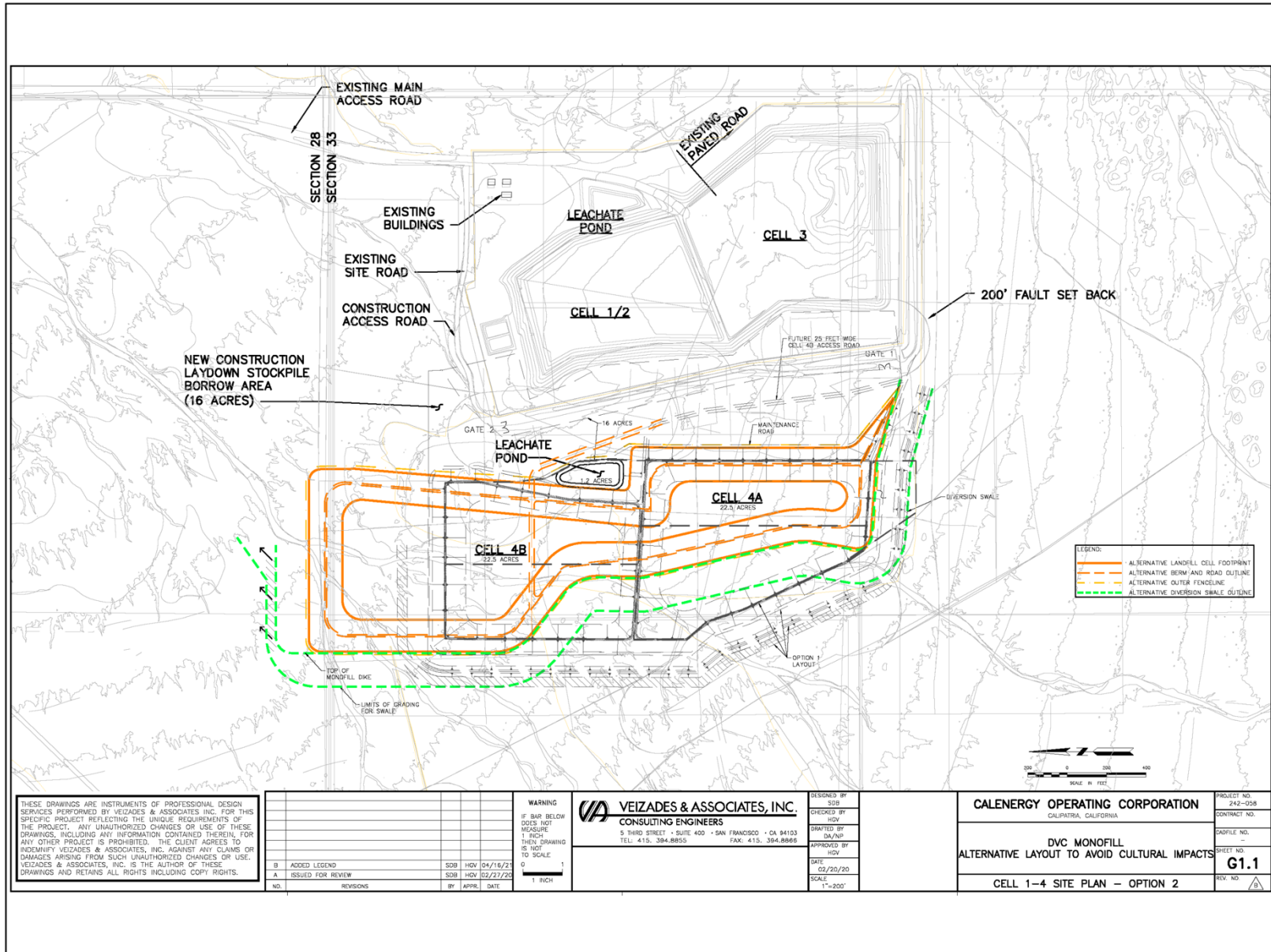


SOURCE: Terraphase Engineering Inc., 2020



Modified Footprint
Desert Valley Company Monofil Expansion Project, Cell 4
Figure 9-1

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NO.	REVISIONS	BY	APPR.	DATE
B	ADDED LEGEND	SDB	HOV	04/16/21
A	ISSUED FOR REVIEW	SDB	HOV	02/27/20

VEIZADES & ASSOCIATES, INC.
CONSULTING ENGINEERS
5 THIRD STREET • SUITE 400 • SAN FRANCISCO • CA 94103
TEL: 415.394.8855 FAX: 415.394.8866

DESIGNED BY	SDB
CHECKED BY	HOV
DRAWN BY	DA/NSP
APPROVED BY	HOV
DATE	02/20/20
SCALE	1"=200'

CALENERGY OPERATING CORPORATION
CALIPATRA, CALIFORNIA

DVC MONOFILL
ALTERNATIVE LAYOUT TO AVOID CULTURAL IMPACTS

CELL 1-4 SITE PLAN — OPTION 2

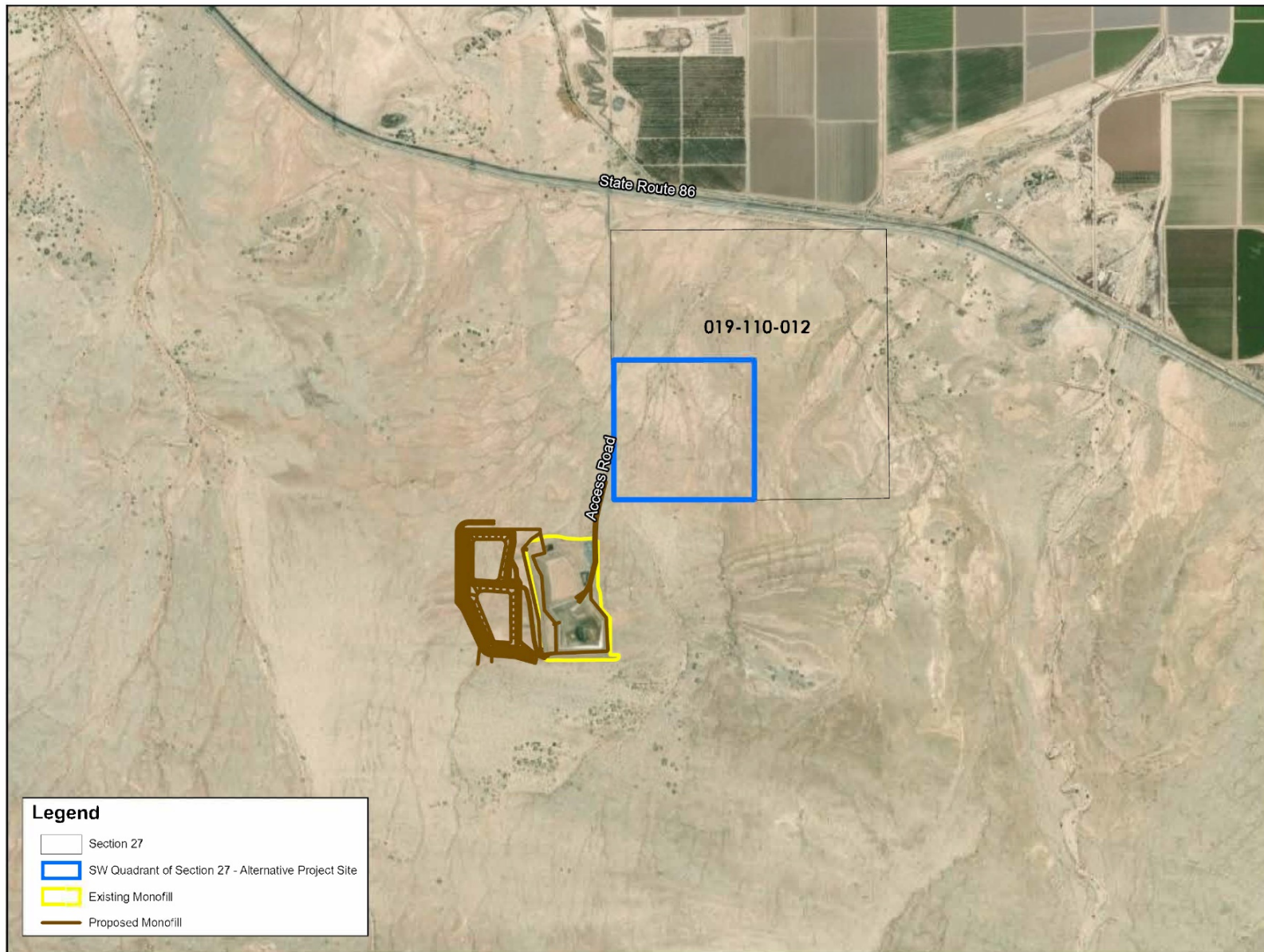
PROJECT NO.	242-058
CONTRACT NO.	
DRAWING NO.	
SHEET NO.	G1.1
REV. NO.	

SOURCE: Terraphase, 2021.

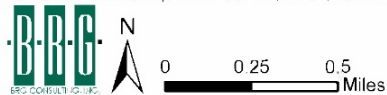


Modified Footprint
Desert Valley Company Monofil Expansion Project, Cell 4
Figure 9-1

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SOURCE: Basemap-ESRI; ICPDS, 2015, 2018; Terraphase Engineering Inc., 2020



Alternative Project Site - Section 27
Desert Valley Company Monofil Expansion Project, Cell 4
Figure 9-2

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10.0 PREPARERS

This Environmental Impact Report was prepared for the County of Imperial by BRG Consulting, Inc., 304 Ivy Street, San Diego, CA 92101 The following professionals participated in its preparation:

Imperial County Planning & Development Services

Jim Minnick Director
Michael Abraham.....Assistant Director
Patricia Valenzuela Planner IV
Diana Robinson..... Planner III

BRG Consulting, Inc. (Consultant to County)

Christina J. WillisProject Manager, Principal In Charge
Erich R. Lathers Principal Planner
Rachel James..... Senior Environmental Planner
Rachel Rowe Environmental Planner/GIS Specialist
John Addenbrooke Document Production

McIntyre Environmental

David McIntyrePrincipal Environmental Scientist

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None.

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None.

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9.0 Alternatives

None.

10.0 Preparers

None.