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 1x10 -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 1x10 -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)		
SPSE Goal 1: Include public health and safety considerations in land use planning.	Yes	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. 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.
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.	Yes	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.
SPSE Goal 3: Protect the public from exposure to hazardous materials and wastes. • 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	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. 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. 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.

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)		
		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.
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.	Yes	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.
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.	Yes	The proposed Project would preserve ground and surface water quality from toxic or hazardous materials and/or wastes during construction, operation and closure 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. 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.

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-2’26 (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 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.

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.