

R9E

R10E

Salton City

Salton Sea

T10S

T10S

S 22

STATE ROUTE 86

T11S

T11S

STATE ROUTE 78

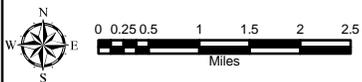
T11S

T11S



**Legend**

- Truckhaven Geothermal Leasing Area
- BLM Parcels Proposed for Non-Competitive Lease
- BLM Parcels Proposed for Competitive Lease
- Urban Private
- AG/Sparse/Private
- Reserve/Sparse/Public
- Working/Sparse Reserve/Private
- Working/Sparse Reserve/Public
- Working/Rural Reserve/Private



Scale 1:120,000



**TRUCKHAVEN GEOTHERMAL LEASE APPLICATION**

**FINAL EIS**

Figure 3-5  
**LAND USE MAP**

Job Id:

Date:  
10/24/2006

GIS Analyst:  
avh

Map Source Information: USGS Topographic  
Quadrangle 1:24,000. Terraserver.



**Table 3-7 Mineral Lands under Jurisdiction of CSLC within Truckhaven Geothermal Leasing Area**

<b>Township</b>	<b>Section</b>	<b>Acres</b>
T10S., R9E	34	640
T10S., R9E	35	543
T10S., R9E	36	473
T11S., R9E	34	640
T11S., R9E	36	600
T11S., R10E	4	641
T11S., R10E	10	640
T11S., R10E	16	640
<b>Total</b>		<b>4,817</b>

All BLM lands within the Truckhaven area are classified as suitable for conveyance under the Recreation and Public Purposes Act. The CDPR has filed a Recreation and Public Purposes Act application for the classified lands.

### **3.12.3 Existing Facilities and Corridors**

Four sections within T.11S., R.10E. SBM contain other rights-of-way. Sections 6, 18, and 30 in T.11S., R.10E. SBM contain a 50-foot right-of-way to IID for a transmission line (R-139). IID is a public utility that provides electricity through the operation of nine hydroelectric generation plants, a 180-megawatt steam plant, eight gas turbines, and an eight-unit diesel plant. The transmission right-of-way supports a 92-kV line that links IID and Southern California Edison. This allows Imperial Valley access to the rest of the southwestern power grid and establishes a strong path to export geothermal energy from Imperial Valley.

Section 22 in T.11S., R.10E. SBM contains a 400-foot right-of-way held by Caltrans/Federal Highways Administration for SR-86 and ditches and dikes. SR-86 is generally a north-south route and begins near Heber as a two-lane conventional highway and ends at the Riverside County line as a four-lane expressway. In Riverside County, SR-86 joins SR-111 which then connects with Interstate 10 (see Section 3.18 Transportation for more information on roads and traffic).

Adjacent to the Truckhaven Geothermal Leasing Area are the Salton Sea Airport and S-22 (Borrego Salton Seaway). The airport exists on Section 5 of T.11S., R.10E. SBM. The Imperial County General Plan approved expansions in October 1994 that would have increased the size of the airport; however, these improvements have not yet been undertaken. S-22 approaches the northwest corner of the Truckhaven area at Sections 34 and 35 of T.10S., R.9E. SBM. These lands are under State/private ownership. S-22 is a two-lane route classified as a “Major Collector” in the General Plan.

### 3.13 Human Health and Safety/Hazardous Materials

The Salton City Class III Municipal Solid Waste Management Facility is owned and operated by the Imperial County Public Works Department and is located on BLM-administered land within the Truckhaven Geothermal Leasing Area (CEPA 2006). This waste management facility is regulated under the waste discharge requirements in Board Order No. R7-2006-0007, which incorporates the laws and regulations from the California Water Code and combined State Water Resources Control Board/California Integrated Waste Management Board Regulations, Division 2, Title 27, and Federal regulations under the Resource Conservation Recovery Act. The facility is located in the northern half of Section 12, T.11S, R.9E. SBM and occupies approximately 320 acres with a waste management unit occupying 7.8 acres. The current total solid waste capacity of the facility is approximately 851,800 tons, with a volume capacity of over 2.5 million cubic yards. The fill rate at the facility is less than 0.5-tons per day (West Shores/Salton City 2000). This landfill is permitted to accept solid waste only and is prohibited from accepting hazardous waste, radioactive waste, geothermal wastes, sewage sludge, and liquid waste. According to the Colorado River Basin Regional Water Quality Control Board (Region 7), there are no other known waste sites within the proposed action area (Ochs 2006).

There are no known abandoned mine shafts or tunnels on BLM-administered land within the Truckhaven area (Hagerty 2006).

According to BLM staff, limited illegal dumping occurs in the Truckhaven area (in the form of a few small can dumps). Organized target shooting also takes place, and there may be occasional recreational shooting. According to Region 7 of the Regional Water Quality Control Board, there are no known underground storage tanks, above-ground storage tanks, hazardous materials, spills, pesticides, fuels, etc., specific to the Salton Sea Airport and BLM lands within the proposed action area. There are no records of crop dusters storing chemicals at the airfield in the proposed action area.

There are two inactive Formerly Used Defense Sites: Winona Bomb Target Sites No. 1 and 2, located on BLM-administered lands within the Truckhaven Geothermal Leasing Area (CDTSC 2006). Winona Bomb Target Site No. 1 is located in the southern half of Section 12, T.11S., R.9E. SBM, approximately 4 miles southwest from the center of Salton City at SR-86 and south of the municipal landfill. The Eleventh Naval District acquired this 640-acre site from the Department of Interior by Letter Permit, dated August 15, 1944. This site was used as a low-level rocket target and was declared surplus in 1946. According to historical information, site restoration was solely to involve removal of the target by station labor. During a site visit in 1993, ordnance was observed at six locations and included a 2-inch shell, blasting caps/fuses, 50-caliber belt clips, and practice bomb fragments (U.S. Army 1995). Neither the extent nor the potential hazard of the ordnance and explosive waste has been determined.

The Winona Bomb Target Site No. 2 is located in Section 10, T.11S., R.9E. SBM, approximately 5 miles south of the center of Salton City at SR-86 (CDTSC 2006). The Eleventh Naval District acquired temporary use of this 640-acre site from the Department

of the Interior by Letter Permit, dated August 15, 1944. This site was used for dive-bombing, strafing practice, and low-level rocket target and declared surplus in 1946. The site is vacant and unimproved desert property. This property is known or suspected to contain military munitions and explosives of concern (e.g., unexploded ordnance), and hence may present an explosive hazard. According to the Imperial County Certified Unified Program Agency, there are no other known hazardous sites within the proposed action area. According to the Imperial County Department of Environmental Health, there are no known recorded spills within the project area (Guillen 2006).

A portion of the Truckhaven Geothermal Leasing Area is within the Navy's Range Safety Zone (RSZ) C. A range safety zone prioritizes relative hazard risks and safety requirements with respect to noise, drop hazard, and aircraft accident potential. RSZ C is intended to provide an adequate area of protected space in which military training exercises can be safely conducted without interference from general aviation traffic. There are also height and population density concerns which need to be controlled in RSZ C. Considering the altitude of the aircraft and the type of maneuver the aircraft is engaged in, less danger exists to surface activities in this area, although certain activities must be restricted (U.S. Navy 1997). The following is a legal description of the Truckhaven areas that are within RSZ C:

- T.11S., R.9E.; SBM, Sections 3, 10, 11, 14, 15, 22-27, and 34-36;
- T.11S., R.10E.; SBM, Section 31;
- T.12S., R.9E.; SBM, Sections 1-3, and 10-12;
- T.12S., R.9E.; SBM, Sections 6-8.

These parcels generally lie in the southern and western half of the proposed action area and encompass 11 of the 23 BLM parcels in the Truckhaven Geothermal Leasing Area. According to the MOU between the Navy and the BLM (U.S. Navy 1997), the BLM is required to notify the Navy of any actions on its lands in these areas that may have an effect on current or potential uses. The height restriction in RSZ C is a maximum of 200 feet (Bjornstad 2006). The BLM has the sole right to grant rights of way, leases, or permits within RSZ C; however, the BLM will contact the Navy for its concurrence on the adequacy of the protective stipulations to be included in the granting documents within this area before any rights or privileges are granted.

## **3.14 Energy and Minerals**

### **3.14.1 Energy**

Existing energy resources in Imperial County consist of geothermal and hydroelectric resources, and biomass available for thermal energy generation.

Imperial County contains one of the potentially largest liquid-dominated geothermal resources in the world. The geothermal resources in the County are the hottest and are located at relatively shallow depths. The liquid-dominated geothermal resource can provide a relatively clean source of power as compared to other energy sources (e.g., coal and petroleum reserves) (Imperial County 2003).

The geothermal energy industry has become an important part of the County's industrial base. The County supports and encourages the development of geothermal resources in a manner compatible with the protection of agricultural and environmental resources. The County implements this goal by providing leadership, staff liaison with other regulatory and permitting agencies, and an effective set of plans and standards to facilitate the development process.

Currently, geothermal energy is the only commercially viable energy resource in the Truckhaven Geothermal Leasing Area. BLM currently has five noncompetitive geothermal lease applications on file.

There are no known fluid or solid mineral energy reserves in Imperial County, although exploratory drilling for oil and gas has taken place in the Truckhaven area. IID imports these fuels for use at the El Centro Steam Plant, the Brawley Diesel Plant, the Rockwood Plant, and Coachella Station. In 1988, approximately 62 percent of electricity generated by IID was with the use of imported fossil fuels.

In 1936, IID entered into the electrical power business as a public utility. After construction of the All-American Canal, low-cost hydroelectric energy became a byproduct of the irrigation system available to the Imperial Valley. As electrical needs have increased, IID has imported additional sources of energy to supplement the hydro-generated power.

IID operates nine hydroelectric generation plants, a 180-MW steam plant, eight gas turbines, and an eight-unit diesel plant. The Coachella Valley Substation, placed in service in June 1986, is the key link between IID and Southern California Edison. A 230-kV transmission line constructed in 1988 allows Imperial Valley access to the rest of the southwestern power grid and establishes a path to export geothermal and other alternative energy (such as biomass purchased by Southern California Edison) from Imperial Valley.

Power generated by the hydraulic force of water (hydroelectric generation) is a relatively low-cost means of generating electrical power with minimal adverse impacts on the environment when the resource is available. In normal rainfall years, nearly 16 percent of California's electrical generating capacity comes from hydropower.

The first hydroelectric plants on the All-American Canal were completed at Drops 3 and 4 in 1941. The hydroelectric facility at Drop 2 was installed in 1953. The Pilot Knob Plant was built on a bypass channel between the All-American Canal and the Colorado River, near Yuma, Arizona, and went into operation in 1957. The Drop 5 installation was completed in 1982; the Drop 1 and East Highline Turbant Hydro Plants were opened in 1984. Hydroelectric power from the All-American Canal produces approximately 85 MW (CEC 2002). Pilot Knob has 55 feet of hydraulic head and can produce up to 33 MW (U.S. Bureau of Reclamation 2007). Capacity for the other small plants was not readily available.

Imperial County has approved development of two power plants to generate 33 MW (gross) of electricity with use of agricultural waste products (biomass). Zoned in a part of