

# CHAPTER 11

## LAND USE

This chapter describes applicable plans and policies of the agencies with planning authority over the area surrounding the Salton Sea, existing land uses, and potential impacts to existing and planned land uses. As described in Chapter 3, the alternatives include components primarily within the Sea Bed or along the existing shoreline. Therefore, the land use analysis focuses on the communities near the Salton Sea.

### STUDY AREA

The study area is defined as the geographical area within which the large majority of potential impacts are expected. These areas include communities that could be directly affected by construction of the alternatives. Lands in the study area are under the jurisdiction of Tribal, federal, State, and local agencies, as shown in Figure 11-1.

### REGULATORY REQUIREMENTS

Land use plans as defined by Tribal, federal, State, or local agencies are described below under Existing Conditions. There are no specific federal and State regulations that would change the directions of these plans. The Division of Land Resource Protection of the California Department of Conservation (DOC) provides information and assistance to local governments to develop plans that will conserve agricultural and natural resources. The DOC Farmland Mapping and Monitoring Program (FMMP) categorizes and maps Important Farmlands every two years (most current data is 2004) (DOC, 2006). This data is provided to counties to develop criteria for Farmland of Local Importance, at their discretion. Both Imperial and Riverside counties have established these criteria, as summarized in Table 11-1. The DOC also enforces the Williamson Act (formally known as the California Land Conservation Act of 1965). This act enables local governments to enter into contracts with private landowners for the purpose of conserving agricultural lands and related open space by reducing property tax assessments. Local governments receive funds from the State under the Open Space Subvention Act of 1971 to offset some of the property tax losses. Both Imperial and Riverside counties have established Williamson Act programs.

**Table 11-1**  
**Definitions for Important Farmland Categories in Imperial and Riverside Counties**

Farmland Category	Definition
Prime Farmland	Land that has the best combination of physical and chemical characteristics for the production of crops. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods. Prime Farmland must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date.
Farmland of Statewide Importance	This land is similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to hold and store moisture. Farmland of Statewide Importance must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date.
Unique Farmland	This is land of lesser quality soils used for the production of specific high economic value crops at some time during the two update cycles prior to the mapping date. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality or high yields of a specific crop when treated and managed according to current farming methods. Unique farmland is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Examples of crops on Unique Farmland include oranges, olives, avocados, rice, grapes, and cut flowers. This category does not include publicly owned lands for which there is an adopted policy preventing agricultural use.

**Table 11-1  
Definitions for Important Farmland Categories in Imperial and Riverside Counties**

Farmland Category	Definition
Farmland of Local Importance	This is land of importance to the local agricultural economy and is determined by each county's Board of Supervisors and local advisory committees. Examples of this type of land could include dairies, dryland farming, aquaculture, and uncultivated areas with soils qualifying for Prime Farmland and Farmland of Statewide Importance.
Interim Farmland (Irrigated and Non-Irrigated Farmland)	Interim Farmland is a designation used for farmed areas lacking modern soil survey information and for which there is expressed local concern on the status of farmland. Interim Farmland is designated as either Irrigated or Non-Irrigated Farmland. Irrigated Farmlands are lands with a developed irrigation water supply that is dependable and of adequate quality and that have been used for irrigated agricultural production at some time during the four years prior to the mapping date. Non-Irrigated Farmlands are lands on which agricultural commodities are produced on a continuing or cyclical basis utilizing stored soil moisture.
Grazing Land	Grazing land is land on which the existing vegetation, whether grown naturally or through management, is suitable for grazing or browsing by livestock.
Urban and Built-up Land	This is used for residential, industrial, commercial, construction, institutional, and public administrative purposes; railroad yards; cemeteries; airports; golf courses; sanitary landfills; sewage treatment plants; water control structures; and other development purposes.
Other Land	Other land is that which is not included in any of the other mapping categories. The following types of land are generally included: low-density rural development; brush, timber, and other lands not suitable for livestock grazing; government lands not available for agricultural use; road systems for freeway interchanges; vacant and nonagricultural land larger than 40 acres in size and surrounded on all sides by urban development; confined livestock facilities of 10 or more acres; strip mines and borrow and gravel pits; a variety of other rural land uses.
Water	Water surface areas with an extent of at least 40 acres.

Source: DOC, 2006.

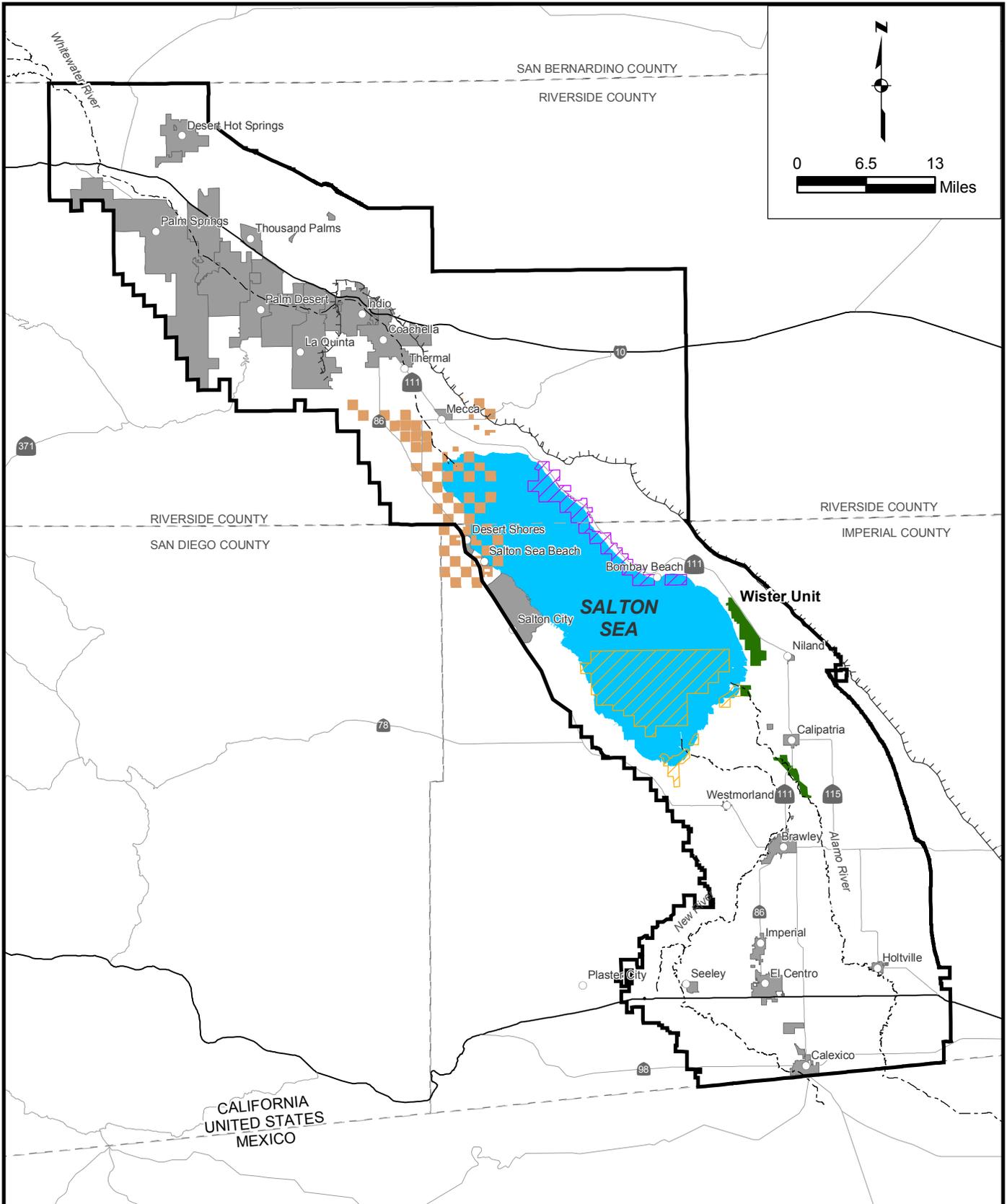
Note: None of these categories includes publicly owned lands for which there is an adopted policy preventing agricultural use.

## HISTORICAL PERSPECTIVE

The study area lies within or adjacent to areas traditionally utilized by many tribes, as described in Chapter 15. European contact in this area began in the late 1500s. The present-day communities in the Imperial and Coachella valleys were settled in the late 1800s. The primary land uses were agriculture and agriculturally related communities. In the 1950s through 1960s, recreational related communities were established in the Coachella Valley and along the Salton Sea shoreline. Full-service communities were established in the 1960s in the Coachella Valley and in the 1990s in the Imperial Valley. The number of homes constructed in this area has increased significantly in the past 5 years.

## DATA SOURCES

Information for this section was obtained from the Torres Martinez Desert Cahuilla Indians, U.S. Department of the Interior, Fish and Wildlife Service (Service), California Department of Fish and Game (DFG), Coachella Valley Association of Governments (CVAG), Southern California Association of Governments (SCAG), Imperial and Riverside counties, and other jurisdictions. Information regarding Important Farmland was collected from DOC. Geographic information system (GIS) databases of land use plans and assessors information were obtained from Riverside and Imperial counties and from CVAG.



**LEGEND**

- Cities and Communities
- City and Community Boundaries
- Imperial Wildlife Area - Hazard, Finney-Ramer, and Wister Units
- ▨ Sonny Bono National Wildlife Refuge
- ▨ Salton Sea State Recreation Area
- County Boundary
- Torres Martinez Indian Reservation
- ▭ Study Area
- Salton Sea

**FIGURE 11-1  
LAND USE PLANNING BOUNDARIES  
IN THE STUDY AREA**

## **DATA LIMITATIONS**

Land use planning regulations require that jurisdictions update general plans on a periodic basis. This analysis relies upon published and adopted planning documents which may not reflect the most current plans. For example, Imperial County General Plan is being updated currently. Therefore, information presented in the Draft Programmatic Environmental Impact Report (PEIR) may not reflect future plans that will be included in the updated general plan.

## **EXISTING CONDITIONS**

This section identifies relevant Tribal, federal, State, regional, and local plans and describes existing land uses. The Salton Sea is located in both Imperial and Riverside counties. One of the major functions of the Salton Sea is to receive agricultural drainage flows from the Imperial and Coachella valleys, as described in Chapter 1. The Salton Sea is also a recreational resource and a biological resource for fish and wildlife.

Land uses include urban uses in incorporated and unincorporated communities, commercial uses that provide services for tourists and area residents, agricultural lands, and geothermal power generation industrial uses.

### **Federal Land Use Planning Efforts**

In 1976, Congress designated 25,000,000 acres from the United States-Mexico border north to Death Valley and the eastern Sierra Nevada Mountains as the California Desert Conservation Area (CDCA). The U.S. Department of the Interior, Bureau of Land Management (BLM) administers plans within this area to protect the land for wildlife, open-space, and sustainable human enjoyment. The Salton Sea and the Coachella and Imperial valleys are located within the CDCA. These areas are designated as private, state, or other federally managed lands and are considered unclassified land within the context of the CDCA plan (SCAG, 2005). BLM has not designated any portion of the study area as an Area of Critical Environmental Concern or other special area.

The Sonny Bono Salton Sea National Wildlife Refuge is under the jurisdiction of the Service and consists of about 48,430 acres of land, including 13,970 acres on the shoreline which are leased from Imperial Irrigation District (IID). Much of the remaining portion of the refuge is currently inundated. Management programs are implemented by the Service to maintain and improve habitat for wintering waterfowl and shorebirds and are designed to reduce waterfowl depredation to adjacent croplands. A visitor center is located at the refuge with interpretive trails, observation towers, picnic area, and photography blind. Waterfowl hunting on the refuge is administered by DFG.

The Salton Sea Test Base is located on about 36,600 acres of surface and submerged lands along the western shoreline. Most of the Test Base is owned by the U.S. Navy; however, 5,840 acres of the Test Base were transferred to the BLM in 2000. The Test Base was established in 1942, and has been used for a variety of military training and research activities including seaplane and bombing operations, rocket development, and other uses. Limited live-fire weapons testing and training was conducted on the base. The Test Base was designated for closure in 1989 in accordance with the Base Closure and Relocation Act of 1988, and various environmental remediation actions have occurred at the base to remove remaining unexploded ordnance and other potentially hazardous materials (USACE, 1996). Additional information on the Salton Sea Test Base is included in Chapter 17.

### **State Land Use Planning Efforts**

The Imperial Wildlife Area consists of about 7,929 acres of land in three different units: the Wister Unit on the east shore near Niland, Hazard Unit at the mouth of the Alamo River, and Finney-Ramer Unit on

the Alamo River near Calipatria. The Wister and Finney-Ramer units are owned and managed by DFG. The Hazard Unit is owned by DFG and managed by the Service.

The Salton Sea State Recreation Area (SRA) is located along 15 miles of the northeastern shoreline of the Salton Sea and has been operated by the California State Parks since 1955. The Salton Sea SRA includes about 14,100 acres within Imperial and Riverside counties with most of the area in Riverside County. About 2,460 acres is currently inundated. The Salton Sea SRA has day use facilities, including individual and group picnic areas, hiking trails, nature trails, and wildlife viewing areas, and offers five campgrounds with over 1,000 individual campsites. Boat launching facilities are located near the park headquarters.

## **Regional Land Use Planning Efforts**

Two major regional land use plans have been prepared for areas within the study area. SCAG has prepared the Regional Comprehensive Plan and Guide (RCPG) and CVAG prepared the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP).

SCAG functions as the Metropolitan Planning Organization for six counties, including Riverside and Imperial counties. In 1996, SCAG adopted the RCPG to provide a regional framework for decisions regarding growth in Southern California. The RCPG identifies regional issues of importance and incorporates information from other relevant plans. It also contains a number of goals and policies applicable to regional development and identifies methods for their implementation. Use of the information contained in the RCPG in local planning decisions is voluntary. SCAG is currently updating the RCPG (SCAG, 2005).

The CVMSHCP was prepared under the direction of CVAG to provide California Endangered Species Act (CESA) and federal Endangered Species Act (ESA) coverage for about 1,136,000 acres comprising the entire Coachella Valley and the surrounding mountains (CVAG, 2006). Tribal lands are not included in the plan. The plan identifies public lands with important habitat values for conservation areas to protect species and natural communities described in the plan. The plan could modify land use on the public lands. The plan has been adopted by CVAG and currently each participating agency is considering the adoption process which is anticipated to be completed in 2006.

## **Imperial County General Plan**

The Imperial County General Plan consists of nine Elements including Land Use, Housing, Circulation and Scenic Highways, Noise, Seismic and Public Safety, Agricultural, Conservation and Open Space, Geothermal and Transmission, and Water. The most recent Imperial County General Plan was adopted in 1993, but some elements have been updated since that time. The General Plan Land Use Map designates land use categories which identify locations, and describes the type and anticipated maximum allowable build-out development patterns (County of Imperial, 1993a). Generalized land use designations for Imperial County, based on the Imperial County General Plan, are presented in Figure 11-2. It should be noted that incorporated areas within Imperial County have adopted separate general plans.

The Land Use Element of the General Plan is the primary policy statement for implementing development policies in the unincorporated portions of the county. The goals and policies in the Land Use Element promote the economic prominence of agricultural enterprises, determine appropriate urban development centers and encourage their economic development, protect the existing character of rural and recreational communities and areas, and preserve the unique natural and cultural resources of the Imperial Valley. The Land Use Element identifies the Salton Sea as a potential additional recreation site.



The Imperial County General Plan includes the following objectives that are directly related to land uses and conditions at the Salton Sea:

- **Objective 3.9 of Goal 2 of the Land Use Element of the General Plan** - Promote water recreation activities in Imperial County in suitable areas along the New, Alamo, and Colorado rivers, and in the Salton Sea;
- **Objective 9.5 of Goal 9 of the Land Use Element of the General Plan**- Establish policies and programs for maintaining salinity levels in the Salton Sea which enable it to remain a viable fish and wildlife habitat;
- **Goal 2 of the Water Element of the General Plan** - 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;
- **Objective 8.1 of the Conservation and Open Space Element** - Protect all bodies of water, (including the Salton Sea) and water courses for their continued use and development;
- **Objective 8.2 of the Conservation and Open Space Element** - Maintain the salinity of the Salton Sea at 40,000 mg/L and encourage the advantageous usage of the Salton Sea for agricultural and natural drainage, recreation, and development; and
- **Objective 8.8 of the Conservation and Open Space Element** - Ensure protection of water bodies that are important for recreational fishing.

The General Plan also includes objectives that support the viability of agricultural lands, preservation of riparian and ruderal habitats, and water quality improvement in polluted water bodies including the New and Alamo rivers and Salton Sea.

Much of the land in the study area within Imperial County is used for agricultural purposes. Urban, military, wildlife management areas, and recreational uses are described below.

The developed area of the Imperial County portion of the study area includes incorporated cities, unincorporated communities, and supporting facilities. The seven incorporated cities (Calexico, Brawley, Calipatria, El Centro, Holtville, Imperial, and Westmorland) contain about 57 percent of Imperial County population and are characterized by a full range of residential, commercial, and industrial uses. The West Shores/Salton City area in Imperial County extends along the western shore from the northern Imperial County line to the Salton Sea Test Base. Within this area are several unincorporated communities, including Salton City, Vista Del Mar, Salton Sea Beach, and Desert Shores. These communities consist mostly of single-family homes, recreational vehicles and mobile home parks, marinas, and community services. Although much of the land in this area is subdivided, most of the residential lots remain undeveloped. Bombay Beach/Hot Mineral Spa is an unincorporated community that extends along the east shore of the Salton Sea from the northern Imperial County line to Bombay Beach. Most urban land uses in this area are single-family homes and recreational vehicle parks. Recreational facilities include a marina, campground, and mineral spas.

Community Area Plans, Urban Area Plans, and a Colonia Master Plan that define current conditions in the communities surrounding the Salton Sea are described below with summaries of existing conditions in these communities. General plan maps from each plan are included with these descriptions to indicate the level of planned development in the communities. The descriptions are presented in the following order:

- West Shores/Salton City;
- Bombay Beach on the eastern Shore; and
- Imperial County Colonias.

## **West Shores/Salton City**

The West Shores/Salton City Urban Area Plan includes the unincorporated communities of Salton City, Vista Del Mar, Salton Sea Beach, Desert Shores, the proposed specific plan for a development named Habitat 2000, and 1,500 acres of the Torres Martinez Indian Reservation (County of Imperial, 2000). The Land Use Element of the Imperial County General Plan designates this area as an Urban Area encompassing about 31,840 acres, as shown in Figure 11-3. Urban Areas are characterized by urban services, including public water and sewer systems, and contain a broad range of residential, commercial, and industrial uses. Land use designations for the existing communities in the West Shores/Salton City Urban Area Plan are shown in Figures 11-4 through 11-7.

Salton City comprises about 22 square miles on the west shoreline along State Highway 86. The community was originally developed over 30 years ago. Many of the privately owned lots remain vacant, however, development is increasing.

During the 1950s and 1960s, Vista Del Mar Estates was developed. Of the 2,500 lots in Vista Del Mar, about 150 were developed as of 2000 (County of Imperial, 2000). Development is also increasing in Vista Del Mar.

Desert Shores is the northernmost unincorporated area along the western shoreline. In 1958, marinas were constructed into the Salton Sea to provide 13 miles of shoreline, a yacht club, and residential parcels.

The proposed Habitat 2000 development includes 1,720 acres of land between Salton Sea Beach and Vista Del Mar (County of Imperial, 2000) This development includes proposed construction of medium and high density residential units (not to exceed 10,000 units) with retail shops, hotel and spa, health care facility, golf course, lakes, and marinas with build out in about 15 years after initiation. The specific schedule for development was not finalized during preparation of this PEIR.

## **Bombay Beach/Hot Mineral Spa Community Area Plan**

The Imperial County General Plan designates the communities of Bombay Beach and Hot Mineral Spa as Community Areas. Community areas are generally characterized as primarily second home, retirement, or recreation areas with limited commercial or employment opportunities as well as limited urban services such as water and sewer (County of Imperial, 1999). The intent of Imperial County in preparing the Bombay Beach/Hot Mineral Spa Community Area Plan was to maintain and protect the existing rural character as well as the recreational opportunities of the community.

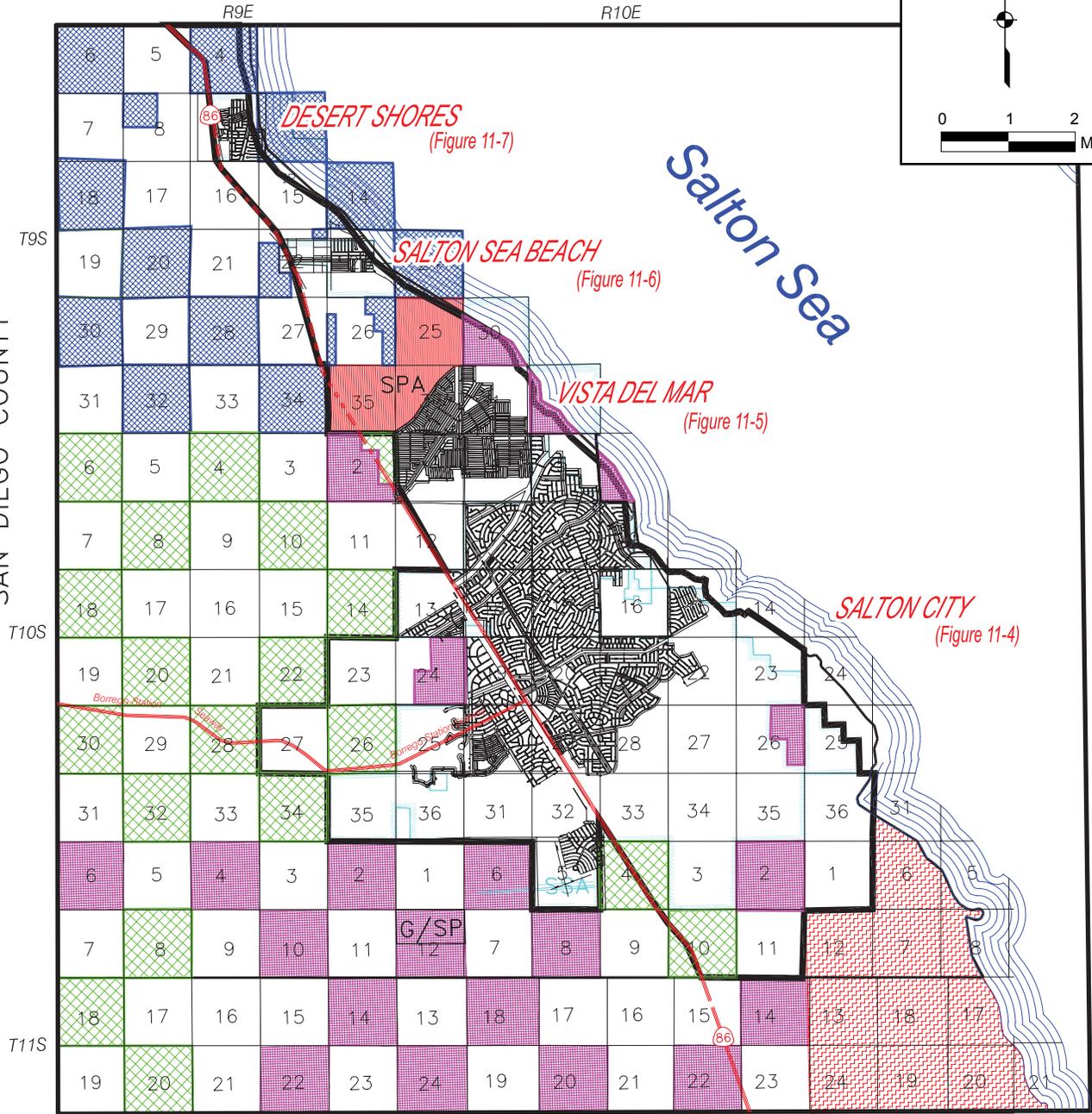
The Bombay Beach/Hot Mineral Spa Community Area Plan encompasses about 19,726 acres of private land. Land use designations for this area are shown on Figure 11-8.

The Bombay Beach Specific Plan was adopted by Imperial County in 1985 and consists of about 99 acres of largely undeveloped land between the developed area of Bombay Beach and State Highway 111. This area is planned for development of 280 residential units as well as commercial and recreational uses (County of Imperial, 1999), as shown on Figure 11-9. This area has been referred to in several plans as Bombay Beach North. The area referred to as Bombay Beach South includes about 500 single family homes on 704 buildable lots, with an additional 536 lots that were inundated by the Salton Sea in the early 1980s, and several commercial establishments (motel, restaurant, grocery store, hardware and boat repair, and craft store). Community facilities include a community center, library, medical clinic, marina, church, and park (County of Imperial, 1999).

Hot Mineral Spa east of Bombay Beach includes four mobile home and recreational vehicle parks, houses, aquaculture businesses, and sand and gravel operations.

RIVERSIDE COUNTY

SAN DIEGO COUNTY

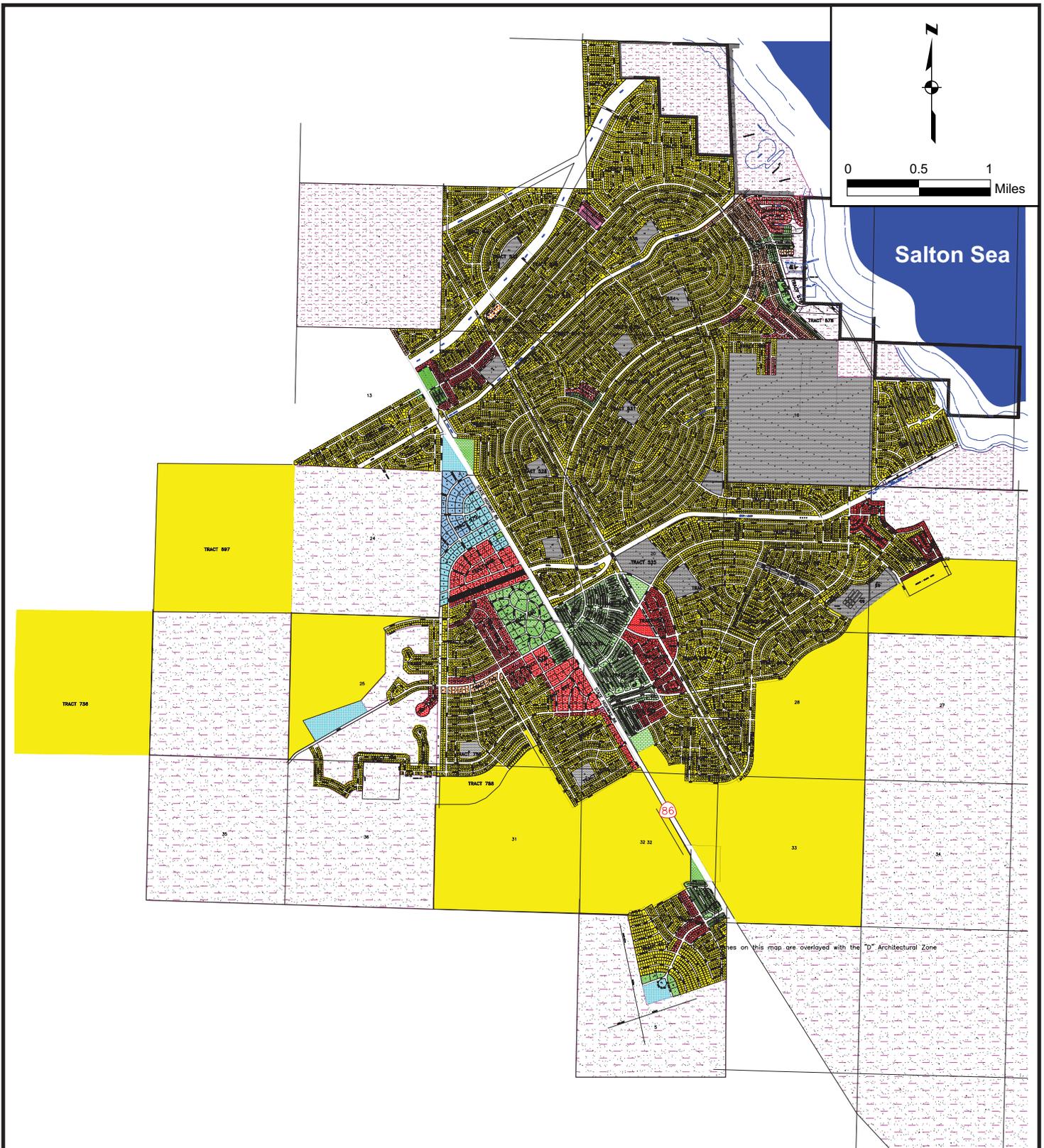


**LEGEND**

- |  |   |  |                           |
|--|---|--|---------------------------|
|  | Bureau of Land Management               |  | Government/Special Public |
|  | Torres-Martinez Indian Reservation/Land |  | State Lands               |
|  | Navy/Military Lands                     |  | Urban Area Boundary       |
|  | Salton City Community Services District |  | CVWD District Boundary    |
|  | Salton Sea Airport                      |  |                           |
|  | Habitat 2000 Specific Plan Area         |  |                           |

Source: CIPBD, 2005  
 Approved: October 25, 1994

**FIGURE 11-3  
 WEST SHORES/SALTON CITY  
 URBAN AREA PLAN MAP**



**LEGEND**

- |  |   |
|--|---|
|  Low Density Residential    |  Recreation/Open Space     |
|  Medium Density Residential |  Government/Special Public |
|  High Density Residential   |  Light Industrial          |
|  General Commercial         |  Medium Industrial         |
|  Neighborhood Commercial    |   |

Source: CIPBD, 2000  
 Approved: October 25, 1994

**FIGURE 11-4  
 LAND USE DESIGNATIONS  
 FOR SALTON CITY**



Salton Sea

CLUB HOUSE

TRACT 76

TRACT 76E

TRACT 76C

TRACT 76B

TRACT 76D

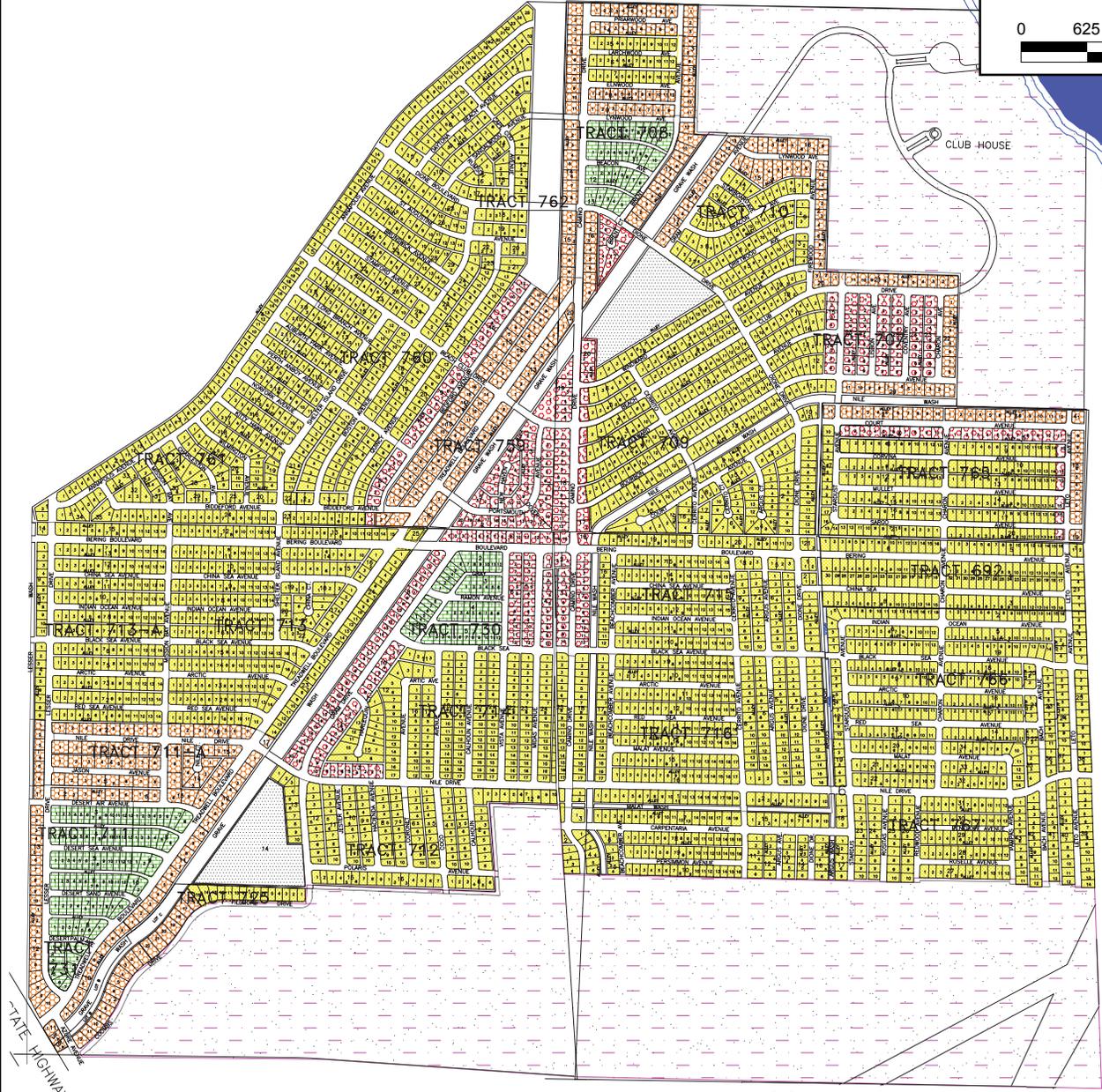
TRACT 76F

TRACT 76A

TRACT 76G

TRACT 76H

TRACT 76I



STATE HIGHWAY 86

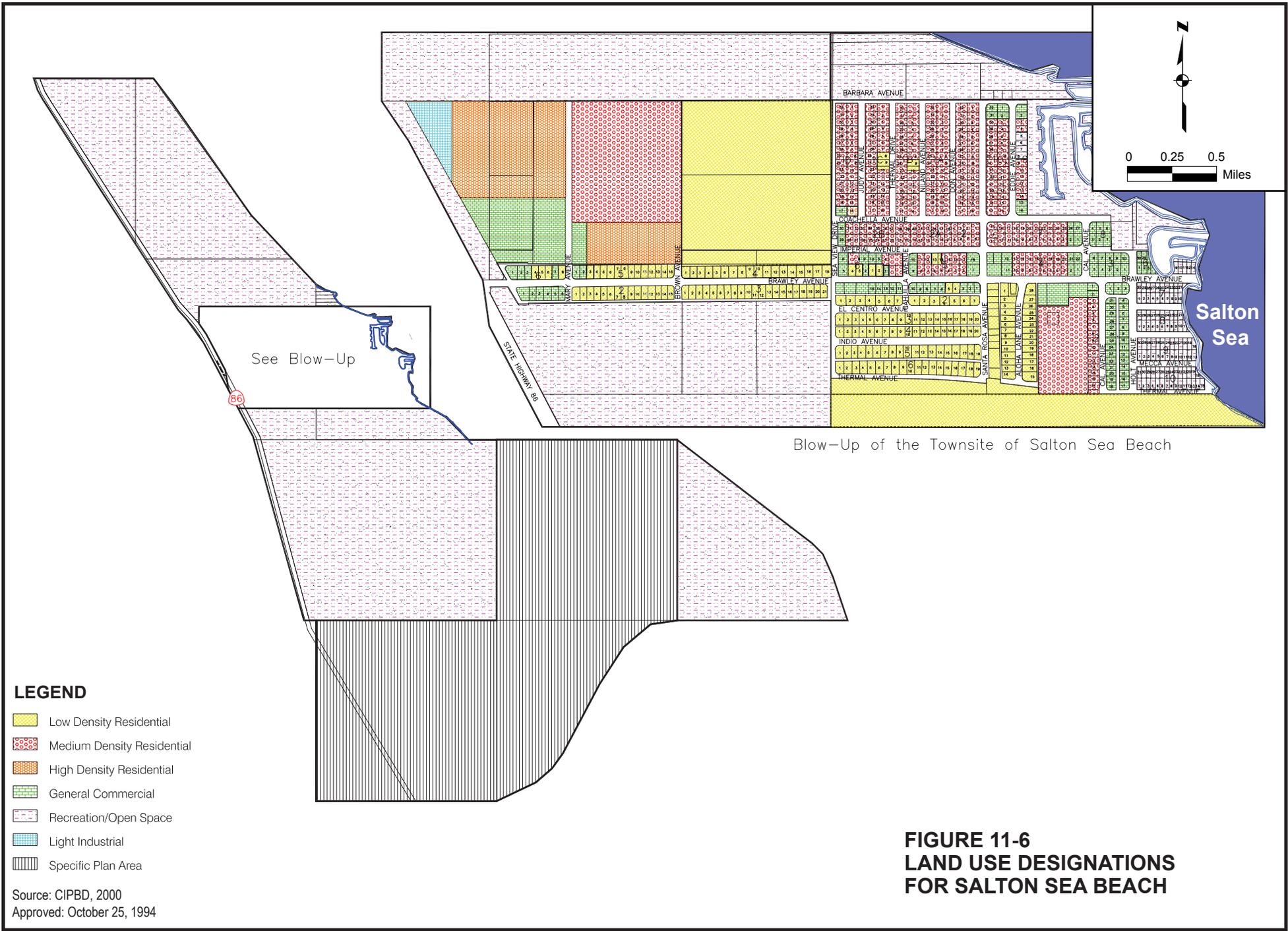
NOTE: All zones on this map are overlaid with the "D" Architectural Design Zone

**LEGEND**

-  Low Density Residential
-  Medium Density Residential
-  High Density Residential
-  General Commercial
-  Recreation/Open Space
-  Government/Special Public

Source: CIPBD, 2000  
Approved: October 25, 1994

**FIGURE 11-5  
LAND USE DESIGNATIONS  
FOR VISTA DEL MAR**



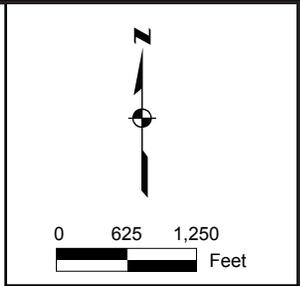
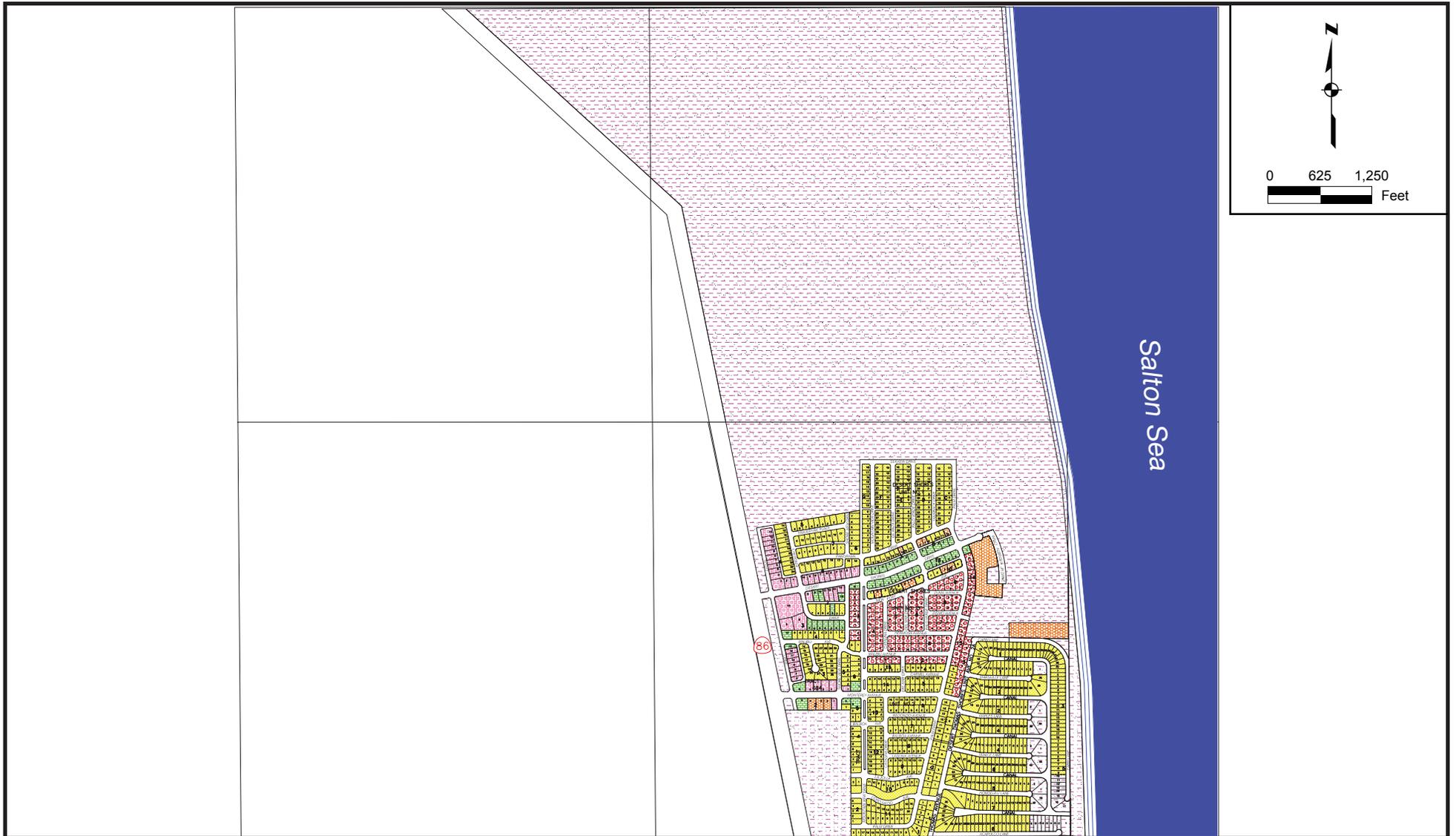
Blow-Up of the Townsite of Salton Sea Beach

**LEGEND**

- Low Density Residential
- Medium Density Residential
- High Density Residential
- General Commercial
- Recreation/Open Space
- Light Industrial
- Specific Plan Area

Source: CIPBD, 2000  
 Approved: October 25, 1994

**FIGURE 11-6  
 LAND USE DESIGNATIONS  
 FOR SALTON SEA BEACH**

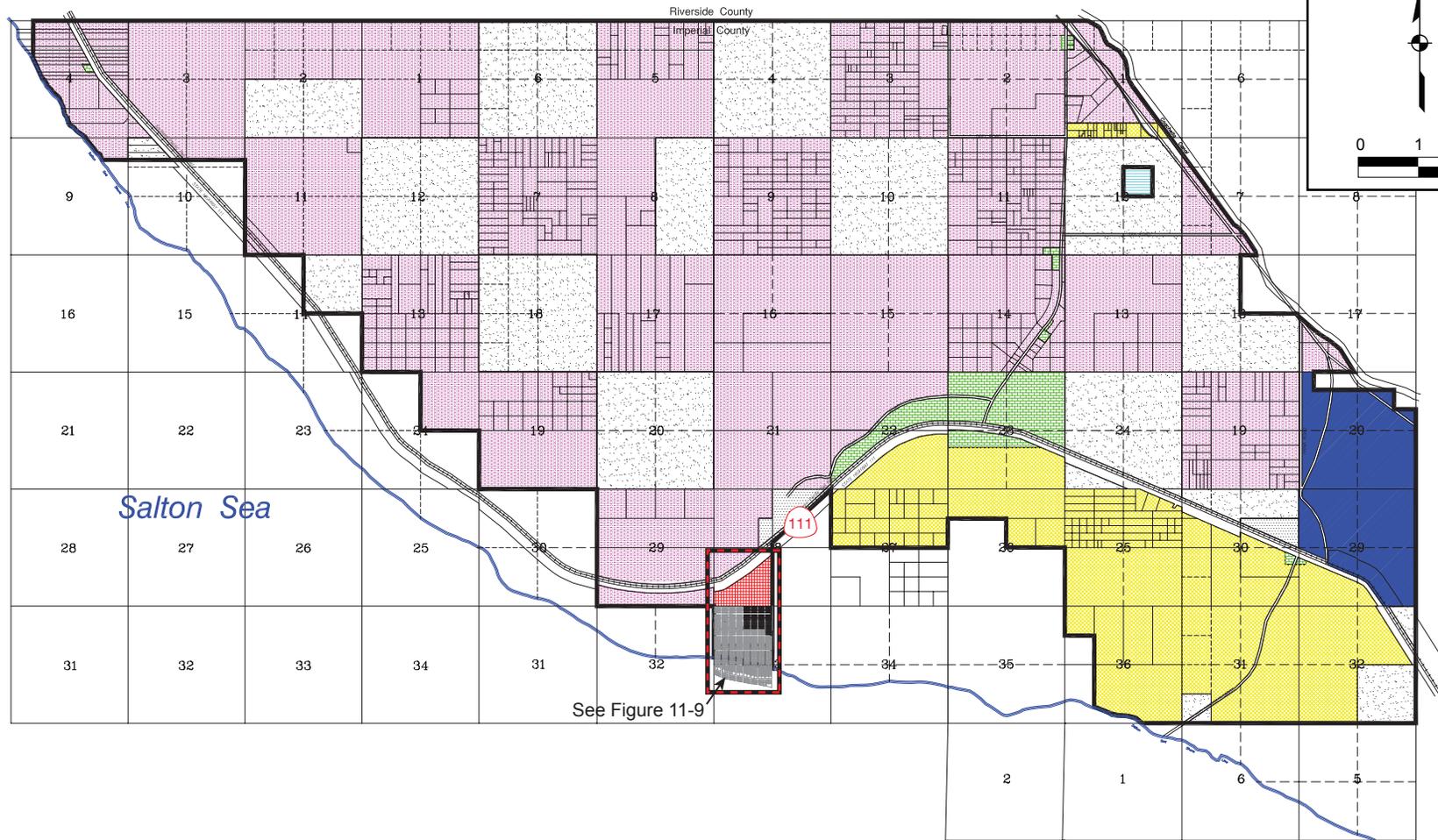


**LEGEND**

- |   |   |
|---|---|
|  Low Density Residential    |  Neighborhood Commercial |
|  Medium Density Residential |  General Commercial      |
|  High Density Residential   |  Recreation/Open Space   |

Source: CIPBD, 2000  
 Approved: October 25, 1994

**FIGURE 11-7  
 LAND USE DESIGNATIONS  
 FOR DESERT SHORES**

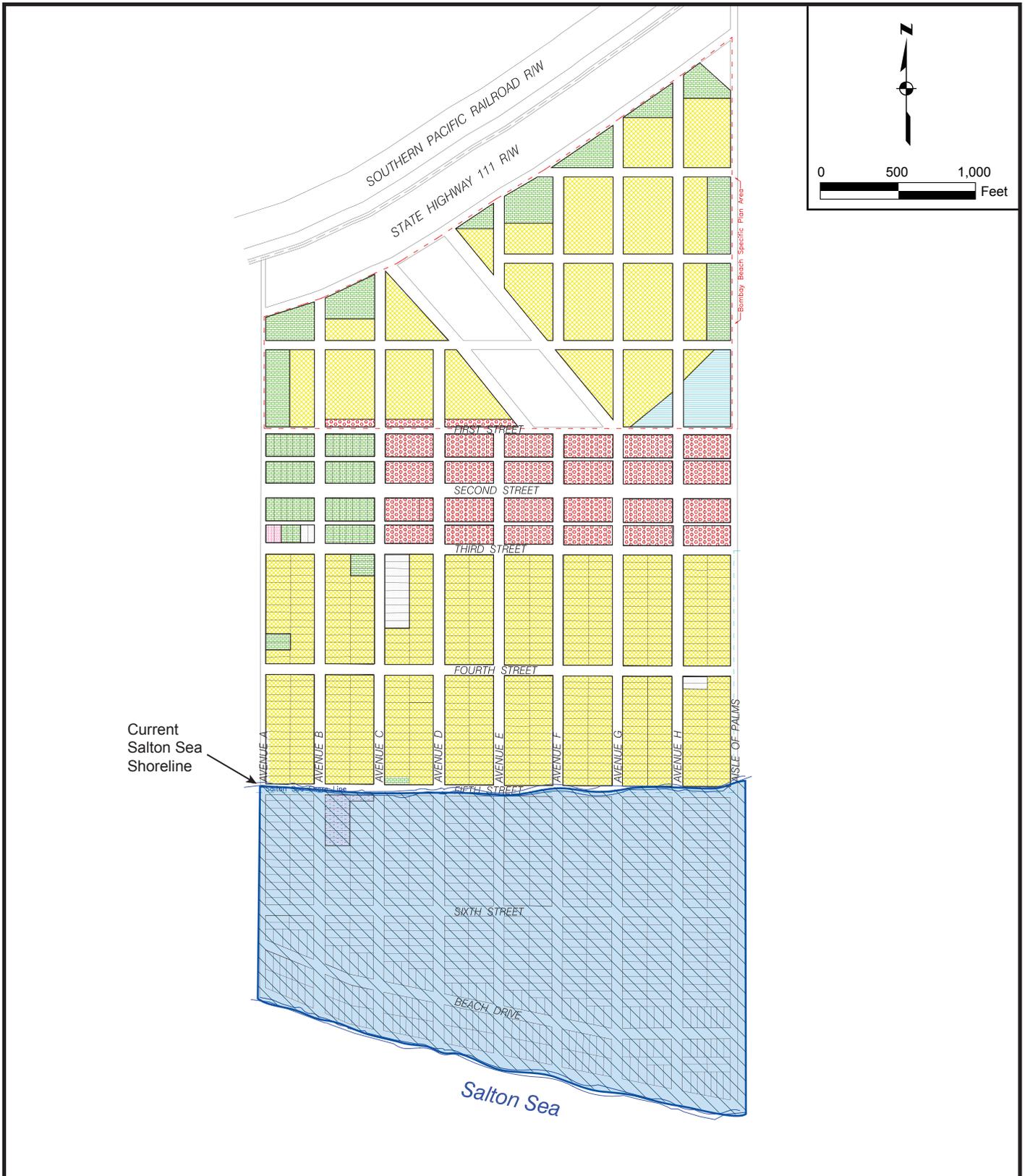


**LEGEND**

- |                         |                                    |
|-------------------------|------------------------------------|
| Low Density Residential | Government/Special Public          |
| General Commercial      | Special Purpose Facility           |
| Heavy Industry          | Recreation/Open Space-Public Owned |
| Recreation/Open Space   | Bombay Beach/Specific Plan         |

**FIGURE 11-8  
BOMBAY BEACH/HOT MINERAL SPA  
COMMUNITY AREA PLAN MAP**

Source: CIPBD, 1994  
Approved: April 19, 1994



**LEGEND**

- |  |   |
|--|---|
|  Low Density Residential    |  Government/Special Public |
|  Medium Density Residential |  Recreation/Open Space     |
|  Neighborhood Commercial    |  Floodway                  |
|  General Commercial         |  Inundated Area            |

Source: CIPBD, 1994  
 Approved: April 19, 1994

**FIGURE 11-9  
 LAND USE DESIGNATIONS  
 FOR BOMBAY BEACH**

## **Imperial County Colonia Master Plan**

Colonias are rural communities and neighborhoods located within 150 miles of the United States-Mexico border that lack adequate infrastructure and frequently also lack other basic services. A portion of federal Housing and Urban Development State Community Development Block Grant funds allocated to the states bordering Mexico can be used to evaluate and improve conditions in the Colonias.

In 2002, Imperial County was awarded a Planning/Technical Assistance grant through the State Community Development Block Grant program to support the development of a Colonia Master Plan for unincorporated Colonias, including Salton Sea Beach, Bombay Beach, Niland, Heber, Poe (located west of Brawley), and Seeley.

The Master Plan describes existing needs, estimated costs, and timetables for recommended improvements related to infrastructure, services, and community support (ICCED, 2003). Information from the Master Plan was used in the development of the Imperial County General Plan.

## **Riverside County General Plan**

In 2003, Riverside County completed a three-year integrated planning effort that resulted in a General Plan and 19 Area Plans, including the Eastern Coachella Valley Area Plan and the Western Coachella Valley Area Plan (County of Riverside, 2003a). The General Plan and associated Area Plans direct the location and amount of different land uses in the unincorporated areas of the county through 2020, including agricultural, urban, and recreational uses.

### **Urban Uses**

The developed area of the Riverside County portion of the study area includes incorporated cities and unincorporated communities. A large percentage of the population in the Coachella Valley is concentrated in the cities of Desert Hot Springs, Palm Springs, Cathedral City, Rancho Mirage, Indian Wells, Palm Desert, La Quinta, Indio, and Coachella.

The Coachella Valley also encompasses several unincorporated communities including Thermal, Mecca, and North Shore. Thermal, is located west of State Highway 111 and contains light industrial uses as well as some residential and commercial uses. The Desert Resorts Regional Airport is owned by Riverside County and located in Thermal. Mecca is located southeast of Thermal and includes residential development and light industrial and commercial uses. The North Shore resort community along the northern shoreline is largely undeveloped with limited residential and commercial tourist uses.

The Eastern Coachella Valley Area Plan was developed to maintain the rural, agricultural, and open space character of the Eastern Coachella Valley by directing growth to existing developed areas and areas where growth is desirable to support the local economy. The Area Plan identifies the Salton Sea as a unique feature. The land uses in the Eastern Coachella Valley Area Plan are shown in Figure 11-10.

The Western Coachella Valley Area Plan covers over 650 square miles (County of Riverside, 2003a). The Western Coachella Valley Area Plan boundary encompasses eight cities that have developed separate general plans, including Desert Hot Springs, Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, and Indio. The land uses of the Western Coachella Valley Area Plan are shown in Figure 11-11.

## **Torres Martinez Desert Cahuilla Indians Land Use, Zoning and Development Plan**

The Torres Martinez Reservation is located on about 24,000 acres in Riverside and Imperial counties. About 11,800 acres of the reservation are currently inundated in the northern portion of the Salton Sea

and extend to elevations of -274.5 feet msl. The reservation lands that are not inundated are adjacent to privately-owned land located to the north and west of the Salton Sea, as shown in Figure 11-12.

The Torres Martinez Desert Cahuilla Indians adopted a Land Use, Zoning and Development Plan (LZDP) in 1999 to guide development of Tribal lands (Torres Martinez, 1999). The LZDP gives preference to those goals, policies and procedures that will protect and preserve lands, culture, and traditions of the tribe. The LZDP states that the Torres Martinez people are desirous of achieving self-determination and improving the quality of life for the membership, both current and future, and envision proactive comprehensive planning that will assure the orderly transition of Tribal lands for residential, commercial, industrial, agricultural, aquaculture, recreation and open space, cultural, historic, traditional, and development use. The LZDP includes a variety of anticipated land development projects, as shown in Figure 11-12. The Torres Martinez Desert Cahuilla Indians LZDP is the only local land use plan that includes designations for lands currently inundated by the Salton Sea.

## Important Farmlands

Much of the study area within Imperial and Riverside counties around the Salton Sea is used for agricultural purposes. Lands designated as Important Farmlands and Prime Farmlands in Imperial and Riverside counties are summarized in Table 11-2 and Figure 11-13. In 2003, 111,250 acres in Imperial County and 61,200 acres of Riverside County (not including lands within incorporated areas) are under Williamson Act contracts (DOC, 2006). These values apply to unincorporated Riverside County and do not include lands under contract that may be within municipal jurisdictions (Harlow, 2005).

**Table 11-2  
Distribution of Important Farmlands and Prime Farmlands in 2004**

Land Use Categories	Acres in Imperial County	Acres in Riverside County
Prime Farmland	196,927	134,429
Farmland of Statewide Importance	313,218	48,499
Unique Farmland	2,132	38,691
Farmland of Local Importance	33,333	244,849
<b>TOTAL</b>	<b>545,610</b>	<b>466,468</b>

Source: DOC, 2006.  
See Table 11-1 for definitions of Land Use Categories

## ENVIRONMENTAL IMPACTS

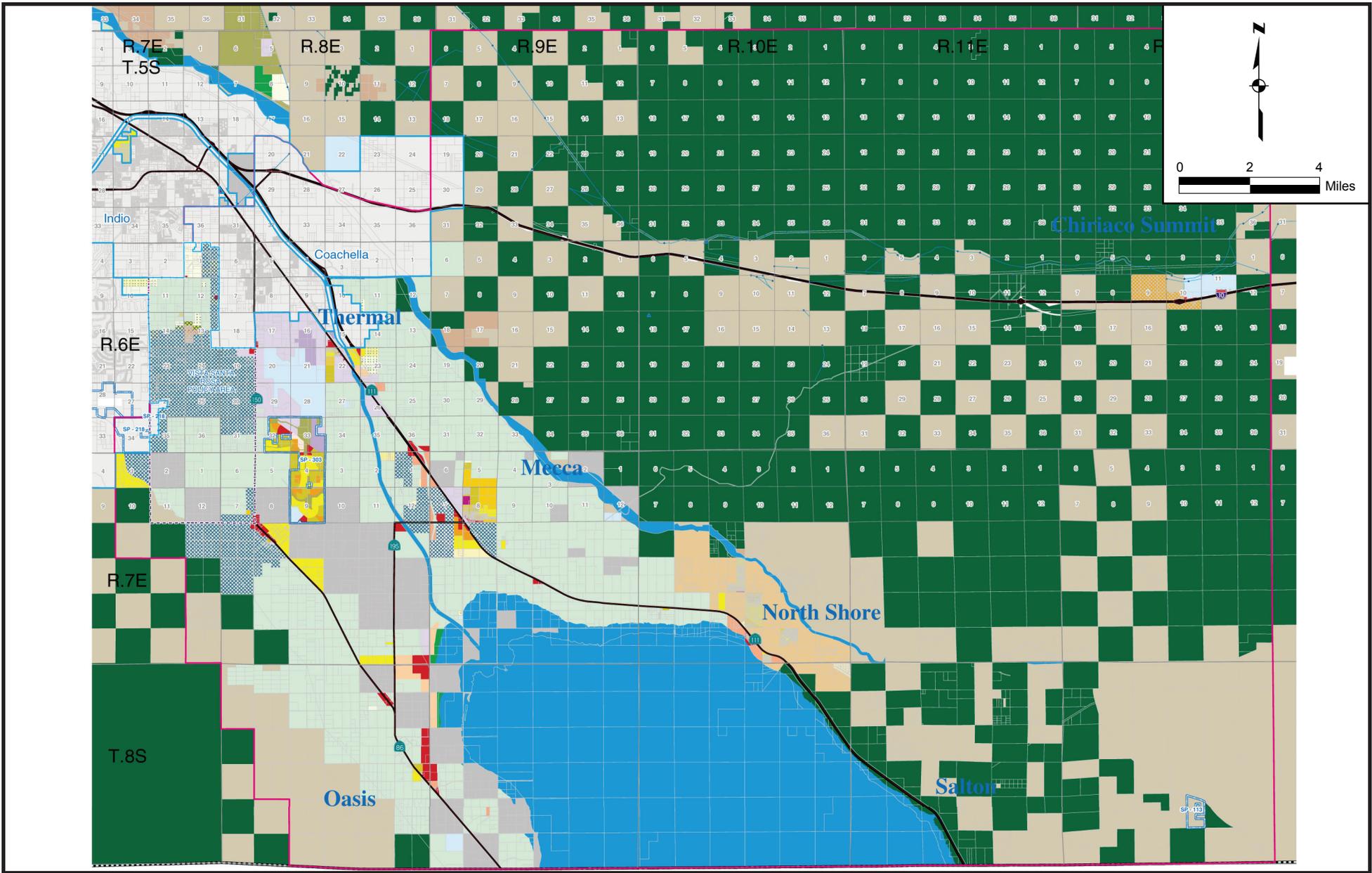
### Analysis Methodology

The impact assessment methodology used to evaluate land uses as presented in this chapter is based on the compatibility with adopted land use plans, protection of Important Farmlands, and proximity of open water at the shoreline to allow continued support of adopted land uses.

### Significance Criteria

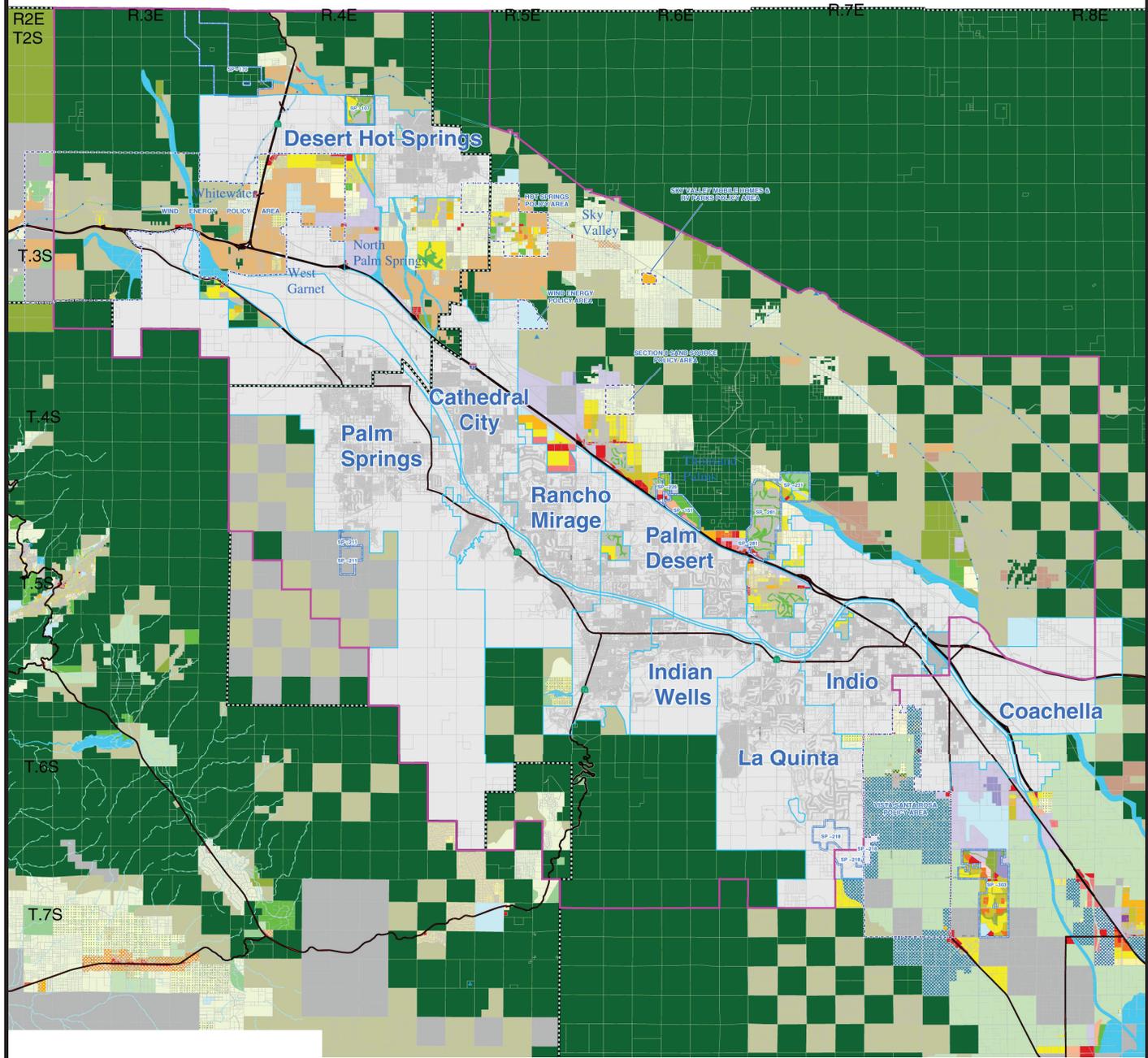
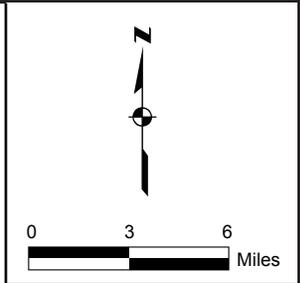
The following significance criteria were based on CEQA and used to determine if changes as compared to Existing Conditions and the No Action Alternative would:

- Physically divide an established community;
- Conflict with any applicable land use plan, policy, or regulation, habitat conservation plan, or natural community conservation plan; and



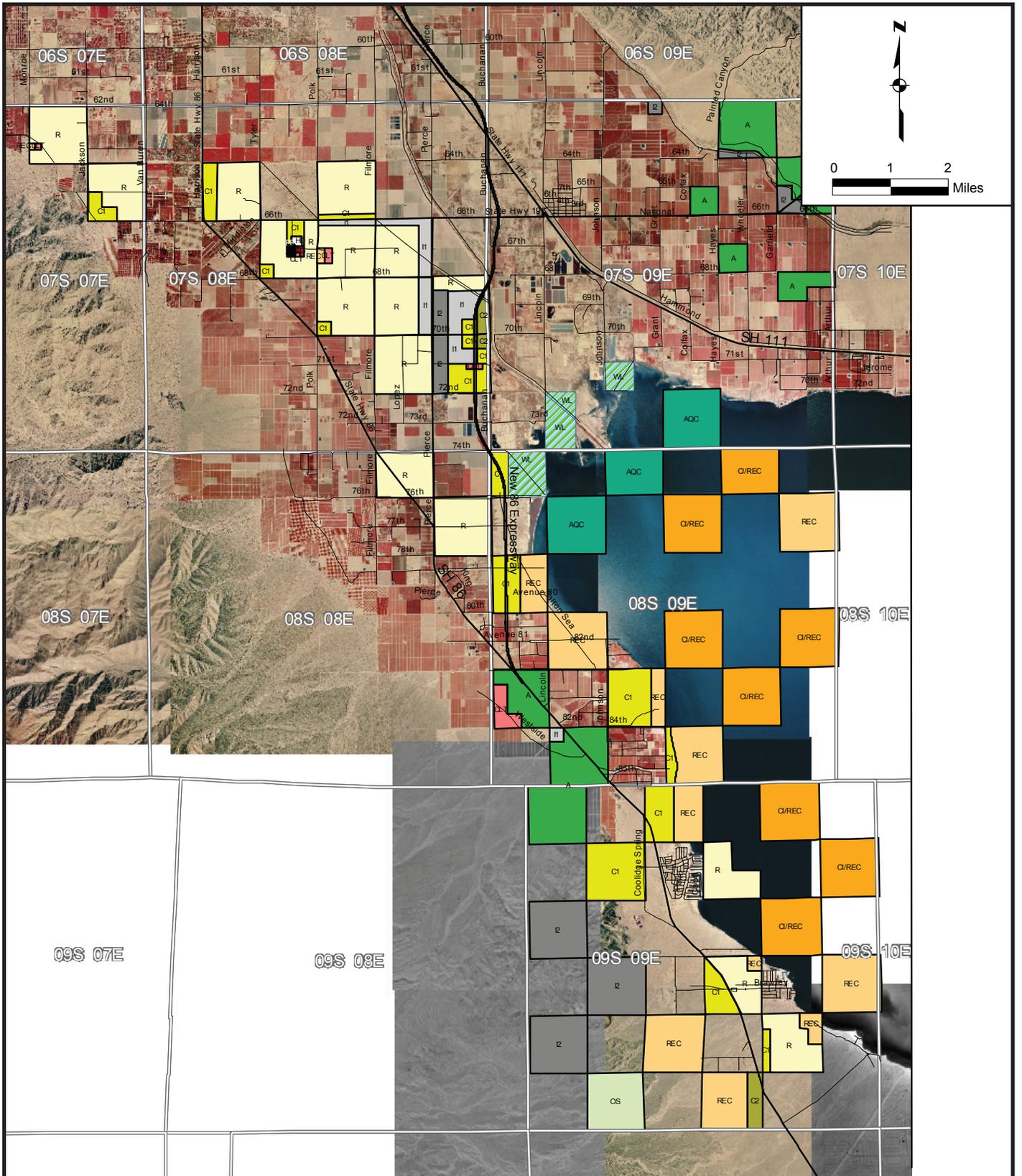
**FIGURE 11-10  
EASTERN COACHELLA VALLEY AREA  
LAND USE PLAN MAP**

Source: CR, 2003



**FIGURE 11-11  
WESTERN COACHELLA VALLEY AREA  
LAND USE PLAN MAP**

Source: CR, 2003

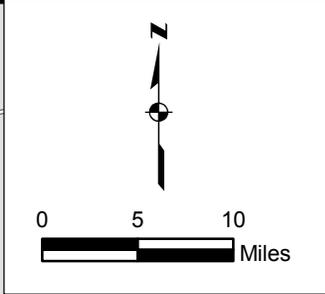
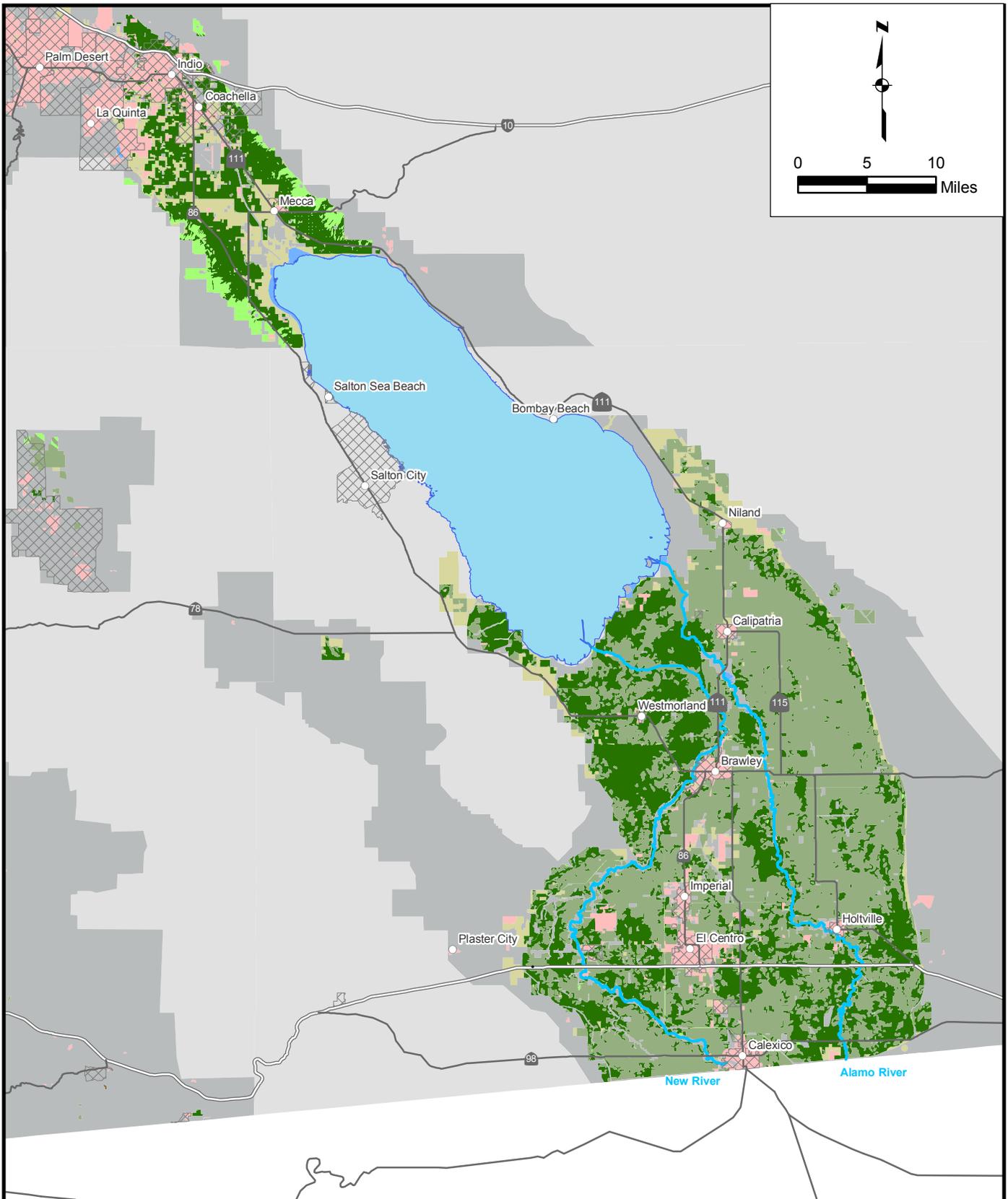


**LEGEND**

- |  |   |  |
|--|---|--|
| <span style="background-color: #90EE90; border: 1px solid black; padding: 2px;">A</span> Agricultural                    | <span style="background-color: #808080; border: 1px solid black; padding: 2px;">I2</span> Heavy Industrial  | — Roads  |
| <span style="background-color: #66CDAA; border: 1px solid black; padding: 2px;">AQC</span> Aquaculture                   | <span style="background-color: #90EE90; border: 1px solid black; padding: 2px;">OS</span> Open Space        | <span style="background-color: #FFFF00; border: 1px solid black; padding: 2px;">TM</span> TM Reservation |
| <span style="background-color: #FFFF00; border: 1px solid black; padding: 2px;">C1</span> Central Business               | <span style="background-color: #000000; border: 1px solid black; padding: 2px;">PF</span> Public Facility   | <span style="border: 1px solid black; padding: 2px;"> </span> Township / Range                           |
| <span style="background-color: #FFA500; border: 1px solid black; padding: 2px;">C2</span> Heavy Commercial               | <span style="background-color: #FFFF00; border: 1px solid black; padding: 2px;">R</span> Residential        |  |
| <span style="background-color: #FFA500; border: 1px solid black; padding: 2px;">Q/REC</span> Light Commercial/Recreation | <span style="background-color: #FFA500; border: 1px solid black; padding: 2px;">REC</span> Recreation       |  |
| <span style="background-color: #FF0000; border: 1px solid black; padding: 2px;">CL</span> Cultural                       | <span style="background-color: #FF0000; border: 1px solid black; padding: 2px;">TG</span> Tribal Governance |  |
| <span style="background-color: #000000; border: 1px solid black; padding: 2px;">HD</span> Historic District              | <span style="background-color: #008000; border: 1px solid black; padding: 2px;">W</span> Wetland            |  |
| <span style="background-color: #808080; border: 1px solid black; padding: 2px;">LI</span> Light Industrial               |   |  |

Source: Torres Martinez, 1999  
 Approved: 1999

**FIGURE 11-12  
 TORRES MARTINEZ RESERVATION  
 LAND USE PLAN**



**LEGEND**

- |                                  |                             |                    |
|----------------------------------|-----------------------------|--------------------|
| Prime Farmland                   | Other Land                  | Salton Sea         |
| Farmland of Statewide Importance | Water                       | Towns and Cities   |
| Unique Farmland                  | Farmland of Local Potential | Rivers             |
| Farmland of Local Importance     | Irrigated Farmland          | Interstate Highway |
| Grazing Land                     | Nonirrigated Farmland       | Regional Highway   |
| Urban and Built-Up Land          | Not Surveyed                | Cities             |

**FIGURE 11-13  
IMPORTANT FARMLANDS IN THE  
STUDY AREA**

Source: California Department of Conservation, 2006

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance; conflict with existing zoning for agricultural use or a Williamson Act contract; or cause conversion of Farmland, to non-agricultural use.

An additional significance criterion is considered based upon information received during the public outreach process:

- Substantially change the proximity of open water in the Sea Bed to the existing shoreline.

### **Application of Significance Criteria on the Alternatives**

Significance criteria have been applied to the alternatives considered in the PEIR. The following list summarizes the overall methodology in the application of the criteria to the alternatives:

- **Physically Divide an Established Community** – Facilities in all of the alternatives are located either within the Sea Bed or along the shoreline down gradient from existing communities. Therefore, the alternatives would not divide communities, and this criterion is not considered in the impact assessment for land use resources;
- **Conflict with Land Use Plans** – In general, because the facilities are located within the Sea Bed or along the shoreline down gradient from existing communities, the alternatives would not cause conflicts with land use plans, habitat conservation plans, or natural community conservation plans to the areas located above the existing shoreline. However, the land use plans for Imperial County and Torres Martinez Tribal lands include provisions related to use of the Salton Sea or lands under existing waters of the Salton Sea. Therefore, the analysis of conflicts with land use plans in the PEIR addresses the following criteria:
  - Consistency with the Imperial County General Plan – The general plan includes provisions to maintain the Salton Sea for the disposal of agricultural and natural drainage, fish and wildlife habitat, and water-based recreation. The general plan also includes a provision to maintain the salinity in the Salton Sea at 40,000 mg/L or less to support habitat and recreation uses. All of the alternatives include a Brine Sink for disposal of agricultural and natural drainage and therefore, this criterion is not used in the analysis. The analysis of this criterion is related to the ability to provide a large water body with marine water quality of 30,000 to 40,000 mg/L to provide historic fish and wildlife habitat and that would support historic recreation activities; and
  - Consistency with Torres Martinez LZDP – Consistency with the LZDP includes provisions for specific land uses in areas that are currently inundated by the Salton Sea;
- **Conversion of Land** – This criterion is applied to areas along the shoreline that would be impacted by construction of the facilities and designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance would be significant; and
- **Proximity of Open Water to Existing Shoreline** – The specific distances to open water would be dependent upon the surface water elevation and the underlying bathymetry. For example, the -240 foot contour ranges from 0.3 to 1.5 miles from the existing shoreline at -228 feet msl. For purposes of the PEIR impact assessment, distances from the existing shoreline to open water in the Sea Bed were evaluated for Salton City (community on western shoreline), Whitewater River Delta (relative midpoint on northern shoreline), Bombay Beach (community on eastern shoreline), and Obsidian Butte (relative midpoint on southern shoreline).

## Summary of Assumptions

The assumptions related to the descriptions of the alternatives are described in Chapter 3. The specific assumptions related to the analysis of land uses are summarized in Table 11-3.

**Table 11-3  
Summary of Assumptions for Land Use**

<b>Assumptions Common to All Alternatives</b>	
1. All adopted Land Use and General Plans would be implemented as currently adopted and within the time frame described in the plans. No further projections beyond the timeframes included in existing adopted plans were included.	
<b>Assumptions Specific to the Alternatives</b>	
<b>No Action Alternative and Alternatives 1, 2, 3, 4, 5, 6, 7, and 8</b>	No additional assumptions were made.

## Summary of Impact Assessment

The impacts shown in Table 11-4 assume implementation of the Next Steps to reduce adverse impacts.

### No Action Alternative

As described in Chapter 3, this alternative would involve construction and operations and maintenance activities for the Sedimentation/Distribution Basins, Air Quality Management, Pupfish Channels, and Salton Sea. The construction activities would be identical under the No Action Alternative-CEQA Conditions and the No Action Alternative-Variability Conditions. Therefore, impacts related to disturbance would be the same for both scenarios.

Salinity in the Salton Sea is currently higher than 40,000 mg/L and would continue to be higher in the No Action Alternative-CEQA and No Action Alternative-Variability Conditions, and would not provide compliance with the Imperial County General Plan and support a wide range of marine fish and wildlife habitat or recreational uses.

Land uses along the shoreline could be impacted due to the placement of the Sedimentation/Distribution Basins. Sedimentation/Distribution Basins would be constructed near the New, Alamo and Whitewater river confluences during Phase I. The northern Sedimentation/Distribution Basin could cause the loss of up to 200 acres Rural Residential lands in Riverside County. This area also is designated as Farmland of Local Importance. The southern Sedimentation/Distribution Basins could cause the loss of up to 400 acres of farmland in Imperial County, including land along the New River designated as Farmland of Statewide Importance. All other construction would be located within the Sea Bed. The loss of agricultural lands would represent less than 1 percent of the Farmland of Local Importance in Riverside County and less than 1 percent of Farmland of Statewide Importance in Imperial County.

By 2078, the water surface elevation of the Salton Sea would decline to -248 and -260 feet msl under the No Action Alternative-CEQA Conditions and No Action Alternative-Variability Conditions, respectively. The reduction in water surface elevation under both of conditions would allow for development of a portion of the currently inundated lands in accordance with the Torres Martinez LZDP. However, all of the Tribal lands in the Sea Bed would not be exposed.

**Table 11-4  
Summary of Benefit and Impact Assessments to Land Use**

Alternative	Basis of Comparison	Changes by Phase				Comments	Next Steps
		I	II	III	IV		
<b>Criterion: Conflict with Imperial County General Plan provisions related to conditions in the Salton Sea.</b>							
No Action Alternative	Existing Conditions	S	S	S	S	Salinity of the Salton Sea would continue to exceed 40,000 mg/L, and therefore, would not comply with Imperial County General Plan provisions to support historic fish and wildlife habitat or recreational uses.	None available.
	No Action Alternative	NA	NA	NA	NA		
Alternatives 1, 2, and 4	Existing Conditions	S	S	S	S	Conditions related to conflicts with land use would be similar to those described under the No Action Alternative. Saline Habitat Complex would provide opportunities for fish and wildlife habitat management and related recreation different than those described in the General Plan.	Same as No Action Alternative.
	No Action Alternative	L	L	B	B		
Alternative 3	Existing Conditions	S	S	S	S	Salinity of the First and Second rings would provide opportunities for fish and wildlife habitat management as described in the General Plan. However, recreational opportunities would be different than those described in the General Plan.	Same as No Action Alternative.
	No Action Alternative	L	L	B	B		
Alternatives 5 - 8	Existing Conditions	S	S	B	B	Salinity in the Marine Sea or portions of the Marine Sea would support habitat and recreational uses in a similar manner as those described in the General Plan. Saline Habitat Complex would provide opportunities as described under Alternative 1.	Same as No Action Alternative.
	No Action Alternative	L	B	B	B		
<b>Criterion: Conflict with Torres Martinez Tribe land use plans.</b>							
No Action Alternative	Existing Conditions	L	B	B	B	Currently inundated Torres Martinez lands would be exposed which could allow for development in accordance with land use plans.	Facilities could be located to reduce impacts to land uses along the shoreline.
	No Action Alternative	NA	NA	NA	NA		
Alternative 1	Existing Conditions	L	B	B	B	Changes in land use would be similar to those described under the No Action Alternative. Exposed Tribal lands would be greater than under Existing Conditions and No Action Alternative.	Same as No Action Alternative.
	No Action Alternative	L	B	B	B		

**Table 11-4  
Summary of Benefit and Impact Assessments to Land Use**

Alternative	Basis of Comparison	Changes by Phase				Comments	Next Steps
		I	II	III	IV		
Alternatives 2, 3, and 8	Existing Conditions	L	B	B	B	Currently inundated Tribal lands along the shoreline would remain inundated. Lands located down gradient of the shoreline water body would be exposed but would not be accessible.	Provisions could be included to provide access to exposed Tribal lands or locations of the water bodies could be modified to expose these lands.
	No Action Alternative	L	L	L	L		
Alternative 4	Existing Conditions	L	B	B	B	Currently inundated Tribal lands between the shoreline and -240 feet msl would be exposed, as well as lands between -245 and -255 feet msl, -260 to -265 feet msl, and from -270 feet msl to the Brine Sink. Lands located below -240 feet msl would not be accessible.	Same as Alternative 3.
	No Action Alternative	L	L	L	L		
Alternatives 5 - 7	Existing Conditions	O	O	O	O	Currently inundated Torres Martinez lands would remain inundated.	Provisions could be included to use displacement dikes to expose Tribal lands.
	No Action Alternative	S	S	S	S		
<b>Criterion: Conversion of agricultural land.</b>							
No Action Alternative	Existing Conditions	L	L	L	L	Up to 200 acres of Farmlands of Local Importance near the Whitewater River, 200 acres of Farmlands of Statewide Importance near the New River, and 200 acres of farmland designated as Other Lands near the Alamo River could be converted to Sedimentation/Distribution Basins.	To the extent possible, Sedimentation/Distribution Basins should be located away from agricultural lands.
	No Action Alternative	NA	NA	NA	NA		
Alternatives 1 and 2	Existing Conditions	L	L	L	L	Same as No Action Alternative.	Same as No Action Alternative.
	No Action Alternative	O	O	O	O		
Alternatives 3, 4, 5, and 8	Existing Conditions	L	L	L	L	Up to 200 acres of Farmlands of Statewide Importance near the New River, and 200 acres of farmland designated as Other Lands near the Alamo River could be converted to Sedimentation/Distribution Basins.	Same as No Action Alternative.
	No Action Alternative	B	B	B	B		
Alternatives 6 and 7	Existing Conditions	L	L	L	L	Up to 200 acres of farmland designated as Other Lands near the Alamo River could be converted to Sedimentation/Distribution Basins.	Same as No Action Alternative.
	No Action Alternative	B	B	B	B		

**Table 11-4  
Summary of Benefit and Impact Assessments to Land Use**

Alternative	Basis of Comparison	Changes by Phase				Comments	Next Steps
		I	II	III	IV		
<b>Criterion: Distance from shoreline to open water.</b>							
No Action Alternative	Existing Conditions	S	S	S	S	Distances from shoreline to open water would vary from 0.04 to 1.5 miles by the end of Phase I and from 0.2 to 3.8 miles by the end of Phase IV.	None available.
	No Action Alternative	NA	NA	NA	NA		
Alternatives 1 and 2	Existing Conditions	S	S	S	S	Distances from shoreline to open water would vary from 0.02 to 1.6 miles by the end of Phase I and from 0.02 to 4.7 miles by the end of Phase IV. Saline Habitat Complex would benefit users of the southern shoreline.	Displacement dikes could be constructed to contain water near the shorelines.
	No Action Alternative	O	S	S	S		
Alternative 3	Existing Conditions	S	S	S	S	Distances from shoreline to open water would vary from 0.02 to 0.3 miles by the end of Phases I and IV. Water would be located along all shorelines.	Same as No Action Alternative.
	No Action Alternative	B	B	B	B		
Alternative 4	Existing Conditions	S	S	S	S	Distances from shoreline to open water would vary from 0.02 to 1.5 miles by the end of Phase I and from 0.02 to 1.5 miles by the end of Phase IV. First Lake would benefit users of the southern shoreline.	Same as Alternatives 1 and 2.
	No Action Alternative	O	S	S	S		
Alternative 5	Existing Conditions	S	S	S	S	Distances from shoreline to open water would vary from 0.02 to 1.5 miles by the end of Phase I and from 0.02 to 5.3 miles by the end of Phase IV. Saline Habitat Complex would benefit users of the southern shoreline, The Marine Sea would benefit users along the northern shoreline.	Same as Alternatives 1 and 2.
	No Action Alternative	O	S	S	S		
Alternatives 6 and 7	Existing Conditions	S	S	S	S	Distances from shoreline to open water would vary from 0.02 to 1.5 miles by the end of Phase I and from 0.02 to 5.3 miles by the end of Phase IV. Water would be located along all shorelines except the southeastern shoreline.	Same as Alternatives 1 and 2.
	No Action Alternative	O	S	S	S		

**Table 11-4  
Summary of Benefit and Impact Assessments to Land Use**

Alternative	Basis of Comparison	Changes by Phase				Comments	Next Steps
		I	II	III	IV		
Alternative 8	Existing Conditions	S	S	S	S	Distances from shoreline to open water would vary from 0.2 to 1.5 miles by the end of Phase I and from 0.02 to 0.3 miles by the end of Phase IV. Water would be located along all shorelines except the southeastern shoreline.	Same as Alternatives 1 and 2.
	No Action Alternative	O	S	S	S		

Legend for Types of Benefits or Impacts in Each Phase:

- S = Significant Impact
- O = No Impact
- L = Less Than Significant
- B = Beneficial Impact
- NA = Not Analyzed

The distances to the open water in 2020 and 2078 from four locations along the existing shoreline (-228 feet msl) are presented in Table 11-5.

### **Alternative 1 – Saline Habitat Complex I**

As described in Chapter 3, this alternative would involve construction and operations and maintenance activities for the Sedimentation/Distribution Basins, Air Quality Management, Pupfish Channels, Saline Habitat Complex, and Brine Sink.

Salinity in the Saline Habitat Complex would range from 20,000 to 200,000 mg/L and would support fish and wildlife management, and hunting and fishing recreational opportunities. However, the habitat may not support the historic range of fish and wildlife species and would not support past levels of recreational opportunities. Salinity in the Brine Sink would be greater than 40,000 mg/L and would not comply with the Imperial County General Plan provisions for the Salton Sea.

By 2078, the water surface elevation of the Brine Sink would decline to -264 feet msl, and conditions on the Torres Martinez Tribal lands would be similar to those under the No Action Alternative.

Conditions related to the conversion of lands for construction of the Sedimentation/Distribution Basins would be the same as those described under the No Action Alternative. All other facilities would be constructed in the Sea Bed.

The distances to the open water in 2020 and 2078 from four locations along the existing shoreline (-228 feet msl) are presented in Table 11-5.

### **Alternative 2 – Saline Habitat Complex II**

As described in Chapter 3, this alternative would involve construction and operations and maintenance activities for the Sedimentation/Distribution Basins, Air Quality Management, Saline Habitat Complex, Shoreline Waterway, Saltwater Conveyance, and Brine Sink.

Under Alternative 2, conditions would be similar to those described under Alternative 1. The distances to open water are summarized in Table 11-5.

### **Alternative 3 – Concentric Rings**

As described in Chapter 3, this alternative would involve construction and operations and maintenance activities for the Sedimentation/Distribution Basins, Air Quality Management, First and Second rings, and Brine Sink.

Salinity in the First and Second rings would range from 20,000 to 40,000 mg/L and would support fish and wildlife management, and hunting and fishing recreational opportunities. The habitat probably would support the historic range of fish and wildlife species and past levels of recreational opportunities in the Rings; however the extent of open water only would be located around the perimeter of the Sea Bed. Salinity in the Brine Sink would be greater than 40,000 mg/L and would not comply with the Imperial County General Plan provisions for the Salton Sea.

Torres Martinez Tribal lands would continue to be inundated to -250 feet msl as under Existing Conditions. Lands between -250 and -273 feet msl would be exposed but may not be accessible without bridges across the rings.

**Table 11-5  
Distance to and Extent of Open Water from Shoreline**

Alternative	Distance to Open Water		Extent of Open Water	
	2020	2078	2020	2078
<b>Salton City</b>				
No Action Alternative - CEQA Conditions	0.2 miles to Salton Sea	0.7 miles to Salton Sea	9.2 miles across Salton Sea	8.5 miles across Salton Sea
No Action Alternative - Variability Conditions	0.3 miles to Salton Sea	1.2 miles to Salton Sea	9.0 miles across Salton Sea	7.6 miles across Salton Sea
Alternative 1	0.3 miles to Brine Sink	1.3 miles to Brine Sink	8.9 miles across Brine Sink	7.2 miles across Brine Sink
Alternative 2	0.3 miles to Brine Sink	1.6 miles to Brine Sink	8.9 miles across Brine Sink	5.2 miles across Brine Sink
Alternative 3 (Second Ring adjacent to First Ring)	0.1 miles to First Ring	0.1 miles to First Ring	0.3 miles across First Ring	0.6 miles across First and Second Rings
	0.6 miles to Brine Sink	2.1 miles to Brine Sink	8.8 miles across Brine Sink	4.9 miles across Brine Sink
Alternative 4 (Lakes separated by Exposed Playa)	0.3 miles to Brine Sink	0.4 miles to Second Lake 0.9 miles to Third Lake 1.3 miles to Fourth Lake 3.2 miles to Brine Sink	9.0 miles across Brine Sink	0.2 miles across Second Lake 0.1 miles across Third Lake 0.3 miles across Fourth Lake 2.6 miles across Brine Sink
Alternative 5	0.3 miles to Brine Sink	3.2 miles to Brine Sink  Barrier would be visible to north	9.0 miles across Brine Sink	2.6 miles across Brine Sink
Alternative 6	0.3 miles to Brine Sink	0.1 miles to Marine Sea	9.0 miles across Brine Sink	0.3 miles across Marine Sea Mixing Zone
		3.2 miles to Brine Sink		2.6 miles across Brine Sink
Alternative 7	0.3 miles to Brine Sink	0.2 miles to Recreational Saltwater Lake	9.0 miles across Brine Sink	9.5 miles across Recreational Saltwater Lake
		Brine Sink will not be visible		
Alternative 8	0.3 miles to Brine Sink	0.1 miles to Marine Sea Mixing Zone	9.0 miles across Brine Sink	0.3 miles across Marine Sea
		2.3 miles to Saline Habitat Complex to south - but would not be visible due to shoreline		1.0 miles across Brine Sink
		4.5 miles to Brine Sink		
<b>Whitewater River Delta</b>				
No Action Alternative - CEQA Conditions	1.3 miles to Salton Sea	2.3 miles to Salton Sea	32.7 miles across Salton Sea	29.8 miles across Salton Sea
No Action Alternative - Variability Conditions	1.5 miles to Salton Sea	3.8 miles to Salton Sea	31.7 miles across Salton Sea	26.2 miles across Salton Sea

**Table 11-5  
Distance to and Extent of Open Water from Shoreline**

Alternative	Distance to Open Water		Extent of Open Water	
	2020	2078	2020	2078
Alternative 1	1.6 miles to Brine Sink	4.7 miles to Brine Sink	31.6 miles across Brine Sink	25.7 miles across Brine Sink
Alternative 2	1.6 miles to Brine Sink	0.3 miles to Saline Habitat Complex 6.9 miles to Brine Sink	31.6 miles across Brine Sink	2.6 miles across Saline Habitat Complex 21.9 miles across Brine Sink
Alternative 3 (Second Ring adjacent to First Ring)	0.3 miles to First Ring 1.9 miles to Brine Sink	0.3 miles to First Ring 7.7 miles to Brine Sink	1.3 miles across First Ring 31.4 miles across Brine Sink	2.2 miles across First and Second Rings 19.9 miles across Brine Sink
Alternative 4 (Lakes separated by Exposed Playa)	1.5 miles to Brine Sink	1.5 miles to Second Lake 3.0 miles to Third Lake 4.9 miles to Fourth Lake 10.2 miles to Brine Sink	31.7 miles across Brine Sink	0.4 miles across Second Lake 0.9 miles across Third Lake 1.4 miles across Fourth Lake 5.7 miles across Brine Sink
Alternative 5	1.5 miles to Brine Sink	0.3 miles to North Sea Brine Sink would not be visible past barrier	31.7 miles across Brine Sink	13 miles across North Sea to Barrier
Alternative 6	1.5 miles to Brine Sink	0.3 miles to North Sea Brine Sink will not be visible past barrier	31.7 miles across Brine Sink	10.0 miles across North Sea to Barrier
Alternative 7	1.5 miles to Brine Sink	1.2 miles to Recreational Saltwater Lake - including Saline Habitat Complex Brine Sink will not be visible past barrier	31.7 miles across Brine Sink	17 miles across Recreational Saltwater Lake including Saline Habitat Complex
Alternative 8	1.5 miles to Brine Sink	0.3 miles to Marine Sea 11.0 miles to Brine Sink	31.7 miles across Brine Sink	1.3 miles across Marine Sea 3.2 miles across Brine Sink
<b>Bombay Beach</b>				
No Action Alternative - CEQA Conditions	0.3 miles to Salton Sea	0.6 miles to Salton Sea	12.8 miles across Salton Sea	11.6 miles across Salton Sea
No Action Alternative - Variability Conditions	0.4 miles to Salton Sea	1.0 mile to Salton Sea	12.3 miles across Salton Sea	10.5 miles across Salton Sea
Alternative 1	0.4 miles to Brine Sink	1.3 miles to Brine Sink 7.6 miles to Saline Habitat Complex	12.2 miles across Brine Sink	9.5 miles across Brine Sink Saline Habitat Complex may not be clearly visible
Alternative 2	0.4 miles to Brine Sink	2.8 miles to Brine Sink 0.3 miles to Saline Habitat Complex to south	12.2 miles across Brine Sink	6.3 miles across Brine Sink 10 miles across Saline Habitat Complex to south

**Table 11-5  
Distance to and Extent of Open Water from Shoreline**

Alternative	Distance to Open Water		Extent of Open Water	
	2020	2078	2020	2078
Alternative 3 (Second Ring adjacent to First Ring)	0.1 miles to First Ring  0.5 miles to Brine Sink	0.1 miles to First Ring  3.6 miles to Brine Sink	0.4 miles across First Ring  12.1 miles across Brine Sink	0.6 miles across First and Second Rings  4.9 miles across Brine Sink
Alternative 4 (Lakes separated by Exposed Playa)	0.1 miles to First Lake  0.4 miles to Brine Sink	0.1 miles to First Lake  0.4 miles to Second Lake  0.8 miles to Third Lake  1.4 miles to Fourth Lake  5.3 miles to Brine Sink	0.2 miles across First Lake  12.3 miles across Brine Sink	0.2 miles across First Lake  0.1 miles across Second Lake  0.2 miles across Third Lake  0.3 miles across Fourth Lake  1.1 miles across Brine Sink
Alternative 5	0.4 miles to Brine Sink	5.3 miles to Brine Sink  0.3 miles to Saline Habitat Complex to south	12.3 miles across Brine Sink	1.3 miles across Brine Sink  10 miles across Saline Habitat Complex to south
Alternative 6	0.4 miles to Brine Sink	5.3 miles to Brine Sink  0.3 miles to Saline Habitat Complex to south	12.3 miles across Brine Sink	1.3 miles across Brine Sink  10 miles across Saline Habitat Complex to south
Alternative 7	0.4 miles to Brine Sink	3.6 miles to Brine Sink  0.3 miles to Saline Habitat Complex to south	12.3 miles across Brine Sink	4.9 miles across Brine Sink  10 miles across Saline Habitat Complex to south
Alternative 8	0.4 miles to Brine Sink	0.3 miles to Marine Sea  0.6 miles to Saline Habitat Complex to south  Barrier would be visible  11.3 miles to northern Brine Sink	12.3 miles across Brine Sink	0.5 miles across Marine Sea  4.7 miles across Marine Sea and Saline Habitat Complex to south  4.0 miles across northern Brine Sink
<b>Obsidian Butte (relatively the center of the South Shore Subarea)</b>				
No Action Alternative - CEQA Conditions	0.04 miles to Salton Sea	1.4 miles to Salton Sea	33.6 miles across Salton Sea	29.8 miles across Salton Sea
No Action Alternative - Variability Conditions	0.2 miles to Salton Sea	3.5 miles to Salton Sea	33.2 miles across Salton Sea	26.2 miles across Salton Sea
Alternative 1	0.02 miles to Saline Habitat Complex  0.3 miles to Brine Sink	0.02 miles to Saline Habitat Complex  4.1 miles to Brine Sink	0.2 miles across Saline Habitat Complex  33.0 miles across Brine Sink	2.7 miles across Saline Habitat Complex  25.7 miles across Brine Sink

**Table 11-5  
Distance to and Extent of Open Water from Shoreline**

Alternative	Distance to Open Water		Extent of Open Water	
	2020	2078	2020	2078
Alternative 2	0.02 miles to Saline Habitat Complex 0.3 miles to Brine Sink	0.02 miles to Saline Habitat Complex 5.5 miles to Brine Sink	0.2 miles across Saline Habitat Complex 33.0 miles across Brine Sink	2.7 miles across Saline Habitat Complex 21.9 miles across Brine Sink
Alternative 3	0.02 miles to First Ring 0.8 miles to Brine Sink	0.02 miles to First Ring 6.9 miles to Brine Sink	0.1 miles across First Ring 32.4 miles across Brine Sink	1.8 miles across First and Second Rings 19.9 miles across Brine Sink
Alternative 4	0.02 miles to First Lake 0.2 miles to Brine Sink	0.02 miles to First Lake 0.2 miles to Second Lake 2.5 miles to Third Lake 4.2 miles to Fourth Lake 8.5 miles to Brine Sink	0.2 miles across First Lake 33.2 miles across Brine Sink	0.2 miles across First Lake 0.8 miles across Second Lake 0.9 miles across Third Lake 1.2 miles across Fourth Lake 1.7 miles across Brine Sink
Alternative 5	0.02 miles to Saline Habitat Complex 0.2 miles to Brine Sink	0.02 miles to Saline Habitat Complex 8.5 miles to Brine Sink	0.2 miles across Saline Habitat Complex 33.2 miles across Brine Sink	2.7 miles across Saline Habitat Complex 1.7 miles across Brine Sink
Alternative 6	0.2 miles to Brine Sink	0.02 miles to Marine Sea Mixing Zone 1.8 miles to Saline Habitat Complex 8.5 miles to Brine Sink	33.2 miles across Brine Sink	1.7 miles across Marine Sea Mixing Zone 1.3 miles across Saline Habitat Complex 1.7 miles across Brine Sink
Alternative 7	0.2 miles to Brine Sink	0.02 miles to Recreational Estuary Lake 1.7 miles to Imperial Irrigation District Reservoir 6.9 miles to Brine Sink	33.2 miles across Brine Sink	1.7 miles across Recreational Estuary Lake 2.7 miles across Imperial Irrigation District Reservoir 6.5 miles across Brine Sink
Alternative 8	0.2 miles to Brine Sink	0.02 miles to Marine Sea Brine Sink would not be visible	33.2 miles across Brine Sink	6.0 miles across Marine Sea

All values assume Average Annual Inflow of 717,000 acre-feet.

Conditions related to the conversion of lands for construction of the Sedimentation/Distribution Basins would be less than described under the No Action Alternative because only land near the New and Alamo rivers would be used for Sedimentation/Distribution Basins. All other facilities would be constructed in the Sea Bed.

The distances to the open water in 2020 and 2078 from four locations along the existing shoreline (-228 feet msl) are presented in Table 11-5.

### **Alternative 4 – Concentric Lakes**

As described in Chapter 3, this alternative would involve construction and operations and maintenance activities for the Sedimentation/Distribution Basins; First, Second, Third, and Fourth lakes; and Brine Sink.

Salinity in the First through Fourth lakes would range from 20,000 to 40,000 mg/L and would support fish and wildlife management, and hunting and fishing recreational opportunities. However, the habitat may not support the historic range of fish and wildlife species and would not support past levels of recreational opportunities. Salinity in the Brine Sink would be greater than 40,000 mg/L and also would not comply with the Imperial County General Plan provisions for the Salton Sea.

Exposed Torres Martinez Tribal lands would be located from the shoreline to -240 feet msl, between -245 and -255 feet msl, between -260 and -265 feet msl, and from -270 feet msl to the Brine Sink (at -276 feet msl in 2078). Lands below -240 feet msl would not be accessible without access across the lakes.

Conditions related to the conversion of lands for construction of the Sedimentation/Distribution Basins would be the same as those described under Alternative 3. All other facilities would be constructed in the Sea Bed.

The distances to the open water in 2020 and 2078 from four locations along the existing shoreline (-228 feet msl) are presented in Table 11-5.

### **Alternative 5 – North Sea**

As described in Chapter 3, this alternative would involve construction and operations and maintenance activities for the Sedimentation/Distribution Basins, Air Quality Management, Saline Habitat Complex, Shoreline Waterway, Saltwater Conveyance, Marine Sea, Marine Sea Recirculation Canal, and Brine Sink.

Salinity in the Marine Sea would range from 30,000 to 40,000 mg/L and would support fish and wildlife management, and hunting and fishing recreational opportunities. The habitat probably would support the historic range of fish and wildlife species and past levels of recreational opportunities in the Marine Sea; however, the habitat only would be located in the northern portion of the Sea Bed. Recreational opportunities in the Saline Habitat Complex may be restricted because recreational opportunities would be provided in the Marine Sea. Salinity in the Brine Sink would be greater than 40,000 mg/L and would not comply with the Imperial County General Plan provisions for the Salton Sea.

Torres Martinez Tribal lands would remain inundated as under the Existing Conditions.

Conditions related to the conversion of lands for construction of the Sedimentation/Distribution Basins would be the same as those described under Alternative 3. All other facilities would be constructed in the Sea Bed.

The distances to the open water in 2020 and 2078 from four locations along the existing shoreline (-228 feet msl) are presented in Table 11-5.

## **Alternative 6 – North Sea Combined**

As described in Chapter 3, this alternative would involve construction and operations and maintenance activities for the Sedimentation/Distribution Basin, Air Quality Management, Pupfish Channels, Saline Habitat Complex, Shoreline Waterway, Saltwater Conveyance, Marine Sea, Marine Sea Mixing Zone, Marine Sea Recirculation Canal, and Brine Sink.

Types of fish and wildlife management and recreational opportunities would be similar to those described under Alternative 5, however, the extent of the Marine Sea would be larger and would extend along the western and southern shorelines. Recreational opportunities in the Saline Habitat Complex may be restricted because recreational opportunities would be provided in the Marine Sea, and most of this habitat would not be located adjacent to the shoreline.

Torres Martinez Tribal lands would remain inundated as under the Existing Conditions.

Conditions related to the conversion of lands for construction of the Sedimentation/Distribution Basins would be the less than described under the No Action Alternative because only land near the Alamo River would be used for a Sedimentation/Distribution Basins. All other facilities would be constructed in the Sea Bed.

The distances to the open water in 2020 and 2078 from four locations along the existing shoreline (-228 feet msl) are presented in Table 11-5.

## **Alternative 7 – Combined North and South Lakes**

As described in Chapter 3, this alternative would involve construction and operations and maintenance activities for the Sedimentation/Distribution Basin, Air Quality Management using Protective Salt Flat on Exposed Playa below -255 feet msl, Exposed Playa without Air Quality Management above -255 feet msl, Saline Habitat Complex, Recreational Saltwater Lake, Recreational Estuary Lake, Marine Sea Recirculation Canal, IID Freshwater Reservoir, two Treatment Plants, and Brine Sink.

Under Alternative 7, conditions would be similar to those described under Alternative 6. The distances to open water are summarized in Table 11-5.

## **Alternative 8 – South Sea Combined**

As described in Chapter 3, this alternative would involve construction and operations and maintenance activities for the Sedimentation/Distribution Basins, Air Quality Management, Saline Habitat Complex, Shoreline Waterway, Marine Sea, Marine Sea Recirculation Canal, and Brine Sink.

Salinity in the Marine Sea would range from 30,000 to 40,000 mg/L and would support fish and wildlife management, and hunting and fishing recreational opportunities. The habitat probably would support the historic range of fish and wildlife species and past levels of recreational opportunities in the Marine Sea; however, the habitat would be located primarily in the southern portion of the Sea Bed and extension of water along the western and northern shorelines. Recreational opportunities in the Saline Habitat Complex may be restricted because recreational opportunities would be provided in the Marine Sea, and most of this habitat would not be located adjacent to the shoreline. Salinity in the Brine Sink would be greater than 40,000 mg/L and would not comply with the Imperial County General Plan provisions for the Salton Sea.

Torres Martinez Tribal lands would remain inundated from the shoreline to -245 feet msl as under Existing Conditions. Lands between -245 and -273 feet msl would be exposed but may not be accessible without a bridges across the Marine Sea.

Conditions related to the conversion of lands for construction of the Sedimentation/Distribution Basins would be the same as those described under Alternative 3. All other facilities would be constructed in the Sea Bed.

The distances to the open water in 2020 and 2078 from four locations along the existing shoreline (-228 feet msl) are presented in Table 11-5.

### **Next Steps**

During the project-level analysis, detailed investigations and analyses would be conducted to determine specific facility locations and construction methods to reduce the impacts to existing land uses, including the conversion of agricultural lands, including Farmlands of Statewide Importance.

If the preferred alternative results in exposed Torres Martinez Tribal lands being separated from the shoreline by water bodies, the project-level analysis would evaluate access options. If the preferred alternative results in continued inundation of Torres Martinez Tribal lands, displacement dikes could be evaluated to modify the northern extent of the water bodies in the Sea Bed.