

CHAPTER 19

PUBLIC SERVICES AND UTILITIES

This chapter describes the public services and utilities in the study area and potential changes that could occur due to implementation of the alternatives. Public services and utilities include police and fire protection; emergency hospital services, schools, libraries; water supply and treatment, wastewater, stormwater, and flood management; telephone service; natural gas; and solid waste. Geothermal energy and electrical power, recreational facilities, and increased traffic conditions are addressed in Chapters 21, 13, and 20, respectively.

STUDY AREA

The study area is defined as the geographical area within which the large majority of potential impacts are expected. The study area for public services and utilities includes the communities near the Salton Sea, as shown on Figure 1-1. Additionally, solid waste disposal facilities that serve all of Imperial and Riverside counties are considered.

REGULATORY REQUIREMENTS

Public services and utilities in the study area are provided by a range of public and private agencies and districts. Public agencies are regulated through the State and local regulations that define the authorizations and responsibilities for those agencies. Private utilities are regulated by the California Public Utilities Commission. The California Energy Commission and Federal Energy Regulatory Commission regulate several of the energy utilities based upon services provided.

Solid waste disposal must comply with regulations established by the California Integrated Waste Management Board. The disposal of hazardous wastes is regulated by the California Department of Toxic Substances Control.

Wastewater treatment facilities are subject to the requirements of the Colorado River Basin Regional Water Quality Control Board (CRBRWQCB), which issues Waste Discharge Requirements permits and National Pollutant Discharge Elimination System permits in accordance with authorizations from the State Water Resources Control Board and the U.S. Environmental Protection Agency.

Local planning agencies regulate land use and zoning, which affect the ability of the public services and utilities to provide services.

HISTORICAL PERSPECTIVE

The demand for public services and utilities has increased over the past 100 years as the population has grown and regulatory requirements have been adopted.

DATA SOURCES

Data were obtained from multiple sources, including personal communications with providers of public services and utilities, agency Web sites, and local planning documents.

DATA LIMITATIONS

Projections for public services and utility demands are based upon population projections and are therefore subject to the same data limitations as described in Chapter 12.

EXISTING CONDITIONS

The Existing Conditions addresses police and fire protection; emergency hospital services; schools; libraries; water supply and treatment; wastewater, stormwater, and flood management; telephone service; natural gas; and solid waste.

Police Protection

Each of the incorporated cities maintains a police department except for Coachella, which contracts with the Riverside County Sheriff's Department. The number of sworn personnel varies according to population. Some of the cities have a goal or actual ratio of sworn personnel to population size, ranging from 1 officer per every 800 people in Imperial to 1.75 officers per every 1,000 people in El Centro. Response time depends on the location of the incident, but ranges from less than one minute in Brawley to about 6 minutes in Indio (Gillmore, 2005; M. Gomez, 2005; R. Gomez, 2005; City of El Centro, 2005a; G. Morena, 2005; Colon, 2005; Weeks, 2005).

The Imperial County and Riverside County sheriff's departments are responsible for law enforcement in the unincorporated portions of their respective counties. The Imperial County Sheriff's Department has a main office in El Centro, which serves Heber and Seeley. Substations are in Salton City, which also serves Desert Shores and Salton Sea Beach; Bombay Beach, which also serves Hot Mineral Spa; and Niland. The substations are not staffed at all times, but officers patrol the communities and surrounding areas continuously. Response time ranges from 5 to 20 minutes, depending on the level of the emergency, day of the week, time of day, and proximity of officers to the scene. The Imperial County Sheriff's Department has not established a staffing goal or ratio of sworn personnel to number of individuals in the community (G. Moreno, 2005; Macken, 2005).

The Riverside County Sheriff's Department serves Bermuda Dunes from a substation in Indio, maintains a substation in Mecca, and serves Thousand Palms from a substation in Palm Desert. Officers are on continuous patrol in these communities, and response time for the highest priority calls ranges from about 5 to 7 minutes. No staffing goal has been established (Barfknecht, 2005).

Fire Protection

Most cities in the study area maintain a fire department. City of Imperial contracts with the Imperial County Fire Department, and Coachella and Indio contract with the Riverside County Fire Department. The Imperial County and Riverside County fire departments are responsible for fire protection in the unincorporated portions of their respective counties. Some communities, such as Salton Sea Beach, maintain volunteer fire departments or supplement the fire departments with volunteer firefighters. Mutual aid agreements have been established among many of the cities and communities, thus providing additional support. Calexico has established a planning goal of 1.5 firefighters per 1,000 population (Fravila, 2005), but most of the cities and unincorporated areas surveyed do not have planning goals. Response time varies according to location and ranges from less than 3 minutes in Heber to 7 to 10 minutes in El Centro (Martinez, 2005; Fravila, 2005; City of El Centro, 2005b; Silva, 2005; T. Moreno, 2005; Hyatt, 2005).

Emergency Services

The hospitals nearest the Salton Sea are Pioneers Memorial Hospital in Brawley, El Centro Regional Medical Center in El Centro, John F. Kennedy Memorial Hospital in Indio, and Desert Regional Medical Center in Palm Springs. Pioneers Memorial Hospital is a 107-bed acute care facility that maintains an Emergency Department staffed by a physician 24 hours a day. The El Centro Regional Medical Center is a 165-bed general acute care facility that has the only rooftop hospital heliport in Imperial County,

facilitating transport to and from the facility in emergency situations. The El Centro Regional Medical Center Emergency Department is classified as a Level II, Basic Emergency Medical Service. It is open 24 hours a day and is staffed with a minimum of two physicians. Level II, Emergency Medical Services are provided in Riverside County at Desert Regional Medical Center, a 393-bed acute care facility which also is staffed 24 hours a day. The John F. Kennedy Memorial Hospital is a 145-bed acute care facility offering a comprehensive range of health services and medical programs, including an Emergency Department staffed 24 hours a day.

Schools

There are 16 and 23 public school districts in Imperial and Riverside counties, respectively. School districts for which detailed information is presented and which are located adjacent to and south of the Salton Sea in Imperial County include Brawley Union, Brawley Elementary, Calipatria Unified, and Westmorland Union Elementary. Districts adjacent and to the north of the Salton Sea in Riverside County include the Coachella Valley Unified School District and Desert Sands Unified School District. There is considerable variation between the school districts in terms of number of students, as shown in Table 19-1.

The number of students enrolled in the public schools of Imperial County increased by 52 percent, from school year 1981-1982 to school year 2004-2005 (California Department of Education, 2005). Enrollment in Riverside County increased more than 300 percent between school year 1981-82 and school year 2004-05 (California Department of Education 2005).

**Table 19-1
Selected Characteristics of School Districts Near the Salton Sea (School Year 2003-2004)**

	Brawley Elementary School District	Brawley Union School District	Calipatria Unified School District	Coachella Valley Unified School District	Desert Sands Unified School District	Westmorland Unified Elementary School District
Number of Schools	5	3	5	19	28	1
Number of Students	3,761	1,858	1,251	14,621	26,122	415
Student/Teacher Ratio	18.2	24.0	18.5	21.9	21.9	16.1
Total Staff (FTE)	377	143	142	1,315	2,217	47
Classroom Teachers (FTE)	186	77	68	666	1,190	26
Other Staff (FTE)	191	66	74	649	1,027	21
Total Expenditures per Student	\$7,319	\$12,752	\$10,578	\$12,185	\$8,966	\$9,154

Source: California Department of Education 2005.
FTE = Full time equivalent

Libraries

Libraries in the study area are operated by individual cities or Imperial or Riverside counties. The Imperial County Free Library System maintains branches in Calipatria, Desert Shores, Heber, Holtville, Niland, Salton City, and Westmorland. Brawley, Calexico, El Centro, and Imperial maintain municipal libraries. The Riverside County Library System maintains branches in Coachella, Indio, Mecca, and Thousand Palms.

Water Supply and Treatment

Water is supplied to the cities and unincorporated communities in the study area primarily by the Imperial Irrigation District (IID) and Coachella Valley Water District (CVWD), although other agencies and private companies provide service to some cities and communities. IID provides water from the Colorado River, primarily to agricultural users. IID also provides water to Brawley, Calexico, El Centro, Holtville, Westmorland, areas around Calipatria, Imperial, Heber, and areas around Niland. These communities provided treatment and distribute the water to municipal users.

CVWD serves groundwater and Colorado River water to most of the Coachella Valley and along the Salton Sea shoreline as far south as Salton City and Bombay Beach. Other communities served by CVWD in the study area include Hot Mineral Spa, Desert Shores, Salton Sea Beach, a portion of Bermuda Dunes, Mecca, and Thousand Palms. Myoma Dunes Water Company (a private utility) provides groundwater to the portion of Bermuda Dunes not served by CVWD. CVWD currently has an ion exchange arsenic removal treatment facility in operation at Well # 7991 (Mecca), and two similar treatment facilities are under construction at Well #6806 (Mecca) and Well #7802 (Thermal). Groundwater from other wells only requires treatment with chlorine.

CVWD is in the process of studying domestic water needs for the communities of Bombay Beach, Salton City, Salton Sea Beach, Desert Shores, and Mecca. Preliminary results show the short term need for a new transmission main from proposed new wells in Thermal, although improvements were not identified for the other communities. There are no specific plans for water improvements in Bermuda Dunes and Thousand Palms, but expansion of the domestic water systems in these communities will occur through normal growth (Johnson, 2005).

The Golden State Water Company provides water to Calipatria and Niland, and the Seeley County Water District provides water to Seeley. Both water purveyors purchase their water from IID and take delivery through the East Highline Canal. The City of Coachella Water Department and Indio Water Authority provide water to Coachella and Indio, respectively. Both cities rely on groundwater, which is chlorinated and does not require further treatment. Both agencies participate in a replenishment plan with CVWD, which is intended to reduce groundwater overdraft in the Coachella Valley (Lee, 2005; Merrell, 2005).

Information regarding water treatment design capacity and current demand of each city and unincorporated community in the study area that has a water source requiring treatment (surface water) is provided in Table 19-2.

**Table 19-2
Treated Water Systems in the Study Area**

Water Treatment Provider	Treatment Plant Design Capacity (mgd)	2005 Average Daily Water Demand (mgd)
City of Brawley Public Works Department Source: Soto, 2005	15	7
City of Calexico Public Works Department Source: www.calexico.ca.gov	16	9
Golden State Water Company (Calipatria) Source: Kemp, 2005	4	3.8
City of El Centro Public Works Department Source: Munoz, 2005	15.5	12
City of Holtville Public Works Department	Unknown	Unknown
City of Imperial Public Works Department Source: Flores, 2005	5	2.9

**Table 19-2
Treated Water Systems in the Study Area**

Water Treatment Provider	Treatment Plant Design Capacity (mgd)	2005 Average Daily Water Demand (mgd)
City of Westmorland Public Works Department Source: Agatep, 2005	2	1
Heber Public Utility District Source: Jordan 2006	0.8	0.375
Golden State Water Company (Niland) (Water treatment plant located in Calipatria) Source: Kemp, 2005	4	3.8
Seeley County Water District Source: Pechtl, 2005	1	0.49

Wastewater

Wastewater treatment is provided by each of the cities in the study area and by special service districts in the unincorporated communities of Heber, Niland, Seeley, Salton City, and Salton Sea Beach. Additionally, CVWD provides service to Bombay Beach/Hot Mineral Spa, Bermuda Dunes, Mecca, and Thousand Palms. Some rural communities, such as Salton Sea Beach, rely on septic systems. Design capacity and average daily flows for wastewater treatment plants in the study are presented in Table 19-3.

**Table 19-3
Wastewater Treatment Facilities in the Study Area**

Wastewater Treatment Provider	Treatment Plant Design Capacity for Average Daily Flows (mgd)	2005 Average Daily Wastewater Flows (mgd)
Coachella Valley Water District (Bombay Beach) Source: Johnson, 2005	0.150	0.038
Coachella Valley Water District (North Shore) Source: Johnson, 2005	0.033	0.018
Coachella Valley Water District (Thermal) Source: Johnson, 2005	7	5.2
Coachella Valley Water District (Indio) Source: Johnson, 2005	5	2.1
Brawley Public Works Department Source: Garcia, 2005	5	3.5
Calexico Public Works Department Source: Gracia, 2005	8	4
Calipatria Public Works Department Source: Soriano, 2005	1.5	1
El Centro Public Works Department Source: Munoz, 2005	8	4
City of Holtville Public Works Source: Cornejo, 2006	0.8 Planned expansion to 1.1 mgd within 2 to 5 years	0.650
City of Imperial Public Works Department Source: A. Garcia, 2005	1.4	0.8

**Table 19-3
Wastewater Treatment Facilities in the Study Area**

Wastewater Treatment Provider	Treatment Plant Design Capacity for Average Daily Flows (mgd)	2005 Average Daily Wastewater Flows (mgd)
City of Westmorland Public Works Department Source: Agatep, 2005	0.5	0.25
Salton Community Services District (Desert Shores) Source: Cannell, 2005	0.2 Expansion is planned to 0.5 mgd within 5 years	0.13
Heber Public Utility District Source: Verdugo, 2005	1.5	0.4
Niland Sanitation District Source: Garcia, 2005	5	2.5
Salton City Community Services District Source: Cannell, 2005	0.2 Expansion to 1.5 mgd is planned within 5 years	0.18
Seeley County Water District Source: Orozco, 2005	0.2	0.13
City of Coachella Public Works Department Source: Lee, 2005	2.4 Expansion is planned to 4.5 mgd in 2006	2.3
Valley Sanitary District (Indio) Source: Lopanec, 2005	8.5	6.5

Stormwater and Flood Management

Portions of both Imperial and Riverside counties within the study area are subject to flooding. In Imperial County, the areas most susceptible to flooding are in the immediate vicinity of the Salton Sea and the New and Alamo rivers (County of Imperial, 1993a). Additionally, the areas surrounding State Highways 86 and 111 in Riverside County are either in a 100-year or a 500-year floodplain as defined by Riverside County (County of Riverside, 2003a).

The Imperial County Department of Public Works regulates stormwater management in the Imperial Valley through review of drainage plans for new development, as do the public works departments of individual cities. The unincorporated communities near the Salton Sea, such as Hot Mineral Spa, Niland, and Salton City, do not have storm drainage/flood control systems other than natural drainage and drainage systems provided by agencies such as Salton Community Services District. The Bombay Beach dike, water pump, and sump pump were constructed to partially counteract flooding from the Salton Sea (County of Imperial, 1999).

CVWD is responsible for stormwater protection within the Coachella Valley and maintains flood control structures, including dikes, levees, dams, debris basins, and detention ponds. Recently, CVWD realigned, widened, and deepened the Whitewater River Stormwater Channel and the Coachella Valley Stormwater Channel to serve as master drains for the entire area north of Palm Springs to the Salton Sea.

The U.S. Department of the Interior, Bureau of Reclamation constructed the Eastside Dike to protect the Coachella Canal. The U.S. Army Corps of Engineers is working with CVWD and federal and State agencies to design a system of levees to protect developed areas of Thousand Palms from flooding hazards. This area has been identified as needing additional housing, but development has been constrained by flood hazards (County of Riverside, 2003a).

Telephone

Land-line telephone service is provided by AT&T and Verizon. Wireless service is provided by a number of carriers. AT&T provides service to Brawley, Calexico, Calipatria, El Centro, Holtville, Imperial, Westmorland, Bombay Beach/Hot Mineral Spa, Desert Shores, Heber, and Niland. Verizon provides service to Salton City, Salton Sea Beach, Seeley, Coachella, Indio, Bermuda Dunes, Mecca, and Thousand Palms. No capacity constraints have been identified.

Natural Gas

Natural gas is provided by Southern California Gas Company to Brawley, Calexico, Calipatria, El Centro, Holtville, Imperial, Westmorland, Heber, Niland, Seeley, Coachella, Indio, Mecca, Bermuda Dunes, and Thousand Palms. No supply constraints have been identified through 2025 (Southern California Gas Company, 2004). Some communities, including Bombay Beach/Hot Mineral Spa, Desert Shores, Salton City, and Salton Sea Beach, do not have natural gas service and rely on propane deliveries by private companies.

Solid Waste

Each of the cities in the study area regulates solid waste disposal and provides for waste collection services within its jurisdiction, either using a city-operated system or a private contractor. Waste collection services are available in some unincorporated areas through contracts by the counties with private enterprises, although in some communities, refuse also may be burned or hauled by residents to a disposal site. Solid waste landfills in Imperial County are operated by the County of Imperial Public Works Department and by private operators. Solid waste landfills in Riverside County are operated by the County of Riverside Waste Management Department or by private operators. The active solid waste disposal facilities in these two counties are listed in Table 19-4. Solid waste from these counties also may be disposed of in landfills within Kern, San Bernardino, Los Angeles, Orange, and Ventura counties. Imperial County contained one Class I landfill that accepted hazardous wastes near the City of Westmorland. However, this landfill is not currently accepting new material. Construction of a new cell has been proposed, but it is not known when the new cell will be operational (Ramirez, 2005). Therefore, hazardous materials must be disposed of in landfills outside Imperial and Riverside counties.

Table 19-4
Solid Waste Landfills in the Study Area

Landfill	Class ^a	Waste Types	Maximum Permitted Throughput (tons/day)	Maximum Permitted Capacity (cubic yards)	Remaining Capacity (cubic yards) ^b	Estimated Closure Date
Imperial County						
Imperial Solid Waste Site	III	Construction/demolition, dead animals, mixed municipal	130	1,936,000	87,191	2022
Calexico Solid Waste Site	III	Agricultural, construction/demolition, mixed municipal	150	2,064,598	1,530,950	2142
Ocotillo Solid Waste Site	III	Construction/demolition, mixed municipal	9	516,267	13,680	2007
Holtville Solid Waste Site	III	Construction/demolition, mixed municipal	20	654,800	17,006	2012

**Table 19-4
Solid Waste Landfills in the Study Area**

Landfill	Class ^a	Waste Types	Maximum Permitted Throughput (tons/day)	Maximum Permitted Capacity (cubic yards)	Remaining Capacity (cubic yards) ^b	Estimated Closure Date
Palo Verde Solid Waste Site	III	Construction/demolition, mixed municipal	5	516,000	32,368	2029
Brawley Solid Waste Site	III	Construction/demolition, mixed municipal	120	2,044,000	385,733	2007
Niland Solid Waste Site	III	Construction/demolition, mixed municipal	55	131,000	7,804	2008
Hot Spa Solid Waste Site	III	Construction/demolition, mixed municipal	10	516,266	57,497	2027
Salton City Solid Waste Site	III	Construction/demolition, mixed municipal	10	2,581,300	11,753	2019
Allied Imperial Landfill	III	Agricultural, ash, construction/demolition, mixed municipal, industrial, tires	1,135	4,324,200	3,706,958	2012
Monofill Facility (Brawley)	II	Industrial	750	1,729,800	1,398,300	2012
Newmont Gold Company-Mesquite Mine	III	Inert	4,000	970,000	Operational in 2007	2097
Riverside County						
Badlands Sanitary Landfill	III	Agricultural, construction/demolition, mixed municipal, industrial, tires	4,000	27,959,140	15,036,809	2016
Lamb Canyon Sanitary Landfill	III	Agricultural, construction/demolition, mixed municipal, industrial, tires, dead animals, green materials, inert, metals	3,000	34,292,000	25,967,000	2023
Oasis Sanitary Landfill	III	Agricultural, construction/demolition, mixed municipal, contaminated soil	41	870,000	151,372	2186
Desert Center Landfill (Eagle Mountain)	III	Agricultural, construction/demolition, mixed municipal, tires	60	117,032	36,522	2011
Mecca Landfill II	III	Agricultural, construction/demolition, mixed municipal	400	372,480	372,480	2007
El Sobrante Landfill	III	Construction/demolition, mixed municipal, tires	10,000	184,930,000	172,531,000	2030

**Table 19-4
Solid Waste Landfills in the Study Area**

Landfill	Class ^a	Waste Types	Maximum Permitted Throughput (tons/day)	Maximum Permitted Capacity (cubic yards)	Remaining Capacity (cubic yards) ^b	Estimated Closure Date
Blythe Sanitary Landfill	III	Agricultural, construction/demolition, mixed municipal, industrial, tires, dead animals	400	4,633,000	1,460,453	2034

Source: California Integrated Waste Management Board, Solid Waste Facility Listings, www.ciwmb.ca.gov/SWIS, accessed on November 17, 2005; Oliver, 2005.

^a Class II landfills accept designated or special waste. Class III landfills accept non-hazardous wastes.

^b These are the most recent estimates; the actual number changes regularly as solid waste is disposed.

ENVIRONMENTAL IMPACTS

Analysis Methodology

The impact assessment methodology used to support the public services and utilities analysis compared projected level of service that would occur without the alternatives to services related to construction and operations and maintenance activities. It is assumed that the public services and utilities would continue to expand to meet the demands of the projected population growth described in Chapter 12.

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:

- Result in substantial adverse physical impacts to or require new or physically altered facilities for fire protection, police protection, trauma centers, schools, and other public facilities; and
- Result in conditions of non-compliance or require new or physically altered water supplies, water and/or wastewater utilities, stormwater facilities, natural gas supplies, solid waste facilities, or communication facilities.

Application of Significance Criteria

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:

- **Results in Impacts to or Requires New or Altered Facilities for Fire and Police Protection, Emergency Care, Schools, or Other Public Facilities** – The primary risks to these services would be associated with accidents that could occur at construction sites, on the roadways due to construction, or due to operations and maintenance activities. The alternatives do not include new or expanded growth that would increase demands on schools or other public facilities (see Chapter 12). Therefore, this analysis focuses on potential impacts to fire and police protection and emergency rooms.
- **Results in Non-Compliance or Requires New or Altered Facilities for Water Supplies, Water and Wastewater Utilities, Stormwater, Natural Gas, Solid Waste, or Communication** – The alternatives would utilize water that currently flows into the Salton Sea

and would not utilize other water supplies, water and wastewater utilities, stormwater facilities, natural gas supplies, solid waste, or communication services. The alternatives would not cause increased population growth (see Chapter 12). The impact assessment does address potential conflicts with stormwater, solid waste, and communication facilities.

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 public services and utilities are summarized in Table 19-5.

Table 19-5
Summary of Assumptions for Public Services and Utilities

Assumptions Common to All Alternatives	
1. Incidental amounts of debris would be generated during construction and operations and maintenance activities and would require disposal in a landfill.	
2. Excavated materials would be moved into the Brine Sink.	
3. Sediment periodically removed in the Sedimentation/Distribution Basins would be moved into the Brine Sink.	
Assumptions Specific to the Alternatives	
No Action Alternative and Alternatives 1, 2, 3, 4, 5, 6, and 8	No additional assumptions were made.
Alternative 7	Sludge generated by water treatment facilities would be disposed of in the Brine Sink. It may be determined in the future to dispose of a portion of the sludge in hazardous waste landfills if high concentrations of constituents of concern are identified.

Summary of Impact Assessment

The impacts shown in Table 19-6 assume implementation of the Next Steps to reduce the 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 conditions.

Construction and operations and maintenance activities under the No Action Alternative could result in increased traffic accidents, construction accidents, and fire and chemical hazards at the construction site and on the roads due to the construction activity. The amount of construction activity could also increase the need for police services due to trespassing and theft. Following construction, the need for emergency services may continue if recreational facilities are considered during project-level analyses. It is difficult to project the specific impacts of the construction on public services in a programmatic analysis. However, the volume of truck trips to haul rock and gravel could be used as an indicator of additional traffic that could cause accidents and the amount of disturbed acreage could be used as an indicator of construction activity on the Sea Bed and along the shoreline. Under the No Action Alternative, 35,800 acres would be disturbed and about 1,680,000 cubic yards of rock and gravel would be imported.

**Table 19-6
Summary of Benefit and Impact Assessments to Public Services and Utilities**

Alternative	Basis of Comparison	Changes by Phase				Comments	Next Steps
		I	II	III	IV		
Criterion: Results in impacts to or requires new or altered facilities for fire and police protection or emergency care.							
No Action Alternative	Existing Conditions	L	L	L	L	Demands on police and fire protection and emergency care would be increased both during construction and operations of the facilities. Disturbed area and amount of imported rock and gravel were used as measures of the extent of activities.	Develop traffic plans and emergency response plans for construction sites. Construction sites could provide private security and fire protection at the sites. Fee schedules for construction permits could include re-imbursements to provide funds for emergency services.
	No Action Alternative	NA	NA	NA	NA		
Alternatives 1 - 8	Existing Conditions	L	L	L	L	Similar to conditions described under No Action Alternative, however the extent of construction would be larger.	Same as No Action Alternative.
	No Action Alternative	L	L	L	L		
Criterion: Results in non-compliance or requires new or altered stormwater, solid waste, or communication facilities.							
No Action Alternative	Existing Conditions	S	S	S	O	Demands on solid waste facilities would increase due to construction activities. Facilities would be designed to avoid conflicts with stormwater and communication facilities.	Fee schedule at solid waste facilities could be developed specifically for construction of the alternative to promote recycling and minimize solid wastes. Mandate hauling of solid waste outside of the study area.
	No Action Alternative	NA	NA	NA	NA		
Alternatives 1 - 8	Existing Conditions	S	S	S	O	Similar to No Action Alternative with more demands on solid waste facilities due to more extensive construction.	Same as No Action Alternative.
	No Action Alternative	S	S	S	O		

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

Most of the solid waste facilities in the region are anticipated to reach capacity before or during the construction period, as shown in Table 19-4. The Imperial, Calexico, Hot Spa, Lamb Canyon, and Oasis landfills are the only locations near the Salton Sea that would be operational through Phase I when most construction would occur. Solid wastes resulting from the construction activities related to buildings at pumping plants and filtration units of the Air Quality Management would probably cause the landfills to reach capacity earlier than projected and eliminate use of Imperial and Lamb Canyon throughout most of the construction period.

Canals constructed along the shoreline would be designed to avoid conflicts with stormwater drainage. Therefore, there would not be any impacts to existing stormwater facilities.

Communication methods for the Air Quality Management and hydraulic controls probably would not use existing communication facilities. Therefore, there would not be any impacts.

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.

Conditions would be similar to those described under No Action Alternative. However, the extent of the construction would be larger due to the construction of Saline Habitat Complex. About 136,700 acres would be disturbed and about 6,720,000 cubic yards of rock and gravel would be imported.

Impacts to solid waste, stormwater, and communications facilities would be similar to that described under the No Action Alternative.

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.

Conditions would be similar to those described under No Action Alternative. However, the extent of the construction would be larger due to the construction of Saline Habitat Complex. About 206,400 acres would be disturbed and about 11,670,000 cubic yards of rock and gravel would be imported.

Impacts to solid waste, stormwater, and communications facilities would be similar to that described under the No Action Alternative.

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.

Conditions would be similar to those described under No Action Alternative. However, the extent of the construction would be larger due to the construction of Perimeter Dikes. About 155,450 acres would be disturbed in the Sea Bed and along the shoreline, and about 85,150,000 cubic yards of rock and gravel would be imported into the Sea Bed.

Impacts to solid waste, stormwater, and communications facilities would be similar to that described under the No Action Alternative.

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.

Conditions would be similar to those described under No Action Alternative. However, the extent of the construction would be larger due to the construction of the Geotube® Berms. About 96,950 acres would be disturbed in the Sea Bed and along the shoreline, and about 7,420,000 cubic yards of rock and gravel would be imported into the Sea Bed.

Impacts to stormwater and communications facilities would be similar to that described under the No Action Alternative. Impacts to solid waste facilities would be less than under the No Action Alternative due to the lack of Air Quality Management facilities.

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.

Conditions would be similar to those described under No Action Alternative. However, the extent of the construction would be larger due to the construction of the Saline Habitat Complex and Barrier. About 230,450 acres would be disturbed in the Sea Bed and along the shoreline, and about 53,730,000 cubic yards of rock and gravel would be imported into the Sea Bed.

Impacts to solid waste, stormwater, and communications facilities would be similar to that described under the No Action Alternative.

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.

Conditions would be similar to those described under No Action Alternative. However, the extent of the construction would be larger due to the construction of the Saline Habitat Complex, Barrier, and Perimeter Dikes. About 224,250 acres would be disturbed in the Sea Bed and along the shoreline, and about 93,650,000 cubic yards of rock and gravel would be imported into the Sea Bed.

Impacts to solid waste, stormwater, and communications facilities would be similar to that described under the No Action Alternative.

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.

Conditions for construction would be similar to those described under No Action Alternative. However, the extent of the construction would be larger due to the construction of the Saline Habitat Complex,

Barrier, and Perimeter Dikes. About 131,950 acres would be disturbed in the Sea Bed and along the shoreline, and about 79,650,000 cubic yards of rock and gravel would be imported into the Sea Bed.

Impacts to stormwater and communications facilities would be similar to that described under the No Action Alternative. Impacts to solid waste facilities would be greater than under the No Action Alternative due to solid wastes generated during construction of the water treatment plants. It is anticipated that the sludge from the water treatment plants would be conveyed to the Brine Sink. However, if the sludge contained high concentrations of constituents of concern, a portion of the sludge would need to be hauled to a certified hazardous waste landfill for liquid wastes (i.e., Class I). The closest landfills with this certification currently are located in Buttonwillow in Kern County and Kettleman Hills in Kings County.

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.

Conditions would be similar to those described under No Action Alternative. However, the extent of the construction would be larger due to the construction of the Saline Habitat Complex, Barrier, and Perimeter Dikes. About 209,550 acres would be disturbed in the Sea Bed and along the shoreline, and about 100,270,000 cubic yards of rock and gravel would be imported into the Sea Bed.

Impacts to solid waste, stormwater, and communications facilities would be similar to that described under the No Action Alternative.

Next Steps

During project-level analysis, traffic plans and emergency response plans would be developed for each construction phase. These plans would include methods to reduce the risks, such as worker training programs. Construction sites could be required to provide private security and fire protection at the sites. Fee schedules for construction permits could include funds for emergency services. If services were not used, fees would be re-imbursed.

To reduce impacts on solid waste facilities, fee schedules could be developed specifically for construction of the alternative to promote recycling and minimize solid wastes. It may be necessary to mandate hauling of solid wastes to landfill sites located outside of the study area. Hazardous waste site would need to be hauled to certified landfills which are located currently in Kern and Kings counties.