



16. Near Red Hill looking north.



17. Red Hill Marina County Park.



18. Red Hill County Park looking northwest.** (KVP 6)

** Simulation Viewpoint



19. Bombay Beach looking south towards Salton Sea.



20. Salt Creek Campground looking south.



21. Bombay Beach (SSSRA).** (KVP 7)

** Simulation Viewpoint



22. SR 111 near Corvina Beach. (KVP 8)



23. SSSRA Headquarters picnic area looking west.



24. Sneaker Beach near SSSRA Headquarters looking west.** (KVP 9)

** Simulation Viewpoint



25. SSSRA boat launch/harbor looking southwest.



26. North Shore Beach looking south at old marina.



27. Parkhills Drive looking north.

TABLE 3.11-2
Salton Sea Viewshed Characteristics

Visual Unit	KVP (Photo No.) Location ^a	Landscape Features/ Visual Character	Primary Viewer Group	Distance From Viewer to Shoreline ^c
North Shore	KVP 1 (photo 2) SR 86 & 195	Foreground views include barren desert landscape with limited horizontal expanse of water seen against distant mountain backdrop.	Roadway motorist	9,400 ft. (1¾ mi.)
North Shore	KVP 2 (photo 4) SR 86	Foreground views encompass agricultural crops and palm orchard. Horizontal expanse of water seen against mountains in backdrop.	Roadway motorist	8,200 ft. (1½ mi.)
West Shore	KVP 3 (photo 5) SR 86	Foreground views include barren desert with scattered vegetation and commercial/residential buildings. Partially screened distant views encompass water and shoreline.	Roadway motorist	3,700 ft. (¾ mi.)
West Shore	KVP 4 (photo 9) Salton Sea Beach ^b	Shoreline and water dominate foreground views and distant vistas.	Recreationalist	50 ft.
South Shore	KVP 5 (photo 12) Salton Sea Nat'l Wildlife Refuge	Foreground views encompass marsh and grassland. Limited horizontal expanse of water seen against mountain backdrop.	Recreationalist	4,400 ft. (~1 mi.)
South Shore	KVP 6 (photo 18) Red Hill County Park ^b	Shoreline dominates foreground views with open expanse of water seen against distant mountain backdrop.	Recreationalist	150 ft.
East Shore	KVP 7 (photo 21) Bombay Beach ^b	Shoreline and water dominate foreground views. Mountains provide backdrop to expansive open water vistas.	Recreationalist	20 ft.
East Shore	KVP 8 (photo 22) SR 111	Desert landscape seen in foreground views. Mountains provide backdrop to open water vistas.	Roadway motorist	800 ft.
East Shore	KVP 9 (photo 24) Sneaker Beach ^b	Foreground water and shoreline views are partially framed by shoreline vegetation with distant mountain backdrop.	Recreationalist	10 ft.

Notes:

^a Refer to Figure 3.11-3.

^b Simulation view.

^c Distances are approximate.

Sea is most concentrated in these communities (photo 5, Figure 3.11-4b). Agricultural fields dominate both sides of SR 86 north of Desert Shores. Desert landscape dominates the portion of SR 86 from Desert Shores south to the Salton Sea Test Base (photo 11, Figure 3.11-4c) (SSA and Reclamation 2000).

South Shore. The area south of the Salton Sea is a northward-sloping, wide-open valley supporting large fields of intensive commercial agriculture. The two rivers that terminate in the Sea, the Alamo River and the New River, are deeply incised in the alluvial slope. Large

tracts of irrigated farmland are bordered by irrigation and drainage ditches (photo 14, Figure 3.11-4d). The tracts form a patchwork of fields planted with crops of similar size and spacing, but with differing color and texture. Geothermal plants (photo 13, Figure 3.11-4d) near the mouths of the Alamo and New Rivers are dominant features of the landscape because of their height and because their steam plumes provide a stark contrast to the blue skies characteristic of the region (SSA and Reclamation 2000). Along the southwest corner of the Sea, SR 86 provides distant views to the Sea from a distance of 1.5 to 4 miles away, views of Imperial Valley agricultural fields to the southwest, and the Vallecito and Santa Rosa Mountains to the northwest (photo 15, Figure 3.11-4d). Views to the Sea are also available near the abandoned Salton Sea Test Base, west of the Sonny Bono NWR between SR 86 and the Salton Sea (photo 11, Figure 3.11-4c).

The Sonny Bono NWR is in the southeast corner of the Salton Sea. The refuge, a sanctuary for wintering waterfowl and other water birds, provides 35,484 acres of salt marsh and open water, in addition to 2,000 acres of pasture and freshwater marsh (L.L. Bean 2000). Public access to the shoreline is not available, but a public wildlife observation tower provides a view of the Sea at a distance of approximately 0.50 mile (photo 12, Figure 3.11-4d).

The main public access to the shoreline in the Sea's south shore is Red Hill Marina County Park, located near the mouth of the Alamo River. The red, rocky outcropping is home to a campground, boat launch, and trailer park (photos 16-18, Figure 3.11-4e). Panoramic views from this area include a broad expanse of water and distant mountains. Large changes in the shoreline are visible here as a result of the shallow bottom slope of the Sea (photo 16, Figure 3.11-4e).

East Shore. The east shore area includes approximately 20 miles of Sea shoreline and stretches from north shore at the north end to Bombay Beach at the south end along SR 111. The terrain consists of the lower alluvial plains of the Mecca Hills and the Orocopia and Chocolate Mountains, with typically moderate gradients of 1 to 5 percent. California low desert scrub vegetation is the predominant cover for this zone, with introduced palms and exotics at some of the public use areas (SSA and Reclamation 2000).

SR 111, along the northeast shore of the Salton Sea, is included in the "Master Plan of State Highways Eligible for Official Scenic Highway Designation," from the Bombay Beach in Imperial County to Mecca in Riverside County. Because of the proximity of SR 111 to the Sea, low-growing desert scrub vegetation, and gradual slopes, this area affords wide-open views of the Sea and provides the best viewing opportunities to the Sea from public lands (photo 22, Figure 3.11-4g).

The Salton Sea SRA is located along SR 111 between the Sea and the Chocolate Mountains. Spread out over almost 20 miles of shoreline are five campgrounds and a facility headquarters, which includes a visitor center and day-use area (photos 20-21, and 23-25, Figures 3.11-4f, -4g, and -4h). Other resort facilities in this area are in various stages of disrepair. The North Shore Yacht Club and Marina are unused (photo 26, Figure 3.11-4h). The Coachella Canal also lies parallel to SR 111 through this area (SSA and Reclamation 2000).

Sea Level Variations. The elevation of the Salton Sea has varied historically since its creation in 1905. On average, the elevation went from a high of -195 ft msl in 1907 to a low of over

-250 ft msl in the mid-1920s. Since the mid-1920s, the water level has gradually increased to its current elevation of -228 ft msl (Reclamation 2002b). Over this 75-year period, on average, the level has increased by approximately 0.4 foot per year. In addition to the historic variation, the water level of the Sea also varies by up to 1.5 feet on an annual cycle, according to seasonal runoff and evaporation rates. As a result of these water level changes, the surface area of the Sea and shoreline locations have historically varied both in long- and short-term periods. (Section 3.1, Hydrology and Water Quality, includes a more detailed discussion of water resources.) Evidence of these shoreline variations is particularly evident at shoreline locations such as Red Hill and near the Salton Sea SRA headquarters, where recreation facilities have been inundated by rising waters (photos 16-18 and 25-26, Figures 3.11-4e and 3.11-4h).

ODORS

The presence of odors at the Salton Sea currently affects both visitor numbers and resident populations in the area. Factors contributing to odors at the Salton Sea include water quality, high nutrient levels, and biological factors such as fish and bird die-offs.

Water quality at the Salton Sea is affected by a high concentration of sulfates and other compounds present in the saline Sea, as well as inputs of agricultural drainage. The water originates at the Colorado River, where it is diverted for irrigation through canals to both the Coachella and Imperial Valleys. Nutrient-rich runoff entering the Salton Sea produces eutrophic conditions that result in phytoplankton blooms. These microscopic plants float close to the Sea's surface, and offensive odors are created when large numbers of plants die and decompose. Odors resulting from algal bloom die-offs are most prevalent during the summer months, when inputs of freshwater to the Salton Sea are low and temperatures are high (SSA and Reclamation 2000).

Fish and bird die-offs at the Sea also contribute to the odor problem. The increases in water level and salinity over the past two decades have been accompanied by several large die-offs, producing unpleasant odors as fish and birds decompose along the shoreline (SSA and Reclamation 2000). These episodes are discussed in more detail in Section 3.2, Biological Resources.

Odors produced by decaying algal blooms, and fish and bird die-offs occur predominantly in the southern and eastern portions of the Salton Sea, although all areas of the Sea are subject to these occurrences. The most prevalent odors exist during the summer months when temperatures are high and winds from the southeast are predominant. High winds in the Salton Sea area are most frequent during the months of April and May (SSA and Reclamation 2000).

3.11.4 Impacts and Mitigation Measures

3.11.4.1 Methodology

Potential effects of the Proposed Project and Alternatives were evaluated qualitatively for the LCR, the IID water service area, and the SDCWA service area because little to no change in the visual landscape or scenic resources is anticipated in these areas as a result of the Proposed Project or its Alternatives. The Salton Sea, however, would have different water levels and surface areas under the Proposed Project and Alternatives. Therefore, the visual impacts on the Salton Sea were

evaluated graphically using visual simulation techniques to present future views of the Sea at different water levels. The future views of the Sea under the Proposed Project and the various conservation alternatives were compared against the view under the Baseline, which for practical purposes appears the same as the No Project Alternative. The future views of the Salton Sea will not look like the existing views shown in this section, because the elevation and surface area of the Sea will continue to decline regardless of the Proposed Project or any of Alternatives including the No Project Alternative.

For the Salton Sea, the potential for olfactory impacts from the Proposed Project or Alternatives was evaluated because of the existing odors that characterize the Sea. The potential for increased odors associated with the Proposed Project and/or Alternatives is also addressed in Section 3.1, Hydrology and Water Quality, and Section 3.2, Biological Resources.

Visual Simulations. Visual effects at the Salton Sea have been evaluated using an approach that includes computer-generated visual simulations of water levels associated with reduced inflows to the Sea resulting from water conservation. Visual simulations show the conceptual appearance of the anticipated lowered Salton Sea elevations as seen from four representative public viewing locations that are within approximately 150 feet of the present shoreline (see Table 3.11-2).

Visual simulations and analyses were prepared for the Proposed Project and each of the Alternatives. These simulations have been based on modeling of reduced inflows in Reclamation's Salton Sea Model. The analysis of the potential visual effects at the Salton Sea associated with implementation of the Proposed Project and Alternatives is based on field observations conducted in September 2000 and review of the following information including, background reports and documents; maps and technical data; computer-generated visual simulations from representative viewpoints; ground and aerial photography, including historic photos and topographic maps of the Project region of influence.

The computer-generated simulations are the result of an objective analytical and computer modeling process, and are accurate within the constraints of the available site and Project data. The simulations are based on existing terrain data from USGS and bathymetric modeling data (Reclamation 2002).

Subregions Excluded from Impact Analysis. No impacts to aesthetics resources would occur in the SDCWA service area or LCR subregions because no construction of new facilities would occur. Additionally, no changes in operation of existing facilities that would result in impacts to aesthetics would occur; therefore, the SDCWA service area and LCR geographic subregions are not included in the impact discussions for each Alternative.

3.11.4.2 Significance Criteria

The Proposed Project and/or Alternatives would have a significant effect on aesthetics if they:

- Have a substantial adverse effect on a scenic vista within the Project region of influence.
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- Substantially degrade the existing visual character or quality of the site and its surroundings.
- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the project region of influence.

The Proposed Project and/or Alternatives would have a significant effect on odors if they would create additional objectionable odors affecting a substantial number of people, compared to the odor potential under the Baseline.

3.11.4.3 Proposed Project

IID WATER SERVICE AREA AND AAC

Water Conservation and Transfer

Construction of on-farm irrigation system and/or water delivery system conservation measures under the Proposed Project would occur solely within the IID water service area and the aesthetic character of desert areas, sand dunes, and mountains located outside the IID water service area would not be impacted. Equipment required for construction of conservation measures is currently commonly used for ongoing projects in the irrigated portions of the IID water service area and therefore is consistent with the existing visual character. If conservation were to be achieved through fallowing, up to 50,000 additional acres throughout the IID water service area would go into a fallowed state. Currently, about 20,000 acres are fallowed each year (IID 2000a). Although the additional fallowed acreage could be three times the current amount, it would be distributed through the subregion and would not become an obvious visual feature of the landscape. Currently, many farms go fallow for part of the year, so the landscape is constantly changing from cropped to fallow acres.

The implementation of the Proposed Project does not require the installation of any lighting; therefore, no impacts related to increased light and glare would occur. No aesthetic impacts are anticipated in this subregion.

Inadvertent Overrun and Payback Policy (IOP)

No impacts to aesthetics are associated with compliance with the IOP in this subregion.

Impacts resulting from the implementation of the IOP would be the same for Alternatives 2, 3, and 4; therefore, they are not discussed under each Alternative.

Habitat Conservation Plan (HCP-IID) (IID Water Service Area Portion)

Implementation of the HCP-IID will result in the restoration of native tree and marsh habitat, which will add variability and natural forms to the landscape of Imperial County, thus improving the quality of the viewshed. Construction efforts required for the HCP-IID will require use of equipment which is generally in character with the agricultural activities historically and currently ongoing in the IID water service area. Therefore, no impacts on aesthetics would be associated with the HCP in the IID water service area subregion.

Salton Sea Habitat Conservation Strategy (HCP-SS)

Conserved water for the Salton Sea Habitat Conservation Strategy could be generated via fallowing, although other sources of water could be used as described in Section 2.2.6.7. The additional fallowing for the Salton Sea Habitat Conservation Strategy could be as much as 30,500 for the Proposed Project in addition to the amount fallowed for transfer. Although the total amount of fallowed acreage could be 90,300 acres, it would be distributed through the subregion and would not become an obvious visual feature of the landscape. Currently, many farms go fallow for part of the year, so the landscape is constantly changing from cropped to fallow acres.

Aesthetics impacts resulting from the implementation of the HCP would be similar for Alternatives 2, 3, and 4; therefore, they are not discussed under each Alternative.

SALTON SEA

Water Conservation and Transfer

Impact A-1: Impacts on aesthetics would occur from a decrease in the elevation of the Salton Sea. Implementation of 300 KAFY of water conservation under the Proposed Project would result in lowering the elevation of the Salton Sea, thus reducing the overall water surface area and exposing areas of shoreline that are currently inundated. If the Proposed Project is implemented using on-farm and/or system based conservation methods, the elevation of the Salton Sea would decline to about -250 feet msl. If the Proposed Project is implemented using fallowing the Sea would decline to about -241 feet msl. With implementation of the Salton Sea Habitat Conservation Strategy, the elevation of the Sea is projected to be about -240 feet msl.

As described in Section 2.2.6.7, the Salton Sea Habitat Conservation Strategy has been evaluated in this Final EIR/EIS with the assumption that mitigation water would be generated by fallowing within the IID water service area. Other sources of water could be used, but they have not been evaluated in this EIR/EIS.

Additionally, under the Proposed Project, the implementation of the Salton Sea Habitat Conservation Strategy in concert with the on-farm irrigation system improvement approach to conserving water for transfer was determined not to be feasible because of the number of total acres that would be needed. This is because the “efficiency conservation” measures require a 1 to 1 ratio of mitigation water to the Sea. Therefore, the combination of only on-farm and/or delivery system efficiency conservation measures required to produce 300 KAFY for transfer plus fallowing within the IID water service area as the sole method of providing the mitigation water associated with the Salton Sea Habitat Conservation Strategy has not been assessed in this Final EIR/EIS.

Additional details of the Salton Sea Habitat Conservation Strategy can be found in Section 2.2.6.7.

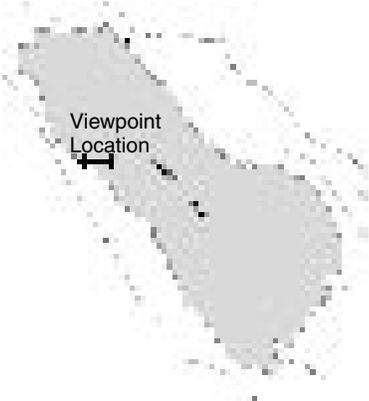
Figure 3.6-5 presented in Section 3.6, Recreation, illustrates the location and amount of newly exposed area that would occur due to the receding shoreline. The visual simulations presented as Figures 3.11-5a through 3.11-5l show the appearance of the lower Salton Sea elevations in year 2077, assuming implementation of the Salton Sea Habitat Conservation Strategy as seen from four public viewing locations:



Baseline - Salton Sea Beach (water level at - 235 feet msl)



Proposed Project (300 KAFY) - Visual Simulation at Salton Sea Beach (water level at -240 feet msl)



The conceptual visual simulations show the Salton Sea in the year 2077 with the implementation of the Salton Sea Habitat Conservation Strategy. Data sources: University of Redlands, 1999; DOI, 1999; Reclamation, 1999.

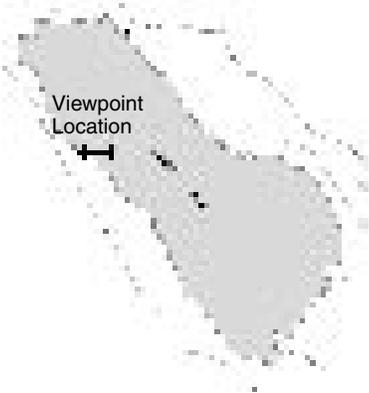
Figure 3.11-5a
Visual Simulations
 IID Water Conservation
 and Transfer Project Final EIR/EIS



Alternative 1 (No Project) - Visual Simulation at Salton Sea Beach (water level at -235 feet msl)



Alternative 2 (130 KAFY) - Visual Simulation at Salton Sea Beach (water level at -242 feet msl)



The conceptual visual simulations show the Salton Sea in the year 2077 with the implementation of the Salton Sea Habitat Conservation Strategy. Data sources: University of Redlands, 1999; DOI, 1999; Reclamation, 1999.

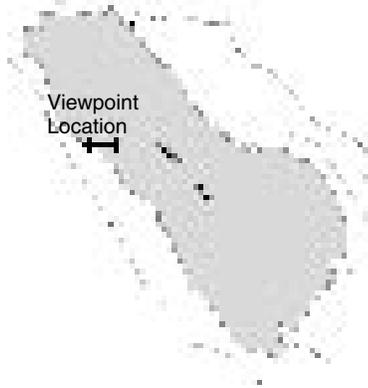
Figure 3.11-5b
Visual Simulations
 IID Water Conservation
 and Transfer Project Final EIR/EIS



Alternative 3 (230 KAFY) - Visual Simulation at Salton Sea Beach (water level at -246 feet msl)



Alternative 4 (300 KAFY - Following as Exclusive Conservation) - Visual Simulation at Salton Sea Beach (water level at -240 feet msl)



The conceptual visual simulations show the Salton Sea in the year 2077 with the implementation of the Salton Sea Habitat Conservation Strategy. Data sources: University of Redlands, 1999; DOI, 1999; Reclamation, 1999.

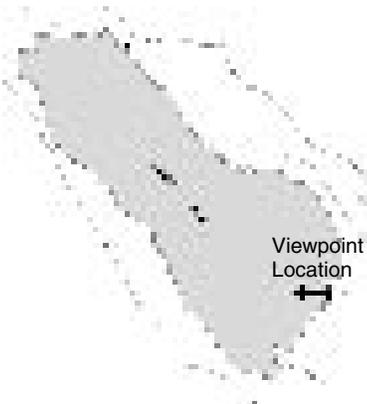
Figure 3.11-5c
Visual Simulations
 IID Water Conservation
 and Transfer Project Final EIR/EIS



Baseline - Red Hill Marina County Park (water level at -235 feet msl)



Proposed Project (300 KAFY) - Visual Simulation at Red Hill Marina County Park (water level at -240 feet msl)



The conceptual visual simulations show the Salton Sea in the year 2077 with the implementation of the Salton Sea Habitat Conservation Strategy. Data sources: University of Redlands, 1999; DOI, 1999; Reclamation, 1999.

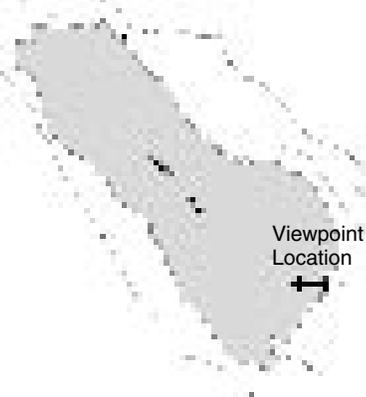
Figure 3.11-5d
Visual Simulations
 IID Water Conservation
 and Transfer Project Final EIR/EIS



Alternative 1 (No Project) - Visual Simulation at Red Hill Marina County Park (water level at -235 feet msl)



Alternative 2 (130 KAFY) - Visual Simulation at Red Hill Marina County Park (water level at -242 feet msl)



The conceptual visual simulations show the Salton Sea in the year 2077 with the implementation of the Salton Sea Habitat Conservation Strategy. Data sources: University of Redlands, 1999; DOI, 1999; Reclamation, 1999.

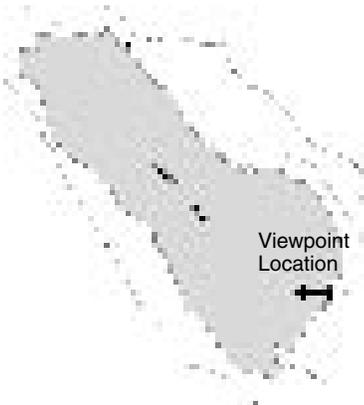
Figure 3.11-5e
Visual Simulations
 IID Water Conservation
 and Transfer Project Final EIR/EIS



Alternative 3 (230 KAFY) - Visual Simulation at Red Hill Marina County Park (water level at -246 feet msl)



Alternative 4 (300 KAFY - Following as Exclusive Conservation) - Visual Simulation at Red Hill Marina County Park (water level at -240 feet msl)



The conceptual visual simulations show the Salton Sea in the year 2077 with the implementation of the Salton Sea Habitat Conservation Strategy. Data sources: University of Redlands, 1999; DOI, 1999; Reclamation, 1999.

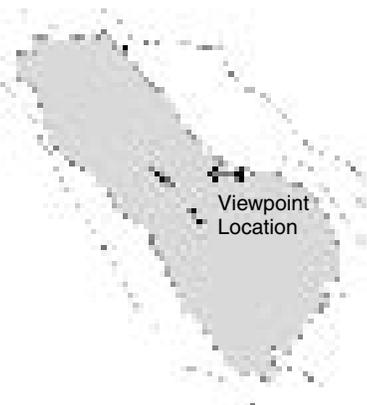
Figure 3.11-5f
Visual Simulations
 IID Water Conservation
 and Transfer Project Final EIR/EIS



Baseline - Bombay Beach (water level at -235 feet msl)



Proposed Project (300 KAFY) - Visual Simulation at Bombay Beach (water level at -240 feet msl)



The conceptual visual simulations show the Salton Sea in the year 2077 with the implementation of the Salton Sea Habitat Conservation Strategy. Data sources: University of Redlands, 1999; DOI, 1999; Reclamation, 1999.

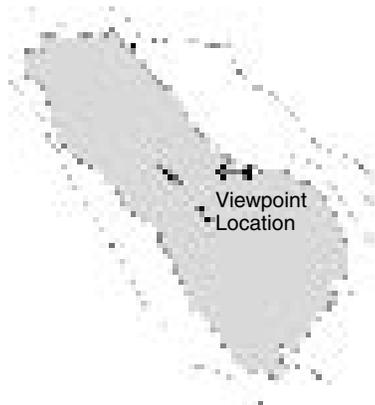
Figure 3.11-5g
Visual Simulations
 IID Water Conservation
 and Transfer Project Final EIR/EIS



Alternative 1 (No Project) - Visual Simulation at Bombay Beach (water level at -235 feet msl)



Alternative 2 (130 KAFY) - Visual Simulation at Bombay Beach (water level at -242 feet msl)



The conceptual visual simulations show the Salton Sea in the year 2077 with the implementation of the Salton Sea Habitat Conservation Strategy. Data sources: University of Redlands, 1999; DOI, 1999; Reclamation, 1999.

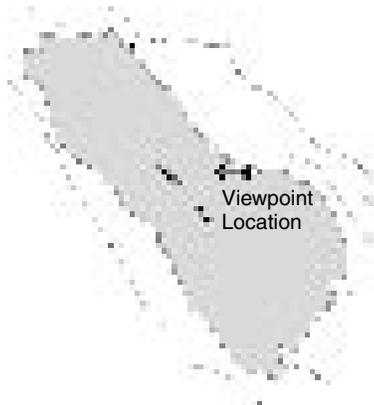
Figure 3.11-5h
Visual Simulations
 IID Water Conservation
 and Transfer Project Final EIR/EIS



Alternative 3 (230 KAFY) - Visual Simulation at Bombay Beach (water level at -246 feet msl)



Alternative 4 (300 KAFY - Following as Exclusive Conservation) - Visual Simulation at Bombay Beach (water level at -240 feet msl)



The conceptual visual simulations show the Salton Sea in the year 2077 with the implementation of the Salton Sea Habitat Conservation Strategy. Data sources: University of Redlands, 1999; DOI, 1999; Reclamation, 1999.

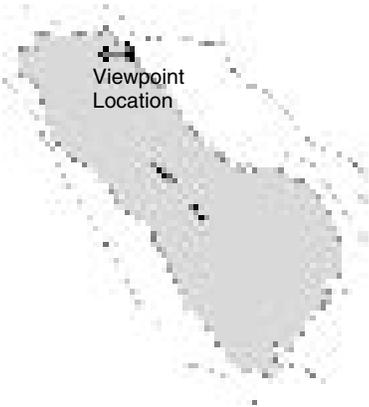
Figure 3.11-5i
Visual Simulations
 IID Water Conservation
 and Transfer Project Final EIR/EIS



Baseline - Sneaker Beach (water level at -235 feet msl)



Proposed Project (300 KAFY) - Conceptual Visual Simulation at Sneaker Beach (water level at -240 feet msl)



The conceptual visual simulations show the Salton Sea in the year 2077 with the implementation of the Salton Sea Habitat Conservation Strategy. Data sources: University of Redlands, 1999; DOI, 1999; Reclamation, 1999.

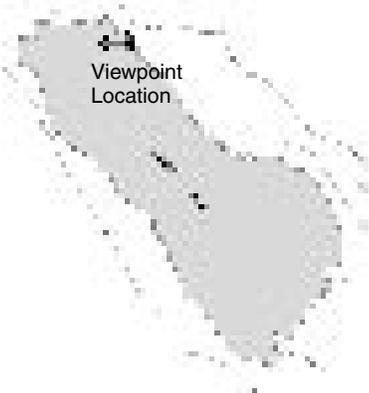
Figure 3.11-5j
Visual Simulations
 IID Water Conservation
 and Transfer Project Final EIR/EIS



Alternative 1 (No Project) - Visual Simulation at Sneaker Beach (water level at -235 feet msl)



Alternative 2 (130 KAFY) - Visual Simulation at Sneaker Beach (water level at -242 feet msl)



The conceptual visual simulations show the Salton Sea in the year 2077 with the implementation of the Salton Sea Habitat Conservation Strategy. Data sources: University of Redlands, 1999; DOI, 1999; Reclamation, 1999.

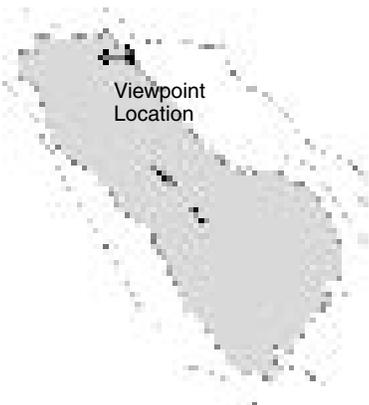
Figure 3.11-5k
Visual Simulations
 IID Water Conservation
 and Transfer Project Final EIR/EIS



Alternative 3 (230 KAFY) - Visual Simulation at Sneaker Beach (water level at -246 feet msl)



Alternative 4 (300 KAFY - Following as Exclusive Conservation) - Visual Simulation at Sneaker Beach (water level at -240 feet msl)



The conceptual visual simulations show the Salton Sea in the year 2077 with the implementation of the Salton Sea Habitat Conservation Strategy. Data sources: University of Redlands, 1999; DOI, 1999; Reclamation, 1999.

- Salton Sea Beach
- Red Hill Marina County Park
- Bombay Beach
- Sneaker Beach

Six images are presented for each of these selected views. The first is the Baseline condition showing the Sea as it appears at an elevation of -235 msl. The subsequent views show the predicted elevation in the year 2077 for the Proposed Project and each of the Project Alternatives with implementation of the Salton Sea Habitat Conservation Strategy, including the No Project Alternative. (Project Alternatives are discussed below.) It is essential to remember that the Proposed Project and Alternatives must be compared against Baseline conditions to determine impacts and their severity, not against the existing conditions in the year 2002.

Locations of the simulation photographs are shown in Figure 3.11-3. The four panoramic visual simulation photographs each encompass a 65-degree view angle (equivalent to a 28-mm wide-angle camera lens).

Table 3.11-3 summarizes the anticipated visual impacts that would generally occur within the Salton Sea viewshed as a result of the Proposed Project and Alternatives. Project impacts are identified and evaluated qualitatively with respect to views from each of the four visual units. The visual simulations illustrating these anticipated effects (Figures 3.11-5a through 3.11-5l) are also referenced in the table.

As indicated in Table 3.11-3, foreground views seen from public roadways would not be affected, but a very minor decrease in the amount of water visible in the distance would occur. Overall, this would not result in a substantial change in the landscape character currently seen by motorists. Additionally, the change in the view of the Salton Sea by recreationalists resulting from implementation of the Proposed Project with the Salton Sea Habitat Conservation Strategy would not be significant. The Proposed Project would generally have a minor effect on views of the Sea as seen from the North Shore Area. This is due in part to the limited amount of public access and recreational use in this area. As seen from the other three visual units, the change in views of the Sea from locations situated in proximity to the existing shoreline are not considered to be significant. The visual simulations shown on Figures 3.11-5a through 3.11-5l indicate that views from existing public shoreline areas at Salton Sea Beach, Red Hill Marina County Park, Bombay Beach, and Sneaker Beach would encompass slightly greater amounts of foreground mudflat or shoreline and only slightly decreased amounts of open water vista would be available. The exposed area would look like the existing beach. These changes are considered to be less than significant. (Less than significant impact.)

Impact A-2: Impacts on aesthetics from odors. The reduction of water flow into the Salton Sea could increase odors near the Salton Sea. This would occur if the Proposed Project were to decrease adversely affect water quality in the Salton Sea to the point that it: (1) contributed to the death of flora or fauna, or (2) increased the existing summertime algae bloom, which produces large amounts of sulfuric odors. Under the Baseline, the salinity of the Salton Sea will increase in future years to the point that it will kill most aquatic invertebrates and fish. As a result, odor emissions from animal die-offs would occur in future years, with or without the implementation of the Proposed Project. Nutrient levels within the Salton Sea

TABLE 3.11-3
Summary – Anticipated Effects at Key Viewpoints

Baseline Conditions				Project Operation Impacts at Year 2077		
Visual Unit	Key Viewpoint (Photo #) Location^a	Primary Viewer Group	Distance from viewer to Shoreline^c Under Baseline	Project Alternative^d	Distance Shoreline Would Recede (feet)^c	Anticipated Visual Change
North Shore	KVP 1 (photo 2) SR 86 & 195	Roadway motorist	10,850 ft (2+ miles)	Proposed Project	2,200	Foreground view would not be affected; minor decrease in amount of visible water seen in distance. No substantial change in landscape character as seen from roadway.
				Alt. 1	0	
				Alt. 2	3,150	
				Alt. 3	6,750	
				Alt. 4	2,200	
North Shore	KVP 2 (photo 4) SR 86	Roadway motorist	8,800 ft. (1 2/3 mi.)	Proposed Project	850	Similar to KVP 1.
				Alt. 1	0	
				Alt. 2	1,100	
				Alt. 3	2,050	
				Alt. 4	850	
West Shore	KVP 3 (photo 5) SR 86	Roadway motorist	4,300 ft. (0.8 mi.)	Proposed Project	600	Similar to KVP 1.
				Alt. 1	0	
				Alt. 2	700	
				Alt. 3	1,200	
				Alt. 4	600	

TABLE 3.11-3

Summary – Anticipated Effects at Key Viewpoints

Baseline Conditions				Project Operation Impacts at Year 2077		
West Shore	KVP 4 (photo 9) Salton Sea Beach ^b	Recreationalist	450 ft.	Proposed Project	700	Alternative 3 would result in a noticeable effect on the view of the Sea compared to the Baseline. Shoreline/mudflat area would become even more prominent in foreground with water seen in the distance and at the horizon. Alternative 2 would result in a less noticeable change. The Proposed Project and Alternative 4 would be indistinguishable visually from the Baseline.
				Alt. 1	0	
				Alt. 2	900	
				Alt. 3	1,700	
				Alt. 4	700	
South Shore	KVP 5 (photo 12) Salton Sea Nat'l Wildlife Refuge	Recreationalist	6,000 ft. (1.15 mi.)	Proposed Project	4,400	Similar to KVP 1.
				Alt. 1	0	
				Alt. 2	6,500	
				Alt. 3	16,400	
				Alt. 4	4,400	
South Shore	KVP 6 (photo 18) Red Hill County Park ^b	Recreationalist	2,150 ft.	Proposed Project	3,300	The Proposed Project and all Alternatives would result in views that are similar to that of the Baseline. However, the water will appear much further away for Alternative 3.
				Alt. 1	0	
				Alt. 2	4,200	
				Alt. 3	9,500	
				Alt. 4	3,300	

TABLE 3.11-3

Summary – Anticipated Effects at Key Viewpoints

Baseline Conditions				Project Operation Impacts at Year 2077		
East Shore	KVP 7 (photo 21) Bombay Beach ^b	Recreationalist	570 ft.	Proposed Project	500	Similar to KVP 4.
				Alt. 1	0	
				Alt. 2	600	
				Alt. 3	1,150	
				Alt. 4	500	
East Shore	KVP 8 (photo 22) SR 111	Roadway motorist	1,100 ft.	Proposed Project	300	Similar to KVP 1.
				Alt. 1	0	
				Alt. 2	400	
				Alt. 3	700	
				Alt. 4	300	
East Shore	KVP 9 (photo 24) Sneaker Beach ^b	Recreationalist	260 ft.	Proposed Project	300	Alternative 3 would result in noticeable changes in views; the water would appear noticeably further away. The Proposed Project, and Alternatives 2 and 4 would result in views essentially indistinguishable from those under the Baseline.
				Alt. 1	0	
				Alt. 2	450	
				Alt. 3	950	
				Alt. 4	300	

^a Refer to Figure 3.11-3^b Simulation view (Figures 3.11-5a – 3.11-5h).^c Distances are approximate.^d Alternative 1, No Project, is essentially the same as the Baseline.

will also continue to increase under the Baseline, which will perpetuate or enhance algae blooms and their associated odor emissions. While the Proposed Project could somewhat accelerate the future rate of animal die-offs or algae blooms, because there will be ongoing objectionable odor episodes at the Salton Sea under the Baseline, this effect from the project would be insignificant. (Less than significant impact.)

Salton Sea Habitat Conservation Strategy (HCP-SS)

Conserved water for the Salton Sea Habitat Conservation Strategy could be generated via fallowing, although other sources of water could be used as described in Section 2.2.6.7. Implementation of this strategy would delay aesthetics impacts until the year 2035 when elevation of the Salton Sea would decline below Baseline levels.

Aesthetic impacts resulting from implementation of the HCP would be similar for Alternatives 2, 3, and 4; therefore, they are not discussed under each Alternative.

3.11.4.4 Alternative 1: No Project

Implementation of the No Project Alternative would largely maintain existing conditions with regard to recreation in the LCR, IID water service area, and SDCWA service area. However, under No Project/Baseline conditions, the Salton Sea would drop from its current (2002) elevation of -228 msl and area of 364 square miles to approximately -235 feet msl (decline of 7 feet) and 339 square miles after 75 years (Reclamation 2002b). The No Project Alternative would result in the same elevation and surface area as the Baseline. A more detailed description of elevation change at the Salton Sea over time is presented in Section 3.1, Hydrology and Water Quality.

Views under the No Project Alternative would be the same as those with the Baseline. In addition, the No Project Alternative has the same potential for increasing offensive odors as the Baseline.

3.11.4.5 Alternative 2 (A2): Water Conservation and Transfer of Up To 130 KAFY to SDCWA (On-farm Irrigation System Improvements as Exclusive Conservation Measure)

IID WATER SERVICE AREA AND AAC

Under Alternative 2, construction of on-farm irrigation system improvements for water conservation in the IID water service area and the AAC would be consistent with the existing visual character of the agricultural landscape. The implementation of Alternative 2 would not require the installation of any lighting; therefore, no impacts related to increased light and glare would occur. Therefore, no aesthetic impacts are anticipated in this subregion.

SALTON SEA

Impact A2-A-1: Impacts on aesthetics from a drop in the level of the Salton Sea.

Implementation of Alternative 2 would result in lowering the elevation of the Salton Sea to about -242 feet msl with and without implementation of the Salton Sea Habitat Conservation Strategy, thus reducing the overall water surface area and thereby exposing some areas of barren shoreline that are currently inundated. With implementation of the Salton Sea Habitat Conservation Strategy, the onset of impacts would be delayed until 2035 when the elevation of the Salton Sea would decline below the Baseline. Visual impacts of

Alternative 2 are greater than those of the Proposed Project and are considered significant. (Significant impact.)

Mitigation Measure A2-A-1: The following mitigation measures should be implemented to reduce the effects of Alternative 2 on views of the Salton Sea as seen from public recreation areas located along the east, west, and south shoreline. These measures should be implemented on an ongoing basis as the Sea recedes until it reaches its lowest and stable elevation at which point they should be permanent. The measures to be undertaken in the Salton Sea area include:

- Relocate recreation facilities and extend access to the new shoreline to provide quality public viewing opportunities of the Salton Sea and its shoreline. These facilities may be temporary until the Sea reaches its minimum and stable elevation.
- Develop interpretive facilities and material to be made available to the public at recreation areas and along public roadways. Interpretive displays may include historic photographs of the Salton Sea landscape and information about water conservation measures including their effects on Salton Sea water levels.

After mitigation, the visual impacts due to reduction of the level of the Salton Sea and the associated shoreline exposure under Alternative 2 would be less than significant. (Less than significant impact with mitigation.)

Impact A2-A-2: Impacts on aesthetics from odors. As described in Impact A-3, the reduction of water flow into the Salton Sea could increase odor emissions in proximity to the Salton Sea. This would occur if Alternative 2 were to decrease water quality in the Salton Sea to the point that it (1) contributed to the death of flora or fauna, or (2) increased the existing summertime algae bloom, which produces large amounts of sulfuric odors. Under the Baseline, the salinity of the Salton Sea will increase in future years to the point that it will kill most aquatic invertebrates and fish. As a result, odor emissions from animal die-offs will occur in future years. Nutrient levels within the Salton Sea will also continue to increase under the Baseline, which will perpetuate or enhance algae blooms and their associated odor emissions. While Alternative 2 could somewhat accelerate the future rate of animal die-offs or algae blooms, because there will be ongoing objectionable odor episodes at the Salton Sea under the Baseline, this effect would be insignificant. (Less than significant impact.)

3.11.4.6 Alternative 3 (A3): Water Conservation and Transfer of Up To 230 KAFY to SDCWA, CVWD, and/or MWD (All Conservation Measures)

IID WATER SERVICE AREA AND AAC

As described above for the Proposed Project, construction of on-farm and/or system-wide conservation facilities and/or fallowing for water conservation in the IID water service area and the AAC would be consistent with the existing visual character of the agricultural landscape. Additionally, as with the Proposed Project, the implementation of Alternative 3 would not require the installation of any lighting, therefore no impacts related to increased light and glare would occur. Therefore, no aesthetic impacts are anticipated in this subregion.

SALTON SEA

Impact A3-A-1: Impacts on aesthetics from a drop in the level of the Salton Sea.

Implementation of Alternative 3 would result in lowering the elevation of the Salton Sea, thus reducing the overall water surface area and thereby exposing some areas of barren shoreline that are currently inundated. As described in Section 3.1, Hydrology and Water Resources, the surface elevation of the Salton Sea would not change as much as a result of implementation of Alternative 3 as it would as a result of implementing the Proposed Project. Implementation of Alternative 3 using on-farm and system-based conservation measures to conserve water for transfer would result in a Salton Sea elevation of about -247 feet msl. If fallowing is used to conserve water for transfer, under Alternative 3 the elevation of the Sea would be -239 feet msl. With implementation of the Salton Sea Habitat Conservation Strategy, using on-farm and system based conservation measures to conserve water for transfer, the elevation of the Sea would be -246 feet msl and using fallowing to conserve water for transfer, the elevation of the Sea would be -239 feet msl. With implementation of the Salton Sea Habitat Conservation Strategy the onset of impacts would be delayed until 2035 when the elevation of the Salton Sea would decline below the Baseline.

As described above and in Section 2.2.6.7, the Salton Sea Habitat Conservation Strategy has been evaluated in this Final EIR/EIS with the assumption that mitigation water would be generated by fallowing within the IID water service area. Other sources of water could be used, but they have not been evaluated in this EIR/EIS.

Additional details of the Salton Sea Habitat Conservation Strategy can be found in Section 2.2.6.7.

Alternative 3 would primarily affect views of the Salton Sea landscape as seen from public shoreline recreation areas and more distant public roadways. The specific visual effects and their severity would vary according to the affected viewer's location and activity. In general, it is anticipated that views most affected by the Project would be at public recreation locations situated near the existing shoreline. A limited number of residences and commercial establishments also occur in these areas.

As indicated in Table 3.11-3, foreground views seen from public roadways would not be affected, but a very minor decrease in the amount of water visible in the distance would occur. Overall, this would not result in a substantial change in the landscape character currently seen by motorists.

However, implementation of Alternative 3 would impact the views available to recreationalists. Alternative 3 would generally have a minor effect on views of the Sea as seen from the North Shore Area. This is due in part to the limited amount of public access and recreational use in this area. As seen from the other three visual units, however, Alternative 3 would affect views of the Sea particularly at locations situated in proximity to the existing shoreline. The visual simulations shown on Figures 3.11-5a through 3.11-5l indicate that views from existing public shoreline areas at Salton Sea Beach, Red Hill Marina County Park, Bombay Beach, and Sneaker Beach would encompass noticeably greater amounts of foreground mudflat or shoreline while decreased amounts of open water vista would be available. The exposed area would look like the existing beach and would eventually revegetate; however, views of the water, considered a scenic vista, would be

possible only from a greater distance from the developed public viewing facilities at these locations.

Comparison of the extent to which the shoreline recedes under the Baseline and Alternative 3 indicates a significant difference, especially at Salton Sea Beach and Red Hill County Park. Changes in elevation and thus vistas, would be greater with Alternative 3. The ultimate elevation would be significantly lower and thus have a greater visual impact. These visual impacts are considered to be significant. (Significant impact.)

The visual impacts of Alternative 3 are greater than the Proposed Project and are considered to be significant. (Significant impact.)

Mitigation Measure A3-A-1: The following mitigation measures should be implemented to reduce the effects of Alternative 3 on views of the Salton Sea as seen from public recreation areas located along the east, west, and south shoreline. These measures should be implemented on an ongoing basis as the Sea recedes until it reaches its lowest and stable elevation at which point they should be permanent. The measures to be undertaken in the Salton Sea area include:

- Relocate recreation facilities and extend access to the new shoreline to provide quality public viewing opportunities of the Salton Sea and its shoreline. These facilities may be temporary until the Sea reaches its minimum and stable elevation.
- Develop interpretive facilities and material to be made available to the public at recreation areas and along public roadways. Interpretive displays may include historic photographs of the Salton Sea landscape and information about water conservation measures including their effects on Salton Sea water levels.

After mitigation, the visual impacts resulting from the reduction of the level of the Salton Sea and the associated shoreline exposure would be less than significant. (Less than significant impact with mitigation.)

Impact A3-A-2: Impacts on aesthetics from odors. As described in Impact A-3, impacts on aesthetics from odors will be less than significant. (Less than significant impact.)

3.11.4.7 Alternative 4 (A4): Water Conservation and Transfer of Up To 300 KAFY to SDCWA, CVWD, and/or MWD (Fallowing As Exclusive Conservation Measure)

IID WATER SERVICE AREA

Under Alternative 4, no construction would be required in the IID water service area. The addition of approximately 50,000 acres of fallowed lands to achieve 300 KAFY conservation is not anticipated to create a dramatic visual change in the character of the IID water service area subregion. Currently, approximately 20,000 acres per year are fallowed. Although the additional fallowed acreage under Alternative 4 would be three times the current amount, it would be distributed throughout the subregion and thus would not become an obvious feature in the landscape. Additionally, many farms currently go fallow for part of the year, therefore the landscape is currently constantly changing from areas which are cropped to fallow. No impacts to aesthetics are anticipated in the Imperial Valley. (No impact.)

SALTON SEA

Water Conservation and Transfer

Impact A4-A-1: Impacts on aesthetics from a drop in the level of the Salton Sea.

Implementation of Alternative 4 would result in impacts the same as those described for the Proposed Project with fallowing used to conserve water for transfer: a projected Salton Sea elevation of -241 feet msl. Implementation of Alternative 4 with the Salton Sea Habitat Conservation Strategy would result in a reduction of the surface elevation of the Salton Sea to about -240 feet msl after 75 years (compared to -235 feet msl for the Baseline), exposing an area of 25 square miles more than the Baseline.

As described above and in Section 2.2.6.7, the Salton Sea Habitat Conservation Strategy has been evaluated in this Final EIR/EIS with the assumption that mitigation water would be generated by fallowing within the IID water service area. Other sources of water could be used, but they have not been evaluated in this EIR/EIS.

Additional details of the Salton Sea Habitat Conservation Strategy can be found in Section 2.2.6.7.

The impacts of Alternative 4 are not significant compared to the Baseline. (Less than significant impacts.)

Impact A4-A-2: Impacts to aesthetics from odors. Alternative 4 would conserve 300 KAFY of water per year; however, the volume of water ultimately draining to the Salton Sea would remain at levels similar to the Baseline. Therefore, subsequent impacts would continue at a level similar to those expected under the Baseline, and the impact would therefore be less than significant. (Less than significant impact.)