4.9 SOCIOECONOMICS

4.9.1 Summary of Environmental Consequences

The No Action Alternative would result in adverse socioeconomic impacts from the increase in salinity, change in Sea elevation, and potential increase in wildlife mortality and eutrophic conditions. These conditions would eventually lead to further declines in the number of visitors, which, in turn, would reduce visitor spending. Declining visitors and spending would lead to declines in employment and property values, both in the immediate vicinity of the Sea and in surrounding areas, most notably in Imperial County.

Construction of any of the restoration alternatives would result in positive short-term economic impacts from increased employment, spending, and business transactions. Principal direct effects on employment in Imperial County or central Riverside County would be from hiring local workers for hauling and other construction work. Additional indirect employment and earnings would also be expected as a result of increased area employment and expenditures. There could be temporary impacts to housing because about 80 percent of construction workers are anticipated to come from outside the region. Current housing vacancy, land zoned for development, and temporary facilities (e.g., hotels and apartments) have sufficient capacity to accommodate the workers, so the impact is not expected to be significant. The common actions that would be implemented with each alternative, including fish harvesting, improvements to recreation facilities, shoreline cleanup, and wildlife disease control, would have immediate beneficial impacts on the area.

Within the restoration stage (next thirty to forty years), employment and expenditures of the restoration program would have a small positive effect on the local economy. The staff of restoration facilities would take up residence in the Coachella-Imperial area, adding slightly to local employment, population, retail activity, tax base, and housing demand. In addition, the increased employment and expenditures would generate additional indirect employment.

Over the long-term, there is the possibility of large-scale positive effects from shoreline- and recreational-based developments. The magnitude of the effects would depend on each alternative's capacity to achieve target levels for Sea water salinity and Sea elevation.

4.9.2 Significance Criteria

For purposes of this analysis, the following conditions are assumed to indicate that social and economic effects would be significantly adverse.

Regional Economics. If the construction or operation of the project leads to reduction in total employment beyond rates of historic variation.

Public finance. If the project necessitates public service expenditures substantially in excess of revenues.

Demography and housing. If the project displaces or otherwise necessitates the relocation of a substantial number of existing residents, generates housing demand substantially in excess of what is available, or disrupts community cohesion and interaction.

4.9.3 Assessment Methods

The project alternatives and related actions may affect social and economic conditions of areas near the Sea. These areas may be classified into the area immediately adjacent to the Sea and the local area that has a substantial economic relationship with the Sea. For purposes of this analysis, the former is considered as including up to three to five miles from the shore at the Sea's existing elevation (-227 ft. msl), and the latter is considered as consisting of both Coachella Valley in Riverside County and all of Imperial County.

There is also the multicounty, southern California region, within which the Sea's economic area is located and from which many of the construction workforce would originate. At this scale, however, project impacts would be very diffuse and hence are not addressed in this study.

Social and economic effects are described under the following headings:

Regional Economics. Employment, wages, other program expenditures, and indirect effects, including effects on recreation and visitor industries and associated commercial and residential development;

Public Finance. Fiscal impact on local jurisdictions and public agencies;

Demography and Housing. Impact on resident population and housing.

Phase 1 alternatives would be implemented over twenty-three or more years following initial construction of the facilities. In order to account for potentially different effects over time, Phase 1 alternatives are analyzed over the following stages:

Construction Stage. Construction of an evaporation pond or enhanced evaporation system is anticipated to require from three to four years (approximately 2003 to 2007). Construction activities would primarily affect social and economic conditions in this period. Common actions would be implemented at the beginning of the construction period for each alternative. These include fish harvesting, improvements to recreation facilities, shoreline cleanup, and wildlife disease control. Additional construction could be required after the primary construction period due to facilities necessitated by reduced inflows.

Restoration Stage. After completion, an evaporation pond would be operated for thirty years, then closed. An enhanced evaporation system would be operated for 100 years but would require approximately forty years to achieve a satisfactory stabilized level of salinity in the Sea. Social and economic effects in the period from

approximately 2007 to 2050 would accrue primarily from restoration activities. Depending on inflow conditions, certain Phase 2 actions would be initiated during this stage.

In the long term, successful implementation of the restoration alternatives could lead to increased recreational use of the Sea, which would spur development in the area and lead to additional positive economic impacts in the area, including increased employment.

4.9.4 No Action Alternative

Under the No Action Alternative with continuation of the current inflows or with reduced inflows, there would be adverse socioeconomic effects from the deterioration in water quality and the eventual loss of wildlife. Impacts include a decline in recreational use of the Sea and related commercial activities, reduced employment and property values, and degraded quality of life indices (such as ecological and social values).

Effect of No Action Alternative with Continuation of Current Inflow Conditions

The number of recreational visitors to the Sea has declined greatly from peak levels (Table 3.12-1). While visitor counts have increased lately as a result of the resurgence of corvina sportfishing, this resurgence cannot be expected to last under the No Action Alternative. Eventually, declining visitors and spending also could lead to lower property values, both in the immediate vicinity of the Sea and in surrounding areas.

Apart from declining, purely human (market) economic values derived from the Sea, the No Action Alternative also would lead to a decline in the ecological value of the Sea. The Sea's current role as a stop on the Pacific Flyway bird migration route provides an important contribution to the functioning of the North American ecosystem. This, in turn, provides environmental and economic benefits to the whole continent. The No Action Alternative would place these benefits at risk and eventually could require costly reconstruction of alternative facilities.

Effect of No Action Alternative with Reduced Inflows

The impacts of the No Action Alternative under current and reduced inflows would be similar; however, the adverse effects would be realized sooner under reduced flow conditions. In addition, reduced inflows would result in a drop of Sea elevation, thereby making many piers and other shoreline facilities unusable.

4.9.5 Alternative 1

When combined with Phase 2 actions of water export or import, the two evaporation ponds proposed under this alternative could achieve the target salinity level of 40,000 ml/L around 2025 or 2035, depending on the level of inflow. Construction of the ponds would also have short term positive economic impacts to the local communities.

Effect of Alternative 1 with Current Inflow Conditions

Regional Economics. The construction and operation of evaporation ponds are likely to result in positive economic effects on the Imperial and southern Coachella valleys. The Bureau of Reclamation estimates total construction costs of the ponds to be approximately $460 million over four years. Positive effects include increased spending for wages of workers from the local area and increased profits to local material suppliers and service providers. The Bureau of Reclamation estimates that construction would require a total of 440 employees annually, many of whom would be workers from outside the area. Due to the temporary nature of construction activity, it is not expected that any significant secondary employment would be induced.

The Bureau of Reclamation estimates that operation and maintenance of the pond is would cost an average of $1.6 million annually and would employ less than 5 people. This would have minor positive impacts in the region, and could generate negligible induced employment.

In the long term, successful restoration could lead to increased recreational use of the Sea, which would spur development in the area and lead to additional positive economic impacts in the area, including increased employment.

Public Finance. During construction, the project would create an increased need for public services, such as public safety. However, increased use of area hotel/motel, restaurant, and retail facilities by construction workers from outside the area should result in sufficient increase in local tax revenues to finance the additional services. Similarly, the cost of any additional public services required during the 30-year operation of the ponds would likely be offset by taxes either directly (e.g., sales tax) or indirectly (e.g., property tax covered by rent) paid by the workers.

Over the long term, if recreational use of the Sea increases substantially, then the need for public services also would increase. However, commercial uses tend to generate greater tax revenues than would be needed to provide additional public services, and the net fiscal impact likely would be positive.

Demographics and Housing. Construction could have a negative, but nonsignificant, impact on local housing. Most of the construction workforce is expected to come from outside the Coachella-Imperial area and would require temporary housing. These needs could be easily accommodated by local hotel and motel facilities.

Over the long term, if recreational and commercial activities increase as a result of improving the Sea's water quality, there may be increases in resident population and housing. The extent and timing of these impacts, however, depend on factors and conditions which are unrelated to this alternative or which cannot be foreseen. These impacts are not considered to be significant.

Effect of Alternative 1 with Reduced Inflow Conditions (1.06 maf/yr)

The reduced flow conditions would necessitate increased construction activities, including the Displacement Dike and Southeast and North Shorebird Ponds. This would increase the construction costs by over $450 million and would require an additional 300 construction workers per year. Therefore, impacts from the construction phase would be slightly greater than for Alternative 1 with current inflow conditions. In addition, there would be a slight increase in the annual cost of operation and maintenance.

4.9.6 Alternative 2

Construction of the EES east of Bombay Beach would not result in any significant socioeconomic impacts. Construction and operation of the facilities would result in net positive economic impacts; however, there would be adverse social impacts from the relocation of residents at the project site.

Effect of Alternative 2 with Current Inflow Conditions

Regional Economics. Construction of the EES would have short-term beneficial impacts to regional economics and employment. The Bureau of Reclamation estimates total construction costs of the EES to be approximately $335 million over three years. Positive effects include increased spending for wages of workers from the local area and increased profits to local material suppliers and service providers. The Bureau of Reclamation estimates that construction would require a total of 260 employees annually, many of whom would be workers from outside the area. Due to the temporary nature of construction activity, it is not expected that any significant secondary employment would be induced.

The Bureau of Reclamation estimates that operation and maintenance of the EES would cost an average of $9.1 million annually and would employ approximately 70 people. This would have minor positive impacts in the region, and could generate minor induced employment.

In the long term, successful restoration could lead to increased recreational use of the Sea, which would spur development in the area and lead to additional positive economic impacts in the area, including increased employment.

Public Finance. As in the case of Alternative 1, construction activities would create an increased need for public services, but service costs likely would be offset by increased tax revenues from the use of hotel/motel, restaurant, and retail facilities. Over the long term, if recreational use of the Sea increases substantially, then the need for public services also would increase. However, commercial uses tend to generate greater tax revenues than would be needed to provide additional public services, and the net fiscal impact likely would be positive.

Demography and Housing. As in the case of Alternative 1, construction workers would require temporary housing, which could be accommodated by local hotel and motel facilities.

Over the long term, if recreational and commercial activities increase as a result of improving the Sea's water quality, there may be increases in resident population and housing. The extent and timing of these impacts depend on factors and conditions which are unrelated to this alternative or which cannot be foreseen. These impacts are not considered to be significant.

Portions of the Bombay Beach site contain residential developments. Implementing Alternative 2 would require relocating the residents, resulting in an adverse social impact. Fair compensation would be paid for existing housing and for relocation costs; therefore, this is not considered a significant impact.

Effect of Alternative 2 with Reduced Inflow Conditions

The reduced flow conditions would necessitate increased construction activities, including the Displacement Dike and Southwest and North Shorebird Ponds. This would increase the construction costs by over $450 million and would require an additional 300 construction workers per year. Therefore, impacts from the construction phase would be slightly greater than for Alternative 1 with current inflow conditions. In addition, there would be a slight increase in the annual cost of operation and maintenance.

4.9.7 Alternative 3

Construction of the EES at the Salton Sea Test Base site would not result in any significant socioeconomic impacts. Construction and operation of the facilities would result in net positive economic impacts.

Effect of Alternatives 3 with Current Inflow Conditions

Regional Economics. Construction of the EES would have short-term beneficial impacts to regional economics and employment. The Bureau of Reclamation estimates total construction costs of the EES to be approximately $430 million over three years. Positive effects include increased spending for wages of workers from the local area and increased profits to local material suppliers and service providers. The Bureau of Reclamation estimates that construction would require a total of 260 employees annually, many of whom would be workers from outside the area. Due to the temporary nature of construction activity, it is not expected that any significant secondary employment would be induced.

The Bureau of Reclamation estimates that operation and maintenance of the EES would cost an average of $9.5 million annually and would employ approximately 70 people. This would have minor positive impacts in the region, and could generate minor induced employment.

In the long term, successful restoration could lead to increased recreational use of the Sea, which would spur development in the area and lead to additional positive economic impacts in the area, including increased employment.

Public Finance. Construction activities would create an increased need for public services, but service costs likely would be offset by increased tax revenues from the use of hotel/motel, restaurant, and retail facilities, as discussed in Alternative 2

Demography and Housing. As in the case of Alternative 2, construction workers would require temporary housing, which could be accommodated by local hotel and motel facilities. Over the long term, if recreational and commercial activities increase as a result of improving the Sea's water quality, there may be increases in resident population and housing. The extent and timing of these impacts depend on factors and conditions which are unrelated to this alternative or which cannot be foreseen. These impacts are not considered to be significant.

Effect of Alternative 3 with Reduced Inflow Conditions

The impacts would be the same as discussed for Alternative 2 with reduced inflow conditions.

4.9.8 Alternative 4

Construction of the EES in conjunction with an evaporation pond on the southwest shore would not result in any significantly adverse socioeconomic impacts. As with Alternatives 1, 2 and 3, construction and operation of the facilities may result in net positive economic impacts.

Effect of Alternative 4 with Continuation of Current Inflow Conditions

Regional Economics. The Bureau of Reclamation estimates total construction costs of the ponds and EES to be approximately $580 million over four years. Positive effects include increased spending for wages of workers from the local area and increased profits to local material suppliers and service providers. The Bureau of Reclamation estimates that construction would require a total of 370 employees annually, many of whom would be workers from outside the area. Due to the temporary nature of construction activity, it is not expected that any significant secondary employment would be induced.

The Bureau of Reclamation estimates that operation and maintenance of the pond and EES would cost an average of $7.1 million annually and would employ approximately 36 people. This would have minor positive impacts in the region, and could generate minor induced employment.

In the long term, successful restoration could lead to increased recreational use of the Sea, which would spur development in the area and lead to additional positive economic impacts in the area, including increased employment.

Public Finance. As for Alternatives 1 through 3, construction activities would create an increased need for public services, but service costs likely would be offset by increased tax revenues from the use of hotel/motel, restaurant, and retail facilities. Over the long term, if recreational use of the Sea increases substantially, then the need for public services also would increase. However, commercial uses tend to generate greater

tax revenues than would be needed to provide additional public services, and the net fiscal impact likely would be positive.

Demography and Housing. The impacts would be the same as discussed for Alternative 1.

Effect of Alternative 4 with Reduced Inflow Conditions

The reduced flow conditions would necessitate increased construction activities, including the Displacement Dike and North Shorebird Pond. This would increase the construction costs by over $450 million and would require an additional 300 construction workers per year. Therefore, impacts from the construction phase would be slightly greater than for Alternative 4 with current inflow conditions. In addition, there would be a slight increase in the annual cost of operation and maintenance.

4.9.9 Alternative 5

Construction of the EES in the northwest evaporation pond and the joint use of the two facilities would not result in any significant impacts to socioeconomic conditions. Most socioeconomic impacts would be similar to those in Alternatives 1 through 4.

Effect of Alternative 5 with Continuation of Current Inflow Conditions

Regional Economics. The Bureau of Reclamation estimates total construction costs of the EES and pond to be approximately $405 million over four years. Positive effects include increased spending for wages of workers from the local area and increased profits to local material suppliers and service providers. The Bureau of Reclamation estimates that construction would require a total of 370 employees annually, many of whom would be workers from outside the area. Due to the temporary nature of construction activity, it is not expected that any significant secondary employment would be induced.

The Bureau of Reclamation estimates that operations and maintenance of the pond would cost an average of $6.4 million annually and would employ approximately 36 people. This would have minor positive impacts in the region, and could generate minor induced employment.

In the long term, successful restoration could lead to increased recreational use of the Sea, which would spur development in the area and lead to additional positive economic impacts in the area, including increased employment.

Public Finance. Effects under this alternative are similar to those of Alternatives 1 through 4. Specifically, costs of additional public services needed during construction, restoration, and post-restoration stages of project implementation are likely to be offset by increased tax revenues, particularly if recreational and commercial activities near the Sea increase as a result of improvements in water quality.

Demography and Housing. Effects under this alternative are similar to those of Alternatives 1, 3 and 4.

Effect of Alternative 5 with Reduced Inflow Conditions

This alternative would have impacts similar to those discussed for Alternatives 1 through 4.

4.9.10 Cumulative Effects

Other projects and planned projects in the region could have minor cumulative effects on the local socioeconomic environment. Most of these would be beneficial effects from increased economic development in the two counties (e.g., gold mine expansion and class three landfill development). No projects are known within the planning horizon that would result in significant adverse cumulative socioeconomic impacts.

If annual inflow to the Sea were reduced below current flows from other actions (e.g., 4.4 Plan), the Sea's elevation would decline. This could result in a receding shoreline, rendering most current piers and other shoreline facilities unusable. However, with the timely implementation of Phase 2 actions, the Sea elevation would temporarily decline to a level no lower than approximately -237 feet msl. Since all alternatives would ultimately achieve the target levels of salinity and elevation, with consequent economic benefits of restoration, the temporary, negative impacts of changes in Sea elevation are not considered to be significant.

4.9.11 Mitigation Measures

Any residential relocation that may be required by the construction of EES near Bombay Beach (Alternative 2) would occur in accordance with federal and state guidelines for relocation and with compensation of full market value. None of the other action alternatives would result in significant adverse impacts; hence mitigation measures are not required.

4.9.12 Potentially Significant Unavoidable Impacts

None of the action alternatives would result in potentially significant, unavoidable, adverse impacts to social or economic conditions of areas near the Sea.