Section 4.9

Recreation and Visual Resources

Introduction

This section describes recent changes to the existing environmental conditions and regulatory setting of the Project area, summarizes the unchanged affected environment, and describes changed environmental effects related to recreation and visual resources for the Project. This section contains a review and update of the1995 DEIR/EIS air quality impact assessment, incorporated by reference in the 2001 FEIR. The recreation and visual resources impacts of the Project were analyzed most recently in the 2001 FEIS, which also served as a basis for this analysis.

The 2001 FEIR and 2001 FEIS concluded that the Project alternatives would affect recreation and visual resources in the vicinity of the four Project islands. Since that time, there have been no changes in the Project that result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects on recreation and visual resources.

There have been minor changes in the regulatory setting since the 2001 FEIR and 2001 FEIS, but these changes do not alter the conclusions in the 2001 FEIR and 2001 FEIS regarding environmental effects on recreation and visual resources. The 2001 FEIR and 2001 FEIS "Recreation and Visual Resources" analysis has been updated here to update the Regulatory Setting. The additions to the regulatory setting and changes to the Project description as listed below are minor and do not change the impact analysis or mitigation for this Place of Use EIR.

Identification of the Project's specific places of use as part of the affected Project environment does not affect recreation and visual resources in any way that alters the conclusions of the 2001 FEIR and 2001 FEIS. There are no major unanalyzed impacts on these resources at the places of use; although any minor changes in the affected environmental and regulatory setting since the 2001 FEIR and 2001 FEIS do not alter the prior document's conclusions, such changes are addressed by the urban water management plan EIR of each affected place of use. The Project will not have any direct effects on recreation and visual resources in the places of use; the effects on recreation and visual resources, if any, associated with the provision of Project water to the places of use are addressed in Chapter 5, "Cumulative Impacts," and Chapter 6, "Growth-Inducing Impacts."

Summary of Impacts

Table 4.9-1 provides a summary and comparison of the impacts and mitigation measures for recreation and visual resources from the 2001 FEIR, 2001 FEIS, and this Place of Use EIR.

Table 4.9-1. Comparison between Delta Wetlands Project 2010 Place of Use EIR and 2001 FEIR and 2001 FEIS Impacts and Mitigation Measures for Recreation and Visual Resources

2001 FEIR and 2001 FEIS Impacts and Mitigation Measures	Differences between 2010 Place of Use EIR and 2001 FEIR and 2001 FEIS Impacts and Mitigation Measures
ALTERNATIVES 1 AND 2 *There are no differences between the 2010 Place of Use EIR Impacts and the 2001 FEIR and 2001 FEIS Impacts. The revised numbering is reflected below.*	
Impact J-1: Increase in Recreation Use-Days for Hunting in the Delta (B) **Mitigation:** No mitigation is required.	**Impact REC-1:** Increase in Hunting on the Project Islands (B and LTS) **Mitigation:** No mitigation is required.
Impact J-2: Change in Regional Hunter Success outside the Project Area (LTS) **Mitigation:** No mitigation is required.	**Impact REC-2:** Change in Regional Hunter Success Outside the Project Area (LTS) **Mitigation:** No mitigation is required.
Impact J-3: Increase in Recreation Use-Days for Boating in the Delta (B) **Mitigation:** No mitigation is required.	**Impact REC-3:** Increase in Recreation Use-Days for Boating in the Delta (B and LTS) **Mitigation:** No mitigation is required.
Impact J-4: Change in the Quality of the Recreational Boating Experience in Delta Channels (SU) **Mitigation Measure RJ-1:** Reduce the Number of Outward Boat Slips Located at Recreation Facilities	**Impact REC-4:** Change in the Quality of the Recreational Boating Experience in Delta Channels (LTS-M) **Mitigation Measure REC-MM-1:** Reduce the Size or Number of Recreation Facilities This mitigation measure has changed. It now calls for eliminating all recreation facilities on the Reservoir Islands and reducing the size or number of recreation facilities on the Habitat Islands by 70%.
Impact J-5: Increase in Recreation Use-Days for Other Recreational Uses in the Delta (B) **Mitigation:** No mitigation is required.	**Impact REC-5:** Increase in Recreation Use-Days for Other Recreational Uses in the Delta (B and LTS) **Mitigation:** No mitigation is required.
Impact J-6: Reduction in the Quality of Views of the Reservoir Island Interiors from Island Levees (LTS) **Mitigation:** No mitigation is required.	**Impact REC-6:** Reduction in the Quality of Views of the Bacon Island and Webb Tract Interiors from Island Levees (LTS) **Mitigation:** No mitigation is required.
Impact J-7: Potential Conflict with the Scenic Designation for Bacon Island Road (LTS) **Mitigation:** No mitigation is required.	**Impact REC-7:** Potential Conflict with the Scenic Designation for Bacon Island Road (LTS) **Mitigation:** No mitigation is required.

2001 FEIR and 2001 FEIS Impacts and Mitigation Measures	Differences between 2010 Place of Use EIR and 2001 FEIR and 2001 FEIS Impacts and Mitigation Measures
Impact J-8: Reduction in the Quality of Views of the Reservoir Islands from Adjacent Waterways and from the Santa Fe Railways Amtrak Line (SU) **Mitigation Measure RJ-1:** Reduce the Number of Outward Boat Slips Located at Recreation Facilities **Mitigation Measure J-1:** Partially Screen Proposed Recreation Facilities and Pump and Siphon Stations from Important Viewing Areas **Mitigation Measure J-2:** Design Levee Improvements, Siphon and Pump Stations, and Recreation Facilities and Boat Docks to Be Consistent with the Surrounding Landscape	**Impact REC-8:** Reduction in the Quality of Views of Bacon Island and Webb Tract from Adjacent Waterways and from the Santa Fe Railways Amtrak Line (SU) **Mitigation Measure REC-MM-1:** Reduce the Size or Number of Recreation Facilities This mitigation measure has changed. It now calls for eliminating all recreation facilities on the Reservoir Islands and reducing the size or number of recreation facilities on the Habitat Islands by 70%. **Mitigation Measure REC-MM-2:** Partially Screen Proposed Recreation Facilities and Pump and Siphon Stations from Important Viewing Areas **Mitigation Measure REC-MM-3:** Design Levee Improvements, Siphon and Pump Stations, and Recreation Facilities and Boat Docks to Be Consistent with the Surrounding Landscape
Impact J-9: Enhanced Views of Bouldin Island from SR 12 (B) **Mitigation:** No mitigation is required.	**Impact REC-9:** Enhanced Views of Bouldin Island from SR 12 (B and LTS) **Mitigation:** No mitigation is required.
Impact J-10: Reduction in the Quality of Views of the Habitat Islands from Adjacent Waterways (LTS-M) **Mitigation Measure RJ-1:** Reduce the Number of Outward Boat Slips Located at Recreation Facilities **Mitigation Measure J-1:** Partially Screen Proposed Recreation Facilities and Pump and Siphon Stations from Important Viewing Areas **Mitigation Measure J-2:** Design Levee Improvements, Siphon and Pump Stations, and Recreation Facilities and Boat Docks to Be Consistent with the Surrounding Landscape	**Impact REC-10:** Reduction in the Quality of Views of the Habitat Islands from Adjacent Waterways (LTS-M) **Mitigation Measure REC-MM-1:** Reduce the Size or Number of Recreation Facilities This mitigation measure has changed. It now calls for eliminating all recreation facilities on the Reservoir Islands and reducing the size or number of recreation facilities on the Habitat Islands by 70%. **Mitigation Measure REC-MM-2:** Partially Screen Proposed Recreation Facilities and Pump and Siphon Stations from Important Viewing Areas **Mitigation Measure REC-MM-3:** Design Levee Improvements, Siphon and Pump Stations, and Recreation Facilities and Boat Docks to Be Consistent with the Surrounding Landscape
Impact J-11: Increase in Viewing Opportunities and the Quality of Views of Island Interiors and the Project Vicinity for Recreation Facility Members (B) **Mitigation:** No mitigation is required.	**Impact REC-11:** Increase in Opportunities for Recreation Facility Members to View Island Interiors and Other Areas in the Project Vicinity (B and LTS) **Mitigation:** No mitigation is required.
ALTERNATIVE 3	
Impact J-12: Increase in Recreation Use-Days for Hunting in the Delta (B) **Mitigation:** No mitigation is required.	**Impact REC-1:** Increase in Recreation Use-Days for Hunting in the Delta (B and LTS) **Mitigation:** No mitigation is required.
Impact J-13: Increase in Recreation Use-Days for Boating in the Delta (B) **Mitigation:** No mitigation is required.	**Impact REC-3:** Increase in Recreation Use-Days for Boating in the Delta (B and LTS) **Mitigation:** No mitigation is required.

2001 FEIR and 2001 FEIS Impacts and Mitigation Measures	Differences between 2010 Place of Use EIR and 2001 FEIR and 2001 FEIS Impacts and Mitigation Measures
Impact J-14: Change in the Quality of the Recreational Boating Experience in Delta Channels (SU) **Mitigation Measure RJ-1:** Reduce the Number of Outward Boat Slips Located at Recreation Facilities	**Impact REC-4:** Change in the Quality of the Recreational Boating Experience in Delta Channels (LTS-M) **Mitigation Measure REC-MM-1:** Reduce the Size or Number of Recreation Facilities This mitigation measure has changed. It now calls for eliminating all recreation facilities on Bacon Island and Webb Tract, and reducing the size or number of recreation facilities on Bouldin Island and Holland Tract by 70%.
Impact J-15: Increase in Recreation Use-Days for Other Recreational Uses in the Delta (B) **Mitigation:** No mitigation is required.	**Impact REC-5:** Increase in Recreation Use-Days for Other Recreational Uses in the Delta (B and LTS) **Mitigation:** No mitigation is required.
Impact J-16: Reduction in the Quality of Views of Bacon Island and Webb Tract Interiors from Island Levees (LTS) **Mitigation:** No mitigation is required.	**Impact REC-6:** Reduction in the Quality of Views of Bacon Island and Webb Tract Interiors from Island Levees (LTS) **Mitigation:** No mitigation is required.
Impact J-17: Potential Conflict with the Scenic Designation for Bacon Island Road (LTS) **Mitigation:** No mitigation is required.	**Impact REC-7:** Potential Conflict with the Scenic Designation for Bacon Island Road (LTS) **Mitigation:** No mitigation is required.
Impact J-18: Reduction in the Quality of Views of Bacon Island and Webb Tract from Adjacent Waterways and from the Santa Fe Railways Amtrak Line (SU) **Mitigation Measure RJ-1:** Reduce the Number of Outward Boat Slips Located at Recreation Facilities **Mitigation Measure J-1:** Partially Screen Proposed Recreation Facilities and Pump and Siphon Stations from Important Viewing Areas **Mitigation Measure J-2:** Design Levee Improvements, Siphon and Pump Stations, and Recreation Facilities and Boat Docks to Be Consistent with the Surrounding Landscape	**Impact REC-8:** Reduction in the Quality of Views of Bacon Island and Webb Tract from Adjacent Waterways and from the Santa Fe Railways Amtrak Line (SU) **Mitigation Measure REC-MM-1:** Reduce the Size or Number of Recreation Facilities This mitigation measure has changed. It now calls for eliminating all recreation facilities on Bacon Island and Webb Tract, and reducing the size or number of recreation facilities on Bouldin Island and Holland Tract by 70%. **Mitigation Measure REC-MM-2:** Partially Screen Proposed Recreation Facilities and Pump and Siphon Stations from Important Viewing Areas **Mitigation Measure REC-MM-3:** Design Levee Improvements, Siphon and Pump Stations, and Recreation Facilities and Boat Docks to Be Consistent with the Surrounding Landscape
Impact J-19: Change in Views Southward from SR 12 (LTS) **Mitigation:** No mitigation is required.	**Impact REC-12:** Change in Views Southward from SR 12 (LTS) **Mitigation:** No mitigation is required.
Impact J-20: Reduction in the Quality of Views of Holland Tract from the Island Levee (LTS) **Mitigation:** No mitigation is required.	**Impact REC-13:** Reduction in the Quality of Views of Holland Tract from the Island Levee (LTS) **Mitigation:** No mitigation is required.

2001 FEIR and 2001 FEIS Impacts and Mitigation Measures	Differences between 2010 Place of Use EIR and 2001 FEIR and 2001 FEIS Impacts and Mitigation Measures
Impact J-21: Reduction in the Quality of Views of Bouldin Island and Holland Tract from Adjacent Waterways (SU)	**Impact REC-10:** Reduction in the Quality of Views of Bouldin Island and Holland Tract from Adjacent Waterways (SU)
Mitigation Measure RJ-1: Reduce the Number of Outward Boat Slips Located at Recreation Facilities	**Mitigation Measure REC-MM-1:** Reduce the Size or Number of Recreation Facilities
Mitigation Measure J-1: Partially Screen Proposed Recreation Facilities and Pump and Siphon Stations from Important Viewing Areas	This mitigation measure has changed. It now calls for eliminating all recreation facilities on Bacon Island and Webb Tract, and reducing the size or number of recreation facilities on Bouldin Island and Holland Tract by 70%.
Mitigation Measure J-2: Design Levee Improvements, Siphon and Pump Stations, and Recreation Facilities and Boat Docks to Be Consistent with the Surrounding Landscape	**Mitigation Measure REC-MM-2:** Partially Screen Proposed Recreation Facilities and Pump and Siphon Stations from Important Viewing Areas
	Mitigation Measure REC-MM-3: Design Levee Improvements, Siphon and Pump Stations, and Recreation Facilities and Boat Docks to Be Consistent with the Surrounding Landscape
Impact J-22: Increase in Opportunities for Recreation Facility Members to View Reservoir Island Interiors and Other Areas in the Project Vicinity (B)	**Impact REC-11:** Increase in Opportunities for Recreation Facility Members to View Island Interiors and Other Areas in the Project Vicinity (B and LTS)
Mitigation: No mitigation is required.	**Mitigation:** No mitigation is required.

Note: SU = Significant and unavoidable; LTS = Less than significant; LTS-M = Less than significant with mitigation; B = Beneficial.

Summary of Changes, New Circumstances, and New Information

Changes that potentially may affect the affected environment, regulatory setting, or environmental effects of the Project on recreation and visual resources are described in the Existing Conditions section below. The following section is a summary of findings based on that consideration.

Substantial Changes in the Project

Since the 2001 FEIR and 2001 FEIS were completed, there have been no substantial changes in the Project resulting in new significant effects or substantial increase in the severity of effects on recreation and visual resources.

As described in Chapter 3, “Project Operations,” changes have been made to the Project regarding timing of water diversion and export under Alternatives 1 and 2, which have increased the frequency of anticipated shallow-water wetland conditions on the Reservoir Islands. Shallow-water wetland conditions increase the opportunities for waterfowl hunting, resulting in an increase in available hunter-use days. As shown in Tables 4.9-2 and 4.9-3 (which replace Tables 3J-3

and 3J-4 from the 2001 FEIS, respectively), shallow-water wetland conditions will result in 750 hunter-use days per year on the Reservoir Islands. This represents a 5% increase in total estimated annual hunter-use days on Habitat and Reservoir Islands under Alternatives 1 and 2. This increase in annual hunter-use days does not substantially affect the impact analysis for recreation and visual resources.

New Circumstances

Since the 2001 FEIR and 2001 FEIS, there have been no new circumstances that result in new significant effects or substantial increase in the severity of effects on recreation and visual resources.

New Information

There is no new information that would result in new significant effects or a substantial increase in severity of effects on recreation and visual resources.

None of the mitigation measures or alternatives considered in the 2001 FEIR and 2001 FEIS as infeasible has since been found feasible. Also, there are no new or considerably different mitigation measures or alternatives that would substantially reduce previously identified impacts on recreation and visual resources.

Table 4.9-2. Estimated Maximum Number of Hunter Use-Days for the Shallow-Water Wetland Condition on the Reservoir Islands under Alternative 2

	Acres of Shallow-Water Wetlands[a]	Hunter Density (acres per hunter)[b]	Maximum Number of Hunters	Maximum Allowable Hunting Days[c]	Average Percent Frequency of Shallow-Water Wetland Condition[d]	Estimated Annual Maximum Hunter Use-Days	Estimated Annual Participation as a Percentage of Capacity[e]	Estimated Annual Hunter Use-Days
Bacon Island								
October	3,694	30	123	9	65	720		
November	3,694	30	123	30	100	3,690		
December	3,694	30	123	31	65	2,479		
January	3,694	30	123	16	40	788		
Subtotal						7,677	30	2,203
Webb Tract								
October	3,836	30	128	9	75	864		
November	3,836	30	128	30	100	3,840		
December	3,836	30	128	31	70	2,778		
January	3,836	30	128	16	45	922		
Subtotal						8,404	30	2,521
Total								**4,824**

[a] Jones & Stokes Associates 1993.

[b] Jones & Stokes Associates 1993; Forkel pers. comm. 2010.

[c] California Department of Fish and Game 1993.

[d] Values based on averages of maximum and minimum acreages of available shallow-water wetlands during Project years. Methods used to derive percentages are described in Chapter 3, Project Operations.

[e] Estimate of 30% based on possible marginal quality of waterfowl foraging habitat that would attract low numbers of waterfowl; consequently, hunter attendance would be significantly lower than on habitat islands.

Table 4.9-3. Estimated Maximum Number of Hunter Use-Days for Full--Storage Conditions on the Reservoir Islands under Alternative 2

	Total Island Acreage	Hunter Density (acres per hunter)[a]	Maximum Number of Hunters	Maximum Allowable Hunting Days[b]	Average Percent Frequency of Full-Storage Conditions[c]	Estimated Annual Maximum Hunter Use-Days	Estimated Annual Participation as a Percentage of Capacity[d]	Estimated Annual Hunter Use-Days
Bacon Island								
October	5,539	30	185	9	35	394		
November	5,539	30	185	30	0	0		
December	5,539	30	185	31	35	2,008		
January	5,539	30	185	16	60	1,776		
Subtotal						4,179	15	626
Webb Tract								
October	5,470	30	182	9	25	410		
November	5,470	30	182	30	0	0		
December	5,470	30	182	31	30	1,693		
January	5,470	30	182	16	55	1,602		
Subtotal						3,705	15	556
Total								**1,182**

[a] Jones & Stokes Associates 1993; Forkel pers. comm. 2010.

[b] California Department of Fish and Game 1993.

[c] Values based on averages of maximum and minimum acreages of available shallow-water wetlands during Project years. Methods used to derive percentages are described in Chapter 3, Project Operations.

[d] Participation in hunting is predicted to be half of that estimated for reservoir islands during shallow-water wetland periods. (Forkel pers. comm. 2010.)

Existing Conditions

This section discusses changes in the existing conditions or regulatory setting since the 2001 FEIR and 2001 FEIS. There have been no major changes in the existing conditions and environmental effects since the 2001 FEIR and 2001 FEIS. The only changes that have occurred are regulatory in nature and would not affect the impact analysis or mitigation measures. Such changes include:

- new state regulations,
- new recreation policies in the county general plans, and
- updated information pertaining to visual resources from the county general plan policies.

Regulatory Setting

The following are state and local regulations related to recreation and visual resources.

Federal

Federal Water Project Recreation Act

The Federal Water Project Recreation Act requires federal agencies with authority to approve water projects to include recreation development as a condition of approving permits. Recreation development must be considered along with any navigation, flood control, reclamation, hydroelectric, or multipurpose water resource project. The act states that "consideration should be given to opportunities for outdoor recreation and fish and wildlife enhancement whenever any such project can reasonably serve either or both purposes consistently."

The Project proposes new water-based recreation facilities and features. Recreation effects are discussed under Environmental Effects, below.

State

Land Use and Resource Management Plan for the Primary Zone of the Delta

Recreation

The Environmental section of the Land Use and Resource Management Plan for the Primary Zone of the Delta (LURMP) acknowledges how permanent flooding

can have an adverse effect on recreational activities while recreational activities can have an adverse effect on habitat, and includes findings, policies, and recommendations to balance these effects. The Land Use section of the LURMP includes findings, policies, and recommendations to support the promotion of recreation in appropriate locations. The Water section of the LURMP includes findings, policies, and recommendations to protect the long-term water quality in the Delta, in addition to other reasons, for recreation. The Recreation and Access section of the LURMP identifies the Delta as a region that is unique and well noted for its water-oriented recreation. This section includes findings, policies, and recommendations to promote and protect recreational uses in the Delta (Delta Protection Commission 1995).

Visual

The LURMP does not include findings, policies, or recommendations related to protecting or preserving visual resources in the Delta. There are no roadways in the Project vicinity that are designated in state plans as a scenic highway worthy of protection for maintaining and enhancing scenic viewsheds. Accordingly, California Scenic Highway Program guidelines do not apply.

Local

Bacon and Bouldin Islands are located in San Joaquin County, and Webb and Holland Tracts are located in Contra Costa County. The local regulations established by San Joaquin and Contra Costa Counties that pertain to the islands that fall within their respective boundaries are described below.

Contra Costa County General Plan

Recreation

The Land Use Element identifies goals and policies for development and project design that reinforce the aesthetic character of the county, encourage the uniqueness of its communities, and enhance scenic quality. The Project area falls within the Primary Zone of the Delta and Bethel Island Area. The Primary Zone of the Delta is protected under the LURMP, adopted and amended by the DPC. The Bethel Island Area is protected under the goals and policies of the General Plan, Policies for the Primary Zone of the Delta and Policies for the Bethel Island Area, to preserve and enhance the rural and recreational quality of the area. In addition, Project Islands Webb Tract and Holland Tract are identified as having Delta Recreation land use category and are designated as such because of their periodic flooding and potential recreational values due to proximity to Delta waterways and ability to support low intensity uses. These lands are subject to development restrictions set by their designation. (Contra Costa County 2005: 3-37 to 3-39.)

The Transportation and Circulation Element, Scenic Routes section of the general plan requires that scenic routes be planned to access recreational areas, and recreation is encouraged along these routes, where appropriate. In the Project

area, Jersey Island and Bethel Island Roads are designated as county scenic routes under the Transportation and Circulation Element. (Contra Costa County 2005: 5-20 to 5-22.)

The Public Facilities and Services Element, Drainage and Flood Control section of the general plan includes goals and policies to enhance recreation on local waterways and ensure that effects on recreation are taken into account when evaluating alternative drainage system improvements. (Contra Costa County 2005: 7-20 to 7-21.)

The Conservation Element, Water Resources section of the general plan includes goals and policies to enhance public accessibility and recreational use of waterways and to retain waterways in their natural state to maintain their recreational values. (Contra Costa County 2005: 8-45.)

The Open Space Element, Parks and Recreation Facilities section of the general plan includes goals and policies to protect recreation resources in the county. It specifies that outdoor public recreation areas can be used for promoting scenic areas. Private recreational facilities, such as marinas in the Delta, also are protected by the plan. The Bethel Island Area is proposed for multi-use recreation development. Franks Tract State Park and Jersey Island Management Area are identified as existing open space areas whose major purpose is to "project the uniqueness of these lands through passive recreational activities and habitat uses that do not require substantial facilities." (Contra Costa County 2005: 9-7 and 9-12 to 9-6.)

Visual

The Land Use Element identifies goals and policies for development and project design that reinforce the aesthetic character of the county, encourage the uniqueness of its communities, and enhance scenic quality. The Project area falls within the Primary Zone of the Delta and Bethel Island Area. The Primary Zone of the Delta is protected under the LURMP, adopted and amended by the Delta Protection Commission. As described above, the Bethel Island Area is protected under the goals and policies of the General Plan, Policies for the Primary Zone of the Delta and Policies for the Bethel Island Area, to preserve and enhance the rural and recreational quality of the area that in turn act to protect the visual resources in the Bethel Island Area. (Contra Costa County 2005: 3-37 to 3-39.)

The Transportation and Circulation Element, Scenic Routes section of the general plan designates scenic routes that have rural and natural scenic qualities that should be protected. In the Project area, Jersey Island and Bethel Island Roads are designated as county scenic routes and are worthy of protection under Transportation and Circulation Element goals and policies. (Contra Costa County 2005: 5-20 to 5-22.)

The Public Facilities and Services Element, Drainage and Flood Control section of the general plan includes goals and policies to ensure that aesthetic effects are taken into account when evaluating alternative drainage system improvements. (Contra Costa County 2005: 7-20 to 7-21.)

The Conservation Element, Vegetation and Wildlife section of the general plan includes goals and policies to protect Rare, Threatened, and Endangered species that, in addition to other parameters, have aesthetic qualities. The Water Resources section of the general plan includes goals and policies to enhance public accessibility of waterways and to retain waterways in their natural state to maintain their aesthetic values. (Contra Costa County 2005: 9-7 and 8-45.)

As detailed in the Open Space Element, Scenic Resources section of the general plan, preserving the scenic resources of Contra Costa County is an important general plan goal. Particular focus is paid to scenic ridges, hillsides, and rock outcroppings and the Bay-Delta estuary system. The scenic vistas are major contributors to the perception that the county is a desirable place to live and work. Preserving the quality of visually sensitive features of the landscape reinforces the rural landscape character and balances the effects of development. The Delta tributaries and Franks Tract are designated as Scenic Waterways in this element. The Open Space Element of the general plan identifies goals and policies for preserving and protecting areas of high scenic value, including scenic qualities of the shorelines and other elements of the Bay and Delta estuary systems, and scenic ridges, hillsides, and rock outcroppings. (Contra Costa County 2005: 9-4 to 9-6.)

San Joaquin County General Plan

Recreation

The Community Development, Public Facilities section identifies waterways of the Delta as an important part of the county's recreational assets and includes goals and policies to protect them. Potato, White, Disappointment, South Spud Island, Light II, Connection, and Latham Sloughs and Middle River are identified in the general plan as significant recreation resource areas, namely for their scenic channel islands and riparian vegetation. (San Joaquin County 1992: IV-113 to IV-118.)

The Resources, Open Space section includes goals and policies for the projection of open space lands for, among other things, the enjoyment of recreation and protection of natural resources (San Joaquin County 1992: VI-1 to VI-8). The Water Resources and Quality section includes goals and policies to ensure water quantity and quality for recreational resources (San Joaquin County 1992: VI-24). In addition, the Vegetation, Fish, and Wildlife Habitat section acknowledges the recreational value of such resources, especially in the Delta, and includes goals and policies to protect these resources from adverse effects of overuse (San Joaquin County 1992: VI-29 to VI-33).

Visual

The river corridors, groves of valley oak trees, wetlands in the Delta, and sloping foothills and ridges of the Diablo Range and the Sierra Nevada are the key visual resources in the San Joaquin County landscape. The Delta waterways and marshlands are considered important visual features because they provide a contrasting visual element to the large tracts of agricultural land that are common in the county (San Joaquin County 1992).

San Joaquin County has designated as scenic routes roads that lead to recreation areas, exhibit scenery with agricultural or rural values or topographic interest, provide access to historical sites, or offer views of waterways (San Joaquin County 1992). In the Project area, these roads include Lower Roberts Island, Bacon Island, Eight Mile, and Empire Tract Roads (San Joaquin County 1992: VI-6). Figure IV-2 in the Public Facilities, Recreation Section of the Community Development chapter of the general plan identifies the following waterways that are adjacent to the Project islands as Significant Recreation Resource Areas: Potato, White, Connection, and Latham Sloughs and Middle River. Protection and maintenance of these areas for high-quality recreation is an important general plan goal (San Joaquin County 1992).

The Land Use Element and Open Space and Recreation Element of the general plan include several policies for protecting, enhancing, and mitigating effects of development on visual resources in the county, including Delta waterways (San Joaquin County 1992).

Affected Environment

Existing recreation and visual resource conditions are largely as they were presented in the 2001 FEIR and 2001 FEIS and are hereby incorporated by reference. Summaries of these conditions are presented below.

Recreation Resources

The primary unit of measurement of recreation use is the recreation use-day, which represents participation by one individual in a recreational activity during any portion of a 24-hour period. Participation in hunting, fishing, or boating by one individual during a 24-hour period represents 1 recreation use-day. Participation in all three activities during a 24-hour period represents 3 recreation use-days.

Recreational Uses in the Region

The Delta is generally bounded by the cities of Sacramento, Stockton, Tracy, and Pittsburg. Delta recreation is supported by these major population centers and the Bay Area in general. Recreation use in the Delta exceeds 12 million user days annually. Boating is the most popular recreation activity in the Delta, followed by fishing (not including boating), and finally, hunting. According to the DPC, the popularity of hunting has continued to decline in California with the number of resident hunting licenses issued down 61% between 1970 and 1998. However, the demand for recreation opportunities in the Delta is expected to increase as a result of increased population, higher incomes, and increased numbers of retirees.

Approximately 120 commercial recreation facilities exist in the Delta, including at least 100 marinas. Delta marinas provide services to regional boaters that

include temporary and permanent boat berthing, mooring, and dry storage. Most marinas operate at 50%–90% capacity. Other commercial facilities include resorts, restaurants with guest docks, and recreational vehicle parks. Also in the Delta are public recreation facilities that include areas or facilities for boat launching, camping, fishing access, swimming, and picnicking.

On many privately owned Delta islands, owners and their guests hunt waterfowl on agricultural lands. Most of the private hunting clubs in the Delta are small, accommodating between eight and 16 hunters on a typical shoot day. Landowners manage private hunting clubs on Delta islands that in some cases are no longer in agricultural production.

Recreational Uses on the Project Islands

Bacon Island

No waterfowl hunting takes place on Bacon Island. Pheasant hunting is permitted by invitation only and is limited primarily to on-site workers and their families. The total number of hunting recreation use-days per season is estimated at 100.

Approximately 90% of the fishing on Bacon Island takes place adjacent to the county road, which is the only means of public access. Although there are no designated public access areas along the roadway for fishing, members of the public fish Middle River from the island perimeter levee adjacent to Bacon Island Road. No other areas of Bacon Island are accessible to the public. Therefore, fishing from other parts of the island (i.e., away from the county roadway) is limited to relatives and employees of property owners, and trespassers in those areas are asked to leave. Total fishing activity is estimated at 3,120 recreation use-days per year on Bacon Island.

Although there are no marinas or boat docks on Bacon Island, about 35% of the anglers use boats to gain access to Delta waterways adjacent to Bacon Island. The remaining anglers (approximately 65%) fish from the levee adjacent to the county road.

Webb Tract

No public hunting takes place on Webb Tract; hunting is limited to family and friends of the owners. Waterfowl hunting use is estimated at 320 recreation use-days per season. There is some private pheasant hunting, limited to friends and family of property owners, that amounts to about 320 recreation use-days per season.

Written permission from the property owners is required for fishing on Webb Tract. Anglers occasionally fish the northern blowout pond on Webb Tract. Fishing activity on Webb Tract totals approximately 90 recreation use days per year. No boating activity originates from Webb Tract.

Bouldin Island

Waterfowl hunting on Bouldin Island is limited to invited guests, totaling approximately 150 hunting recreation use-days per year. Hunting facilities on the

island consist of a building used to store waterfowl hunting equipment. Pheasant hunting on Bouldin Island also is limited to invited guests and totals about 60 hunting recreation use-days per year.

On-site workers who fish from levees account for most of the fishing on Bouldin Island. Written permission is needed for others visiting the island. Fishing activity averages two anglers per day, for a total of about 360 fishing recreation use-days per season. No boating originates from Bouldin Island.

Holland Tract

One landowner on Holland Tract accommodates for-fee hunting, which constitutes approximately 80% of the waterfowl hunting on this property. The remainder consists of hunting by friends and family of the landowner. Approximately two people hunt per day, for a total of about 50 hunting recreation use-days per season for waterfowl. Other property owners on Holland Tract either do not allow hunting or limit hunting to members of their immediate families. Total waterfowl hunting per season on these properties totals about 10–15 recreation use-days. Pheasant hunting takes place primarily on the west side of Holland Tract. Hunters are charged a fee to visit the island. Approximately 20% of all hunting is non-fee hunting that is limited to friends and family of the landowner. The island generates approximately 30 hunting recreation use-days per season for pheasant. An estimated 80% of the hunters make day trips, and approximately 20% stay overnight in the local area. Approximately half the overnight users stay in hotels, and the other half stay in campgrounds. Hunting facilities on Holland Tract consist of a building used as a clubhouse.

Most fishing on Holland Tract originates from two marinas on the south end of the island. Marina tenants generate an estimated 4,000 fishing recreation use-days per year. Fishing activities associated with the launch ramp (day-use boaters) account for another 4,500–7,700 fishing recreation use-days annually. Fishing from the levees accounts for approximately 200 fishing recreation use-days per year. Total fishing on Holland Tract thus ranges from 8,700 to 11,900 recreation use-days annually.

Two marinas located on Holland Tract presently support recreational boating near the island. The larger marina, located on the southeastern corner of the island, accommodates 235 boats more than 26 feet long and 100 boats less than 20 feet long. Boat slip occupancy at this marina averages approximately 85%, with the summer months being especially busy. Boat slips account for an estimated 24,100 boating recreation use-days per season.

The larger marina also has other facilities, including a fuel dock, a snack shack, a launch ramp, and a 500-foot guest dock. The launch ramp is used by day-use boaters. The launch ramp generates an estimated additional 22,750–38,500 boating recreation use-days per season at Holland Tract. Most launch ramp use is related to waterskiing. Approximately 20% of the launch ramp boating activity is related to fishing.

The other marina on Holland Tract, located on the south shore, has a 21-berth capacity. Total boating generated by this facility is estimated at 1,500 recreation use-days per season.

Visual Resources

The Visual Resources in the Delta Region discussion below describes the current setting of the Project area. The purpose of this information is to establish the existing environmental context against which the reader can understand the environmental changes caused by the Project. The environmental setting information is intended to be directly or indirectly relevant to the subsequent discussion of impacts. For example, the setting identifies groups of people, such as boaters, drivers, and train riders, who have views of the Project area because the action could change their views and experiences.

Concepts and Terminology

Identifying a project area's visual resources and conditions involves three steps:

1. objective identification of the visual features (visual resources) of the landscape;
2. assessment of the character and quality of those resources relative to overall regional visual character; and
3. determination of the importance to people, or *sensitivity*, of views of visual resources in the landscape.

The aesthetic value of an area is a measure of its visual character and quality, combined with the viewer response to the area (Federal Highway Administration 1988). Scenic quality can best be described as the overall impression that an individual viewer retains after driving through, walking through, or flying over an area (U.S. Bureau of Land Management 1980). Viewer response is a combination of viewer exposure and viewer sensitivity. Viewer exposure is a function of the number of viewers, number of views seen, distance of the viewers, and viewing duration. Viewer sensitivity relates to the extent of the public's concern for a particular viewshed. These terms and criteria are described in detail below.

Visual Character

Natural and artificial landscape features contribute to the visual character of an area or view. Visual character is influenced by geologic, hydrologic, botanical, wildlife, recreational, and urban features. Urban features include those associated with landscape settlements and development, including roads, utilities, structures, earthworks, and the results of other human activities. The perception of visual character can vary significantly seasonally, even hourly, as weather, light, shadow, and elements that compose the viewshed change. The basic components used to describe visual character for most visual assessments are the elements of form, line, color, and texture of the landscape features (U.S. Forest Service 1995;

Federal Highway Administration 1988). The appearance of the landscape is described in terms of the dominance of each of these components.

Visual Quality

Visual quality is evaluated using the well-established approach to visual analysis adopted by Federal Highway Administration, employing the concepts of vividness, intactness, and unity (Federal Highway Administration 1988; Jones et al. 1975), which are described below.

- Vividness is the visual power or memorability of landscape components as they combine in striking and distinctive visual patterns.
- Intactness is the visual integrity of the natural and human-built landscape and its freedom from encroaching elements; this factor can be present in well-kept urban and rural landscapes, and in natural settings.
- Unity is the visual coherence and compositional harmony of the landscape considered as a whole; it frequently attests to the careful design of individual components in the landscape.

Visual quality is evaluated based on the relative degree of vividness, intactness, and unity, as modified by its visual sensitivity. High-quality views are highly vivid, relatively intact, and exhibit a high degree of visual unity. Low-quality views lack vividness, are not visually intact, and possess a low degree of visual unity.

Visual Exposure and Sensitivity

The measure of the quality of a view must be tempered by the overall sensitivity of the viewer. Viewer sensitivity or concern is based on the visibility of resources in the landscape, proximity of viewers to the visual resource, elevation of viewers relative to the visual resource, frequency and duration of views, number of viewers, and type and expectations of individuals and viewer groups.

The importance of a view is related in part to the position of the viewer to the resource; therefore, visibility and visual dominance of landscape elements depend on their placement within the viewshed. A viewshed is defined as all of the surface area visible from a particular location (e.g., an overlook) or sequence of locations (e.g., a roadway, trail) (Federal Highway Administration 1988). To identify the importance of views of a resource, a viewshed must be broken into distance zones of foreground, middleground, and background. Generally, the closer a resource is to the viewer, the more dominant it is and the greater its importance to the viewer. Although distance zones in a viewshed may vary between different geographic regions or types of terrain, the standard foreground zone is 0.25–0.5 mile from the viewer, the middleground zone from the foreground zone to 3–5 miles from the viewer, and the background zone from the middleground to infinity (U.S. Forest Service 1995).

Visual sensitivity depends on the number and type of viewers and the frequency and duration of views. Visual sensitivity also is modified by viewer activity, awareness, and visual expectations in relation to the number of viewers and viewing duration. For example, visual sensitivity is generally higher for views

seen by people who are driving for pleasure; people engaging in recreational activities such as hiking, biking or camping; and homeowners. Sensitivity tends to be lower for views seen by people driving to and from work or as part of their work (U.S. Forest Service 1995; Federal Highway Administration 1988; U.S. Soil Conservation Service 1978). Commuters and nonrecreational travelers have generally fleeting views and tend to focus on commute traffic, not on surrounding scenery; therefore, they generally are considered to have low visual sensitivity. Residential viewers typically have extended viewing periods and are concerned about changes in the views from their homes; therefore, they generally are considered to have high visual sensitivity. Viewers using recreation trails and areas, scenic highways, and scenic overlooks usually are assessed as having high visual sensitivity.

Judgments of visual quality and viewer response must be made based in a regional frame of reference (U.S. Soil Conservation Service 1978). The same landform or visual resource appearing in different geographic areas could have a different degree of visual quality and sensitivity in each setting. For example, a small hill may be a significant visual element on a flat landscape but have very little significance in mountainous terrain.

Visual Resources in the Delta Region

The Delta is an extensive, largely agricultural region linking the Central Valley and the Bay Area. Views in the Delta are dominated by flat, open agricultural land and sloughs and rivers that are bordered by levees. Scattered trees occasionally break the horizon, but typical views encompass agricultural fields.

The Delta waterways are important visual features because they contribute to the visual character of the region by enhancing the vividness of views in the Delta. Because few roads traverse the Delta islands, the unique Delta landscape is accessible primarily by boat.

The visual resources associated with the four Project islands are typical of the region. Views of the Project islands from levee roads have some variety in form, line, color, and texture but are not unique to the region. The sensitivity of the visual resources of the four islands varies from island to island based on the wide variability in access to and travel patterns on the islands. The character of the views changes with the season, time of day, and weather, but the quality of the views is relatively uniform.

Bacon Island

Bacon Island is accessible only on its eastern side by a local levee road, Bacon Island Road. Views from the road toward the Bacon Island interior are dominated by intensely farmed agricultural open space with scattered woody vegetation, farm buildings, and rural residences. Mt. Diablo can be seen to the west from Bacon Island Road, providing a background visual element that enhances the vividness of the viewshed from Bacon Island Road. Except for the utility lines that run along the perimeter of Bacon Island, the views of the island from the road are generally intact. The views are not vivid, however, and are common for

the region. The overall visual quality of the island bottom from Bacon Island Road is considered moderate.

San Joaquin County has designated Bacon Island Road as a scenic route because of its recreational access and use characteristics and its visual relationship to the adjacent waterway. The road carries a low volume of traffic, and the remainder of the island is largely inaccessible to the public. The visual resources on this island as viewed from Bacon Island Road are considered moderately sensitive because of the small number of visitors traveling the designated scenic route and the inaccessibility of the rest of the island interior.

Views of the Bacon Island levees from adjacent waterways consist of a variety of forms and colors created by changing elevations between the water level and the levee and by textural differences among the water, the marsh, and the riparian vegetation along the water side of the levees. The views from the waterways are vivid and relatively intact but are common to the region. The overall visual quality of the island viewsheds from the water is considered moderate.

A portion of Middle River along the east side of Bacon Island and a portion of Connection Slough bordering the island to the north are considered "significant resource areas for recreation" by San Joaquin County and are frequently used by boaters and anglers. Views of the island perimeter levees from these waterways therefore are considered highly sensitive.

The Santa Fe Railways Amtrak line immediately south of Bacon Island runs passenger trains between Stockton and Richmond, California. Views of the Bacon Island southern exterior levee from the train are similar to views of the levee from the adjacent waterway along the south side of Bacon Island (Santa Fe Cut). Views of Bacon Island from the railway are considered highly sensitive.

Webb Tract

Interior views of Webb Tract are dominated by agriculture, but the intensity of agricultural production on this island is low compared with that of Bacon Island. Webb Tract has more natural vegetation and high visual variability because of the scattered woody vegetation and blowout ponds. Views of the island bottom from the levee tops are vivid and intact because the visual resources vary and present a natural setting free from encroaching elements. The overall visual quality of resources on Webb Tract therefore is considered high.

Public access is more limited on Webb Tract than on any of the other Project islands. No bridges provide access to the island; it is accessible only by ferry. The number of visitors to the island is low; thus, the visual sensitivity of the Webb Tract landscape as viewed from perimeter levees and other parts of the island interior is considered low.

Views of Webb Tract from adjacent waterways are similar to those described above for Bacon Island. The views are generally intact and vivid but are common to the region. The overall visual quality of the landscape from the waterways is moderate.

Contra Costa County has designated all the waterways surrounding Webb Tract as scenic waterways. The Webb Tract perimeter levees as viewed from these waterways therefore are considered a highly sensitive visual resource.

Bouldin Island

Public access to the interior of Bouldin Island is limited to travelers crossing the island on SR 12. Views from SR 12 toward the interior of Bouldin Island are dominated by intensely farmed agricultural open space with scattered woody vegetation, farm buildings, and rural residential units. Utility lines cross the highway, detracting from the intactness of views of the island. The overall visual quality of Bouldin Island is considered moderate because the visual resources are somewhat intact but are not especially vivid, and because the views are common to the region.

Because Bouldin Island is visible to people from SR 12 and many of the viewers are recreationists in the Delta, visual sensitivity for part of the viewer group could be high. The duration of views for viewers along SR 12 is brief, however, because there are no vista points or rest areas on Bouldin Island from which to prolong the views. Therefore, the overall visual sensitivity is considered moderate for views of the island along SR 12. The views of Bouldin Island are not especially vivid and are common to the region, and SR 12 across the island is not considered eligible for designation as a scenic route. Therefore, the overall visual quality of Bouldin Island is considered moderate for views from SR 12.

Views of Bouldin Island from adjacent waterways are similar to those described above for Bacon Island. The overall visual quality of the landscape from the waterways is moderate; these views are generally intact and vivid but are common to the region. Potato Slough south of Bouldin Island is considered a resource area for recreation, so the south perimeter levee commonly is viewed by boaters and anglers. The Bouldin Island east perimeter levee is visible from marina facilities across Little Potato Slough on Terminous Tract, both north and south of SR 12. Views of these perimeter levees from the waterways are considered highly sensitive because many recreationists use these waterways.

Holland Tract

Public access to Holland Tract is limited to Holland Tract Road along the south levee. Views of Holland Tract from the road consist of agriculture fields and some fallow areas with established woody vegetation along the levee and toward the center of the island. This vegetation adds somewhat to the variety and texture of views and generally enhances the vividness of views of the island. The overall visual quality of resources on Holland Tract is considered moderate because the views are generally common to the region.

One small bridge at the southwest corner of Holland Tract provides access across Rock Slough to the marinas located on the southern levee; other parts of Holland Tract are inaccessible to the public. Furthermore, Holland Tract Road has no special local or state scenic corridor designation. Visual sensitivity of the Holland Tract landscape from the road therefore is considered moderate.

Views of Holland Tract from adjacent waterways include developed marina facilities on the southern and eastern side of the island and vegetated levees in other areas. The marina facilities that border Holland Tract for about 2/3 mile include covered and uncovered boat berths. Small ancillary buildings and covered berths are constructed partly using wood siding. Wood pilings in the water adjacent to one of the marinas are connected by a low narrow ridge of automobile tires. Because these view components generally disrupt the intactness and unity of views in marina areas, visual quality is low along the water side of the levees in the marina areas.

Views of Holland Tract from adjacent waterways away from the marinas are similar to those described above for the other Project islands. The views are generally intact and somewhat vivid but are common to the region; therefore, the overall visual quality of the landscape from the waterways is moderate.

Old River, which borders the eastern side of Holland Tract, and Roosevelt Cut and the flooded Franks Tract waters north of Holland Tract are designated as scenic waterways by Contra Costa County. Furthermore, these waters are frequented by boaters and anglers. The view of Holland Tract levees from these waterways therefore is considered highly sensitive.

Environmental Commitments

The environmental commitments, as described in Chapter 2, would not alter the impact findings related to recreation and visual resources.

Environmental Effects

Methods

The analytical approach, impact mechanisms, and significance criteria remain as presented in the 2001 FEIR and 2001 FEIS and are summarized below.

Significance Criteria

The recreation and visual resources impact analysis considered several criteria for determining the significance of impacts related to this resource. The analysis took into account both relevant criteria contained in Appendix G of the State CEQA Guidelines (Association of Environmental Professionals 2009) and Project-specific criteria developed by the lead agency to address potential impacts unique to the Project's location and elements.

Recreation Assessment and Criteria

Recreation impacts were evaluated by comparing changes in hunting, fishing and boating use that would occur under the Project alternatives with estimates of current recreational uses.

This analysis is based on the assumption that increased recreation opportunities in the Delta constitute beneficial impacts. An alternative is considered to have a significant impact on recreation if it would result in a substantial decrease in recreation use-days in the Delta or a substantial reduction in the quality of existing recreation experiences in the Delta.

Visual Resource Assessment and Criteria

The State CEQA Guidelines were used to determine whether the Project would have a significant environmental effect. A Project alternative is considered to have a significant impact on visual resources under CEQA if it would:

- cause a substantial, demonstrable negative aesthetic effect on a scenic vista or view open to the public have a substantial adverse effect on a scenic vista;
- 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; or
- create a new source of substantial light or glare that would adversely affect day or nighttime public views.

The Project is considered to have a beneficial impact on visual resources if it would improve the visual quality of views or if it would provide new viewing opportunities in the Project area.

Impacts and Mitigation Measures

The additions to the regulatory setting, and changes to the Project description as listed above are minor and do not affect the impact analysis or mitigation reported in the 2001 FEIR and 2001 FEIS. Impacts and mitigation measures from the 2001 FEIR and 2001 FEIS are listed and summarized below.

Proposed Project (Alternative 2)

Alternative 2 involves storage of water on Bacon Island and Webb Tract (Reservoir Islands) and management of Bouldin Island and Holland Tract (Habitat Islands) primarily for wildlife habitat. Reservoir islands would be

managed principally for water storage, with wildlife habitat and recreation constituting secondary uses.

Implementation of Alternative 2 would include development of recreation facilities along the four Project island perimeter levees. These facilities would be run as a private operation and would provide year-round recreation opportunities at the Project islands.

Each recreation facility would include living quarters for as many as 80 people. Parking lots would be constructed at each facility along levee roads to allow vehicle access. A floating boat dock and gangway adjacent to each facility would provide boat access to island interiors along a network of ditches and canals. A similarly sized floating boat dock would be constructed on the slough or river side of the island levees to provide temporary and permanent boat berthing for members who likely would boat, waterski, and fish in Delta channels beyond the Project islands.

A general schedule of recreation facility use can be determined based on various factors. Boating and waterskiing in Delta channels would be expected to occur primarily during the warmer months of the year (mid-May to mid-September). Participation in sport fishing likely would occur primarily during February–November based on the expected presence of different fish species in the Delta. Participation in waterfowl and upland game hunting on the Project islands would take place mostly during October–January based on California hunting regulations. There would be some hunting during the first half of September for mourning dove. The Project applicant's proposed hunting program for the Habitat Islands is described in the HMP.

Other recreation activities at the Project islands could include but would not be limited to birdwatching, photography, skeet and trap shooting, relaxing, walking, nature study, windsurfing, swimming, and canoeing. Recreationists could participate in these activities for a fee or at the invitation of the Project applicant. Many of these activities could take place throughout the year, weather permitting.

Impact REC-1: Increase in Hunting on the Project Islands

As described in the 2001 FEIR and 2001 FEIS, implementation of Alternative 2 would result in a net increase of low- to medium-quality shallow-water wetland waterfowl habitat on Reservoir Islands during some years. All the Reservoir Island acreage would be in a water storage condition in some years. High-quality wintering waterfowl compensation habitat would be created on the Habitat Islands that would also support upland game. The combined habitats for waterfowl and upland game would increase annual hunting recreation use days in the Delta. Most other recreational uses (e.g., boating, fishing) occur during the summer and would not be affected by increases in hunting on the Project islands. This impact is considered beneficial and less than significant.

Mitigation

No mitigation is required.

Impact REC-2: Change in Regional Hunter Success outside the Project Area

As described in the 2001 FEIR and 2001 FEIS, the creation of wintering waterfowl compensation habitat on the Habitat Islands is expected to result in some redistribution of regional waterfowl populations to the Habitat Islands that may cause a decrease in hunter success outside the project area, especially in areas where wintering waterfowl habitat management and waterfowl hunting are secondary to other uses.

However, the decrease in hunter success outside the Project area likely would be offset by an increase in waterfowl populations that the Project attracts to the region. Also, during hunt days when waterfowl retreat from Habitat Islands to other areas in the Delta where they could be hunted outside the Project islands and as waterfowl forage in other areas as food sources diminish on Habitat Islands during the winter. Additionally, implementation of the HMP as part of Alternative 2 would include establishment of waterfowl breeding habitat that would be expected to increase numbers of waterfowl in the region. This impact is considered less than significant.

Mitigation

No mitigation is required.

Impact REC-3: Increase in Recreation Use-Days for Boating in the Delta

As described in the 2001 FEIR and 2001 FEIS, implementation of Alternative 2 would result in a net increase of annual boater use-days at Project build out. Sport fishing would occur primarily from February through November and most boating would occur during the warmer months. Although the Project would not contribute to relieving demands for public access to Delta waterways, implementing Alternative 2 would facilitate greater boating and fishing use in the Delta. Therefore, this impact is considered beneficial and less than significant.

Mitigation

No mitigation is required.

Impact REC-4: Change in the Quality of the Recreational Boating Experience in Delta Channels

As described in the 2001 FEIR and 2001 FEIS, implementation of Alternative 2 would increase boat congestion in Delta channels and alter existing boating conditions on waterways adjacent to the Project islands because new boat docks would require that boats traveling near boat docks maintain speeds of less than 5 mph. If all Project recreation facilities were constructed in waterways without existing speed restrictions, these facilities would place new speed limits on several miles of Delta waterways and could reduce the availability of areas that support waterskiing and other high speed water activities. An increase in the number of boaters in the Project vicinity could detract from the quality of the overall recreation experience for some people. Implementing Mitigation Measure REC-MM-1 would reduce the number of boat dock facilities as well as the number of boats originating from Project recreation facilities. This reduction in

facilities would lessen impacts on the quality of the recreational boating experience in Delta channels to a less-than-significant level.

Mitigation Measure REC-MM-1: Reduce the Size or Number of Recreation Facilities
The Project will reduce the total number or size of recreation facilities proposed by removing all 22 facilities proposed for construction from Bacon Island and Webb Tract, and reducing the number or size of proposed facilities on Bouldin Island and Holland Tract by 70%. This will reduce the number of permanent boat docking spaces provided by the recreation facilities from 2,508 to 330 slips, and will result in an approximately 86% reduction in Project recreation facilities.

Impact REC-5: Increase in Recreation Use-Days for Other Recreational Uses in the Delta

As described in the 2001 FEIR and 2001 FEIS, implementation of Alternative 2 would increase opportunities for Delta recreational activities other than hunting, fishing, and boating such as relaxing, sightseeing, camping, picnicking, photography, and bicycling. This impact is considered beneficial and less than significant.

Mitigation
No mitigation is required.

Impact REC-6: Reduction in the Quality of Views of Bacon Island and Webb Tract Interiors from Island Levees

As described in the 2001 FEIR and 2001 FEIS, implementation of Alternative 2 would result in the conversion of the Bacon Island and Webb Tract interiors from agricultural use to open water or shallow-water wetland vegetation, improvements to existing levees, and the construction of recreation facilities, intake siphons, and discharge pumps along Project levees. These Project features would reduce the vividness and intactness of interior island views from existing island roads, but, as described above in the Affected Environment discussion, there are low numbers of sensitive viewers present on the Reservoir Islands. Therefore, this impact is considered less than significant.

Mitigation
No mitigation is required.

Impact REC-7: Potential Conflict with the Scenic Designation for Bacon Island Road

As described in the 2001 FEIR and 2001 FEIS, implementation of Alternative 2 would remove vegetation along project levees and introduce rock revetment, recreation facilities, and a siphon station facility that would be visible and change views from Bacon Island Road, a designated scenic corridor, toward the Project area. Access to recreation areas and views of other adjacent waterways, criteria for Bacon Island Road's scenic designation, would not be affected. Therefore, this impact is considered less than significant.

Mitigation
No mitigation is required.

Impact REC-8: Reduction in the Quality of Views of Bacon Island and Webb Tract from Adjacent Waterways and from the Santa Fe Railways Amtrak Line

Implementation of Alternative 2 would substantially reduce the intactness and unity of highly sensitive views of these island levees from adjacent waterways, including waterways around Bacon Island and Webb Tract that are designated as scenic, by removing vegetation and introducing rock revetment, siphon stations, pump stations, and recreation facilities along project levees. Views from the Santa Fe rail line along the south side of Bacon Island would be similarly affected. Implementation of Mitigation Measures REC-MM-1, REC-MM-2, and REC-MM-3 would reduce the severity of Impact REC-8, but not to a less-than-significant level. Therefore, this impact is considered significant and unavoidable.

Mitigation Measure REC-MM-1: Reduce the Size or Number of Recreation Facilities

This mitigation measure is described above, under Impact REC-4. Implementation of Mitigation Measure REC-MM-1 would eliminate all recreation facilities on Bacon Island and Webb Tract.

Mitigation Measure REC-MM-2: Partially Screen Proposed Recreation Facilities and Pump and Siphon Stations from Important Viewing Areas

The Project will, consistent with flood control and levee or facility maintenance requirements, establish screening that could consist of native trees, shrubs, landscape berms, and ground covers between the Project facilities and designated scenic waterways. Landscape berms near structures will provide partial screening and will better connect the buildings visually to the site and the area. Screening vegetation will be planted in locations and at a density that would provide at least a 50% visual screen after 5 years.

Mitigation Measure REC-MM-3: Design Levee Improvements, Siphon and Pump Stations, and Recreation Facilities and Boat Docks to Be Consistent with the Surrounding Landscape

The Project will require that pump and siphon station structures and recreation facilities be painted in earth tones to blend with the surrounding landscape. Rock revetment material will be selected to blend with the surrounding landscape. The Project will limit structure heights and emphasize horizontal features in its design. Boat docks and related structures will be constructed of natural appearing materials with subdued, earth-tone colors to blend in with the surrounding environment.

Impact REC-9: Enhanced Views of Bouldin Island from SR 12

Implementation of Alternative 2 would involve management of Bouldin Island for wildlife habitat, which would enhance the vividness of views from SR 12. This impact is considered beneficial and less than significant.

Mitigation

No mitigation is required.

Impact REC-10: Reduction in the Quality of Views of Bouldin Island and Holland Tract from Adjacent Waterways

Implementation of Alternative 2 would include construction of boat docks and related structures, which would introduce built elements into a generally intact landscape, reduce the quality of views of island levees from designated scenic and significant waterways, and reduce the unity and intactness of the highly sensitive views from adjacent channels. Therefore, this impact is considered significant.

Implementation of Mitigation Measures REC-MM-1, REC-MM-2, and REC-MM-3 would reduce Impact REC-10 to a less-than-significant level.

Mitigation Measure REC-MM-1: Reduce the Size or Number of Recreation Facilities

This mitigation measure is described above, under Impact REC-4.

Mitigation Measure REC-MM-2: Partially Screen Proposed Recreation Facilities and Pump and Siphon Stations from Important Viewing Areas

This mitigation measure is described above under Impact REC-8.

Mitigation Measure REC-MM-3: Design Levee Improvements, Siphon and Pump Stations, and Recreation Facilities and Boat Docks to Be Consistent with the Surrounding Landscape

This mitigation measure is described above under Impact REC-8.

Impact REC-11: Increase in Opportunities for Recreation Facility Members to View Island Interiors and Other Areas in the Project Vicinity

Implementation of Alternative 2 would provide increased access to the Project area through new recreation facilities on Reservoir Islands that would provide views to open water and wetland areas at or near Reservoir Islands. In addition, a complex mosaic of wildlife habitats would be established within the interiors of the Habitat Islands that would greatly enhance the vividness of views of the island interiors from the surrounding levees. Recreation facility members would benefit from these enhanced views. This impact is considered beneficial and less than significant.

Mitigation

No mitigation is required.

Alternative 1

The recreation program under this alternative is the same as under Alternative 2. Impacts and mitigation measures under Alternative 1 are the same as described above for Alternative 2.

Alternative 3

Impact REC-1: Increase in Hunting on Project Islands

As described in the 2001 FEIR and 2001 FEIS, implementation of Alternative 3 would result in a net increase of shallow-water wetland habitat on the four Project islands in some operating years and provide low- to medium quality waterfowl foraging habitat. High-quality wintering waterfowl foraging habitat in the NBHA would also be available for hunting. Water storage on Project islands would allow waterfowl to rest on the open water and possibly forage in shallow areas around the storage pool edges. The Project islands also support a net increase in annual recreation use-days in the Delta for waterfowl and upland game hunting. This impact is considered beneficial and less than significant.

Mitigation

No mitigation is required.

Impact REC-3: Increase in Recreation Use-Days for Boating in the Delta

As described in the 2001 FEIR and 2001 FEIS, implementation of Alternative 3 would result in a net increase of annual boater use-days at Project build out. This impact is considered beneficial and less than significant.

Mitigation

No mitigation is required.

Impact REC-4: Change in the Quality of the Recreational Boating Experience in Delta Channels

As described in the 2001 FEIR and 2001 FEIS, implementation of Alternative 3 would increase boat congestion in Delta channels and alter existing boating conditions on waterways adjacent to the Project islands. This impact is described above under Impact REC-4. Implementation of mitigation measure REC-MM-1 would reduce the severity of Impact REC-4 to a less-than-significant level.

Mitigation Measure REC-MM-1: Reduce the Size or Number of Recreation Facilities

This mitigation measure is described above, under Alternative 2.

Impact REC-5: Increase in Recreation Use-Days for Other Recreational Uses in the Delta

As described in the 2001 FEIR and 2001 FEIS, implementation of Alternative 3 would increase participation in other recreational activities in the Delta, support recreation use-days for other recreational activities, and provide accommodations to support these activities. This impact is considered beneficial and less than significant.

Mitigation

No mitigation is required.

Impact REC-6: Reduction in the Quality of Views of Bacon Island and Webb Tract Interiors from Island Levees

This impact is described above under Alternative 2. This impact is considered less than significant.

Mitigation

No mitigation is required.

Impact REC-7: Potential Conflict with the Scenic Designation for Bacon Island Road

This impact is described above under Alternative 2. This impact is considered less than significant.

Mitigation

No mitigation is required.

Impact REC-8: Reduction in the Quality of Views of Bacon Island and Webb Tract from Adjacent Waterways and from the Santa Fe Railways Amtrak Line

This impact is described above under Alternative 2. This impact is considered significant and unavoidable. Implementation of Mitigation Measures REC-MM-1, REC-MM-2, and REC-MM-3 would reduce the severity of Impact REC-8, but not to a less-than-significant level. This impact is significant and unavoidable.

Mitigation Measure REC-MM-1: Reduce the Size or Number of Recreation Facilities

This mitigation measure is described above, under Impact REC-4.

Mitigation Measure REC-MM-2: Partially Screen Proposed Recreation Facilities and Pump and Siphon Stations from Important Viewing Areas

This mitigation measure is described above under Alternative 2.

Mitigation Measure REC-MM-3: Design Levee Improvements, Siphon and Pump Stations, and Recreation Facilities and Boat Docks to Be Consistent with the Surrounding Landscape

This mitigation measure is described above under Alternative 2.

Impact REC-10: Reduction in the Quality of Views of Bouldin Island and Holland Tract from Adjacent Waterways

Implementation of Alternative 3 would remove vegetation along project levees and introduce rock revetment, recreation facilities, and siphon and pump station facilities along Bouldin Island and Holland Tract levees. These changes would substantially reduce the high quality of views from adjacent waterways and other recreation areas that are designated as scenic and sensitive by San Joaquin and Contra Costa Counties. Implementation of Mitigation Measures REC-MM-1, REC-MM-2, and REC-MM-3 would reduce the severity of Impact REC-10, but not to a less-than-significant level. This impact is considered significant and unavoidable.

Mitigation Measure REC-MM-1: Reduce the Size or Number of Recreation Facilities
This mitigation measure is described above under Impact REC-4.

Mitigation Measure REC-MM-2: Partially Screen Proposed Recreation Facilities and Pump and Siphon Stations from Important Viewing Areas.
This mitigation measure is described above under Alternative 2.

Mitigation Measure REC-MM-3: Design Levee Improvements, Siphon and Pump Stations, and Recreation Facilities and Boat Docks to Be Consistent with the Surrounding Landscape
This mitigation measure is described above under Alternative 2.

Impact REC-11: Increase in Opportunities for Recreation Facility Members to View Reservoir Island Interiors and Other Areas in the Project Vicinity

Implementation of Alternative 3 would provide increased access to the Project area through new recreation facilities on the Project islands that would provide views to open water and wetland areas at or near the islands. Members of recreation facilities located in the NBHA would benefit from the increased variation of habitat types created in this area. This impact is considered beneficial and less than significant.

Impact REC-12: Change in Views Southward from SR 12

As described in the 2001 FEIR and 2001 FEIS, implementation of Alternative 3 would substantially alter the viewshed south from SR 12 as it crosses Bouldin Island as a result of construction of a new levee parallel to the highway. Enhancement of habitat north of SR 12 would increase the vividness of views north of the highway.

However, the portion of SR 12 in the Project area is not designated by Caltrans or San Joaquin County as a scenic roadway. Therefore, this impact is considered less than significant.

Mitigation
No mitigation is required.

Impact REC-13: Reduction in the Quality of Views of Holland Tract from the Island Levee

Implementation of Alternative 3 would convert land use of the island floor from agriculture to open water or wetland vegetation; remove vegetation along project levees; and introduce rock revetment, recreation facilities, and a siphon station facility that would be visible and change views from the island levee.

Because the agricultural nature of Holland Tract is common to the region, the visual quality is considered moderate. The visual sensitivity is moderate because of limited access along the south side of the island. Therefore, this impact is considered less than significant.

Mitigation
No mitigation is required.

No-Project Alternative

The No-Project Alternative analysis remains largely as it was presented in the 2001 FEIR and 2001 FEIS and is hereby incorporated by reference. It is briefly summarized below.

Increase in Recreation Use-Days for Hunting in the Delta

Under the No-Project Alternative, an intensive for-fee hunting program would be operated on the Project islands. This program would generate approximately 12,000 additional recreation use-days, resulting in a 17% increase over the existing hunting recreation use-days in the Delta. Implementation of the No-Project Alternative would also contribute to a cumulative increase in recreation opportunities in the Delta.