

## **7.5 VISUAL RESOURCES**

---

## 7.5 VISUAL RESOURCES

### 7.5.1 INTRODUCTION

#### 7.5.1.1 Content

This section describes the impacts of the Monterey Amendment and the Settlement Agreement on visual resources. Some elements of the proposed project have the potential to directly affect visual resources, and these elements are shown in Table 7.5-1.

<b>TABLE 7.5-1</b>		
<b>IMPACTS OF PROPOSED PROJECT ELEMENTS ON VISUAL RESOURCES</b>		
<b>Proposed Project Element</b>	<b>Potentially Affected Environmental Resources</b>	<b>Impact Number</b>
<b>Monterey Amendment</b>		
Reallocation of water supplies in droughts	Changes visual character associated with potential changes in agricultural practices	7.5-1
Permanent transfers of water	Changes visual character associated with potential changes in agricultural practices	7.5-1
Transfer of Kern Fan Element lands	Changes visual character associated with construction and operation of groundwater storage facilities in Kern Fan Element	7.5-3
Water supply management practices	Changes visual character associated with construction and operation of groundwater storage facilities/Changes in reservoir levels	7.5-2, 7.5-4, 7.5-5
Restructured financial arrangements	NA	NA
<b>Settlement Agreement</b>		
Substitute Table A amount for entitlement	NA	NA
Disclosure of SWP delivery capabilities	NA	NA
Guidelines on permanent transfers	NA	NA
Guideline for public participation	NA	NA
Restrictions on Kern Fan Element lands	Changes in visual character associated with restrictions on development of 490 acres of land in Kern Fan Element	7.5-3
Watershed forum in Plumas	Changes in visual character associated with development of watershed improvement projects	7.5-6
Amendment of Plumas SWP contract	NA	NA
Funding for plaintiffs	NA	NA
Note: NA – Not Applicable.		

During public review of the Notice of Preparation for this EIR, interested parties submitted no comments on visual resources.

### 7.5.1.2 Analytical Method

Qualitative assessment of impacts on visual resources was conducted in accordance with standard professional practices for CEQA documents. Factors considered in the analysis included:

- the nature and magnitude of changes in visual character;
- the number and importance of vantage points from which changes would be viewed;
- the number of viewers who would be affected; and
- likely reactions to changes in visual character.

Substantial changes are defined as changes beyond those normally observed because of historical variation of fluctuation, changes that are disproportionate to any previously experienced, or irreversible changes that would negatively affect an average person's impression of an area. Site visits to the facilities were used to record the visual character of the facilities and the shoreline characteristics of those facilities that could be affected by changes in water surface elevations. Site visits to Lake Perris and Castaic Lake in May 2007 were used to analyze potential future impacts of drawdown on visual resources.

### 7.5.1.3 Standards of Significance

The following standards of significance are based on Appendix G of the CEQA guidelines. For the purposes of this EIR, impacts to visual resources would be considered significant if the proposed project would:

- have a substantial 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 corridor; or
- substantially degrade the visual character of any area.

## 7.5.2 ENVIRONMENTAL SETTING

### 7.5.2.1 Physical Setting in 1995

#### Southern San Joaquin Valley Portion of Kern County

Topography of the southern San Joaquin Valley portion of Kern County is flat. Historically, shallow lakes and seasonal wetlands occupied much of the valley floor. In the early part of the twentieth century, the lakes and wetlands were drained and the valley bottom converted to agricultural use. Now the southern San Joaquin Valley portion of Kern County is largely devoted to agriculture. In 1995, about 800,000 acres of land were irrigated with about 40 percent of the land devoted to permanent crops.<sup>1</sup> The predominant visual impression of the area is of vast areas of tree and field crops extending across the valley floor to the foothills.

Prior to 1995, direct groundwater recharge using percolation ponds was only practiced on a small scale in Kern County. Agencies that practiced direct groundwater recharge included KCWA, Arvin-Edison WSD, North Kern WSD, Rosedale-Rio Bravo WSD, Buena Vista WSD and West Kern County WD.<sup>2</sup> Less than one percent of the land on the valley floor was devoted to percolation ponds. Percolation ponds were not a prominent visual feature in the southern San Joaquin Valley.

### **Kern Fan Element**

The Kern Fan Element consists of 20,546 acres of land located in Kern and Kings counties, southwest of Bakersfield. The Kern Fan Element lies on both sides of the Kern River but does not include the river itself, or the lands within the river levees. The terrain is flat with no more than a few feet of topographical relief. In 1995, there were no major structures on Kern Fan Element except for Interstate 5 (I-5), the Cross Valley Canal, and some abandoned tanks and other oil field equipment, and about 3,000 acres of percolation ponds.

The Kern Fan Element was farmed for many years until the mid-1980s. After the California Department of Water Resources (Department) purchased the land in 1986, the agricultural fields were gradually taken out of production. By 1995, agriculture had ceased on the property and introduced annual grasses and forbs had colonized the land.

### **Castaic Lake**

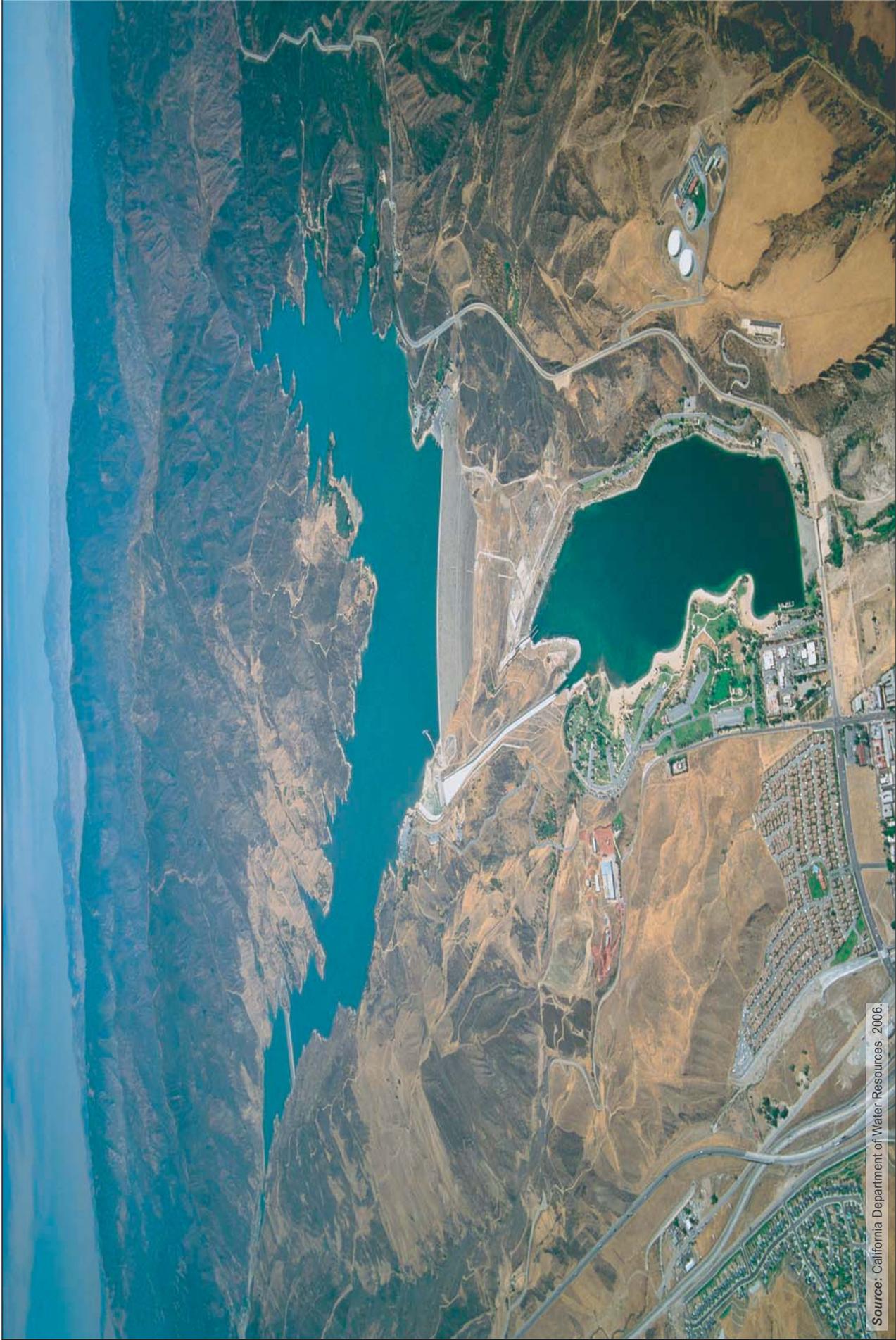
Castaic Lake is the terminus of the West Branch of the California Aqueduct. It was completed in 1972 and is located about 45 miles northwest of Los Angeles and about two miles north of the community of Castaic. The lake has a maximum capacity of 323,700 acre-feet, a surface area of 2,240 acres and 29 miles of shoreline.<sup>3</sup> Water surface elevations are typically at their highest level in March and at their lowest level in October. In the period 1974 through 1994, the difference between the highest and lowest monthly average water surface elevations was about 33 feet.

Castaic Lake lies in an area where the topography is steep with incised valleys. Vegetation around the lake consists of coastal scrub and chaparral with some landscaped campgrounds and recreation areas (Figure 7.5-1). Due to the steep topography along a majority of the lake margin and fluctuating water levels, vegetation is sparse and isolated to areas of the lake margin along gradual slopes. Above the lake margin, native scrub vegetation covers the steep hillsides surrounding the reservoir. When the lake is drawn down a visually prominent band of bare rock and soil is exposed around its perimeter.

### **Lake Perris**

Lake Perris is located just south of the City of Moreno Valley and is supplied with water from the East Branch of the California Aqueduct. It has a capacity of 131,500 acre-feet, a surface area of 2,320 acres and a 10-mile long shoreline.<sup>4</sup> Water surface elevations typically reach a high point in March and a low point in August or September. In the period 1974 through 1994, the difference between the highest and lowest monthly average water surface elevations was about 10 feet.

Lake Perris lies within a natural bowl and is surrounded by hills covered by sage-scrub (Figure 7.5-2). There is no development around the shoreline except for picnic areas, camping sites, boat docks and parking lots, located primarily on the north side of the lake. The picnic areas and camping sites are landscaped and irrigated. Approximately two miles of established riparian vegetation is located along the eastern shoreline. When Lake Perris is drawn down a visually prominent band of rock and soil is exposed.

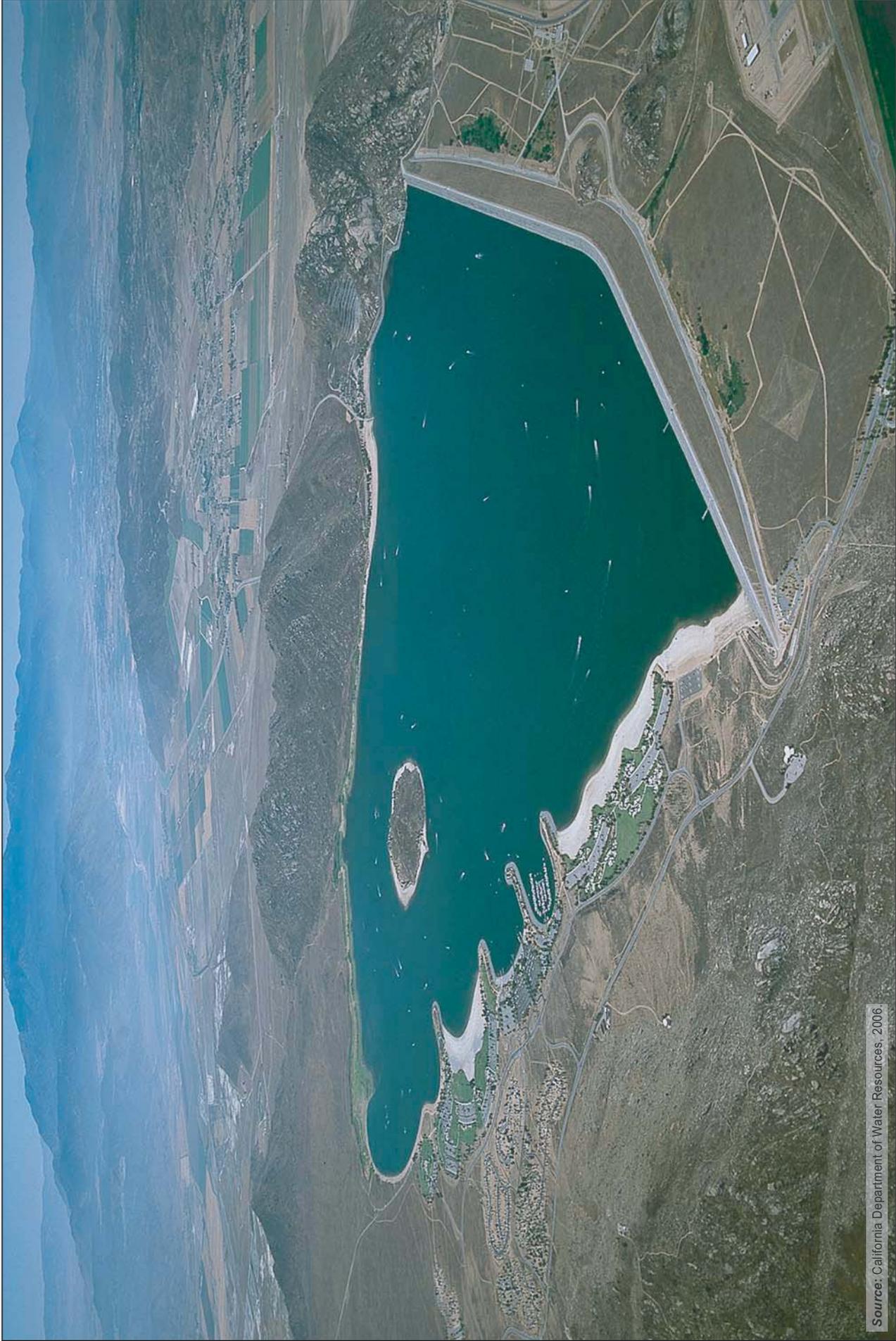


Source: California Department of Water Resources, 2006.

**FIGURE 7.5-1**  
**Castaic Lake**



D50680.00



Source: California Department of Water Resources, 2006

FIGURE 7.5-2  
**Lake Perris**



D50680.00

## **San Luis Reservoir**

San Luis Reservoir is located in western Merced County, just east of the Merced/Santa Clara County line. The reservoir has a maximum capacity of 2,027,800 acre-feet, a surface area of 12,520 acres, and a 65-mile long shoreline.<sup>5</sup> Water surface elevations typically reach a high point in March and a low point in August. In the period 1974 through 1994, the difference between the highest and lowest monthly average water surface elevations was about 220 feet.

The reservoir shoreline is undeveloped except for the state-owned recreation facilities on its north side. Views of the reservoir primarily consist of annual grassland, coastal sage-scrub, and riparian woodland that are characteristic of the relatively low rounded foothills of the Diablo Range (Figure 7.5-3). When San Luis Reservoir is drawn down, a broad visually prominent band of rock and soil is exposed.

## **Lake Oroville**

When Lake Oroville is filled to its maximum operating storage level, it covers 15,810 acres and has a 167-mile shoreline (Figure 7.5-4). The reservoir is visible from the road and walkway along the crest of the dam and is prominently visible from State Route (SR) 162 and to a lesser extent from SR 70 and from a number of local roads. Many of the most immediate views are from the marinas, boat launch areas, campgrounds, picnic areas, and other developed recreational areas surrounding the reservoir.<sup>6</sup>

Reservoir water surface elevation is the critical factor affecting the aesthetic quality of views of the reservoir. When the reservoir is at or near its maximum operating storage level, and the water surface meets fully vegetated shorelines, it is at its most attractive. As drawdown occurs during the summer and fall, an increasingly broad ring of unvegetated shoreline appears. In narrow or steep-sided branches of the reservoir, large drawdowns can create conditions in which it appears the reservoir is set within a deep, red-sided canyon. In areas where slopes are gradual, areas that appear to be large, reddish mudflats are created.<sup>7</sup>

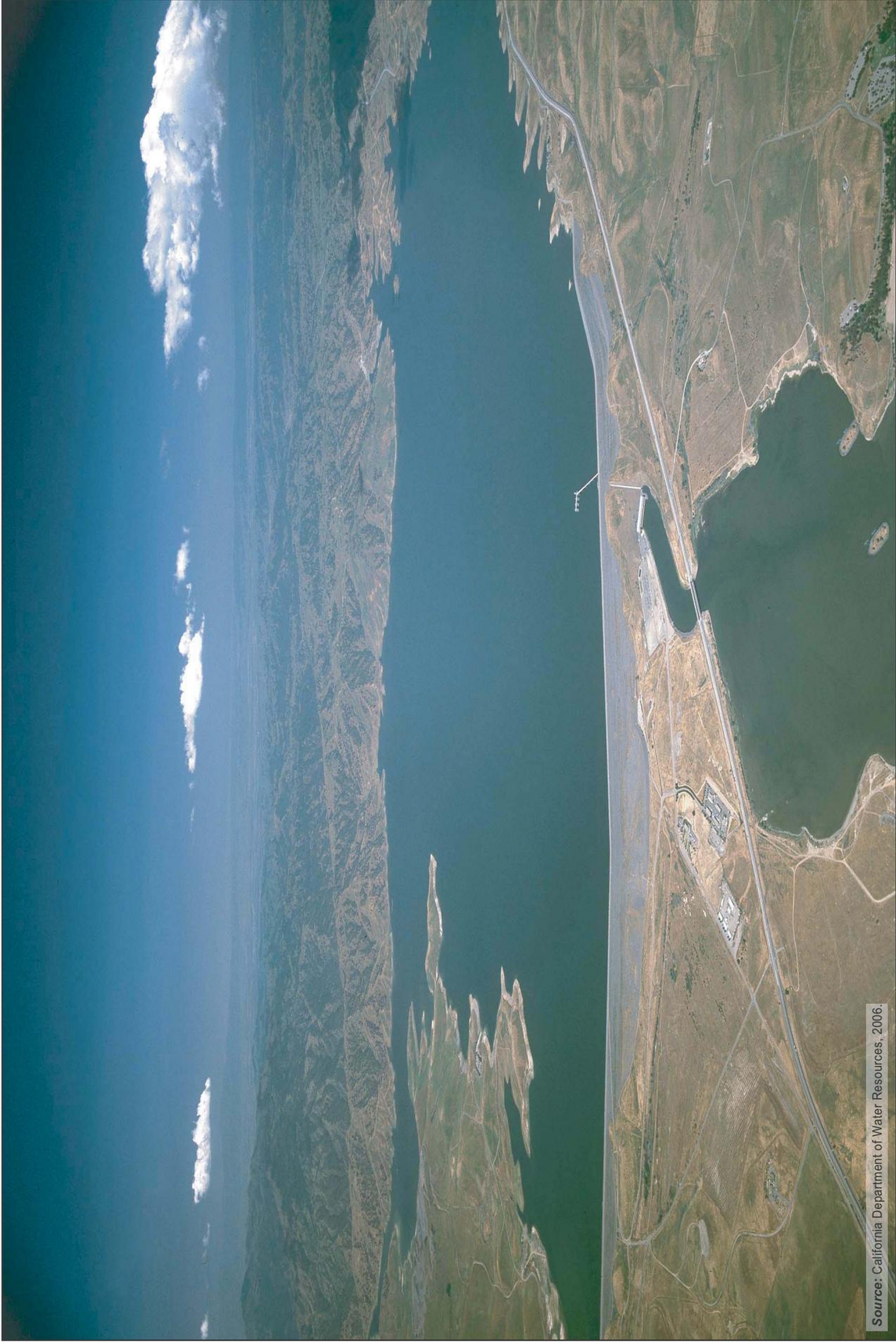
### **7.5.2.2 Changes in Physical Setting between 1996 and 2003**

#### **Southern San Joaquin Valley Portion of Kern County Excluding the Kern Fan Element**

There were no major changes in visual resources in the southern San Joaquin Valley portion of Kern County (excluding the Kern Fan Element) between 1996 and 2003. Of the changes that occurred some were attributable to the proposed project and others were not. The construction of the Kern Water Bank Canal conversion of open land to percolation ponds was attributable, to the proposed project. The gradual conversion of agricultural lands to urban uses, particularly near the city of Bakersfield, was not attributable to the proposed project. The existing trend toward planting high value permanent crops in place of field crops continued. Neither the proposed project-induced changes nor the other changes have greatly altered the predominant visual impression of the area - vast areas of tree and field crops extending across the valley floor to the foothills.

#### **Kern Fan Element**

Most of the changes in visual resources in the Kern Fan Element between 1996 and 2003 are attributable to the proposed project. They include the construction of percolation ponds and the Kern Water Bank Canal and are described above.

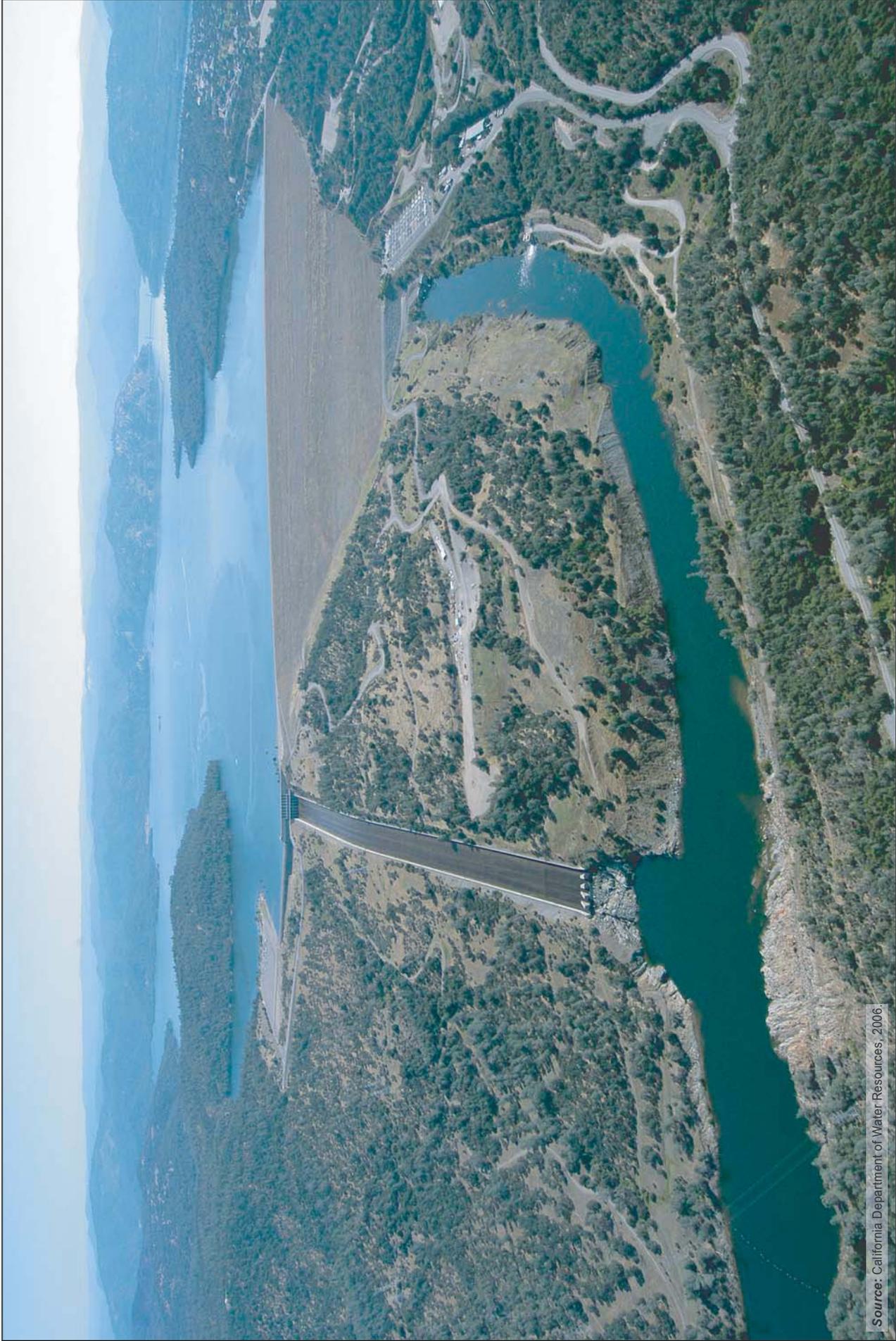


Source: California Department of Water Resources, 2006.

FIGURE 7-5-3  
**San Luis Reservoir**



D50680.00



Source: California Department of Water Resources, 2006

FIGURE 7.5-4  
**Lake Oroville**



D50680.00

### **Castaic Lake**

Between 1995 and 2003 there were several times when Castaic Lake was drawn down for repairs or from drought conditions. These drawdowns exposed large portions of barren soil, rock, and silt usually under the normal operating water surface elevations. Otherwise, there have been no substantial and permanent changes in visual resources at Castaic Lake between 1996 and 2003.

### **Lake Perris**

There have been no substantial changes in visual resources at Lake Perris between 1996 and 2003.

### **San Luis Reservoir**

There have been no substantial changes in visual resources at San Luis Reservoir between 1996 and 2003 except for those that are a consequence of the proposed project and are described above.

### **Lake Oroville**

There have been no substantial changes in visual resources at Lake Oroville between 1996 and 2003.

### **Plumas County**

Plumas County is located where the Sierra Nevada meets the Cascade Mountains in northeastern California. It is a rural county with no large cities. With an area of 2,554 square miles and a population of about 21,000, it has a population density of about eight people per square mile. Much of the county is within the Plumas and Lassen National Forests. Principal economic activities in the county are recreation, services, and forest products.

The Feather River drains most of Plumas County. There are more than 1,000 miles of streams and more than 100 lakes in the Feather River watershed. Many streams remain in a natural condition but others have been extensively developed for water supply and hydropower generation. Pacific Gas and Electric operates a series of hydropower projects on the North Fork of the Feather River. There are three SWP reservoirs in Plumas County; Antelope Lake on a tributary of the North Fork, and Frenchman Lake and Lake Davis on tributaries of the Middle Fork. Hydropower projects and water supply reservoirs alter natural flow regime and stream channel morphology.

#### **7.5.2.3 Regulatory Setting in 1995**

Lake Perris is located in Riverside County. The County of Riverside General Plan contains policies designed to conserve significant scenic resources along designated scenic highways for future generations and to manage development along scenic highways and corridors so as not to detract from the area's scenic quality. Ramona Expressway, which runs just south of Lake Perris, has been noted as an "Eligible County Scenic Highway" due to the visual significance of the area it traverses.

San Luis Reservoir is located in Merced County. The Merced County General Plan recognizes three river corridors and views of the Sierra Nevada and Coast Range as major scenic vistas. The plan also notes that the county's rural lands, which comprises 90 percent of total land area, has a high scenic value. SR 152, west of I-5, is a designated State Scenic Highway. This segment of SR 152 is located just north of San Luis Reservoir.

Castaic Lake is located in Los Angeles County. The general plan contains a scenic highway element, which may be incorporated into other portions of an updated general plan when that is adopted (currently in process). Castaic Lake is within the Santa Clarita Valley Area Plan, which contains additional policies that supplement the regional policies in the county general plan. Under the Caltrans State Scenic Highway designation system, I-5, which bisects Castaic Lake and provides extensive views of the reservoir, is eligible for designation as a scenic highway, but an Official Designation has not been adopted. SR 14, which also features prominent views of the reservoir, has not been designated as eligible.<sup>8</sup>

Lake Oroville is in Butte County. The Butte County General Plan is in the process of being updated; however, a new plan has not yet been adopted. The current general plan includes a Scenic Highway Element, which was adopted in 1977. The element focuses on coordination with Caltrans during the identification and designation of scenic highways in the county and establishes policies for development along scenic corridors.<sup>9</sup> None of the policies are directly applicable to the proposed project. Under the Caltrans State Scenic Highway designation system, SR 70 is eligible for designation as a scenic highway, but an Official Designation has not been adopted. SR 162, which features more prominent views of the reservoir, has not been designated as eligible.<sup>10</sup>

#### **7.5.2.4 Changes in Regulatory Setting between 1996 and 2003**

There have been no substantial changes in the regulatory framework since 1996 that would affect the analysis of visual resources impacts, except for a Scenic Highways Element included in the 2004 Kern County General Plan. Highways in Kern County that provide access to existing and potential groundwater bank areas are not officially designated for scenic value either by Caltrans or the county general plan.

### **7.5.3 IMPACTS AND MITIGATION MEASURES**

#### **7.5-1 Implementation of the proposed project could potentially affect visual resources in the southern San Joaquin Valley portion of Kern County as a result of changes in agricultural practices.**

##### **1996 — 2003**

The Monterey Amendment enables various changes in the way the Department allocates water among contractors during times of shortage and surplus and enables agricultural contractors to retire and transfer a portion of their Table A amounts. The effect of these changes was to increase the reliability of water supplies but decrease the total amount of Table A water available to farmers in Kern County. The reliability and availability of agricultural water supplies is one factor that may contribute to the amount and types of crops that farmers decide to plant, which in turn affects the appearance of the landscape in the southern San Joaquin Valley portion of Kern County.

Throughout the lands within the KCWA's boundaries, farmers have replaced annual crops, such as alfalfa, corn and potatoes, with permanent crops, such as grapes and almonds. Permanent crops are generally taller and provide more visual variety than annual crops. Permanent crops break up the uninterrupted views across miles of flat land, prevalent where annual crops are grown in the southern San Joaquin Valley.

As shown in Table 7.6-3 in Section 7.6 Agricultural Resources, the acreage of permanent crops in the service areas of four KCWA member agencies that rely heavily on SWP water increased from 72,769 acres in 1995 to 109,669 acres in 2001, an approximately 50 percent increase. Of the three SWP contractors in Kings County, Kings County WD, reports cultivation of an increasing proportion of permanent crops within its service area. This is probably the result of general trends because SWP water represents only a small proportion of the district's water supply. A second contractor, Tulare Lake Basin WSD, reports no change in the proportion of permanent crops in its district. Periodic flooding, clayey soil types, and a high water table limits cultivation of permanent crops in the Tulare Lake Basin WSD.

Therefore, it is possible that some land was converted to permanent crops as a result of the proposed project, and that these changes in agricultural practices could have altered the appearance of lands within the KCWA's boundaries. However, no clear trend can be attributable to the proposed project that can be discerned for the period between 1996 and 2003 and any changes have not resulted in a dramatic change in visual character. Furthermore, any changes would have been seen by a limited number of viewers and probably noticed by even fewer. Therefore, the impact of the proposed project on visual resources is considered to be ***less than significant***.

#### Mitigation Measures

*None required.*

#### **Future Impacts**

Approximately 14,000 acre-feet of the Table A amount would be transferred from KCWA to urban water contractors in the future. As discussed in Section 7.6, Agricultural Resources, the proposed project would have little or no impact on the acreage of irrigated land in the southern San Joaquin Valley in the future. Assuming that any land is taken out of irrigated production as a result of the proposed project, it would remain in agricultural use as dry farmed or fallow land. In addition, the trend of replacing irrigated annual crops with permanent crops is expected to continue in the future with or without the proposed project. While it is possible that additional land could be converted to permanent crops as a result of the proposed project, no clear trend can be attributable to the proposed project that can be discerned for the historical analysis period. Therefore any change in agricultural practices would not be expected to result in a dramatic change in visual character. Furthermore, any changes would be seen by a limited number of viewers and probably noticed by even fewer. Therefore, the impact of the proposed project on visual resources is considered to be ***less than significant***.

#### Mitigation Measures

*None required.*

### **7.5-2 Implementation of the proposed project could potentially affect visual resources in the southern San Joaquin Valley portion of Kern County**

**(excluding the Kern Fan Element) as a result of construction and operation of new groundwater storage facilities.**

**1996 — 2003**

The Monterey Amendment enabled SWP contractors to store water outside their service areas for later use within their service areas. To take advantage of this, several M&I contractors entered into agreements with water agencies in the southern San Joaquin Valley to temporarily store SWP water in groundwater banks. Between 1996 and 2003, Semitropic WSD, Arvin-Edison WSD and the Kern Water Bank Authority (KWBA) developed or expanded water banks.<sup>11</sup> The water bank developed by the KWBA is discussed separately under Impact 7.5-3, below.

The water banking program developed by Semitropic WSD was an “in lieu” program, did not involve the construction of new facilities, and would have no effect on visual resources. Arvin-Edison’s water banking program involved the construction of 520 acres of percolation ponds at two sites referred to as the North Canal Spreading Works and the South Canal Spreading Works. Vacant land or cropland was converted to percolation ponds by the construction of one- to two-foot-high perimeter levees.<sup>12</sup>

Vacant agricultural lands in the southern San Joaquin Valley are typically covered with weedy vegetation that is green in late winter and early spring and then dries to a golden color the rest of the year. Annual cropland is green during the long growing season in the southern San Joaquin Valley and exhibits exposed soil during the rest of the time. Vacant agricultural land or cropland converted to ponds would be flooded for several months in the winter and spring of most years. The ponds would be dry in the summer and fall and would support sparse weedy vegetation. The weedy vegetation would likely remain green for a few weeks after the ponds had dried up.

Although replacement of 520 acres of vacant land or cropland with percolation ponds altered the appearance of parts of the southern San Joaquin Valley, it did not alter the overall visual character of the area. The changes at the North Canal Spreading Works were visible to travelers on Buena Vista Boulevard and Tejon Highway. The changes at the South Canal Spreading Works were visible to travelers on SR 99. The alteration in visual resources attributable to the proposed project is considered to be a ***less-than-significant impact***.

Mitigation Measures

*None required.*

**Future Impacts**

As noted above, the Monterey Amendment enables SWP contractors to store water outside their service areas for later use within their service areas. Between 1996 and 2003, water banks were developed, and 520 acres of percolation ponds were constructed. It is expected that in the future, contractors would increase their use of groundwater banks. For purposes of the analysis, it is assumed a similar amount of ponds (approximately 500 acres) would be constructed in the future. The conversion of land for use as percolation basins would alter the visual appearance of the land as described above for 1996 to 2003 and would not be perceived as adverse. The impacts on visual resources are considered to be ***less than significant***.

Mitigation Measures

*None required.*

**7.5-3 Implementation of the proposed project could potentially affect visual resources in the Kern Fan Element as a result of construction and operation of new groundwater storage facilities.**

**1996 — 2003**

Prior to 1995, approximately 3,034 acres of shallow percolation ponds existed in the Kern Fan Element. The KWBA subsequently constructed the Kern Water Bank Canal; a six-mile long earthen canal extending from the Kern River to the California Aqueduct.<sup>13</sup> Between 1996 and 2003, an additional 1,665 acres were converted to shallow percolation ponds, for a total of 4,699 acres in 2003 in the Kern Fan Element. The Kern Water Bank Canal has a uniform cross-section and is confined between earthen levees. It is a prominent feature in the landscape but one that is visually consistent with other waterways in the area including the Cross Valley Canal and the California Aqueduct.

Although these land use changes have altered the appearance of lands within the Kern Fan Element, they did not alter the overall visual character of the area. The changes would be seen by a limited number of viewers and would probably be noticed by even fewer. The alteration in visual resources is considered to be a ***less-than-significant impact***.

Mitigation Measures

*None required.*

**Future Impacts**

As noted above, between 1996 and 2003, the KWBA built approximately 1,665 acres of shallow percolation ponds within the lands designated as intermittent wetland habitat. Under the proposed project, it is expected that the KWBA would construct an additional 1,200 acres of percolation ponds within the intermittent wetland habitat.

The Habitat Conservation Plan for the Kern Fan Element allows developed uses on about 4,000 acres of the Kern Fan Element.<sup>14</sup> Developed uses include farming, permanent facilities for the Kern Water Bank, and commerce. Approximately, 490 acres is designated for possible commercial use. Between 1996 and 2003, no development occurred on the 490-acre parcel. Because the Settlement Agreement prohibits development of this parcel, the parcel would remain undeveloped under the proposed project.

As a consequence of the proposed project, an additional approximately 1,200 acres of land would be converted to percolation ponds. Although these changes would alter the appearance of lands within the Kern Fan Element, the alteration in appearance would be minimally visible and is considered to be a ***less-than-significant impact***.

Mitigation Measures

*None required.*

#### 7.5-4 Implementation of the proposed project could affect visual resources at Castaic Lake and Lake Perris.

##### 1996 — 2003

Visual quality at Castaic Lake and Lake Perris is at its best when these reservoirs are full or almost full. At Castaic Lake, the shoreline, for the most part, abuts the steep walls of the narrow valley it sits within with vegetation along these hillsides growing down to the lake margin. At Lake Perris approximately two miles of riparian vegetation has developed along the eastern shoreline and two main recreation areas on the north side of the lake, include man made beaches, picnic areas, camping sites and parking lots. During normal operation of the reservoirs, there are fluctuations of the water levels in the reservoirs. When the reservoirs are drawn down, a band of soil or rock is initially exposed around the reservoirs' perimeters. The perimeter band is initially devoid of vegetation and may include tree stumps and other debris that are not visible when the reservoirs are full. Although temporary views of potential trash and debris along exposed beach areas could occur, removal of such materials is an ongoing activity carried out by the California Department of Parks and Recreation (CDPR) at Lake Perris and Castaic Lake. The appearance of the perimeter band is often initially in sharp contrast to the reservoir pool and surrounding vegetation making it a prominent visual feature. However, natural succession of vegetation around the reservoir edge results in some shoreline areas with emergent vegetation. Visual quality is temporarily degraded when water levels in the reservoirs are lowered, however visual quality is generally restored when water levels are raised.

Article 54 of the Monterey Amendment allowed SWP contractors to borrow water from Castaic Lake and Lake Perris under certain conditions. As described in Section 7.1, Surface Water Hydrology, Water Quality, and Water Supply, the borrowing of water lowered the water surface elevations in Castaic Lake and Lake Perris relative to what they would have been in the absence of borrowing, and there was little effect on average water surface elevations in the post-Monterey Amendment period. Average water surface elevations at the two lakes were actually higher between 1996 and 2003 than in the pre-Monterey Amendment period before 1995. The average water surface elevation at Castaic Lake from 1996 to 2003 was about 23 feet higher than between 1974 and 1995. At Lake Perris, the average surface water elevation was about four feet higher during the same period.

The higher water surface elevations between 1996 and 2003 at Castaic Lake and Lake Perris would have resulted in a reduction in the width of the band of exposed soil and rock around the perimeter of the two reservoirs, so the project would have contributed to some improvement in visual quality, during that time period, and the proposed project may have had a modest *beneficial impact* on visual resources between 1996 and 2003. Therefore, the proposed project resulted in a ***less-than-significant impact*** on visual resources.

##### Mitigation Measures

*None required.*

##### **Future Impacts**

As noted earlier, Article 54 of the Monterey Amendment allows SWP contractors to borrow water from Castaic Lake and Lake Perris under certain conditions which could affect water levels in these reservoirs.

Under the proposed project, it is expected that in the future, Castaic Lake WA, MWDSC and Ventura County WA would borrow SWP water from Castaic Lake when it is to their advantage to do so. Similarly, MWDSC would borrow water from Lake Perris.

The effects of borrowing of water on water surface elevations in the two reservoirs in the future will depend on the extent to which the contractors that can borrow from the reservoir make use of Article 54 and future hydrologic conditions. Table 6-27 in Chapter 6 shows MWDSC's expected future use of flexible storage in Castaic Lake and Lake Perris. It is quite possible that future borrowing would draw down the reservoirs to a greater extent than occurred between 1996 and 2003.

If the contractors borrowed the maximum amounts of water provided for under Article 54 and the water was not replaced for the maximum permitted duration of five years, 160,000 AF would be borrowed from Castaic Lake, about half its maximum capacity of 323,700 AF, and 65,000 AF would be borrowed from Lake Perris, about half its maximum capacity of 131,500 AF. The reservoirs would remain drawn down for five years. Although this worst-case condition could occur, it would be unlikely (see Section 6.4.3.1)

If the worst-case scenario were to occur, the extended drawdown scenario could increase the area exposed around the perimeter of the two reservoirs for a potentially greater duration than what would have occurred in the absence of the project.

The visual quality of the reservoirs is, in part, characterized by water level elevations and the amount of shoreline exposure, as described previously. The amount of vegetation along the shoreline, which is also related to water levels, also contributes to the viewshed. The effects of borrowing of water on water surface elevations in the two reservoirs in the future will depend on the extent to which the three eligible contractors make use of Article 54 and future hydrologic conditions. As shown in Figures 7.5-5 and 7.5-6, recent significant drawdowns at both Castaic Lake and Lake Perris, respectively, exposed a wide band of barren soil and silt that is below normal operating lake levels. It is possible that future borrowing could drawdown the reservoirs to 50 percent of their capacity more often than would occur without the project. This would increase the exposed area around the perimeter of the two reservoirs, diminishing the natural lake appearance. Mitigation measures, such as hydroseeding or landscaping, to reduce all visual impacts at Castaic Lake and Lake Perris are economically and physically infeasible because of the scale of the area to be covered at either reservoir. Therefore, although the visual effects of drawdown would be temporary (up to five years), this is considered a ***potentially significant and unavoidable impact***.

#### Mitigation Measures

*None available.*

#### **7.5-5 Implementation of the proposed project could potentially affect visual resources at San Luis Reservoir and Lake Oroville.**

##### **1996 — 2003**

As discussed under Impact 7.5-4, visual quality is at its best when reservoirs are full or almost full. At Lake Oroville and San Luis Reservoir, the changes in the amount of water stored were small and insufficient to have much effect on water surface elevations compared to baseline



FIGURE 7.5-5  
**Visual Character of Castaic Lake During Extreme Drawdown Event in 2006**

D50680.00

Monterey Amendment and Settlement Agreement DEIR



conditions (see Impact 7.1-4 in Section 7.1); therefore, changes in visual quality would not be apparent at these two reservoirs. Therefore, the proposed project resulted in a ***less-than-significant impacts*** on visual resources at San Luis Reservoir and Lake Oroville.

#### Mitigation Measures

*None required.*

#### **Future Impacts**

Provisions of the Monterey Amendment could affect water levels in San Luis Reservoir. In the future, most of the time, the proposed project would raise water levels in San Luis Reservoir by 10 to 20 feet under 2020 conditions. Occasionally, the Article 56 provisions of the Monterey Amendment would result in a reduction in water surface elevation in San Luis Reservoir in the spring of wet years relative to the baseline scenario. Surface water levels could be reduced by up to 50 feet, but the reduction would typically persist for only a few months and would not be expected to affect visual character compared to baseline conditions. Therefore, the proposed project resulted in a ***less-than-significant impacts*** on visual resources at San Luis Reservoir and Lake Oroville.

#### Mitigation Measures

*None required.*

### **7.5-6 Implementation of the proposed project could potentially affect visual resources in Plumas County as a result of watershed improvement projects.**

#### **1996 — 2003**

Because the Settlement Agreement was not completed in this period, there were no watershed improvement projects as a result of the proposed project and there was ***no impact***.

#### Mitigation Measures

*None required.*

#### **Future Impacts**

The Settlement Agreement provides funds to Plumas County to establish a watershed forum and implement watershed improvement projects. The watershed forum would identify opportunities for watershed improvements and would oversee the implementation of individual projects. Watershed improvement projects take many forms but most involve actions to prevent erosion and restore wildlife habitat along streams and rivers. In general, projects of this type improve the appearance of stream banks by returning them to a more natural condition.

The types of projects that are anticipated would include stream restoration (revegetation of stream banks and removal of non-native species, for example), preventing stream down-cutting and gully through the creation of a series of ponds and drop structures, well drilling, and unpaved road improvements to reduce erosion and sedimentation. The number and size of watershed improvement projects that would result from the proposed project are relatively small. The projects would be expected to improve conditions along a few miles of streambank in a

county with thousands of miles of stream channels. The proposed project would have a **beneficial effect** on the appearance of stream channels in Plumas County.

Mitigation Measures

*None required.*

**ENDNOTES**

1. Kern County Water Agency, *Water Supply Report 1998*, March 2002.
2. Conant, Ernest, and Young Wooldridge, personal communication with John Davis, EIP team, October 2003.
3. California Department of Water Resources, *Management of the State Water Project (Calendar year 2000)*, Bulletin 132-01, December 2002.
4. California Department of Water Resources, *Management of the State Water Project (Calendar year 2000)*, Bulletin 132-01, December 2002.
5. California Department of Water Resources, *Management of the State Water Project (Calendar year 2000)*, Bulletin 132-01, December 2002.
6. Placer County Water Agency and U.S. Bureau of Reclamation, *Draft American River Basin Cumulative Impact Report, Appendix D*, August 2001.
7. Placer County Water Agency and U.S. Bureau of Reclamation, *Draft American River Basin Cumulative Impact Report, Appendix D*, August 2001.
8. Caltrans, *Officially Designated State Scenic Highways and Historic Parkways*. [http://www.dot.ca.gov/hq/LandArch/scenic\\_highways/index.htm](http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm).
9. Butte County, *Butte County General Plan*, Scenic Highway Element, 1997.
10. Caltrans, *Officially Designated State Scenic Highways and Historic Parkways*. [http://www.dot.ca.gov/hq/LandArch/scenic\\_highways/index.htm](http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm).
11. Conant, Ernest, and Young Wooldridge, personal communication with John Davis, EIP team, October 2003.
12. Arvin-Edison Water Storage District, *Arvin-Edison Water Management Project Negative Declaration*, July 1996.
13. Jonathon Parker, Kern Water Bank Authority, personal communication with John Davis, EIP team, October 2003.
14. Kern Water Bank Authority, *Kern Water Bank Habitat Conservation Plan/Natural Community Conservation Plan*, October 1997.