

TABLE 3.12-4
Visual Character and Quality of the Middle River Viewpoints

Visual Character and Quality	
Gates Out	Gates In
Looking Downstream	
<p>Visual Character: Flowing river and wide expanse of gravel bordered by a mixture of natural and landscaped vegetation and commercial and residential buildings. The water, gravel, and vegetation dominate the landscape. The homes and manicured landscaping contribute to the sense that this is a human-altered landscape, and the exposed gravel is a visually displeasing element of the landscape.</p> <p>Visual Quality: Moderate</p>	<p>Visual Character: Same as under the gates-out condition, except the large expanse of gravel is replaced by a large body of water. The landscape is significantly enhanced by the addition of water.</p> <p>Visual Quality: Moderately High</p>
Viewpoint #11	
<p>Overall Description: Viewpoint #11 is a view east across the Sacramento River from Rio Road.</p>	
<p>Visual Character: The landscape is dominated by a wide, flowing river. Natural-looking vegetation borders one bank, while homes with landscaping border the opposite bank. An interstate bridge crosses the river in the near distance and foothills are visible in the far distance. The water and vegetation contribute to a sense of naturalness, but the houses and bridge indicate that this is a human-altered landscape. The water has a sense of movement that is visually appealing.</p> <p>Visual Quality: Moderately High</p>	<p>Visual Character: Same as under the gates-out condition, except water plays a slightly greater role in the landscape and the sense of movement associated with a swiftly flowing river is diminished.</p> <p>Visual Quality: Moderately High</p>
Viewpoint #12	
<p>Overall Description: Viewpoint #12 is a view downstream along the Sacramento River from the edge of Samuel Ayer/Dog Island Park.</p>	
<p>Visual Character: The landscape is dominated by a wide, flowing river. Natural-looking vegetation borders both banks, and some homes are visible atop a bluff overlooking the river. An interstate bridge crosses the river in the near distance. The water and vegetation contribute to a sense of naturalness, but the houses and bridge indicate that this is a human-altered landscape. The water has a sense of movement that is visually appealing.</p> <p>Visual Quality: Moderately High</p>	<p>Visual Character: Same as under the gates-out condition, except water plays a slightly greater role in the landscape and the sense of movement associated with a swiftly flowing river is diminished.</p> <p>Visual Quality: Moderately High</p>

Upper River

The Upper River reach of the project area is defined as the portion of the Sacramento River north of the northern Red Bluff I-5 crossing. The Upper River includes one publicly accessible park and numerous residences. Ide Adobe State Historic Park is located on the western bank of the Sacramento River along this reach. Approximately 21,000 persons visit Ide Adobe State Historic Park each year, which has historical buildings, picnic areas, and river viewing areas. Private residences line the eastern and western banks of the Sacramento River through the entire Upper River reach. Most of these homes are oriented to take advantage of river views.

Three viewpoints were established within the Upper River to capture representative views within this reach of the project vicinity. No project facilities are proposed to be constructed within the Upper River reach, so all viewpoints were selected to assess potential visual impacts from a change in gate operation. Figure 3.12-31 shows the location of these three viewpoints and the direction in which they were photographed.

Gates-out Condition. Under the gates-out condition, the Upper River reach exhibits a high water mark ranging from approximately 2 feet to approximately 6 feet above water elevation. Some of the difference between river elevation and the high water mark may be from changes in flow in the river. The western and eastern banks of the river throughout the Upper River reach vary between vertical and bluff-like and gently sloping toward the water. Along most of the reach, riparian vegetation borders the riverbanks, but in some locations, manicured lawns extend to the water's edge.

Gates-in Condition. The river elevation increases in the Upper River reach when RBDD gates are in the lowered position. In the southern portion of the reach, just north of the I-5 crossing, the increase in water elevation is enough to allow East Sand Slough and the Sacramento River to connect at the northern extent of the slough. The northern extent of the gates-in effect extends at least to Ide Adobe State Historic Park, and possibly as far north as Surrey Village. Between Ide Adobe State Historic Park and Surrey Village, visible high water marks on the banks of the river may be a result of the gates-in effect, variations in water flow under the gates-out condition, or some combination thereof.

Viewpoint #13. Viewpoint #13 was established within the Sacramento River upstream of the northern Red Bluff I-5 bridge, near the northern extent of East Sand Slough. This viewpoint was selected to capture representative views that river users may experience along this portion of the Upper River. From this point in the river, one may look upstream toward Ide Adobe State Historic Park (not visible from this location), downstream toward the I-5 bridge, and toward both the eastern and western banks of the river.

The Upper River reach of the project area is defined as the portion of the Sacramento River north of the northern Red Bluff I-5 crossing.

The Upper River includes one publicly accessible park and numerous residences.

No project facilities are proposed to be constructed within the Upper River reach, so all viewpoints were selected to assess potential visual impacts from a change in gate operation.

Figure 3.12-32a is a view of northern extent of East Sand Slough where it meets the Sacramento River under the gates-out condition. The break in the riparian vegetation roughly in the center of the photograph shows the location of the slough.

Figure 3.12-32b is the same view as depicted on Figure 3.12-32a, except under the gates-in condition. This view shows the East Sand Slough filled in with water and the river elevation higher in this location.

Viewpoint #14. Viewpoint #14 was established within the Sacramento River adjacent to Ide Adobe State Historic Park and also from Ide Adobe State Historic Park. This viewpoint was selected to capture representative views that river users may experience along this portion of the Upper River and also views of the Sacramento River that visitors to Ide Adobe State Historic Park may experience.

Figure 3.12-33a is a view of Ide Adobe State Historic Park from the Sacramento River under the gates-out condition. The historic adobe house is located in the upper left corner of the photograph. A high water mark is clearly visible along the lower one-third of the photo.

Figure 3.12-33b is the same view as depicted on Figure 3.12-33a, except under the gates-in condition. This view shows the water level in the river extending up to the vegetation that lines the river in this location and obscuring the rocky bank that is visible on Figure 3.12-33a.

Figure 3.12-34a is a view of the Sacramento River looking downstream from a viewing deck at Ide Adobe State Historic Park under the gates-out condition. A high water mark is visible but not obvious along the far bank of the river.

Figure 3.12-34b is the same view as depicted on Figure 3.12-34a, except under the gates-in condition. In this view, the increased river elevation is faintly evident on the far bank of the river where the rock and gravel bank that is visible on Figure 3.12-34a is covered with water.

Viewpoint #15. Viewpoint #15 was established on the Sacramento River close to the neighborhood known as Surrey Village. This viewpoint was selected to capture representative views that river users may experience at the northern extent of the gates-in effect (increased river depth).

Figure 3.12-35a is a view of the Sacramento River and residential area on the east bank of river, looking from the center of the river under the gates-out condition. In this area, riparian vegetation (with the exception of the trees) has been cleared from the riverbank, exposing manicured yards that extend to the river and providing river views to the home occupants. A high water mark is visible in this photo, which may be from either the gates-in effect or from variations in river flow under the gates-out condition. This figure also shows that the river is relatively fast moving through this reach.

Figure 3.12-35b is the same view as depicted on Figure 3.12-35a, except under the gates-in condition. In this view, the water level in the river appears to be approximately 2 feet higher than on Figure 3.12-35a, and the river flow appears to be slower than during the gates-out period.

Upper River Visual Character and Quality. A summary evaluation of the visual character and quality of each of the viewpoints in the Upper River reach for both the gates-out and gates-in periods is provided in Table 3.12-5.

TABLE 3.12-5
Visual Character and Quality of the Upper River Viewpoints

Visual Character and Quality	
Gates Out	Gates In
Viewpoint #13	
Overall Description: Viewpoint #13 is a view toward the entrance to East Sand Slough from the Sacramento River.	
Visual Character: Wide swath of flowing river bordered by natural vegetation, including shrubs and trees. Freeway signs are visible in the far distance. With the exception of the freeway signs, the landscape appears entirely natural.	Visual Character: Same as under the gates-out condition, except water plays a slightly greater role in the landscape, and the freeway signs are obscured by vegetation growth.
Visual Quality: Moderate	Visual Quality: Moderate
Viewpoint #14	
Overall Description: Viewpoint #14 includes a view of Ide Adobe State Historic Park from the Sacramento River and a view of the Sacramento River from Ide Adobe State Historic Park.	
View of Ide Adobe State Historic Park	
Visual Character: Rocky bank and grassy hillside with trees and shrubs and view of historic Ide Adobe State Historic Park. The historic building has been preserved as a reminder of California's early history; it contributes to the sense that this is a human-altered landscape along a natural water corridor.	Visual Character: Same as under the gates-out condition.
Visual Quality: Moderate	Visual Quality: Moderate
View from Ide Adobe State Historic Park	
Visual Character: Wide, swiftly flowing river bordered by shrubs and large trees with homes and docks visible on the far bank. The homes and docks contribute to the sense that this is a human-altered landscape along a natural water corridor.	Visual Character: Same as under the gates-out condition, except the sense of movement associated with a swiftly flowing river is diminished.
Visual Quality: Moderate	Visual Quality: Moderate

TABLE 3.12-5
Visual Character and Quality of the Upper River Viewpoints

Visual Character and Quality	
Gates Out	Gates In
Viewpoint #15	
Overall Description: Viewpoint #15 is a view of homes with landscaping that border the Sacramento River.	
Visual Character: Wide, swiftly flowing river bordered by homes with manicured lawns and trees of various heights. The landscaping contributes to the sense that this is a human-altered landscape along a natural water corridor.	Visual Character: Same as under the gates-out condition, except the sense of movement associated with a swiftly flowing river is somewhat diminished. Visual Quality: Moderate
Visual Quality: Moderate	

Visual Resource-related Plans and Policies

A number of local plans and policies were reviewed for aesthetic and visual resources-related discussions. An overview of the results of this review is provided below.

Lake Red Bluff Recreation Development Final Environmental Impact Statement. The Final EIR and accompanying ROD document the development and management of the Recreation Area. No aesthetics-related discussion was identified in the Lake Red Bluff FEIS.

City of Red Bluff General Plan. The City of Red Bluff General Plan was reviewed for any discussion of aesthetic-related plans, policies, goals, or objectives. Page 7 of the General Plan identifies one aesthetic-related goal and related objectives:

Goals, Objectives, and Policies for Land Use and Growth

II Goal: Community Charter and Aesthetics

Conserve and improve community historic, residential neighborhood, public commons and traditional business sites and environments.

Objectives:

- A. Promote and maintain pleasing and positive physical appearance for the community.
- B. Adopt and enforce architectural review guidelines and sign aesthetics standards.
- C. Abate deteriorated buildings.

- D. Encourage maintenance of vacant buildings and landscape vegetation on developed sites.
- E. Discourage long term outside storage of debris and waste, and material and products not on display for sale.

Page 21 of the General Plan provides a brief description of the aesthetic resources in the City of Red Bluff:

The principal natural aesthetic resources of the City lie in its river and creek corridors, oak woodland and chaparral covered hills. These provide an open space resource for visual enjoyment and recreational pursuits and are essential to maintain the rural, open and small town character of the community.

Red Bluff Park System General Plan. No aesthetics-related discussion was identified in the Red Bluff Park System General Plan.

Tehama County General Plan. No aesthetics-related plans, policies, goals, or objectives were identified in the Tehama County General Plan under the general discussion of Natural Resource Lands and Recreation. However, the definition of resource lands does include areas of outstanding scenic value and scenic highway corridors.

The Scenic Highway Element of the Tehama County unit of the Tri-County Area Planning Council General Plan (incorporated in its entirety under the Tehama County General Plan) identifies Highway 36 through Red Bluff as a scenic highway. Through Red Bluff, Highway 36 is known as Antelope Boulevard, which crosses the Sacramento River and East Sand Slough north of RBDD.

Tehama County Recreational Trails Feasibility Study. No aesthetics-related discussion was identified in the Tehama County Recreational Trails Feasibility Study.

Tehama County Bikeways Plan. No aesthetics-related discussion was identified in the Tehama County Bikeways Plan.

Mendocino National Forest Environmental Impact Statement. The Mendocino National Forest EIS includes a discussion of visual resources. The objective of visual resource management, as identified in the EIS, is “to manage all Forest lands so as to obtain the highest possible visual quality commensurate with other resource uses and benefits.” The Forest Service uses a visual management system to set Visual Quality Objectives for forest management. The visual quality objectives of Preservation, Retention, Partial Retention, and Modification have been assigned to various areas of the forest management area.

The Recreation Area was not assigned a Visual Quality Objective and was not specifically addressed in the EIS.

Mendocino National Forest Land and Resource Management Plan. Under the Mendocino National Forest Land and Resource Management Plan, the Recreation Area is managed solely for recreation. No aesthetic-related discussion that specifically addresses the Recreation Area was identified in the Mendocino National Forest Land and Resource Management Plan.

3.12.2 Environmental Consequences

Methodology

Analysis of the visual effects of potential changes expected to occur from implementation of the proposed project was based on field observations and review of the following information: local planning documents, project maps and drawings, photographs of the project area during the gates-out and gates-in periods, and review of computer-generated visual simulations from several of the key viewpoints.

Site reconnaissance was conducted as described above to view the proposed project vicinity, to identify potential key viewpoints, and to take representative photographs of existing visual conditions. A 35-mm camera with a 50-mm lens was used to take site photographs.

The computer-generated simulations are the result of an objective analytical and computer modeling process. The images are accurate within the constraints of the available site and project data. For the views from viewpoints selected for simulations, computer modeling and rendering techniques was used to produce the simulation images. Existing topographic and site data provided the basis for developing the initial model, and site plans and elevations for the components of the facilities were used to superimpose the proposed facilities on the photographs.

The visual impact assessment for project facilities was based on an evaluation of the changes to the existing visual resources that would result from construction and operation of the proposed project. These changes were assessed by evaluating the "after" views provided by the computer-generated visual simulations and comparing them to the existing visual environment. Because project facilities would be most visible during the gates-out period when the river elevation is at its lowest, the computer-generated visual simulations were generated using gates-out photographs. The visual impact assessment for a change in gate operation was based on a comparison of gates-out and gates-in photographs.

The visual impact assessment for project facilities was based on an evaluation of the changes to the existing visual resources that would result from construction and operation of the proposed project.

The visual impact assessment for a change in gate operation was based on a comparison of gates-out and gates-in photographs.

Significance Criteria

When making a determination of the extent and implications of visual changes, consideration is typically given to:

- Specific changes in the composition, character, and any specially valued qualities of the affected visual environment
- The context of the affected visual environment
- The extent to which the affected environment contains places or features that have been designated in plans and policies for protection or special consideration
- The relative numbers of viewers, their activities, and the extent to which these activities are related to the aesthetic qualities affected by potential changes

Given the above criteria, impacts to visual resources/aesthetics from the proposed project would be considered significant if it is determined that the project would result in any of the following:

- Have a substantial, demonstrable negative aesthetic effect on a scenic view
- Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a scenic highway
- Substantially degrade the existing visual character or quality of the site and its surroundings
- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area

Project Appearance

Table 3.12-6, summarizes the changes that would occur with implementation of each proposed alternative, including changes in RBDD operation and new facilities to be constructed and operated. Following the table, each component of the proposed alternatives is described in detail.

Addition of Fourth Pump to Research Pumping Plant. RPP is currently operational and is not open to the public. A fourth pump would be installed in an existing bay at RPP; construction and operation of this pump would not be visible to the public. The addition of a fourth pump at the RPP is a component of all proposed alternatives.

TABLE 3.12-6
Summary of Project Changes by Alternative

Alternative	Change in RBDD Operation	New Facilities
No Action	RBDD gate operations would continue with an 8-month gates-out period and a 4-month gates-in period	A fourth pump would be added to RPP
1A: 4-month Improved Ladder Alternative	Same as the No Action Alternative	<p>A fourth pump would be added to RPP</p> <p>A 1,380-cfs pump station with fish screen would be constructed and operated at the Mill Site, and a conveyance facility across Red Bank Creek to convey water from the Mill Site pump station to the TC Canal would be constructed and operated</p> <p>New right and left bank fish ladders would be constructed and operated in place of the existing fish ladders</p>
1B: 4-month Bypass Alternative	Same as the No Action Alternative	<p>A fourth pump would be added to RPP</p> <p>A 1,380-cfs pump station with fish screen would be constructed and operated at the Mill Site, and a conveyance facility across Red Bank Creek to convey water from the Mill Site pump station to the TC Canal would be constructed and operated</p> <p>A new ladder at the right dam abutment would be constructed and operated</p> <p>A 1,000-cfs bypass channel for fish passage would be constructed at the left dam abutment</p>
2A: 2-month Improved Ladder Alternative	RBDD operation would change to a 10-month gates-out period and a 2-month gates-in period (July 1 to August 31)	<p>A fourth pump would be added to RPP</p> <p>A 1,680-cfs pump station with fish screen would be constructed and operated at the Mill Site, and a conveyance facility across Red Bank Creek to convey water from the Mill Site pump station to the TC Canal would be constructed and operated</p> <p>New left and right bank fish ladders would be constructed and operated in place of the existing fish ladders</p>

TABLE 3.12-6
Summary of Project Changes by Alternative

Alternative	Change in RBDD Operation	New Facilities
2B: 2-month with Existing Ladders Alternative	RBDD operation would change to a 10-month gates-out period and a 2-month gates-in period (July 1 through August 31)	A fourth pump would be added to RPP A 1,680-cfs pump station with fish screen would be constructed and operated at the Mill Site, and a conveyance facility across Red Bank Creek to convey water from the Mill Site pump station to the TC Canal would be constructed and operated
3: Gates-out Alternative	RBDD operation would change to a 12-month gates-out period, leaving the gates in the raised position year-round	A fourth pump would be added to RPP A 2,180-cfs pump station with fish screen would be constructed and operated at the Mill Site, and a conveyance facility across Red Bank Creek to convey water from the Mill Site pump station to the TC Canal would be constructed and operated

During construction of the Mill Site pump station and conveyance facilities, extensive construction activity would be visible from the Sacramento River and the Recreation Area.

Construction of the Mill Site pump station and conveyance facilities would result in the permanent removal of approximately 1,100 LF of the bluffs along the west side of the Sacramento River. As shown on Figure 2.3-1, the west bank of the river would be excavated to allow construction of a forebay, pump station, and fish screen. Up to 750,000 CY of material would be excavated. During construction, which is estimated to last approximately 18 months, extensive construction activity would be visible from the Sacramento River and the Recreation Area. To excavate the west bank of the river, long series of sheet pile would be required to establish dry areas for forming concrete structures, resulting in an approximately 1,400-LF cofferdam in the river. A construction barge located in the river would likely be visible. Construction equipment including cranes, front end loaders, pile drivers, back hoes, excavators, scrapers, bulldozers, dump trucks, and other construction equipment and tools would likely be visible at the Mill Site, although some equipment and construction activities may be obscured from view by the cofferdam once it is in place.

The Mill Site pump station and associated fish screen would be permanently visible to viewers located within the Sacramento River and at the Recreation Area.

When completed, the fish screen associated with the Mill Site pump station would be approximately 1,100 feet long along the west bank of the Sacramento River. The fish screen would be the dominant and most visible feature of the facilities. The facilities would be permanently visible to viewers located within the Sacramento River and at the Recreation Area.

The conveyance system across Red Bank Creek to connect the TC Canal and existing TCCA facilities with the Mill Site pump station would consist of pipes or culverts or a combination of both. A bridge would provide maintenance vehicle and personnel access between facilities. The conveyance system would be constructed using an open trench method, which would result in disturbed vegetation along its approximately 2,100-foot length. There is no public access to the construction area, and dense vegetation would partially screen construction views from the Sacramento River and the Recreation Area. Construction across Red Bank Creek would occur during the gates-out period, when the creek is not navigable, so that views to boaters would be unavailable. Security lighting at the Mill Site pump station would be required; lighting would be low-wattage and shielded.

Construction of the Mill Site pump station and conveyance facilities is a component of all proposed alternatives, with the exception of the No Action Alternative. Although different-sized pump stations are proposed for different alternatives, the analysis for visual resources assumes that the pump station would be constructed at 2,180 cfs, the largest size proposed under any alternative.

Left Bank Fish Ladder. The existing left bank fish ladder would be upgraded to improve fish passage. As shown on Figure 2.3-2, a new fish ladder entrance and new weir gates would be constructed at the location of the existing left bank fish ladder, and a new AWS intake to improve water flow through the fish ladder would be constructed north of RBDD, approximately at the east bank of the river. Construction of the left bank fish ladder and AWS intake would require the excavation of approximately 16,000 CY and a 150- to 175-LF cofferdam. The new AWS intake would be the most visible of the changes required for left bank fish ladder improvement, as it would be a new permanent structure. The AWS intake would be located in an area currently frequented by visitors to the Recreation Area, and would be visible to those users and to users on the Sacramento River. Security lighting at the AWS intake would be required; lighting would be low-wattage and shielded and similar in intensity to other nighttime lighting at the Recreation Area.

This project component is proposed for the 4-month Improved Ladder Alternative and the 2-month Improved Ladder Alternative.

Right Bank Fish Ladder. The existing right bank fish ladder would be upgraded similar to the left bank fish ladder, with an improved fish ladder entrance and new weir gates, and a new AWS intake. These improvements to the right bank fish ladder would be made within existing TCCA facilities on the western side of RBDD. The TCCA facilities are not open to the public, but construction would be visible from the Sacramento River and from the opposite bank of the river.

Operation of the right bank fish ladder improvements with AWS intake would not be visible to the public.

This project component is proposed for the 4-month Improved Ladder Alternative, 4-month Bypass Alternative, and the 2-month Improved Ladder Alternative.

Bypass Channel. Figure 2.3-4 shows the location of the proposed bypass channel. The bypass channel would begin approximately 1,600 feet north of RBDD, just north of the Recreation Area boat ramp. It would circle around the Recreation Area and Sycamore Campground, and would discharge into the Sacramento River south of the existing and new left bank fish ladder, downstream of RBDD.

Approximately 230,000 CY of material would be excavated for construction of the bypass channel. During an approximately 12-month construction period, extensive construction activity would be visible throughout the Recreation Area. Construction activities would include tree and vegetation removal, channel excavation, concrete work, and rock placement. A construction area the width and length of the 90-foot bypass channel plus room for construction equipment on both sides of the channel would be required. Construction equipment including front end loaders, back hoes, excavators, bulldozers, dump trucks, and other construction equipment and tools would be visible throughout the Recreation Area. A temporary fence to prevent public access to the construction area would be erected in advance of a permanent chain-link fence.

Construction of the bypass channel would result in the relocation of the road that circles around Sycamore Campground. As shown on Figure 2.3-4, a new road would branch from Sale Lane just before the bypass channel and follow the bypass channel to the parking area at the south boat ramp. Access to the Discovery Center would be maintained by construction of a bridge along Sale Lane over the bypass channel. Additionally, a foot bridge would be constructed over the bypass channel to facilitate access to the Discovery Center and the Sacramento River from the remainder of the facilities at the Recreation Area. When completed, the bypass channel would be at ground surface, approximately 90 feet wide, and would be lined with boulders and gravel. An 8-foot-high chain-link fence on both sides of the bypass channel would be constructed to prevent access.

This project component is proposed for the 4-month Bypass Alternative.

No Action Alternative

No changes to hydrology or surface-water management would occur. Gates would be operated during the current 4-month gates-in period. Construction activity would be limited to the installation of the fourth

During construction of the bypass channel, extensive construction activity would be visible throughout the Recreation Area.

pump at RPP. No other construction activity would occur as a result of the No Action Alternative.

1A: 4-month Improved Ladder Alternative

No impacts to visual resources as a result of changed dam operation and the resulting seasonal formation of Lake Red Bluff would occur from Alternative 1A. Other construction- and operations-related impacts are discussed below.

Construction-related Impacts.

Impact 1A–VR1: Construction Views of Mill Site Pump Station and Conveyance Facilities and Left Bank Fish Ladder. Construction of the Mill Site pump station and conveyance facilities and AWS intake associated with improvements to the left bank fish ladder would be visible from the Sacramento River and the Recreation Area. Construction of all facilities associated with Alternative 1A would take roughly 3 years to complete. During the construction period, viewers would experience substantially degraded sites, although some construction activity may be screened from sight by cofferdams. Because of the lengthy duration of construction and the sensitive view area (from the Sacramento River and the Recreation Area), impacts to visual resources are considered significant, although temporary.

Temporary impacts from construction of the Mill Site pump station and conveyance facilities and left bank fish ladder AWS intake on visual resources would be significant and cannot be mitigated.

Operations-related Impacts.

Impact 1A–VR2: Permanent Landscape Changes from Mill Site Pump Station and Conveyance Facilities. The Mill Site pump station and conveyance facilities represent a substantial change to the landscape as viewed from the Sacramento River and the Recreation Area. Figure 3.12-36 shows before project and after project views of the bluff on the west side of the Sacramento River from Viewpoint #1. The before view is composed of the photographs used for Figures 3.12-5a and 3.12-6a seamed together to show the entire west riverbank. The after view is the same view with a computer-generated simulation of the Mill Site pump station and conveyance facilities as they would be seen from Viewpoint #1. Photos used to create the simulated view were taken during the gates-out period; this simulation represents a worst-case scenario because the river elevation is at its lowest point when the gates are raised, revealing more of the pumping facility and fish screen than when the gates are lowered and river elevation is higher. As seen on Figure 3.12-36, the fish screen associated with the Mill Site pump station would effectively replace approximately 1,400 LF of the bluff on the west side of the Sacramento River, creating an industrial-appearing facility in place of a natural feature.

Because of the lengthy duration of construction and the sensitive view area, impacts to visual resources from construction of Alternative 1A are considered significant, although temporary.

The Mill Site pump station and conveyance facilities represents a substantial change to the landscape as viewed from the Sacramento River and the Recreation Area.

Given the size of the new structure and the sensitivity of the viewing location, this project element represents a substantial degradation of the visual quality of the site. To help mitigate visual impacts, a committee would be formed following selection of a Preferred Alternative to develop measures intended to help the new facility blend with the surrounding environment. Potential measures include selection of a concrete color and a finish for the fish screen panels (if available). The committee to evaluate visual resources mitigation measures would be based on the existing SWG. However, the visual and aesthetic impacts of the Mill Site pump station and conveyance facilities would remain significant even after mitigation.

Permanent landscape changes (impacts) of the Mill Site pump station and conveyance facilities would be significant and cannot be mitigated.

Impact 1A–VR3: Permanent Landscape Changes from Left Bank Fish Ladder AWS Intake.

The new AWS intake associated with left bank fish ladder improvements represents a substantial change to the landscape as viewed from the Sacramento River and the Recreation Area. Figure 3.12-37 shows before project and after project views of the bank of the Recreation Area from Viewpoint #5. The before view is the same photograph used for Figure 3.12-14a. The after view is the same view with a computer-generated simulation of the left bank fish ladder AWS intake as it would be seen from Viewpoint #5. The photo used to create the simulated view was taken during the gates-out period; this simulation represents a worst-case view because the river elevation is at its lowest when the gates are raised, revealing more of the facility than when the gates are lowered and river elevation is higher. The AWS intake would be located adjacent to the industrial-appearing RBDD and related facilities. Given that the AWS intake has a function complementary to the dam facilities and possesses a relatively small scale compared to the diversion dam, this project element would be considered a less than significant impact to visual resources. However, to help mitigate visual impacts, a committee would be formed following selection of a Preferred Alternative to develop measures intended to help the new facility blend with the surrounding environment. Potential measures include selection of a concrete color, a finish for the fish screen panels (if available), and landscaping around the facility. The committee to evaluate visual resources mitigation measures would be based on the existing SWG.

Permanent landscape changes (impacts) from operations of the AWS intake would be less than significant; therefore, no mitigation is required.

1B: 4-month Bypass Alternative

No impacts to visual resources as a result of changed dam operation and the resulting seasonal formation of Lake Red Bluff would occur

Given the size of the new structure and the sensitivity of the viewing location, Alternative 1A represents a substantial degradation of the visual quality of the site.

Given that the AWS intake has a function complementary to the dam facilities and possesses a relatively small scale compared to the diversion dam, this project element would be considered a less than significant impact to visual resources.

from Alternative 1B. Other construction- and operations-related impacts are discussed below.

Construction-related Impacts.

Impact 1B–VR1: Construction Views of Mill Site Pump Station and Conveyance Facilities. Temporary impacts resulting from construction of the Mill Site pump station and conveyance facilities under Alternative 1B would be the same as those identified for Alternative 1A (see Impact 1A–VR1).

Temporary impacts from construction of the Mill Site pump station and conveyance facilities on visual resources would be significant and cannot be mitigated.

Impact 1B–VR2: Construction Views of Bypass Channel. Construction of the bypass pipeline would be visible from the Sacramento River and from multiple locations within the Recreation Area. Construction of the bypass channel would take roughly 12 months to complete. During the construction period, viewers would experience substantially degraded views, including views of tree and other vegetation removal, channel trenching, temporary spoils piles, large construction equipment, concrete work, rock and gravel placement, and fence installation. A temporary fence would be installed around the construction area, but would likely not aid in reducing visual impacts from construction. Because of the sensitivity of the construction area and the number of recreational viewers in the immediate vicinity of construction, construction of the bypass pipeline would substantially degrade the visual character and quality of the site and its surroundings. Although it would be temporary, this impact to visual resources is considered significant and unavoidable.

Temporary impacts from construction of the bypass channel on visual resources would be significant and cannot be mitigated.

Operations-related Impacts.

Impact 1B–VR3: Permanent Landscape Changes from Mill Site Pump Station and Conveyance Facilities. Permanent impacts resulting from operations of the Mill Site pump station and conveyance facilities under Alternative 1B would be the same as those identified for Alternative 1A (see Impact 1A–VR2).

Permanent landscape changes (impacts) from operation of the Mill Site pump station and conveyance facilities would be significant and cannot be mitigated.

Because of the sensitivity of the construction area and the number of recreational viewers in the immediate vicinity of construction, construction of the bypass pipeline would substantially degrade the visual character and quality of the site and its surroundings.

Impact 1B–VR4: Permanent Landscape Changes from Bypass Channel.

The bypass channel would represent a substantial change to the landscape as viewed from the Sacramento River and throughout the Recreation Area. The intake for the bypass channel would be located approximately 1,600 feet north of RBDD. Exposed gravel and boulders would be visible at the intake during the gates-out period, as would an 8-foot-high chain-link fence. The bypass channel would extend from the intake across open space within the Recreation Area. Figure 3.12-38 shows the before and after views of the bypass channel from Viewpoint #1. This figure shows the channel intake and the channel as it extends into the Recreation Area. The photo used to create the simulated view is the same photograph used for Figure 3.12-14 and was taken during the gates-out period. This simulation represents a worst-case view because the river elevation is at its lowest when the gates are raised, revealing the bypass channel intake, which would be covered with water during the gates-in period.

Figure 3.12-39 shows before and after views of the bypass channel from Viewpoint #4. The photo used to create the simulated view is the same photograph used for Figure 3.12-13. Figure 3.12-39 shows the bypass channel as it would appear to a Recreation Area visitor driving toward the Discovery Center. The bypass channel enters the view from the right, crosses Sale Lane, where a bridge would be constructed, and continues out of the view to the left where it begins to curve around the Sycamore Campground. Figure 3.12-39 shows that a number of trees would be removed to allow the bypass channel to cross through the Recreation Area. A number of trees would also be removed to allow for the road that currently curves around the Sycamore Campground to be relocated beginning just above where this photograph was taken.

Figure 3.12-40 shows before and after views of the bypass channel from Viewpoint #2. The photo used to create the simulated view is the same photo used for Figure 3.12-11. Figure 3.12-40 shows the bypass channel as seen from the entrance to the Discovery Center as it curves around the Sycamore Campground toward its exit south of RBDD.

Figure 3.12-40 shows that a number of trees and shrubs would be removed to allow the bypass channel to cross through the Recreation Area. It is likely that the road shown extending away from the viewer that currently circles around the Sycamore Campground would be removed, as a new road would be constructed on the far side of the bypass channel as seen from this location.

The bypass channel would represent a substantial change to the landscape as viewed from the Sacramento River and throughout the Recreation Area.

Regardless of the location from which the bypass channel is viewed, it represents a significant visual intrusion in the midst of a landscape that receives heavy recreational use.

The visual and aesthetic impacts of the bypass channel would remain significant even after mitigation.

Figure 3.12-41 shows before and after views of the bypass channel from Viewpoint #3. The photo used to create the simulated view is the same photo used for Figure 3.12-12. Figure 3.12-41 shows the bypass channel as seen from the parking lot for the south boat ramp at the Recreation Area. The bypass channel roughly follows the existing road toward the viewer, then curves left as it prepares to exit south of RBDD. The simulated view shows that a number of trees and shrubs would be removed to allow the bypass channel to cross through the Recreation Area. The existing road would be removed, and a new road constructed (the new road would connect to the parking lot to the right of this view).

Regardless of the location from which the bypass channel is viewed, it represents a significant visual intrusion in the midst of a landscape that receives heavy recreational use. Because it crosses through the Recreation Area, it effectively creates a visual barrier from one location of the Recreation Area to another. This visual barrier represents a substantial degradation of the existing visual character of the Recreation Area. To help mitigate visual impacts, a committee would be formed following selection of a Preferred Alternative to develop measures intended to help the bypass channel blend with the surrounding environment. Potential measures include selection of fencing material and landscaping around the channel. The committee to evaluate visual resources mitigation measures would be based on the existing SWG. However, the visual and aesthetic impacts of the bypass channel would remain significant even after mitigation.

Permanent landscape changes (impacts) from operations of the bypass channel would be significant and cannot be mitigated.

2A: 2-month Improved Ladder Alternative

Construction-related Impacts.

Impact 2A–VR1: Construction Views of Mill Site Pump Station and Conveyance Facilities and Left Bank Fish Ladder AWS Intake. Temporary impacts resulting from construction of the Mill Site pump station and conveyance facilities and left bank fish ladder AWS intake under Alternative 2A would be the same as those identified for Alternative 1A (see Impact 1A–VR1).

Temporary impacts from construction of the Mill Site pump station and conveyance facilities and left bank fish ladder AWS intake on visual resources would be significant and cannot be mitigated.

Operations-related Impacts.

Impact 2A–VR2: Permanent Landscape Changes from Mill Site Pump Station and Conveyance Facilities. Permanent impacts resulting from operations of the Mill Site pump station and conveyance facilities under Alternative 2A would be the same as those identified for Alternative 1A (see Impact 1A–VR2).

Permanent landscape changes (impacts) from operations of the Mill Site pump station and conveyance facilities would be significant and cannot be mitigated.

Impact 2A–VR3: Permanent Landscape Changes from AWS Intake.

Permanent impacts resulting from operations of the AWS intake under Alternative 2A would be the same as those identified for Alternative 1A (see Impact 1A-VR3).

Permanent landscape changes (impacts) from operations of the AWS intake would be less than significant; therefore, no mitigation is required.

Impact 2A–VR4: Permanent Landscape Changes from Reduction of Gates-in Time Period.

Under Alternative 2A, the RBDD gates would remain in the up position for an additional 2 months, reducing the gates-in period from 4 months each year to 2 months each year. The visual resources-related effect of this change is illustrated on Figures 3.12-4 through 3.12-35b.

Figure 3.12-42 is an aerial photograph taken during the gates-out period with the extent of the water line during the gates-in period highlighted in red. This aerial view clearly identifies those areas that are under water during the gates-in period versus those areas that are under water during the gates-out period. A brief discussion of the difference by reach is provided below.

- **Lower River/Red Bluff Recreation Area.** As seen on Figure 3.12-42, and on Figures 3.12-4 through 3.12-16b, the Sacramento River occupies the western edge of the river channel as it flows through the Lower River/Red Bluff Recreation Area during the gates-out period. The eastern and shallower edge of the river channel is only covered with water during the gates-in period. When the eastern portion of the river channel is not flooded, it ranges in appearance from lush and green to dry and brown.
- **East Sand Slough.** As seen on Figure 3.12-42, and on Figures 3.12-17 through 3.12-20b, no water is in East Sand Slough during the gates-out period. When the gates of RBDD are lowered, East Sand Slough fills with water in approximately 24 hours; East Sand Slough drains in approximately the same time period with the RBDD gates are raised. The appearance of East Sand Slough varies throughout the gates-out period, ranging from lush and green to appearing dry and brown.

Because the quality of some of the views within the Middle River reach are considered moderate under the gates-out condition and moderately high under the gates-in condition, an increase in the gates-out condition may be considered to be a substantial degradation of the visual quality of the Middle River reach.

- **Middle River Reach.** As seen on Figure 3.12-42 and on Figures 3.12-21 through 3.12-30b, the Sacramento River generally occupies the entire width of the river channel as it flows through the Middle River reach during both the gates-out and gates-in periods. One notable exception is the river adjacent to the City Park, where during the gates-out period, the river occupies the eastern edge of the river channel, exposing an expanse of gravel that extends from the boat dock at the south end of the City Park north to the Antelope Boulevard bridge.
- **Upper River Reach.** As seen on Figure 3.12-42, and on Figures 3.12-31 through 3.12-35b, the Sacramento River generally occupies the entire width of the river channel as it flows through the Upper River reach during both the gates-in and gates-out periods.

While Alternative 2A represents a 50 percent loss of the season that the lake forms, the resulting effect is one that viewers are accustomed to seeing for 8 months each year. The loss of increased river elevation that forms Lake Red Bluff would not be considered to be a significant impact for three of the four reaches of the Sacramento River evaluated in this section: Lower River/Red Bluff Recreation Area, East Sand Slough, and Upper River. However, because the quality of some of the views within the Middle River reach are considered moderate under the gates-out condition and moderately high under the gates-in condition, an increase in the gates-out condition may be considered to be a substantial degradation of the visual quality of the Middle River reach. Therefore, the impact to visual resources resulting from a reduction of the gates-in period would be considered significant. No mitigation measures have been identified that would help reduce this impact.

The permanent landscape change (impact) resulting from a reduction of the gates-in time period would be significant and cannot be mitigated.

2B: 2-month with Existing Ladders Alternative

Construction-related Impacts.

Impact 2B–VR1: Construction Views of Mill Site Pump Station and Conveyance Facilities. Temporary impacts resulting from construction of the Mill Site pump station and conveyance facilities under Alternative 2B would be the same as those identified for Alternative 1A (see Impact 1A–VR1).

Temporary impacts from construction of the Mill Site pump station and conveyance facilities on visual resources would be significant and cannot be mitigated.

Operations-related Impacts.

Impact 2B–VR2: Permanent Landscape Changes from Mill Site Pump Station and Conveyance Facilities. Permanent impacts resulting from operations of the Mill Site pump station and conveyance facilities under

Alternative 2B would be the same as those identified for Alternative 1A (see Impact 1A-VR2).

Permanent landscape changes (impacts) from operations of the Mill Site pump station and conveyance facilities would be significant, and cannot be mitigated.

Impact 2B-VR3: Permanent Landscape Changes from Reduction of Gates-in Time Period. Permanent impacts resulting from a reduction in the gates-in period from 4 months each year to 2 months each year under Alternative 2B would be the same as those identified for Alternative 2A (see Impact 2A-VR4).

The permanent landscape change (impact) resulting from a reduction of the gates-in time period would be significant and cannot be mitigated.

3: Gates-out Alternative

Construction-related Impacts.

Impact 3-VR1: Construction Views of Mill Site Pump Station and Conveyance Facilities. Temporary impacts resulting from construction of the Mill Site pump station and conveyance facilities under Alternative 3 would be the same as those identified for Alternative 1A (see Impact 1A-VR1).

Temporary impacts from construction of the Mill Site pump station and conveyance facilities on visual resources would be significant and cannot be mitigated.

Operations-related Impacts.

Impact 3-VR2: Permanent Landscape Changes from Mill Site Pump Station and Conveyance Facilities. Permanent impacts resulting from operations of the Mill Site pump station and conveyance facilities under Alternative 3 would be the same as those identified for Alternative 1A (see Impact 1A-VR2).

Permanent landscape changes from operations of the Mill Site pump station and conveyance facilities would be significant and cannot be mitigated.

Impact 3-VR3: Permanent Landscape Changes from Elimination of Gates-in Time Period. Under Alternative 3, the RBDD gates would remain in the up position for the entire year, eliminating the gates-in period and the resulting formation of Lake Red Bluff. The impacts to visual resources resulting from Alternative 3 would be the same as those identified for Alternative 2A (see Impact 2A-VR4). However, under Alternative 2A, the increased river elevation that creates Lake Red Bluff would be reduced by 2 months each year, while under Alternative 3, Lake Red Bluff would cease to be formed annually. Because the change from the gates-in to gates-out appearance would be permanent, ultimately, Alternative 3 would have negative aesthetic effects on scenic

Because the change from the gates-in to gates-out appearance would be permanent, ultimately, the Gates-out Alternative would have negative aesthetic effects on scenic views and would substantially degrade the existing visual character and quality of the project vicinity as it relates to the reaches of the Sacramento River described in this section.

views and would substantially degrade the existing visual character and quality of the project vicinity as it relates to the reaches of the Sacramento River described in this section. This degradation would be particularly evident through the Lower River/Red Bluff Recreation Area, East Sand Slough, and the Middle River reach. Therefore, the impact of eliminating the annual gates-in period would be considered significant.

To help mitigate visual impacts, a committee would be formed following selection of a Preferred Alternative to develop measures intended to help improve the appearance of those areas through the Sacramento River reaches that are particularly impacted by the loss of Lake Red Bluff. Potential measures include natural vegetation or landscaping through the east bank of the river adjacent to the Recreation Area and East Sand Slough, and the creation of shallow lagoons or ponds adjacent to the Recreation Area and the City Park. The committee to evaluate visual resources mitigation measures would be based on the existing SWG. However, the visual and aesthetic impacts of the elimination of the annual gates-in period would remain significant even after mitigation. It should be noted that there is a difference of opinion about the aesthetic value of an impounded body of water versus a free-flowing river. Those who value the aesthetics of a free-flowing river may not consider the Gates-out Alternative to have significant adverse aesthetic and visual resources impacts. Because this analysis has attempted to be conservative in its determination of significance, a worst-case interpretation of the significance standards has been applied.

Those who value the aesthetics of a free-flowing river may not consider the Gates-out Alternative to have significant adverse aesthetic and visual resources impacts.

The permanent landscape change (impact) resulting from the elimination of the gates-in time period and formation of Lake Red Bluff would be a significant impact that cannot be mitigated.

Consistency with Applicable Plans and Policies

A comparison of the proposed project alternatives with the aesthetic and visual resources portions of applicable plans and policies identified in the Visual Resource-related Plans and Policies section indicates that the proposed project is consistent with all identified plans and policies.

3.12.3 Mitigation

No mitigation is proposed that would reduce significant impacts to aesthetic and visual resources impacts resulting from the proposed alternatives to a less than significant level. However, a committee to evaluate visual resources mitigation measures would be established following selection of a project alternative. Potential mitigation measures have been identified in each of the alternative discussions above.

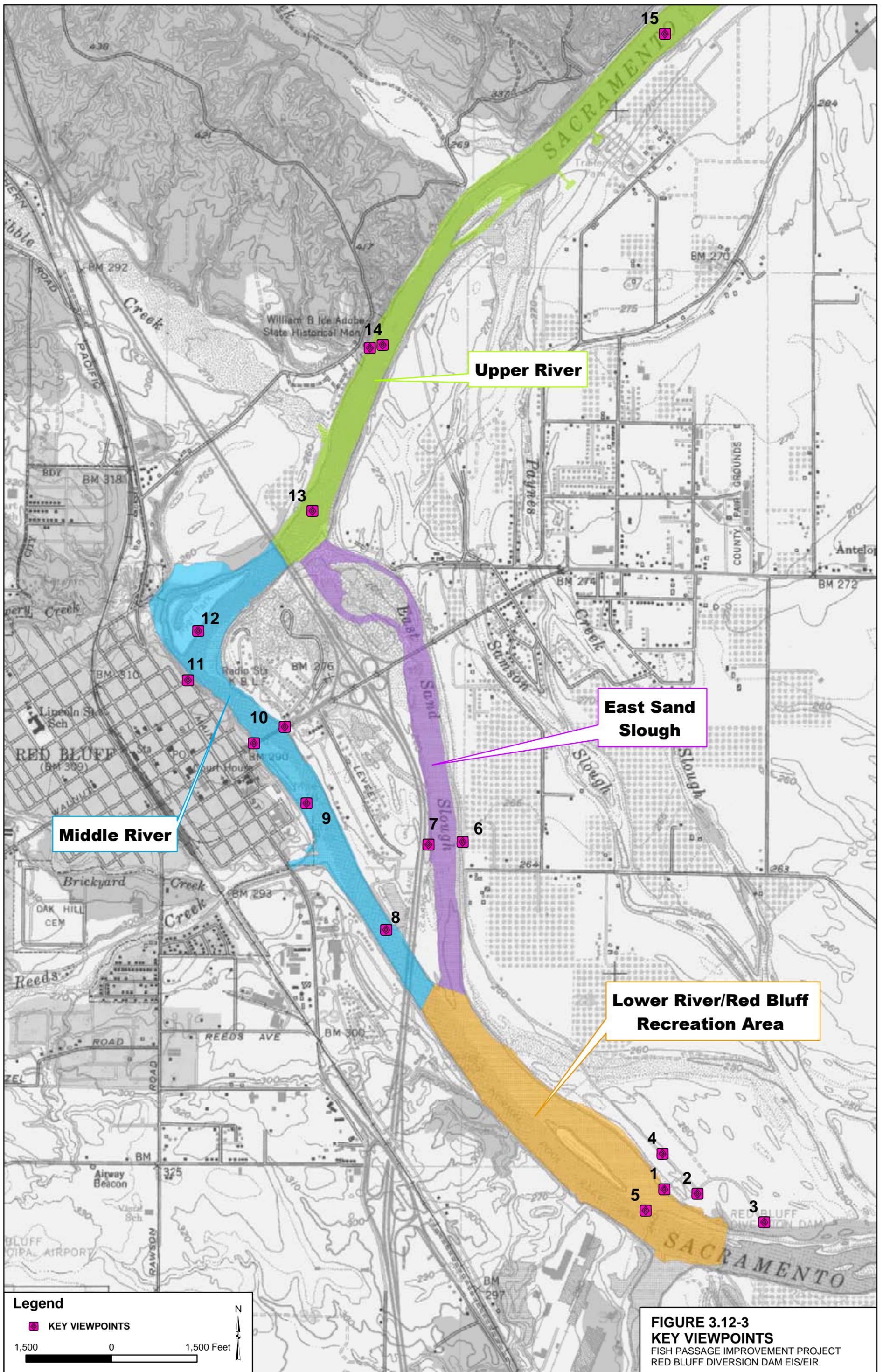


FIGURE 3.12-1
AERIAL VIEW OF PROJECT AREA
WITH GATES IN
FISH PASSAGE IMPROVEMENT PROJECT
RED BLUFF DIVERSION DAM EIS/EIR



FIGURE 3.12-2
AERIAL VIEW OF PROJECT AREA
WITH GATES OUT

FISH PASSAGE IMPROVEMENT PROJECT
RED BLUFF DIVERSION DAM EIS/EIR



Legend

◆ KEY VIEWPOINTS

1,500 0 1,500 Feet

**FIGURE 3.12-3
KEY VIEWPOINTS
FISH PASSAGE IMPROVEMENT PROJECT
RED BLUFF DIVERSION DAM EIS/EIR**

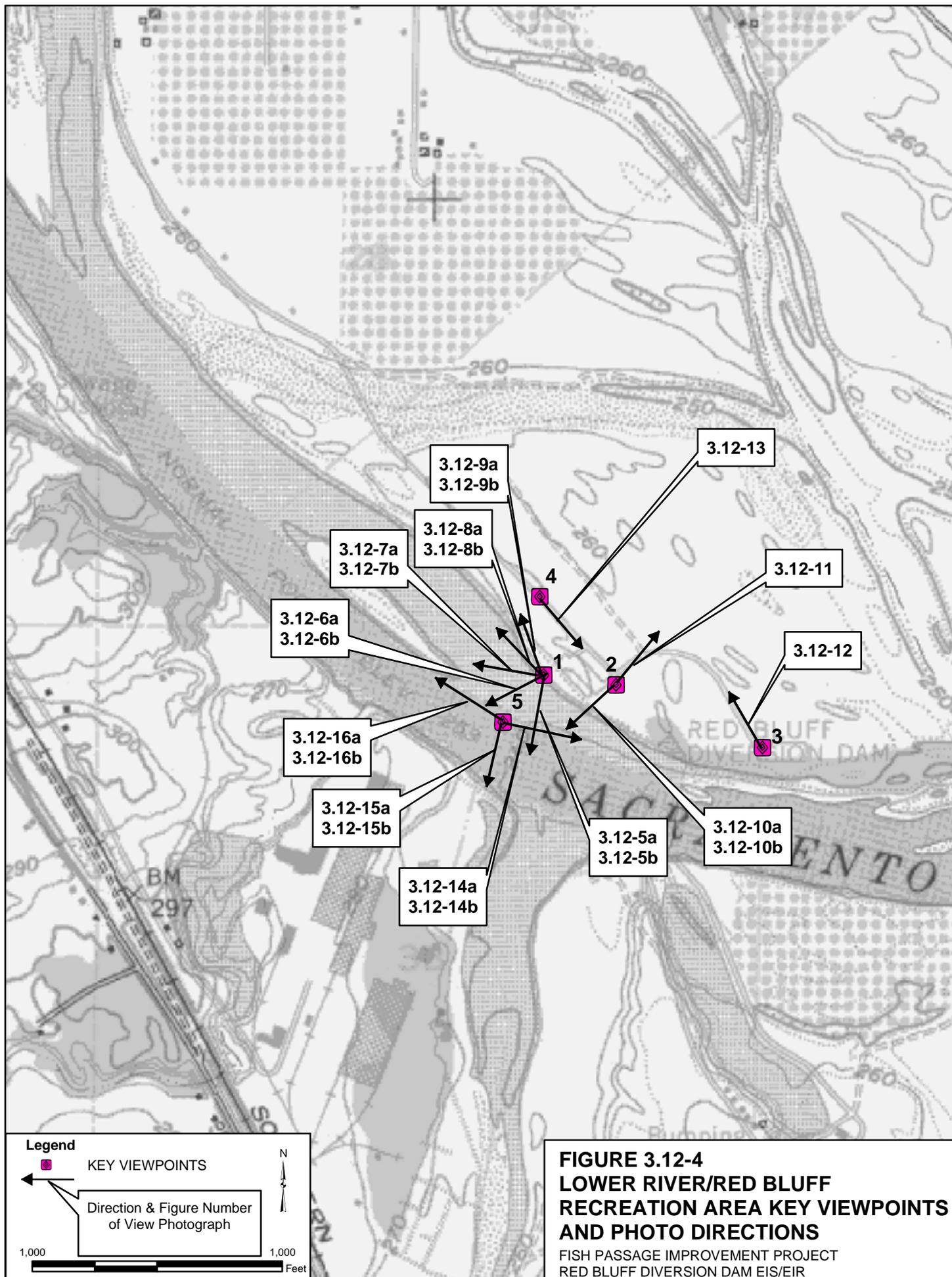




FIGURE 3.12-5A
VIEW FROM VIEWPOINT #1, PHOTO 1
GATES-OUT CONDITION



FIGURE 3.12-5B
VIEW FROM VIEWPOINT #1, PHOTO 1
GATES-IN CONDITION

**LOWER RIVER/RED BLUFF
RECREATION AREA VIEWPOINT #1**
FISH PASSAGE IMPROVEMENT PROJECT
RED BLUFF DIVERSION DAM EIS/EIR



FIGURE 3.12-6A
VIEW FROM VIEWPOINT #1, PHOTO 2
GATES-OUT CONDITION



FIGURE 3.12-6B
VIEW FROM VIEWPOINT #1, PHOTO 2
GATES-IN CONDITION

**LOWER RIVER/RED BLUFF
RECREATION AREA VIEWPOINT #1**
FISH PASSAGE IMPROVEMENT PROJECT
RED BLUFF DIVERSION DAM EIS/EIR



FIGURE 3.12-7A
VIEW FROM VIEWPOINT #1, PHOTO 3
GATES-OUT CONDITION



FIGURE 3.12-7B
VIEW FROM VIEWPOINT #1, PHOTO 3
GATES-IN CONDITION

**LOWER RIVER/RED BLUFF
RECREATION AREA VIEWPOINT #1**
FISH PASSAGE IMPROVEMENT PROJECT
RED BLUFF DIVERSION DAM EIS/EIR



FIGURE 3.12-8A
VIEW FROM VIEWPOINT #1, PHOTO 4
GATES-OUT CONDITION



FIGURE 3.12-8B
VIEW FROM VIEWPOINT #1, PHOTO 4
GATES-IN CONDITION

**LOWER RIVER/RED BLUFF
RECREATION AREA VIEWPOINT #1**
FISH PASSAGE IMPROVEMENT PROJECT
RED BLUFF DIVERSION DAM EIS/EIR



FIGURE 3.12-9A
VIEW FROM VIEWPOINT #1, PHOTO 5
GATES-OUT CONDITION



FIGURE 3.12-9B
VIEW FROM VIEWPOINT #1, PHOTO 5
GATES-IN CONDITION

**LOWER RIVER/RED BLUFF
RECREATION AREA VIEWPOINT #1**
FISH PASSAGE IMPROVEMENT PROJECT
RED BLUFF DIVERSION DAM EIS/EIR



FIGURE 3.12-10A
VIEW FROM VIEWPOINT #2, PHOTO 1
GATES-OUT CONDITION



FIGURE 3.12-10B
VIEW FROM VIEWPOINT #2, PHOTO 1
GATES-IN CONDITION

**LOWER RIVER/RED BLUFF
RECREATION AREA VIEWPOINT #2**
FISH PASSAGE IMPROVEMENT PROJECT
RED BLUFF DIVERSION DAM EIS/EIR



FIGURE 3.12-11
VIEW FROM VIEWPOINT #2, PHOTO 2



FIGURE 3.12-12
VIEW FROM VIEWPOINT #3



FIGURE 3.12-13
VIEW FROM VIEWPOINT #4



FIGURE 3.12-14A
VIEW FROM VIEWPOINT #5, PHOTO 1
GATES-OUT CONDITION



FIGURE 3.12-14B
VIEW FROM VIEWPOINT #5, PHOTO 1
GATES-IN CONDITION



FIGURE 3.12-15A
VIEW FROM VIEWPOINT #5, PHOTO 2
GATES-OUT CONDITION



FIGURE 3.12-15B
VIEW FROM VIEWPOINT #5, PHOTO 2
GATES-IN CONDITION

**LOWER RIVER/RED BLUFF
RECREATION AREA VIEWPOINT #5**
FISH PASSAGE IMPROVEMENT PROJECT
RED BLUFF DIVERSION DAM EIS/EIR



FIGURE 3.12-16A
VIEW FROM VIEWPOINT #5, PHOTO 3
GATES-OUT CONDITION



FIGURE 3.12-16B
VIEW FROM VIEWPOINT #5, PHOTO 3
GATES-IN CONDITION

**LOWER RIVER/RED BLUFF
RECREATION AREA VIEWPOINT #5**
FISH PASSAGE IMPROVEMENT PROJECT
RED BLUFF DIVERSION DAM EIS/EIR