

# Chapter 19

## Aesthetics and Visual Resources

### 19.1 Affected Environment

This chapter describes the affected environment related to aesthetics and visual resources for the dam and reservoir modifications proposed under the SLWRI.

Because of the potential influence of the proposed modification of Shasta Dam on water deliveries over a large geographic area, the SLWRI includes both a primary study area and an extended study area. The primary study area has been further divided into Shasta Lake and vicinity and the upper Sacramento River (Shasta Dam to Red Bluff). The extended study area consists of the lower Sacramento River and Delta and the CVP/SWP service areas.

#### 19.1.1 Visual Environment

Both natural and artificial landscape features contribute to perceived visual images and the aesthetic value of a view. The value is determined by contrasts, forms, and textures exhibited by the natural environment (e.g., geology, hydrology, vegetation, and wildlife), as well as human-made features. The aesthetic value of an area is a measure of its visual character and quality combined with the viewer's response to the area (DOT 1981). In general terms, the visual landscape is considered to be a vital component of an area's overall resource value. The ability of the landscape to undergo alteration without losing its visual character is considered important for the maintenance of high scenic value. As development deviates from the natural landscape, visual impacts increase. The visual impacts of a project are determined by a number of factors, including effects on the visual character and quality (e.g., form, line, color, and texture), visual exposure, viewer sensitivity, and the number of viewers who are expected to see the project.

People respond differently to changes in the physical environment, depending on their prior experiences and expectations, their proximity to the views, and the length of time the view is visible to them. Visual effects analyses tend to be highly subjective. For this reason, aesthetics and visual resources are addressed qualitatively rather than quantitatively.

This section focuses on the primary study area consisting of Shasta Lake and vicinity and the upper Sacramento River from Shasta Dam downstream to Red Bluff. The focus is on the primary study area because implementation of the project would have virtually no effect on aesthetic values and visual resources in the extended study area.

1           The visual environment, or character, is a function of both the natural and  
2           artificial landscape features that make up a view. The character of any given  
3           area is influenced by geologic, hydrologic, botanical, wildlife, recreational, and  
4           urban features. The perception of visual character can vary significantly as  
5           season, hour, light, shadow, weather, and the other elements of a view change.  
6           Form, line, color, and texture are the basic components used to describe visual  
7           character and quality for most visual assessments (DOT 1981). The dominance  
8           of each of these components on the landscape forms the viewer’s impression of  
9           the landscape, and therefore, the aesthetic value of the landscape. The aesthetic  
10          value of an area is a measure of its visual character and scenic quality combined  
11          with the viewer response.

12          The overall sensitivity and response of a viewer to the quality of a view is based  
13          on a combination of viewer exposure and viewer sensitivity. “Viewer exposure”  
14          refers to the visibility of resources in the landscape, the proximity of the vantage  
15          point to the view, the elevation of the viewer relative to the view, the frequency  
16          and duration of the viewing, the number of observers, and the preconceived  
17          expectations of individual viewers or groups. “Viewer sensitivity” refers to the  
18          extent of the public’s concern for particular landscapes. Judgments of visual  
19          quality and viewer response should be based on a regional frame of reference  
20          The geographic setting and nature of the visual resource will significantly  
21          influence the degree of visual quality and sensitivity experienced by the viewer.  
22          For example, the presence of a small hill in an otherwise flat landscape may be  
23          considered a significant visual element, but a hill of the same size may have  
24          very little significance when located in mountainous terrain.

25          For purposes of this report, a viewshed is defined as the surface area visible  
26          from a particular location (e.g., a highway pull-out, campground, or marina) or  
27          sequence of locations (e.g., along a highway or trail). The scenic attractiveness  
28          and distance zones also influence the aesthetic value of a viewshed.

29          ***Scenic Attractiveness***

30          Scenic attractiveness is classified as:

- 31                 • **Class A “distinctive”** – Areas where landform, vegetation patterns,  
32                 water characteristics, and cultural features combine to provide unusual,  
33                 unique, or outstanding scenic quality. These landscapes have strong  
34                 positive attributes of variety, unity, vividness, mystery, intactness,  
35                 order, harmony, uniqueness, pattern, and balance.
  
- 36                 • **Class B “typical”** – Areas where landform, vegetation patterns, water  
37                 characteristics, and cultural features combine to provide ordinary or  
38                 common scenic quality. These landscapes generally have positive, yet  
39                 common, attributes of variety, unity, vividness, mystery, intactness,  
40                 order, harmony, uniqueness, pattern, and balance.

- **Class C “indistinctive”** – Areas where landform, vegetation patterns, water characteristics, and cultural features have low scenic quality. Water and rock forms of any consequence are often missing in Class C landscapes. These landscapes have weak or missing attributes of variety, unity, vividness, mystery, intactness, order, harmony, uniqueness, pattern, and balance.

Class A and B visual resources typically are found in State or Federal parks, recreation areas, and wilderness areas, including rivers and lakes. Class C resources generally are areas that have low scenic quality and consist of more common landscapes.

### ***Distance Zones***

In addition to scenic attractiveness, three primary distance zones are used, as appropriate, to characterize the viewsheds described in the following sections. These distance zones, described below, are foreground, middle ground, and background.

- **Foreground (0 to 0.5 mile)** – At a foreground distance, people can distinguish small boughs or leaf clusters, tree trunks and large branches, individual shrubs, clumps of wildflowers, medium-sized animals, and medium to large birds.
- **Middle ground (0.5 to 4 miles)** – At a middle ground distance, people can distinguish individual tree forms, large boulders, flower fields, small openings in the forest or tree line, and small rock outcrops. Form, texture, and color remain dominant and pattern is important.
- **Background (4 miles to horizon)** – At a background distance, people can distinguish groves or stands of trees, large openings in the forest, and large rock outcrops. Texture is not detectable and color has flattened, but large patterns of vegetation or rocks are still distinguishable, and landform ridgelines and horizon lines are the dominant visual characteristics.

### ***Shasta Lake and Vicinity and Upper Sacramento River (Shasta Dam to Red Bluff)***

For purposes of the aesthetics and visual resources assessment, the primary study area encompasses Shasta Lake and vicinity and the upper Sacramento River in Northern California. Shasta Dam is located about 9 miles northwest of Redding, and the dam and the entire reservoir are in Shasta County. The Shasta Lake and vicinity portion of the primary study area is composed of Shasta Dam and Shasta Lake and the lower reaches of the tributaries draining into Shasta Lake. The upper Sacramento River portion includes dam-related infrastructure downstream from the dam, Keswick Reservoir, and watersheds that are tributary to the Sacramento River downstream to Red Bluff.

1 The terrain of the primary study area is extremely diverse and includes the  
2 mountainous terrain surrounding Shasta Lake as well as the landscapes of the  
3 Central Valley below Keswick Reservoir. Upstream from Keswick Reservoir,  
4 slopes are characterized by a mix of pine and oak forests and, to varying  
5 degrees, chaparral and rock outcrops. The landscape includes topographic  
6 features of the Klamath Mountains, the southern Cascade Range, and the  
7 Central Valley. Two volcanic features – Mount Shasta and Mount Lassen – can  
8 be seen from numerous vantage points throughout the area.

9 Shasta Lake is the central visual attraction of the primary study area. It is the  
10 largest lake in the Whiskeytown-Shasta-Trinity National Recreation Area  
11 (NRA). The Shasta-Trinity Unit of the NRA is managed by the USFS Shasta-  
12 Trinity National Forest (STNF) to provide high-quality recreational experiences  
13 and visual perceptions to the public. Shasta Lake offers the public a variety of  
14 outdoor recreational experiences and activities, including boating, water-skiing,  
15 swimming, fishing, camping, picnicking, hiking, hunting, and mountain biking.  
16 Recreation at the lake is managed by USFS consistent with the STNF *Land and*  
17 *Resource Management Plan* (LRMP) and guidelines established for the  
18 Whiskeytown-Shasta-Trinity NRA.

19 Shasta Lake has a surface area of 29,500 acres, with a shoreline of about 420  
20 miles. Currently, there are 10 marinas on Shasta Lake, most of which are  
21 located in coves. Although numerous campgrounds provide facilities for land-  
22 based recreation, the primary recreational use of the lake is water-based. Many  
23 types of boats use the lake, including private and commercial houseboats,  
24 powerboats, and personal watercraft.

25 The construction of Shasta Dam inundated the canyons of the Sacramento, Pit,  
26 and McCloud rivers, as well as numerous tributaries. The diversity of visual  
27 experiences at Shasta Lake and the surrounding slopes is influenced by  
28 fluctuating water levels, compounded by human-made features such as  
29 Interstate 5 (I-5), the Union Pacific Railroad (UPRR), and electrical  
30 transmission facilities. A variety of commercial and residential uses occurs in,  
31 on, or near Shasta Lake.

32 Shasta Lake is crossed from north to south by I-5 via the Pit River Bridge at the  
33 western end of the Pit Arm and the Antlers Bridge near the northern end of the  
34 Sacramento Arm. Views from both of these bridges are dominated by Shasta  
35 Lake and the surrounding landscapes; the views encompass minimal  
36 development, although Bridge Bay Resort can be clearly seen from the  
37 southbound lanes of the Pit River Bridge and some commercial and residential  
38 development can be seen from the Antlers Bridge.

39 The STNF LRMP classifies National Forest System (NFS) lands based on  
40 visual quality objectives (VQO). VQOs identify how much a management  
41 activity can contrast visually with the character of the landscape. The Shasta-  
42 Trinity Unit of the NRA includes lands managed by the STNF to meet the

1 following VQOs: modification, partial retention, and retention. Areas  
 2 designated as “modification” are typically developed areas, such as  
 3 campgrounds, marinas, and boat launch ramps, with management activities in  
 4 the foreground and a natural appearance in the middle ground. “Partial  
 5 retention” refers to those areas where management activities remain visually  
 6 subordinate on the landscape. “Retention” areas are those where management  
 7 activities are not visually evident.

8 The LRMP defines three principal criteria to classify VQOs: (1) sensitivity  
 9 levels, (2) scenic quality of the landscape, and (3) distance from the main  
 10 viewing areas. Table 19-1 compares the acreage of VQOs (as defined in the  
 11 LRMP) to the total area of NFS lands managed by USFS in the Shasta-Trinity  
 12 Unit of the Whiskeytown-Shasta-Trinity NRA.

13 **Table 19-1. Shasta-Trinity National Forest Inventoried Visual Quality**  
 14 **Objectives**

Inventoried VQO	NFS Lands (2,705,234 acres)		NRA Lands (Shasta-Trinity Unit) (121,505 acres)	
	Acres <sup>1</sup>	Percent <sup>2</sup>	Acres <sup>3</sup>	Percent <sup>4</sup>
Preservation	498,700	18	28,095	23
Retention	175,000	6	92,387	76
Partial Retention	590,600	22	0	0
Modification	597,600	22	1,112	1
Maximum Modification	259,100	10	0	0

Sources: USFS 1995b, 2007

Notes:

<sup>1</sup> Number of acres of lands of the VQO type in the LRMP management area (NFS land only)

<sup>2</sup> Percentage of lands of the VQO type in the LRMP management area (NFS land only)

<sup>3</sup> Number of acres of land by VQO type in the NRA (Shasta-Trinity Unit) management area (NFS land only)

<sup>4</sup> Percentage of lands by VQO type in the LRMP management area (NFS land only)

Key:

LRMP = Land and Resource Management Plan

NFS = National Forest System

VQO = visual quality objective

15 In the NRA, Shasta Dam and Shasta Lake are the dominant components of the  
 16 visual environment. The lake, combined with constructed facilities (e.g., Shasta  
 17 Dam, Pit River Bridge, Bridge Bay Resort) and natural features (e.g.,  
 18 mountains, rivers, canyons, vegetation) observable from various locations have  
 19 a substantial influence on the visual character of the existing landscape.

20 The remaining parts of this section describe the visual resources in the primary  
 21 study area. Much of the content of these descriptions was taken from  
 22 reconnaissance-level data gathered during the SLWRI by Reclamation and its  
 23 consultants. The STNF also provided information used to characterize these

1 visual resources. Visual resources are described in terms of visual sensitivity  
2 and viewer response.

3 **Viewsheds** A number of factors can influence the aesthetic value of viewsheds  
4 in the primary study area, which are dominated by constructed features and  
5 natural landscapes. Although exposed surfaces associated with grading and  
6 barren shoreline may be obvious, factors such as vegetation, lighting, and glare  
7 can also substantially influence these viewsheds both spatially and temporally.  
8 The viewshed types that occur in the primary study area are listed below and  
9 described in the following sections:

- 10 • Panoramic views
- 11 • Vista points
- 12 • Landscape features
- 13 • Distinctive built features
- 14 • Built features (detractions)
- 15 • Exposed shoreline of Shasta Lake
- 16 • External views

17 *Panoramic Views* A panoramic view is defined as the unbroken view of an  
18 entire surrounding area. In the Shasta Dam and Shasta Lake area, panoramic  
19 viewing opportunities are governed by the elevation, aspect, and location of the  
20 viewer. The steep, mountainous topography around Shasta Lake largely  
21 influences the degree to which any given area can be seen from a particular  
22 vantage point. Vegetation, lighting, and glare also influence a panoramic view.  
23 For example, panoramic views as seen from the lake level vary greatly from  
24 those seen from the I-5 corridor higher up the slope.

25 The contrast between Shasta Lake and the surrounding mountains affords  
26 visitors a diversity of views from various locations around the lake. The length  
27 and configuration of the shoreline of Shasta Lake coupled with the mountainous  
28 terrain represent an important visual and scenic resource in the region.

29 Panoramic viewsheds are plentiful throughout the primary study area. Among  
30 the most dramatic and high-quality views is that of the so-called “Three  
31 Shastas,” consisting of Shasta Dam, Shasta Lake, and Mount Shasta. The  
32 photograph in Figure 19-1, taken from the State Route (SR) 151 vista point  
33 above the Shasta Dam Visitor Center, illustrates the Three Shastas with the dam  
34 in the foreground, the lake in the middle ground, and Mount Shasta in the  
35 background. This view is a widely publicized panorama that draws large  
36 numbers of visitors to the area annually. Class A and B views extend for miles  
37 to the north, east, and west from the SR 151 vista point.

1 For purposes of this  
2 assessment, panoramic  
3 viewsheds consist primarily  
4 of views visible from  
5 locations immediately  
6 adjacent to or above Shasta  
7 Dam that are subject to heavy  
8 use (e.g., Bridge Bay Resort,  
9 Shasta Dam Visitor Center,  
10 the I-5 corridor). However,  
11 some less accessible, but  
12 nonetheless important,  
13 locations such as residences,  
14 campgrounds, marinas, and  
15 other facilities may also  
16 provide opportunities for  
17 panoramic views and thus  
18 have been included in the assessment of potential impacts on panoramic views.



**Figure 19-1. Panoramic view of the Three Shastas (Shasta Dam, Shasta Lake, and Mount Shasta) as seen from the State Route 151 Vista Point**

19 *Vista Points* Vista points differ from panoramic views in the level of visible  
20 expanse. Panoramic views encompass an entire surrounding area, whereas  
21 views from vista points are limited by what can be seen through an opening,  
22 such as between rows of trees or buildings. Shasta Lake and the surrounding  
23 area offer almost limitless  
24 viewing opportunities.  
25 Viewsheds have been  
26 assessed based on sites that  
27 are representative of popular  
28 use areas such as marinas,  
29 residences, and other  
30 recreational features.



**Figure 19-2. Typical View of Shasta Lake from a Lakeside Campsite (taken from the Dekkas Rock Campground, McCloud Arm)**

31 Most of the shoreline around  
32 the lake (above the ordinary  
33 high-water line) is heavily  
34 vegetated and its topography  
35 varies significantly. Views  
36 from most onshore recreation  
37 areas are limited by stands of  
38 trees and undulating banks.  
39 Figure 19-2 shows a view of  
40 the lake from a typical lakeside campsite, in this case the Dekkas Rock  
41 Campground located on the McCloud Arm. Views of the shoreline from the  
42 water are also influenced by topography and vegetation. Although large  
43 expanses of the shoreline may be visible to boaters, lake elevation and bank  
44 topography ultimately determine what can be seen by boaters.

*Landscape Features*

“Landscape feature” is a term used to describe the land characteristics of a particular area, such as a forested or mountainous site. Several landscape features characterize the primary study area, including forest, rocky outcrops, and urban development. Well-known landscape features in the primary study area include Shasta Dam, Mount Shasta, the Sundial Bridge, and the Sacramento River. The distance of the feature upstream from Shasta Dam, coupled with variations in lake levels, influences the view of landscape features. As the lake level falls, the various arms look more like rivers (e.g., channelized, boulder-strewn) and less like a lake. Figure 19-3 illustrates some of the distinctive landscape features visible from a portion of the Bridge Bay Marina, the Pit River Bridge, and limestone outcrops located along the McCloud Arm.



**Figure 19-3. Some of the Distinctive Landscape Features Visible from the Bridge Bay Resort, Including a Portion of the Bridge Bay Resort**

*Distinctive Built Features*

The aesthetic quality of a distinctive built feature is subject to individual interpretation. This subjective interpretation is influenced by the contrast of these features with their setting. For example, engineered features such as Shasta Dam and its infrastructure (Figure 19-4) can be considered to detract from the “natural” character of the setting, because some viewers might argue that the natural character of the features inundated by Shasta Lake is its greatest strength. The dam, which was completed in 1945, is a curved concrete gravity-type dam containing 6.5 million cubic yards of concrete weighing 15 million tons. It is the second largest dam in mass in the United States. (Grand Coulee Dam on the Columbia River in Washington State is the largest.)



**Figure 19-4. Shasta Dam and Infrastructure**



1 The 3,460-foot-long dam is 602 feet high, 543 feet thick at the bottom, and 30  
2 feet thick at the top (Reclamation 2005). The face of the dam covers 31 acres,  
3 equal to 6 football fields and their stadiums, and the 487-foot spillway is the  
4 largest built waterfall in the world – three times the height of Niagara Falls. The  
5 spillway, as seen from the west, measures 375 feet in width with 3 drum gates,  
6 each 110 feet wide, 28 feet tall, and weighing 500 tons. There are 18 outlets on  
7 the face of the dam, each 8½ feet in diameter (large enough to drive a pickup  
8 truck through) with a maximum spillage capacity of 186,000 cubic feet per  
9 second.

10 With more than 400 miles of shoreline, Shasta Lake is the largest human-made  
11 lake in California. The water storage capacity is more than 4.5 million acre-feet.  
12 The surface area of the lake is 29,740 acres, and the lake drains 6,665 square  
13 miles (Reclamation 2005). The lake is one of the major landmarks in Northern  
14 California.

15 *Built Features (Detractions)*

16 An opinion concerning the  
17 attractiveness of a built feature  
18 is formed by the viewer's  
19 perception, biases, and  
20 personal preferences. A feature  
21 seen as an eyesore by one  
22 viewer may very well be  
23 considered attractive by  
24 another. Built features such as  
25 bridges, structures, roads,  
26 power transmission lines, and  
27 water storage tanks are  
28 generally visible only from  
29 site-specific locations (e.g., the  
30 visitor center, marinas, sections



31 of I-5) in the primary study area. Figure 19-5 shows an example of built features  
32 found in the primary study area (in this case, a railroad bridge in the foreground  
33 and the Antlers/I-5 Bridge in the background, as seen from Lakeshore Drive).

34 **Figure 19-5. Examples of Built Features in  
35 the Primary Study Area**

34 Additional built features of interest in the primary study area include bridges,  
35 roads, utilities, and commercial, administrative, and residential structures.

36 *Exposed Shoreline of Shasta Lake* Currently, Shasta Lake reaches or nearly  
37 reaches full pool levels about once every 5 years. Because it is a reservoir, water  
38 levels fluctuate in response to climatic conditions and operational requirements.  
39 Typical operational scenarios involve drawing the reservoir down during the  
40 demand period (May through October) and storing runoff during the  
41 winter/spring period. By its nature, the amount of shoreline exposed below the  
42 full pool level elevation fluctuates daily. In extremely dry years, more than 200  
43 vertical feet of shoreline may be exposed for extended periods through the fall.

1 Unlike bodies of water that are  
2 influenced by tides or other  
3 natural fluctuations, Shasta  
4 Lake does not support habitats  
5 that can adapt to large changes  
6 in environmental conditions.  
7 Therefore, the exposed  
8 shoreline below the full pool  
9 level is essentially devoid of  
10 vegetation (Figure 19-6). As  
11 illustrated in this figure, the  
12 relatively gradual slope to the  
13 lake bottom results in a greater  
14 area of exposed shoreline with  
15 lower water levels, resulting in  
16 the “bathtub ring” effect common to California reservoirs (Reclamation 2006).  
17 As the elevation of the water surface decreases, the viewing quality changes  
18 spatially and temporally. Erosional processes, primarily wave erosion,  
19 exacerbate this situation. The seasonal fluctuations in water levels and,  
20 consequently, the amount of exposed shoreline greatly affect the visual quality  
21 of Shasta Lake.



**Figure 19-6. The “Bathtub Ring” Effect**  
As the elevation of the water surface decreases, the viewing quality changes spatially and temporally. Erosional processes, primarily wave erosion, exacerbate this situation. The seasonal fluctuations in water levels and, consequently, the amount of exposed shoreline greatly affect the visual quality of Shasta Lake.

22 *External Views* A number of  
23 factors may affect the  
24 viewsheds described in the  
25 preceding section. Exposed  
26 surfaces associated with barren  
27 shoreline and activities such as  
28 grading may be obvious, but  
29 factors such as vegetation,  
30 lighting, and glare could also  
31 substantially affect these  
32 viewsheds both spatially and  
33 temporally.



**Figure 19-7. View of Shasta Lake from a Residence Located off Northwoods Road, Lakehead, California**

34 Topography and property  
35 boundaries influence the  
36 public’s external views of the  
37 primary study area. Views of  
38 the lake from private property  
39 are infrequent. Most private parcels are located some distance from the lake,  
40 and views of the lake are buffered by vegetation and the topography of NFS  
41 lands surrounding the lake. Nevertheless, some of the private parcels in the  
42 vicinity of Shasta Lake have views of the lake, although the quality of these  
43 views varies. Figure 19-7 shows a view of Shasta Lake from a nearby residence  
44 (the McCloud Arm is seen in the middle ground and the Pit Arm in the  
45 background).

1            *Light and Glare* A majority of the lands surrounding Shasta Lake are densely  
2 vegetated and undeveloped. As a result, there are relatively few sources of  
3 artificial light and glare in the Shasta Lake and vicinity portion of the primary  
4 study area. The reaches of the upper Sacramento River that pass through  
5 developed communities, such as Redding and Anderson, do have substantial  
6 sources of light and glare, and, to a lesser degree, light and glare are observable  
7 between the city of Shasta Lake and Lakehead. Vehicle traffic and roadway  
8 lighting along the I-5 corridor, scattered residential and commercial  
9 development, and reflective surfaces such as boats and marinas are among the  
10 primary sources of light and glare. The Shasta Dam compound has a variety of  
11 sources of light and glare. The backdrop of Shasta Dam at night is nonetheless  
12 an attraction for visitors and residents.

13            Exposed bare mineral soils, which characterize the “bathtub ring” around the  
14 perimeter of the lake during periods of drawdown, are a potential source of  
15 glare (Figure 19-6). The chroma of these soils is generally light, and the contrast  
16 of the bathtub ring with upslope vegetation and downslope water is readily  
17 apparent from various distances.

18            *Vegetation* Vegetation is an important variable in characterizing visual  
19 conditions. The type, location, diversity, and distribution of vegetation influence  
20 form and texture, depending on the vantage point of the viewer. The diverse  
21 assemblage of vegetation and barren areas in and adjacent to the primary study  
22 area varies seasonally. As mentioned previously, forestlands surround Shasta  
23 Lake. The transition from chaparral/montane hardwood–dominated habitat at  
24 the southern end of the lake to a conifer-dominated forest to the north and east  
25 is apparent to travelers on I-5 as well as to people viewing the area from the  
26 lake level or a vista point.

27            Typically, vegetation extends from the ordinary high-water line of Shasta Lake  
28 into the adjacent uplands. Changes in vegetation type are apparent as the  
29 viewer’s eye is drawn upward from lake level to surrounding ridgelines.  
30 Because there is no vegetation below the ordinary high-water line, a distinct  
31 demarcation is visible between upland vegetation and water levels as the  
32 reservoir fluctuates.

33            **Viewer Groups** The perceptions of viewers are influenced by their location,  
34 specific activities in which they are engaged, personal degree of awareness, and  
35 individual values and goals. Activities associated with the project could affect  
36 three distinct viewer groups: motorists, residents, and recreationists.

37            *Motorists* For the purposes of this report, motorists are people who view the  
38 primary study area from a moving vehicle. Motorists can be drivers or  
39 passengers. This group typically consists of commuters, local residents,  
40 business travelers, and tourists.

1 Tourists are often acutely aware of viewsheds. Business travelers, commuters,  
2 and local residents who travel the same routes frequently may become inured to  
3 a view but, at the same time, are more likely to be aware of visual changes than  
4 occasional passersby. In general, views of Shasta Lake from motorists on I-5 are  
5 of short duration but relatively frequent from Bridge Bay north to Lakehead.  
6 The longest duration and most expansive panoramic view of Shasta Lake from  
7 I-5 occurs as the roadway approaches and crosses Shasta Lake over the Pit  
8 River Bridge from both the north and the south. Traveling this route at a speed  
9 of 55 miles per hour, the viewer would be able to observe the lake and its  
10 vicinity for approximately 1 minute. Other I-5 views may vary from 4 to 16  
11 seconds, depending on the direction and speed of travel.

12 Less traveled roads in the vicinity of Shasta Lake, such as SR 151, Salt Creek  
13 Road, and Gilman Road, also offer views of the lake. Most views of the lake  
14 from these roads are limited to vistas (views framed by trees or structures) and  
15 are therefore of short duration. However, one of the best vantage points from  
16 which to view the Three Shastas is at an overlook along SR 151, a State scenic  
17 highway (Figure 19-1). Motorists traveling north who do not stop at the  
18 overlook also see a spectacular view of the Three Shastas while traveling,  
19 although the view is of short duration.

20 *Residents* For the purposes of this report, residents are people whose homes,  
21 businesses, and/or property are near, and have a view of, a portion of the  
22 primary study area. The sensitivity of residents to aesthetic values and changes  
23 to a viewshed is highly individual. In addition, the sensitivity of residents to  
24 changes in a viewshed is influenced, in part, by the location and the length of  
25 time that the view from a particular location appears altered from its previous  
26 condition (e.g., temporary changes during construction or long-term  
27 modifications to the landscape).

28 Views of Shasta Lake from private properties are limited by land ownership  
29 patterns; most of the lands surrounding Shasta Lake are managed by Federal  
30 agencies. Views from these lands are influenced by access, vegetation, and  
31 topography. Homes on nearby ridges, such as those on the ridgeline between  
32 Packers Bay and Turntable Bay, typically have partial views of Shasta Lake.  
33 Similarly, homes clustered along the Sacramento Arm near Lakehead have  
34 views upstream and downstream from the arm, although the views are limited  
35 by the steep topography.

36 *Recreationists* For the purposes of this report, recreationists are people who  
37 use the lands in the Whiskeytown-Shasta-Trinity NRA for recreation. Like  
38 residents, recreational users of Shasta Lake are highly sensitive to the visual  
39 character of Shasta Lake and the surrounding environment.

40 Recreationists are people who participate in land-based activities, such as hiking  
41 along the shoreline, camping in the NRA's many campgrounds, or water-based  
42 activities, such as boating, fishing, or rafting. In addition to four recreational

1 residence tracts permitted by the STNF (e.g., Silverthorn Tract), several  
2 commercial facilities offer overnight accommodations adjacent to the shoreline.  
3 Recreational users often have a unique perspective on the surrounding  
4 environment.

5 **Visual Assessment Units and Key Observation Points** Visual assessment  
6 units (VAU) are areas of distinct visual character in a viewshed that provide a  
7 framework for comparing the visual effects of alternatives. Key observation  
8 points (KOP) are commonly traveled routes or other likely observation points in  
9 a VAU from which a representative group (motorists, residents, and  
10 recreationists) can observe a viewshed.

11 VAUs are defined by areas where the features or activities associated with the  
12 project would occur in the line of sight of a KOP and represent foreground or  
13 middle ground views (i.e., within 4 miles of a KOP in the VAU). KOPs were  
14 established at locations from which portions of the primary study area can  
15 clearly be seen by members of the various viewer groups. Table 19-2 lists the  
16 KOPs established in the primary study area. Locations of VAUs and KOPs are  
17 shown in Figures 19-8a through 19-8h. Photographs taken from each KOP are  
18 provided after each figure.

19 **Table 19-2. Key Observation Points**

VAU	Figure	KOP #	Photo #	Description of Key Observation Point
Shasta Dam	19-8a	1	1a	View of the Three Shastas (Shasta Dam, Shasta Lake, and Mount Shasta) from the SR 151 overlook above the Shasta Dam Visitor Center and downstream from Shasta Dam
		1	1b	View of the upper Sacramento River below Shasta Dam from the SR 151 overlook above the Shasta Dam Visitor Center and downstream from Shasta Dam
		2	2a	View of the Main Body of Shasta Lake from Shasta Dam
		2	2b	View of the Shasta Dam spillway and the upper Sacramento River from Shasta Dam
		2	2c	View of the Centimudi Boat Ramp from Shasta Dam
		3	3a	View from the Chappie-Shasta OHV Area staging area looking northeast
		3	3b	View from the Chappie-Shasta OHV Area staging area looking south
		4	4a	View from the Chappie-Shasta OHV Area campground looking northeast
		4	4b	View from the Chappie-Shasta OHV Area campground looking southwest
		5	5a	View from the Coram Ranch River House looking northeast
		5	5b	View from the Coram Ranch River House looking southeast

1 **Table 19-2. Key Observation Points (contd.)**

VAU	Figure	KOP #	Photo #	Description of Key Observation Point
Shasta Dam (contd.)	19-8a (contd.)	6	6a	View from the Coram Ranch Dogwood House looking northeast
		6	6b	View from the Coram Ranch Dogwood House looking southeast
		7	7a	View from the Coram Ranch Residence looking northeast
		7	7b	View from the Coram Ranch residence looking east
		7	7c	View from the Coram Ranch residence looking southeast
		8	8	View from the Coram Ranch Guest Quarters looking northeast
		9	9a	View from the road above the Chappie-Shasta OHV Area staging area looking northeast
		9	9b	View from the road above the Chappie-Shasta OHV Area staging area looking southwest
		10	10a	View of Shasta Dam from pullout east of the dam on Lake Boulevard looking northwest
		10	10b	View of Shasta Lake from pullout east of the dam on Lake Boulevard looking northeast
				11
Dry Creek Trail	19-8b	1	1	View of Dry Creek Trail northwest of Shasta Dam looking west from the Main Body of Shasta Lake
Little Backbone Inlet	19-8b	1	1a	View of the mouth of Little Backbone inlet looking northeast from the Main Body of Shasta Lake
		1	1b	View of the mouth of Little Backbone inlet looking northwest from the Main Body of Shasta Lake
Digger Bay	19-8b	1	1	View of the Main Body of Shasta Lake from the upper parking area west of the Digger Bay Boat Ramp
		2	2	View of the upper parking area at Digger Bay Marina looking east
		3	3a	View of Digger Bay Marina looking northwest from boat ramp
		3	3b	View of Digger Bay Marina shoreline looking west from boat ramp
		3	3c	View of Digger Bay Boat Ramp and parking area looking south from marina
Packers Bay	19-8c	1	1	View of Packers Bay from the Packers Bay Boat Ramp

2

1 **Table 19-2. Key Observation Points (contd.)**

VAU	Figure	KOP #	Photo #	Description of Key Observation Point
Bridge Bay	19-8c	1	1a	View of Bridge Bay looking north from the Bridge Bay store
		1	1b	View of Bridge Bay looking northwest from the parking lot of the Bridge Bay store
		2	2	View of the I-5/Pit River Bridge from Bridge Bay
		3	3a	View of the Union Pacific Railroad train tunnel looking south from the Bridge Bay Resort maintenance area
		3	3b	View of the Union Pacific Railroad train tunnel looking north from the Bridge Bay Resort maintenance area
		3	3c	View of Bridge Bay Marina 4 from the Bridge Bay Resort maintenance parking area
		4	4a	View of the south shoreline from Bridge Bay Marina 4 stairway
		4	4b	View looking northwest from Bridge Bay Marina 4 stairway
Sacramento Arm	19-8d	1	1	View of the Sacramento Arm from Riverview Drive southbound near the community of Pollock
		2	2	View of the Sacramento Arm from Riverview Drive southbound near the community of Pollock
		3	3	View of the Sacramento Arm looking east from the Doney Creek Bridge on Lakeshore Drive near the community of Lakehead
		4	4a	View of the Sacramento Arm from Lakeshore East Campground near the community of Lakeshore
		4	4b	View of the Sacramento Arm looking southeast from Lakeshore East Campground
		5	5a	View of the inlet looking northwest from Charlie Creek Bridge on Lakeshore Drive
		5	5b	View of the Sacramento Arm looking south from Charlie Creek Bridge on Lakeshore Drive
		6	6a	View of the Sacramento Arm from the Beehive Campground access road near Lakeshore
		6	6b	View of Sugarloaf Creek inlet/Sacramento Arm from Beehive Campground near Lakeshore
		6	6c	View of Sugarloaf Creek inlet/Sacramento Arm from Beehive Campground near Lakeshore

2

1 **Table 19-2. Key Observation Points (contd.)**

VAU	Figure	KOP #	Photo #	Description of Key Observation Point
Sacramento Arm (contd.)	19-8d (contd.)	7	7a	View of Sugarloaf Cove near Lakeshore from north shore looking south
		7	7b	View of Sugarloaf Cove from north shore looking northwest
		8	8	View of Sugarloaf Marina from the end of Daisy Lane
		9	9a	View looking south from Sugarloaf Resort Marina access
		9	9b	View toward the Salt Creek inlet from Sugarloaf Resort Marina access
		9	9c	View of Sugarloaf Marina from Sugarloaf Resort
		10	10a	View looking south toward Sugarloaf Marina from the Sugarloaf Boat Ramp
		10	10b	View looking southeast at the Sacramento Arm from the Sugarloaf Boat Ramp
		10	10c	View looking northeast at the Sacramento Arm from the Sugarloaf Boat Ramp entrance
		11	11a	View looking east from the Tsaodi Resort Marina
		11	11b	View looking south from the Tsaodi Resort Marina
		12	12a	View looking east toward I-5 from the Lakeshore Resort Campground
		12	12b	View looking southeast from the Lakeshore Resort Campground
		13	13	View of the Salt Creek Inlet looking south from the Oak Grove Day Use Area
		14	14a	View looking northeast from Lower Salt Creek Road at the Salt Creek Resort
		14	14b	View looking northwest from Lower Salt Creek Road at the Salt Creek Resort
		15	15a	View of the Salt Creek Inlet from Lower Salt Creek Road
		15	15b	View of the Salt Creek Inlet from Lower Salt Creek Road
16	16	View of Antlers Bridge/I-5 looking southwest from Antlers Public Boat Ramp		

2



1 **Table 19-2. Key Observation Points (contd.)**

VAU	Figure	KOP #	Photo #	Description of Key Observation Point
Sacramento Arm (contd.)	19-8d (contd.)	17	17a	View of Antlers Public Boat Ramp/Picnic Area parking lot from picnic area looking north
		17	17b	View of Sacramento Arm from Antlers Public Boat Ramp/Picnic Area from picnic area looking south
		18	18a	View from typical campsite at Antlers Resort looking north
		18	18b	View from typical campsite at Antlers Resort looking east
		18	18c	View from typical campsite at Antlers Resort looking southwest
McCloud Arm	19-8e	1	1	View of the McCloud Arm, Turntable Bay, and vicinity from a residence located off of Northwoods Road, west of I-5
		2	2	View of Turntable Bay from the McCloud Arm of Shasta Lake
		3	3	View of the Bailey Cove Boat Ramp from the Bailey Cove parking lot
		4	4	View of Holiday Harbor from the Bailey Cove Day Use Area
		5	5	View of Holiday Harbor from the Holiday Harbor Campground entrance
		6	6	View looking south toward the McCloud Arm from the Shasta Caverns parking lot
		7	7	View from the Lakeview Resort caretaker residence
		8	8a	View of the McCloud Arm looking south from the Lakeview Resort boat ramp
		8	8b	View of the McCloud Arm looking northeast from the Lakeview Resort boat ramp
		8	8c	View of the Lakeview Resort Marina from the Lakeview Resort boat ramp
		9	9	View of Lakeview Resort from the McCloud Arm of Shasta Lake
		10	10	View of Shasta Caverns dock on east side of lake from the McCloud Arm of Shasta Lake
		11	11a	View of the McCloud Arm downstream from the Hirz Bay Boat Ramp
11	11b	View of the McCloud Arm upstream from the Hirz Bay Boat Ramp		

2

1 **Table 19-2. Key Observation Points (contd.)**

VAU	Figure	KOP #	Photo #	Description of Key Observation Point
McCloud Arm (contd.)	19-8e (contd.)	12	12	View of Hirz Bay from the McCloud Arm of Shasta Lake
		13	13a	View of Campbell Creek inlet looking southeast from the McCloud Arm of Shasta Lake
		13	13b	View of Campbell Creek inlet looking east from the McCloud Arm of Shasta Lake
		14	14a	View of the McCloud Arm downstream, from the Dekkas Rock Campground
		14	14b	View of the McCloud Arm upstream, from the Dekkas Rock Campground
		15	15a	View of the McCloud River upstream, from the McCloud River Bridge
		15	15b	View of the McCloud River downstream, from the McCloud River Bridge
		16	16	View of the McCloud River Bridge, from the eastern approach
		17	17	View of the McCloud Arm from Space 10, McCloud Bridge Campground
		18	18a	View of the McCloud Arm from open area west of Space 1, McCloud Bridge Campground
		18	18b	View of the McCloud Arm from open area west of Space 1, McCloud Bridge Campground
		18	18c	View looking west from the open area west of Space 1, McCloud Bridge Campground
Pit Arm	19-8f	1	1a	View of the Pit Arm from the Jones Valley parking area, looking northwest
		1	1b	View of the Pit Arm from the Jones Valley parking area, looking northeast
		2	2	View of the Pit Arm from the Jones Valley parking area (west end), looking west
		3	3	View of the Pit Arm from the entrance to the Jones Valley Campground
		4	4	View of the Pit Arm looking north from the Jones Valley Resort Boat Ramp
		5	5	View of the Pit Arm from Juniper Drive, Silverthorn Resort

2

1 **Table 19-2. Key Observation Points (contd.)**

VAU	Figure	KOP #	Photo #	Description of Key Observation Point
Pit Arm (contd.)	19-8f (contd.)	6	6a	View of the Silverthorn Marina from the top of the boat ramp looking east
		6	6b	View of the Silverthorn Marina from the top of the boat ramp looking northeast
		6	6c	View of the Silverthorn Marina from the top of the boat ramp looking north
		7	7	View of the Silverthorn Marina looking south from the Pit Arm of Shasta Lake
		8	8	View of the west side of Ski Island looking east from Shasta Lake
Squaw Arm	19-8g	1	1	View of Bully Hill looking north from the Squaw Arm of Shasta Lake
		2	2	View of Monday Flat looking north from the Squaw Arm of Shasta Lake
I-5 Corridor	19-8h	1	1a	View of the Pit Arm (right) and the McCloud Arm (left) from the Pit River Bridge, as seen from I-5 northbound
		1	1b	View of Bridge Bay Resort from the Pit River Bridge, as seen from I-5 southbound
		2	2	View of the Pit River Bridge looking west from the Pit Arm of Shasta Lake
		3	3a	View of the Sacramento Arm looking toward the Antlers Campground from the Antlers Bridge, as seen from I-5 northbound
		3	3b	View of the Antlers Public Boat Ramp from the Antlers Bridge, as seen from I-5 northbound
		4	4	View of the Sacramento Arm west of the Antlers Bridge, as seen from I-5 southbound
		5	5	View of the McCloud Arm and vicinity at Turntable Bay, as seen from I-5 northbound

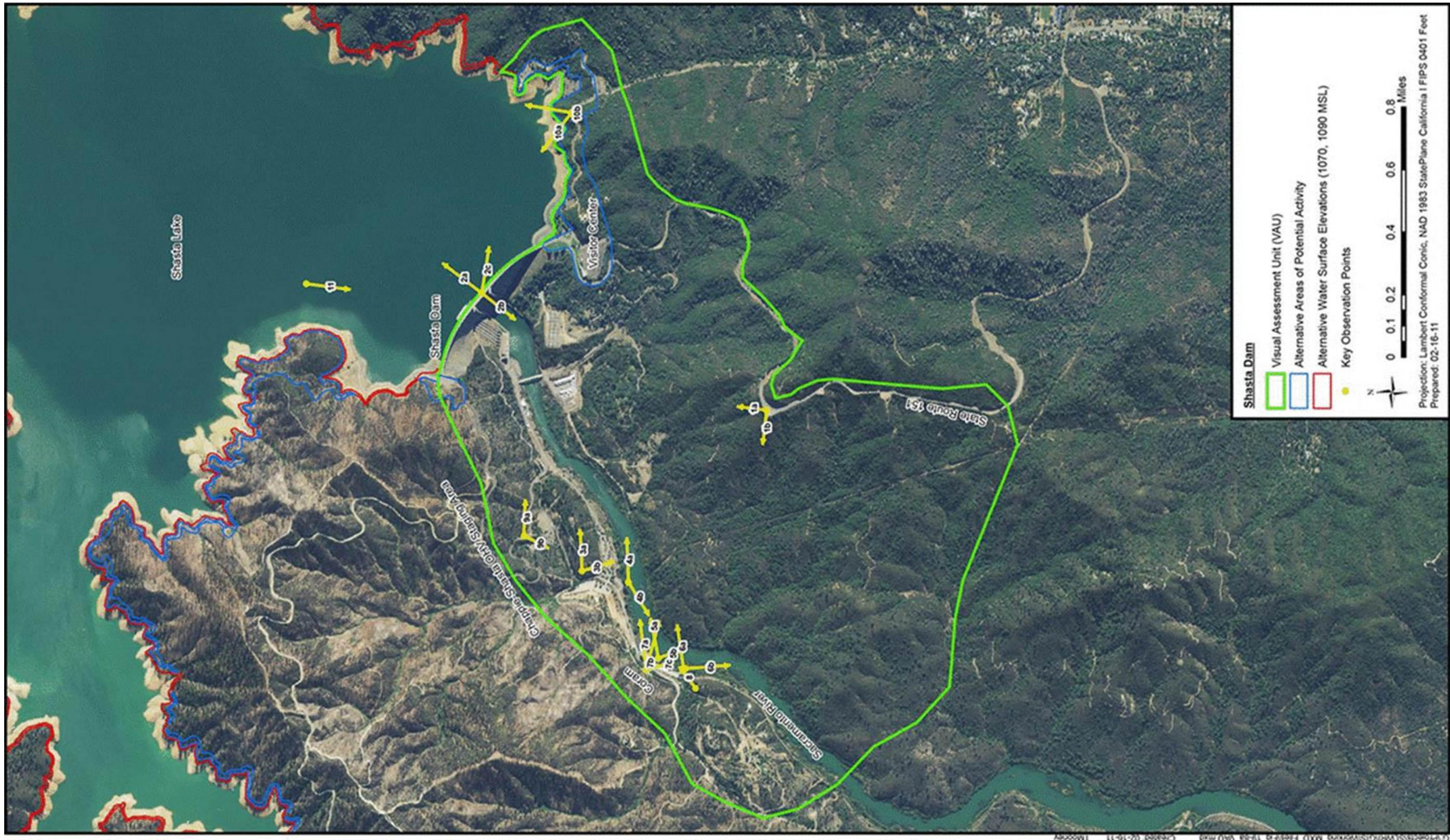
Key:  
 I-5 = Interstate 5  
 KOP = key observation point  
 OHV = off-highway vehicle  
 SR = State Route  
 VAU = visual assessment unit

1

2  
3

*This page left blank intentionally.*





1  
2 Figure 19-8a. Visual Assessment Unit and Key Observation Points





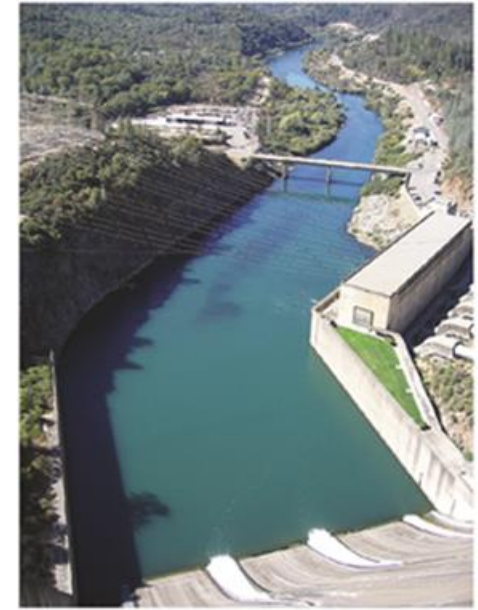
**Shasta Dam VAU, KOP 1, Photo 1a**  
 View of the Three Shastas (Shasta Dam, Shasta Lake, and Mount Shasta) from the SR 151 overlook above the Shasta Dam Visitor Center and downstream of Shasta Dam.



**Shasta Dam VAU, KOP 1, Photo 1b**  
 View of the upper Sacramento River below Shasta Dam from the SR 151 overlook above the Shasta Dam Visitor Center and downstream of Shasta Dam.



**Shasta Dam VAU, KOP 2, Photo 2a**  
 View of the main body of Shasta Lake from Shasta Dam.



**Shasta Dam VAU, KOP 2, Photo 2b**  
 View of the Shasta Dam spillway and the upper Sacramento River from Shasta Dam.



**Shasta Dam VAU, KOP 2, Photo 2c**  
 View of the Centimudi Boat Launch from Shasta Dam.



**Shasta Dam VAU, KOP 3, Photo 3a**  
 View from the Chappie - Shasta Off-Highway Vehicle (OHV) Area staging area looking northeast.



**Shasta Dam VAU, KOP 3, Photo 3b**  
 View from the Chappie - Shasta OHV Area staging area looking south.



**Shasta Dam VAU, KOP 4, Photo 4a**  
 View from the Chappie - Shasta OHV Area campground looking northeast.





**Shasta Dam VAW, KOP 4, Photo 4b**  
View from the Chappie - Shasta OHV Area campground looking southwest.



**Shasta Dam VAW, KOP 5, Photo 5a**  
View from the Coram Ranch River House looking northeast.



**Shasta Dam VAW, KOP 5, Photo 5b**  
View from the Coram Ranch River House looking southeast.



**Shasta Dam VAW, KOP 6, Photo 6a**  
View from the Coram Ranch Dogwood House looking northeast.



**Shasta Dam VAW, KOP 6, Photo 6b**  
View from the Coram Ranch Dogwood House looking southeast.



**Shasta Dam VAW, KOP 7, Photo 7a**  
View from the Coram Ranch Residence looking northeast.



**Shasta Dam VAW, KOP 7, Photo 7b**  
View from the Coram Ranch Residence looking east.



**Shasta Dam VAW, KOP 7, Photo 7c**  
View from the Coram Ranch Residence looking southeast.





**Shasta Dam VAU, KOP 8, Photo 8**  
 View from the Coram Ranch Guest Quarters looking northeast.



**Shasta Dam VAU, KOP 9, Photo 9a**  
 View from the road above the Chappie - Shasta OHV Area staging area looking northeast.



**Shasta Dam VAU, KOP 9, Photo 9b**  
 View from the road above the Chappie - Shasta OHV Area staging area looking southwest.



**Shasta Dam VAU, KOP 10, Photo 10a**  
 View of Shasta Dam from pullout east of the dam on Lake Boulevard looking northwest.



**Shasta Dam VAU, KOP 10, Photo 10b**  
 View of Shasta Lake from pullout east of the dam on Lake Boulevard looking northeast.

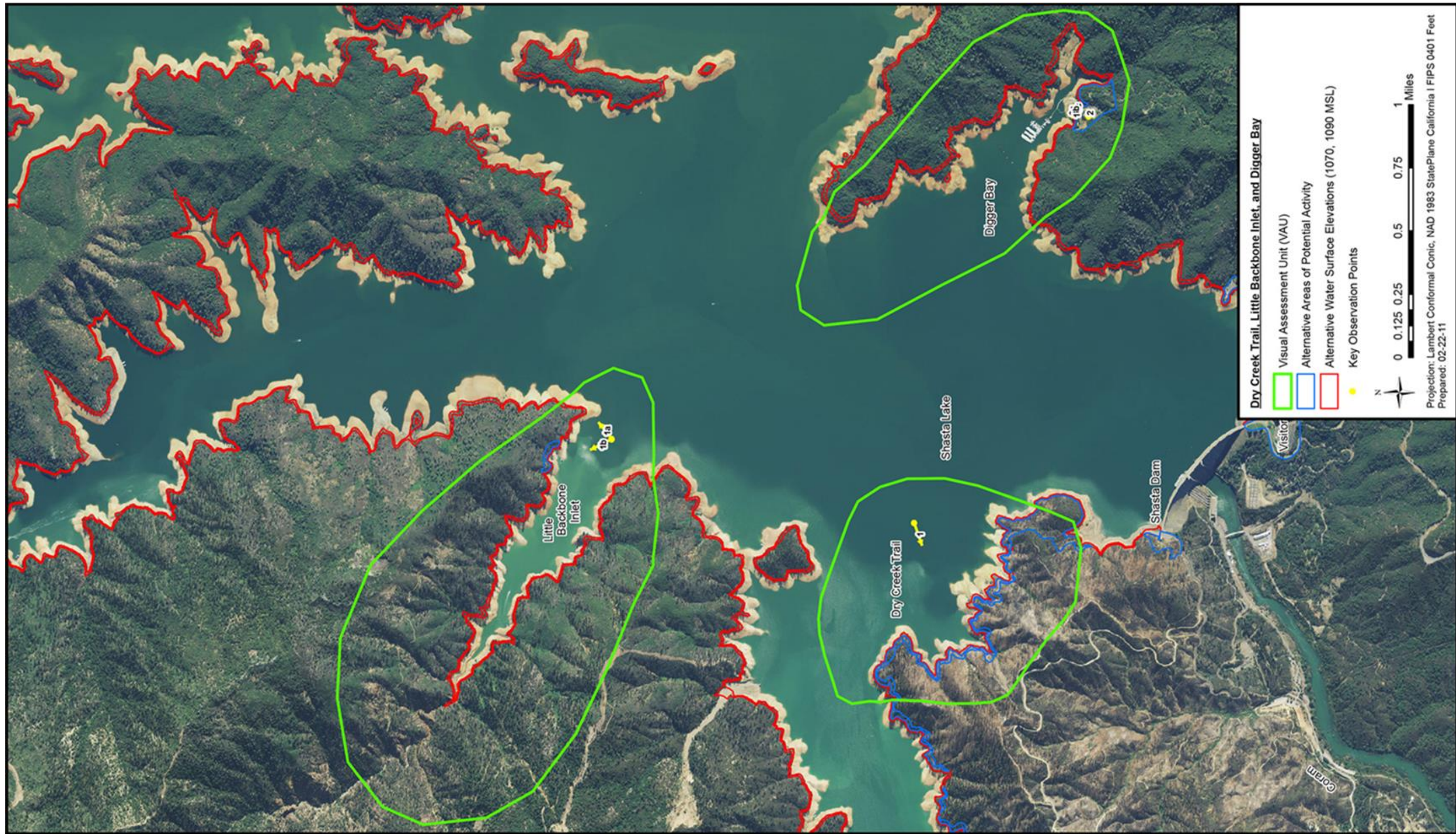


**Shasta Dam VAU, KOP 11, Photo 11**  
 View of Shasta Dam from the main body of Shasta Lake.

1  
 2

**Photographs for Figure 19-8a, Plate 3**





1  
2

Figure 19-8b. Visual Assessment Unit and Key Observation Points





**Dry Creek Trail VAU, KOP1, Photo 1**  
 View of Dry Creek Trail northwest of Shasta Dam looking west from the main body of Shasta Lake.



**Little Backbone Inlet VAU, KOP 1, Photo 1a**  
 View of the mouth of Little Backbone inlet looking northeast from the main body of Shasta Lake.



**Little Backbone Inlet VAU, KOP 1, Photo 1b**  
 View of the mouth of Little Backbone inlet looking northwest from the main body of Shasta Lake.



**Digger Bay VAU, KOP 1, Photo 1**  
 View of the main body of Shasta Lake from the upper parking area west of the Digger Bay Boat Ramp.



**Digger Bay VAU, KOP 2, Photo 2**  
 View of the upper parking area at Digger Bay Marina looking east.



**Digger Bay VAU, KOP 3, Photo 3a**  
 View of Digger Bay Marina looking northwest from boat ramp.

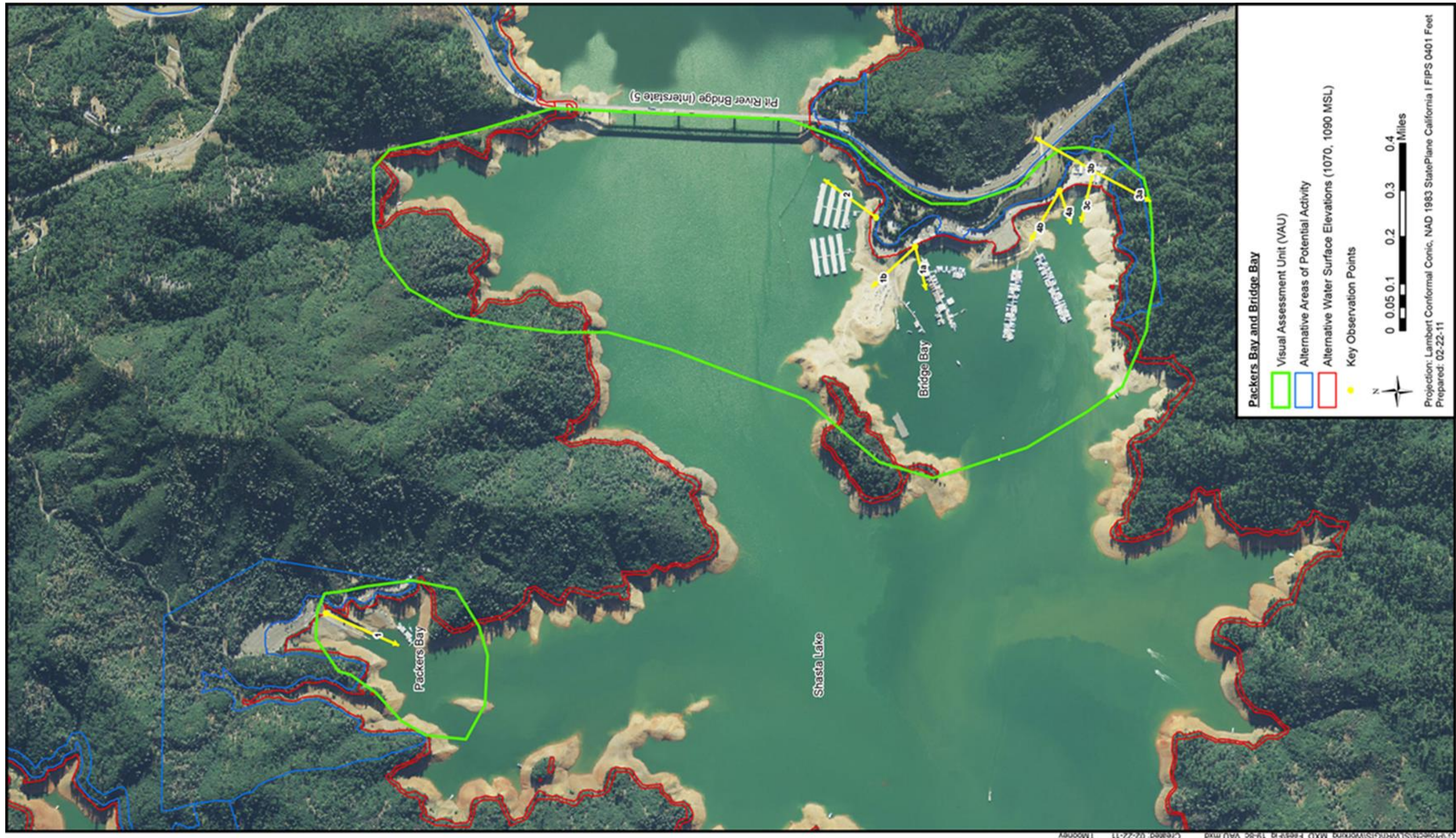


**Digger Bay VAU, KOP 3, Photo 3b**  
 View of Digger Bay Marina shoreline looking west from boat ramp.



**Digger Bay VAU, KOP 3, Photo 3c**  
 View of Digger Bay Boat Ramp and parking area looking south from marina.





1  
2  
3

Figure 19-8c. Visual Assessment Unit and Key Observation Points





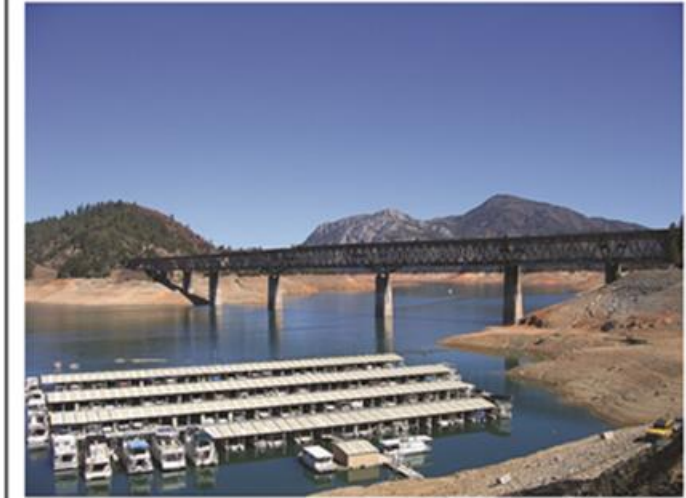
**Packers Bay VAU, KOP 1, Photo 1**  
View of Packers Bay from the Packers Bay Boat Ramp.



**Bridge Bay VAU, KOP 1, Photo 1a**  
View of Bridge Bay looking north from the Bridge Bay store.



**Bridge Bay VAU, KOP 1, Photo 1b**  
View of Bridge Bay looking northwest from the parking lot of the Bridge Bay store.



**Bridge Bay VAU, KOP 2, Photo 2**  
View of the I-5/Pit River Bridge from Bridge Bay.



**Bridge Bay VAU, KOP 3, Photo 3a**  
View of the Union Pacific Railroad train tunnel looking south from the Bridge Bay Resort maintenance area.



**Bridge Bay VAU, KOP 3, Photo 3b**  
View of the Union Pacific Railroad train tunnel looking north from the Bridge Bay Resort maintenance area.



**Bridge Bay VAU, KOP 3, Photo 3c**  
View of Bridge Bay Marina 4 from the Bridge Bay Resort maintenance parking area.



**Bridge Bay VAU, KOP 4, Photo 4a**  
View of the south shoreline from Bridge Bay Marina 4 stairway.

1  
2 **Photographs for Figure 19-8c, Plate 1**



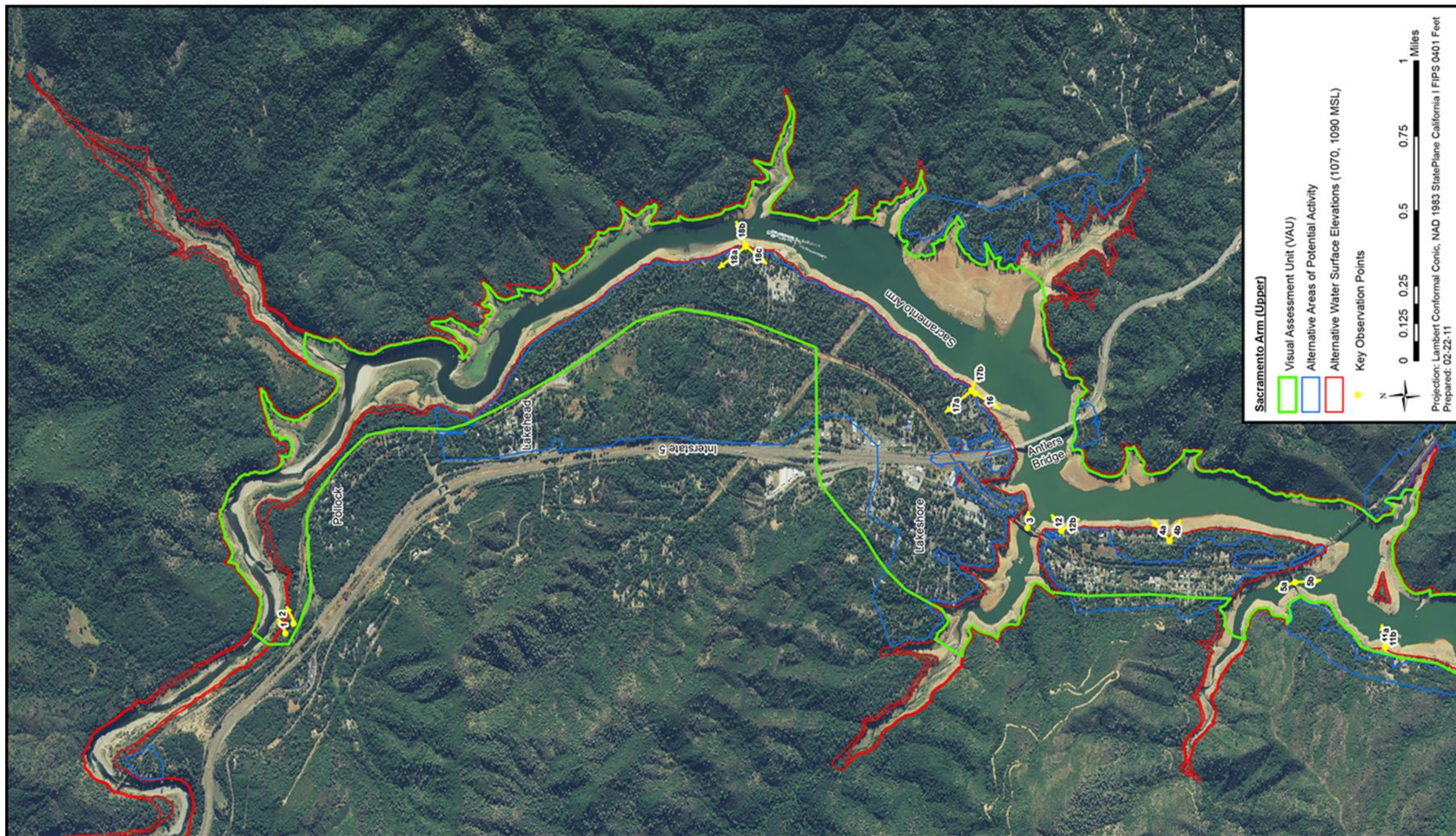
**Bridge Bay VAU, KOP 4, Photo 4b**  
View looking northwest from Bridge Bay Marina 4  
stairway.

1

2  
3  
4

*This page left blank intentionally.*

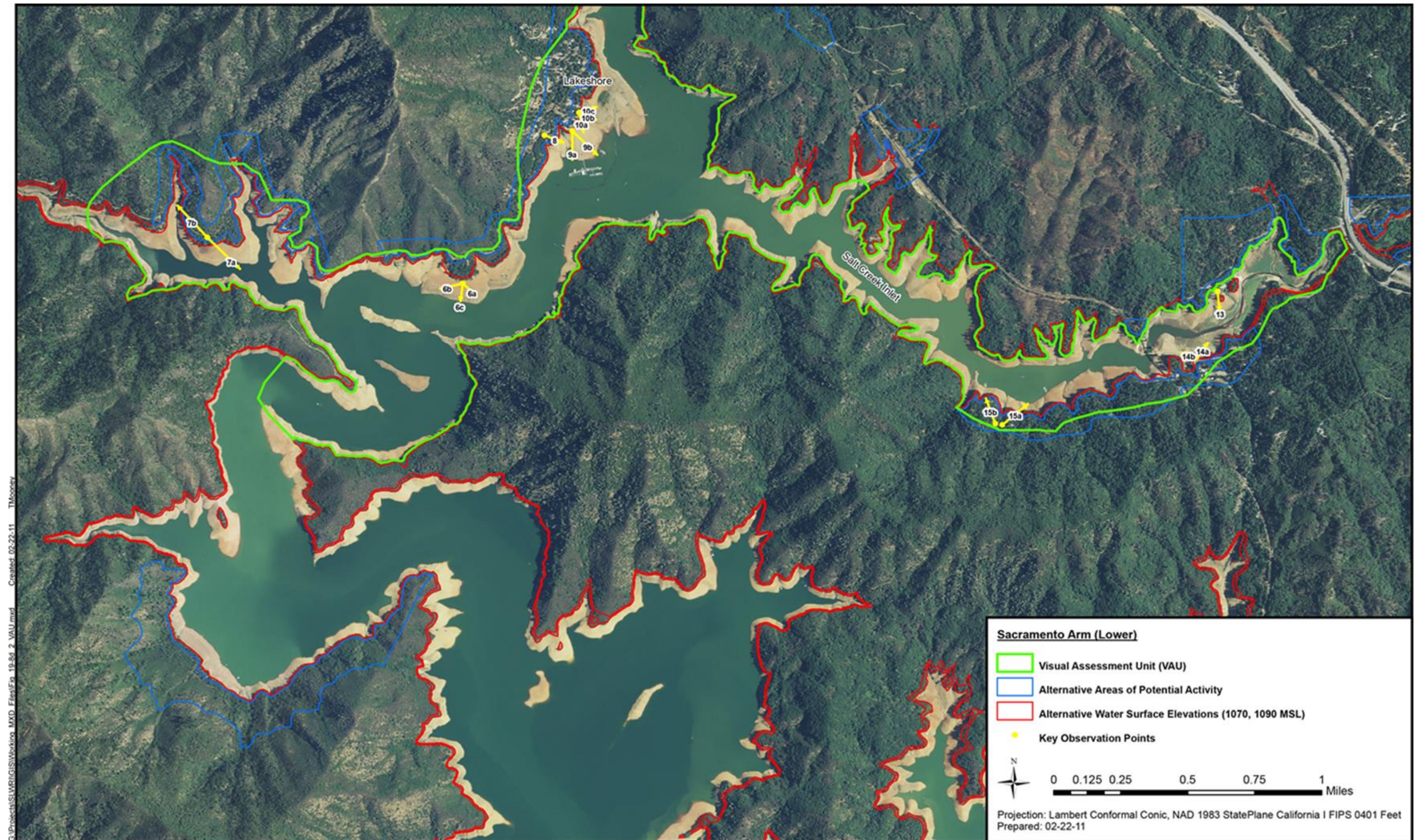




1  
2

Figure 19-8d. Part 1 – Visual Assessment Unit and Key Observation Points





1  
2

Figure 19-8d. Part 2 – Visual Assessment Unit and Key Observation Points





**Sacramento Arm VAU, KOP 1, Photo 1**  
View of the Sacramento Arm from Riverview Drive southbound near the community of Pollock.



**Sacramento Arm VAU, KOP 2, Photo 2**  
View of the Sacramento Arm from Riverview Drive southbound near the community of Pollock.



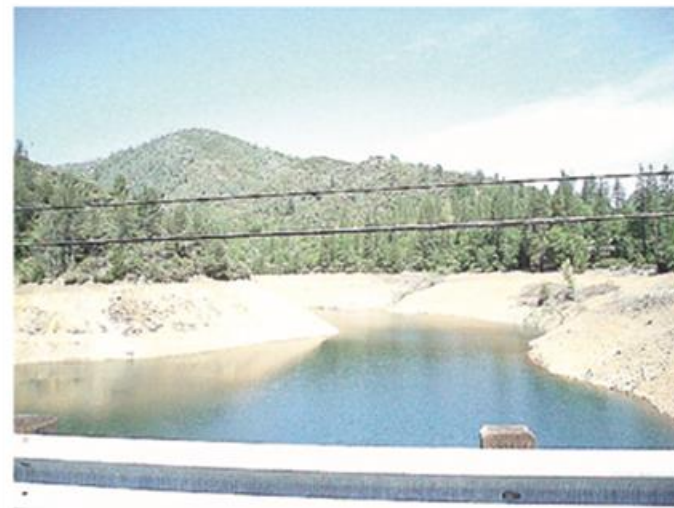
**Sacramento Arm VAU, KOP 3, Photo 3**  
View of the Sacramento Arm looking east from the Donley Creek Bridge on Lakeshore Drive near the community of Lakehead.



**Sacramento Arm VAU, KOP 4, Photo 4a**  
View of the Sacramento Arm from Lakeshore East Campground near the community of Lakeshore.



**Sacramento Arm VAU, KOP 4, Photo 4b**  
View of the Sacramento Arm looking southeast from the Lakeshore East Campground.



**Sacramento Arm VAU, KOP 5, Photo 5a**  
View of the inlet looking northwest from Charley Creek Bridge on Lakeshore Drive.

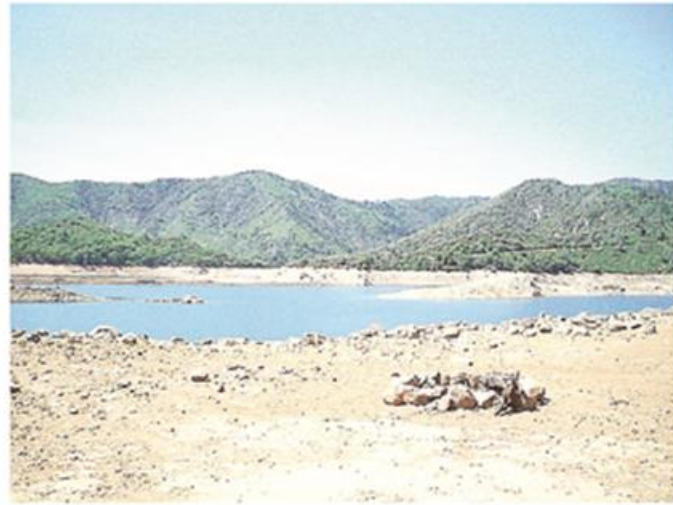


**Sacramento Arm VAU, KOP 5, Photo 5b**  
View of the Sacramento Arm looking south from Charley Creek Bridge on Lakeshore Drive.



**Sacramento Arm VAU, KOP 6, Photo 6a**  
View of the Sacramento Arm from the Beehive Campground access road near Lakeshore.





**Sacramento Arm VAU, KOP 6, Photo 6b**  
 View of Sugarloaf Creek inlet/Sacramento Arm from Beehive Campground near Lakeshore.



**Sacramento Arm VAU, KOP 6, Photo 6c**  
 View of Sugarloaf Creek/Sacramento Arm from Beehive Campground near Lakeshore.



**Sacramento Arm VAU, KOP 7, Photo 7a**  
 View of Sugarloaf Cove near Lakeshore from north shore looking south.



**Sacramento Arm VAU, KOP 7, Photo 7b**  
 View of Sugarloaf Cove from north shore looking northwest.



**Sacramento Arm VAU, KOP 8, Photo 8**  
 View of Sugarloaf Marina from the end of Daisy Lane.



**Sacramento Arm VAU, KOP 9, Photo 9a**  
 View looking south from Sugarloaf Resort Marina access.



**Sacramento Arm VAU, KOP 9, Photo 9b**  
 View toward the Salt Creek Inlet from Sugarloaf Resort Marina access.



**Sacramento Arm VAU, KOP 9, Photo 9c**  
 View of Sugarloaf Marina from Sugarloaf Resort.

1  
 2 **Photographs for Figure 19-8d, Plate 2**





**Sacramento Arm VAU, KOP 10, Photo 10a**  
View looking south toward Sugarloaf Marina from the Sugarloaf Boat Ramp.



**Sacramento Arm VAU, KOP 10, Photo 10b**  
View looking southeast at the Sacramento Arm from the Sugarloaf Boat Ramp.



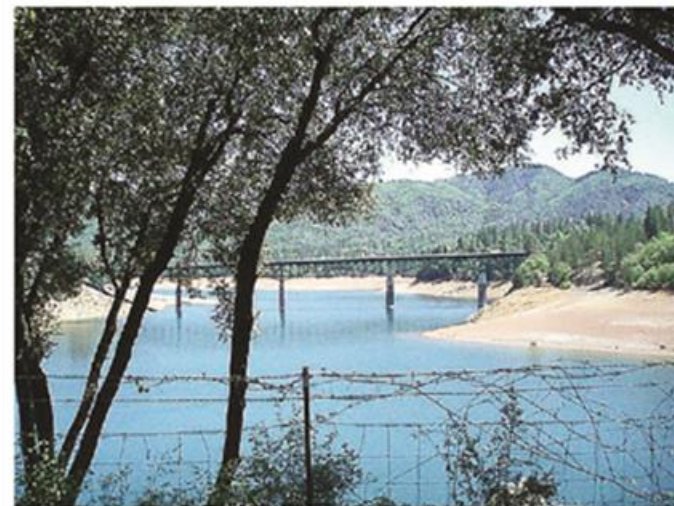
**Sacramento Arm VAU, KOP 10, Photo 10c**  
View looking northeast at the Sacramento Arm from the Sugarloaf Boat Ramp entrance.



**Sacramento Arm VAU, KOP 11, Photo 11a**  
View looking east from the Tsasdi Resort Marina.



**Sacramento Arm VAU, KOP 11, Photo 11b**  
View looking south from the Tsasdi Resort Marina.



**Sacramento Arm VAU, KOP 12, Photo 12a**  
View looking east toward I-5 from the Lakeshore Resort Campground.



**Sacramento Arm VAU, KOP 12, Photo 12b**  
View looking southeast from the Lakeshore Resort Campground.



**Sacramento Arm VAU, KOP 13, Photo 13**  
View of the Salt Creek Inlet looking south from the Oak Grove Day Use Area.





**Sacramento Arm VAU, KOP 14, Photo 14a**  
 View looking northeast from Lower Salt Creek Road at the Salt Creek Resort.



**Sacramento Arm VAU, KOP 14, Photo 14b**  
 View looking northwest from Lower Salt Creek Road at the Salt Creek Resort.



**Sacramento Arm VAU, KOP 15, Photo 15a**  
 View of the Salt Creek Inlet from Lower Salt Creek Road.



**Sacramento Arm VAU, KOP 15, Photo 15b**  
 View of the Salt Creek Inlet from Lower Salt Creek Road.



**Sacramento Arm VAU, KOP 16, Photo 16**  
 View of Antlers Bridge/I-5 looking southwest from Antlers Public Boat Ramp.



**Sacramento Arm VAU, KOP 17, Photo 17a**  
 View of Antlers Public Boat Ramp/Picnic Area parking lot from picnic area looking north.



**Sacramento Arm VAU, KOP 17, Photo 17b**  
 View of Sacramento Arm from Antlers Public Boat Ramp/Picnic Area from picnic area looking south.



**Sacramento Arm VAU, KOP 18, Photo 18a**  
 View from typical campsite at Antlers Resort looking north.





**Sacramento Arm VAU, KOP 18, Photo 18b**  
View from typical campsite at Antlers Resort looking east.



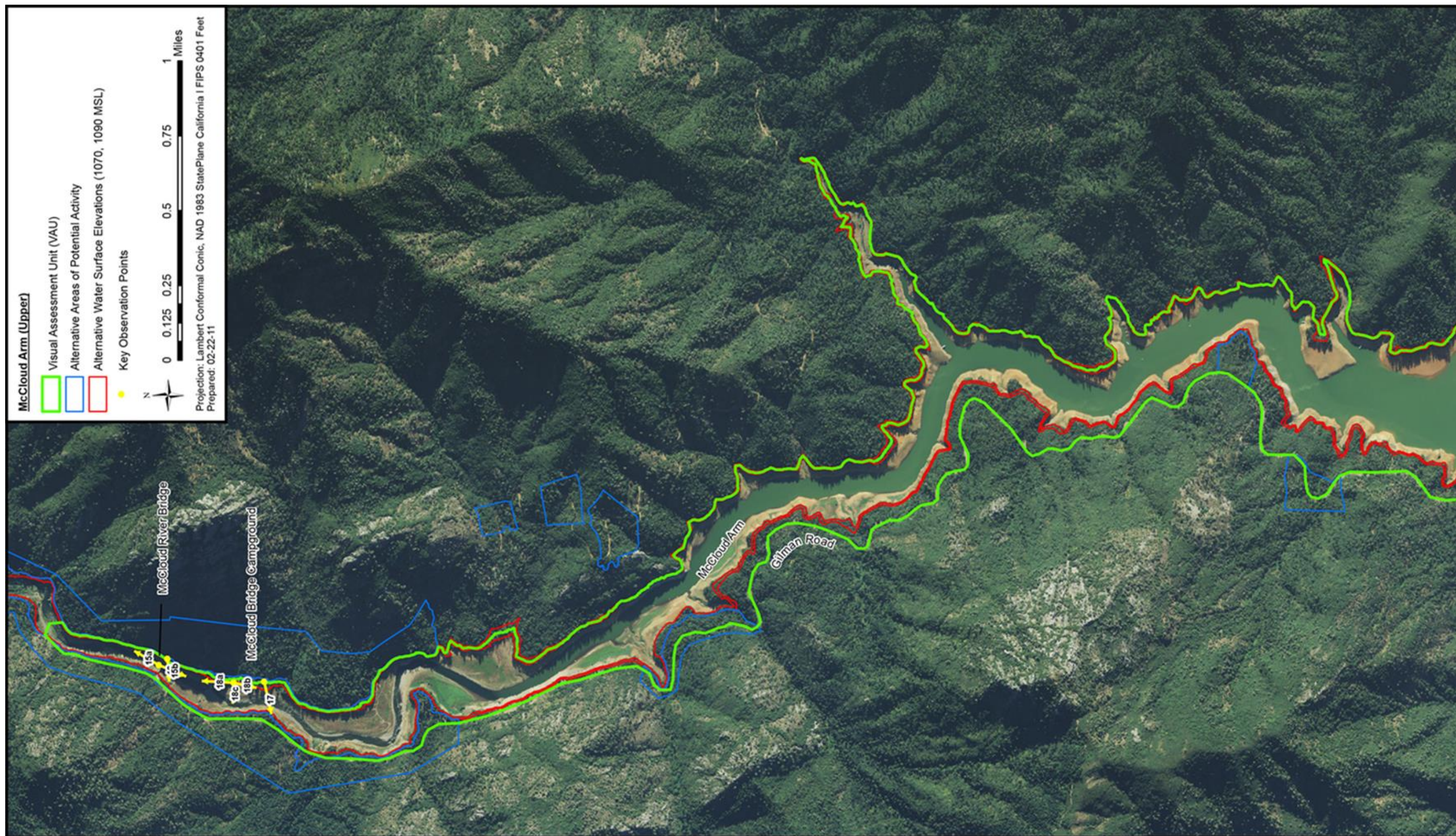
**Sacramento Arm VAU, KOP 18, Photo 18c**  
View from typical campsite at Antlers Resort looking southwest.

1

2  
3  
4

*This page left blank intentionally.*

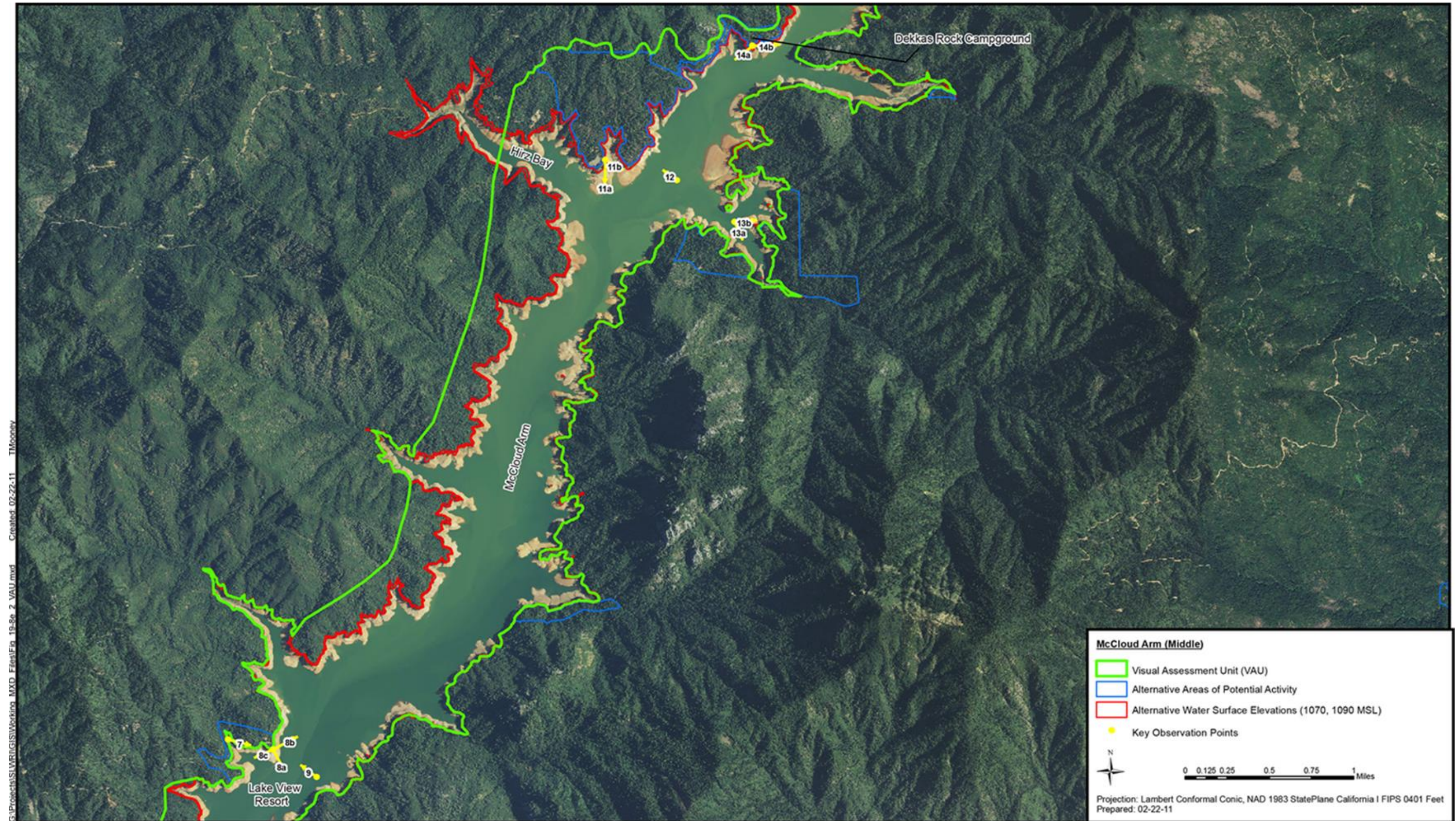




1  
2

Figure 19-8e. Part 1 – Visual Assessment Unit and Key Observation Points

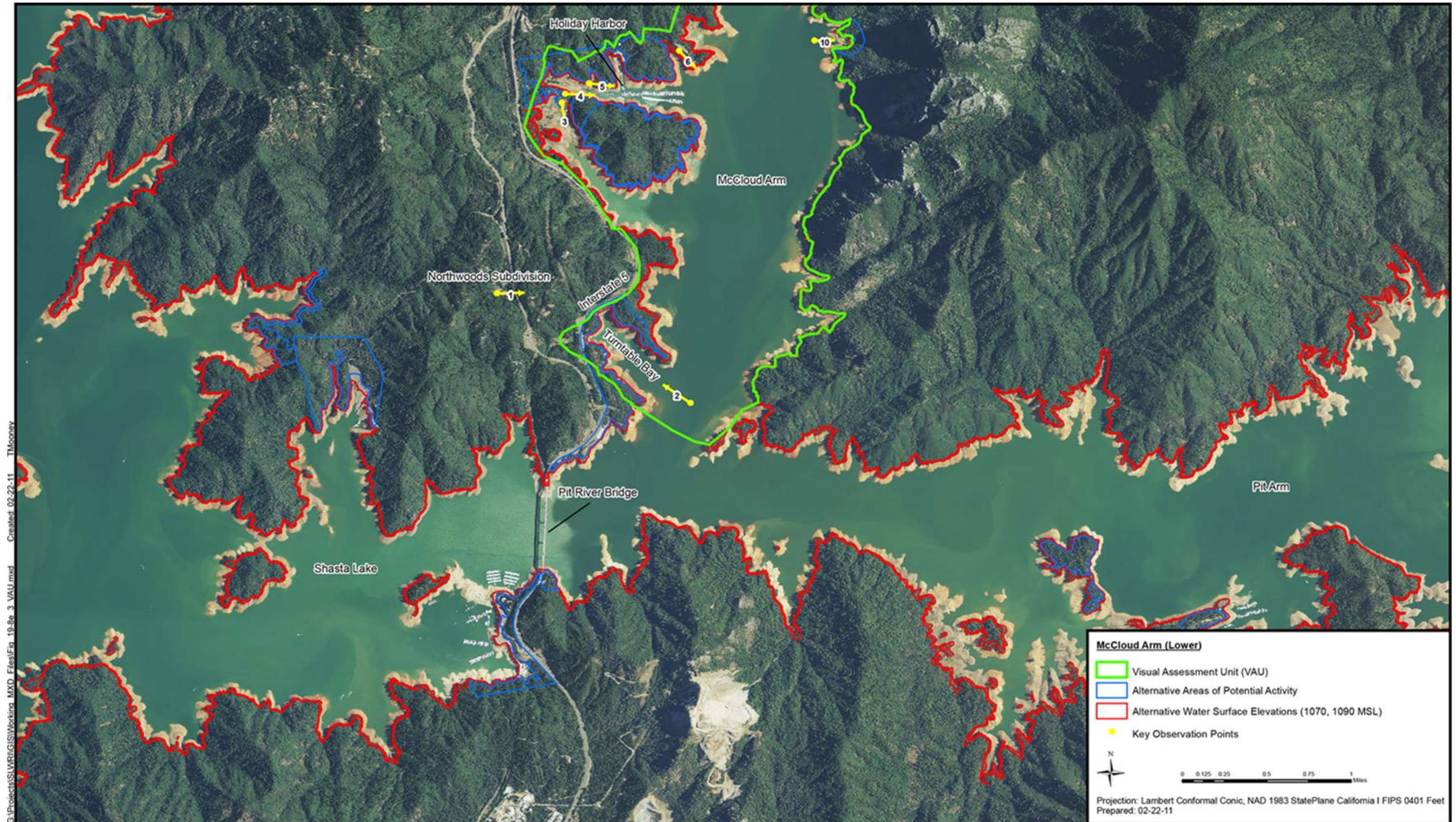




1  
2

Figure 19-8e. Part 2 – Visual Assessment Unit and Key Observation Points





G:\Projects\SL\WR\GIS\Working\_MXD\_Files\Fig\_19-8e\_3\_VAU.mxd Created: 02-22-11 T.Mooney

1  
2 **Figure 19-8e. Part 3 – Visual Assessment Unit and Key Observation Points**





**McCloud Arm VAU, KOP 1, Photo 1**  
 View of the McCloud Arm, Turntable Bay and vicinity from a home located off of Northwoods Road, west of I-5.



**McCloud Arm VAU, KOP 2, Photo 2**  
 View of Turntable Bay from the McCloud Arm of Shasta Lake.



**McCloud Arm VAU, KOP 3, Photo 3**  
 View of the Bailey Cove Boat Ramp from the Bailey Cove parking lot.



**McCloud Arm VAU, KOP 4, Photo 4**  
 View of Holiday Harbor from the Bailey Cove Day Use Area.



**McCloud Arm VAU, KOP 5, Photo 5**  
 View of Holiday Harbor from the Holiday Harbor Campground entrance.



**McCloud Arm VAU, KOP 6, Photo 6**  
 View looking south toward the McCloud Arm from the Shasta Caverns parking lot.



**McCloud Arm VAU, KOP 7, Photo 7**  
 View from the Lake View Resort caretaker residence.



**McCloud Arm VAU, KOP 8, Photo 8a**  
 View of the McCloud Arm looking south from the Lake View Resort Boat Ramp.

1  
2

**Photographs for Figure 19-8e, Plate 1**





**McCloud Arm VAU, KOP 8, Photo 8b**  
View of the McCloud Arm looking northeast from the Lake View Resort Boat Ramp.



**McCloud Arm VAU, KOP 8, Photo 8c**  
View of the Lake View Resort Marina from the Lake View Resort Boat Ramp.



**McCloud Arm VAU, KOP 9, Photo 9**  
View of Lake View Resort from the McCloud Arm of Shasta Lake.



**McCloud Arm VAU, KOP 10, Photo 10**  
View of Shasta Caverns dock on east side of lake from the McCloud Arm of Shasta Lake.



**McCloud Arm VAU, KOP 11, Photo 11a**  
View of the McCloud Arm downstream from the Hirz Bay Boat Ramp.



**McCloud Arm VAU, KOP 11, Photo 11b**  
View of the McCloud River Arm upstream, from the Hirz Bay Boat Ramp.



**McCloud Arm VAU, KOP 12, Photo 12**  
View of Hirz Bay from the McCloud Arm of Shasta Lake.



**McCloud Arm VAU, KOP 13, Photo 13a**  
View of Campbell Creek inlet looking southeast from the McCloud Arm of Shasta Lake





**McCloud Arm VAU, KOP 13, Photo 13b**  
 View of Campbell Creek inlet looking east from the McCloud Arm of Shasta Lake



**McCloud Arm VAU, KOP 14, Photo 14a**  
 View of the McCloud Arm downstream, from the Dekkas Rock Campground.



**McCloud Arm VAU, KOP 14, Photo 14b**  
 View of the McCloud Arm upstream, from the Dekkas Rock Campground.



**McCloud Arm VAU, KOP 15, Photo 15a**  
 View of the McCloud River upstream, from the McCloud River Bridge.



**McCloud Arm VAU, KOP 15, Photo 15b**  
 View of the McCloud River downstream, from the McCloud River Bridge.



**McCloud Arm VAU, KOP 16, Photo 16**  
 View of the McCloud River Bridge, from the eastern approach.



**McCloud Arm VAU, KOP 17, Photo 17**  
 View of the McCloud Arm from the McCloud Bridge Campground - Space 10.



**McCloud Arm VAU, KOP 18, Photo 18a**  
 View of the McCloud Arm from open area west of Space 1, McCloud Bridge Campground.