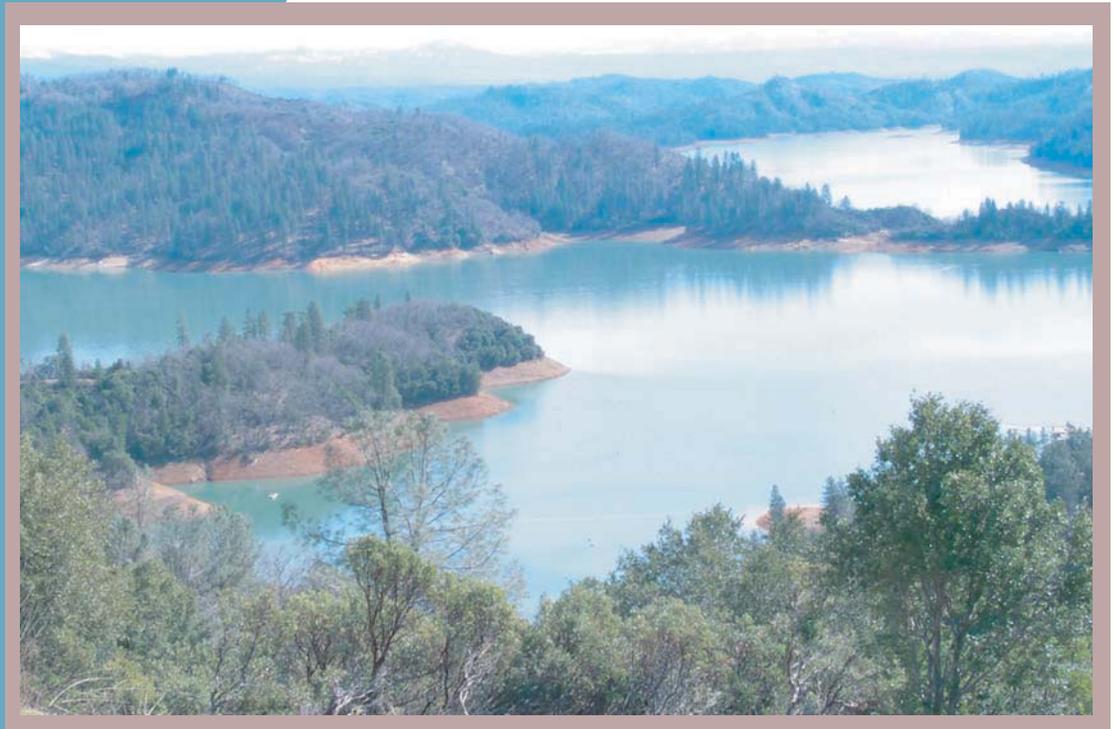


Final Environmental Impact Statement/  
Environmental Impact Report

# Turntable Bay Marina Master Development Plan

State Clearinghouse #2005084005  
July 2007



U.S. Department of Agriculture



U.S. Forest Service  
Shasta-Trinity National Forest



 North State Resources, Inc.



United States  
Department of  
Agriculture

Forest  
Service

July 2007



# **Final Environmental Impact Statement/ Environmental Impact Report**

## **Turntable Bay Marina Master Development Plan**

**Shasta-Trinity National Forest  
Shasta and Trinity Counties, California**

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Turntable Bay Marina  
Master Development Plan  
Final Environmental Impact Statement/Environmental Impact Report

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**ABSTRACT**

**Turntable Bay Marina Master Development Plan  
Draft Environmental Impact Statement/Environmental Impact Report  
Shasta and Trinity Counties, California**

**Lead Agency:** USDA Forest Service  
**Responsible Official:** J. Sharon Haywood  
Forest Supervisor  
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**For information, please contact:** Bobbi DiMonte  
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**Abstract:** The Final Environmental Impact Statement/Environmental Impact Report (Final EIS/EIR) includes comments and responses to comments on the Draft Environmental Impact Statement/Environmental Impact Report (Draft EIS/EIR) for the Turntable Bay Marina Master Development Plan at Shasta Lake (Turntable Bay Marina). As the lead agency under the National Environmental Policy Act (NEPA), the Shasta-Trinity National Forest (STNF) must consider the Final EIS portion of the Final EIS/EIR before issuing a Record of Decision (ROD) and authorizing a special use permit for the proposed Turntable Bay Marina.

After the Draft EIS/EIR was issued, the Central Valley Regional Water Quality Control Board (Regional Water Board) indicated that it would serve as the lead agency under the California Environmental Quality Act (CEQA) for the EIR portion of this EIS/EIR. As the CEQA lead agency, the Regional Water Board must consider the Final EIR portion of the Final EIS/EIR before it approves or rejects the proposed project. The Final EIR portion is an informational document that also must be considered by the California Department of Transportation (Caltrans) and the California Department of Fish and Game (CDFG) as responsible agencies under CEQA before approving or rejecting the proposed project.

The Final EIS/EIR incorporates by reference the Draft EIS/EIR. It includes a list of the persons and agencies that commented on the Draft EIS/EIR, their comments, the lead agencies' responses to the comments, revised EIS/EIR text, a Mitigation Monitoring and Reporting Program (MMRP) for the Preferred Alternative (Appendix 1), and an evaluation of the project's consistency with the Aquatic Conservation Strategy in the 1994 Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl (Appendix 2).

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Turntable Bay Marina  
Master Development Plan  
Final Environmental Impact Statement/Environmental Impact Report

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**CHAPTER 1 INTRODUCTION**

# CHAPTER 1. INTRODUCTION

This Final Environmental Impact Statement/Environmental Impact Report (Final EIS/EIR) includes comments and responses to comments on the Draft Environmental Impact Statement/Environmental Impact Report (Draft EIS/EIR) for the Turntable Bay Marina Master Development Plan at Shasta Lake (Turntable Bay Marina). As the lead agency under the National Environmental Policy Act (NEPA), the Shasta-Trinity National Forest (STNF) must consider the Final EIS portion of this Final EIS/EIR before issuing a Record of Decision (ROD) and authorizing a special use permit for the proposed Turntable Bay Marina.

The Forest Service NEPA Handbook requires that the STNF review, analyze, evaluate, and respond to substantive comments on the EIS portion of the Draft EIS/EIR. Possible responses are to:

- a) modify alternatives including the Proposed Action;
- b) develop and evaluate alternatives not previously given serious consideration;
- c) supplement, improve, or modify the analyses;
- d) make factual corrections; and
- e) explain why the comments do not warrant further agency response.

After the Draft EIS/EIR was issued, the Central Valley Regional Water Quality Control Board (Regional Water Board) indicated that it would serve as the lead agency under the California Environmental Quality Act (CEQA) for the EIR portion of this EIS/EIR. As the CEQA lead agency, the Regional Water Board must consider the Final EIR portion of this Final EIS/EIR before it approves or rejects the proposed project. The Final EIR portion is an informational document that also must be considered by the California Department of Transportation (Caltrans) and the California Department of Fish and Game (CDFG) as responsible agencies under CEQA before approving or rejecting the proposed project.

According to the CEQA Guidelines (Section 15132), a Final EIR shall consist of the following elements:

- f) the Draft EIR or a revision of that draft;
- g) comments and recommendations received on the Draft EIR either verbatim or in summary;
- h) a list of persons, organizations, and public agencies commenting on the Draft EIR;
- i) the responses of the Lead Agency to significant environmental points raised in the review and consultation process; and
- j) any other information added by the Lead Agency.

## 1.1 Organization of the Document

---

This Final EIS/EIR incorporates by reference the Draft EIS/EIR. It includes a list of the persons and agencies that commented on the Draft EIS/EIR, their comments, the lead agencies' responses to the comments, revised EIS/EIR text, a Mitigation Monitoring and Reporting Program (MMRP) for the Preferred Alternative (Appendix 1), and an evaluation of the project's consistency with the Aquatic Conservation Strategy in the 1994 Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl (Appendix 2).

The Final EIS/EIR is organized into the following chapters:

- **Chapter 1 – Introduction:** This chapter provides a summary of the project, compares the impacts of the alternatives, and discusses the environmental review process.
- **Chapter 2 – Comments and Responses to Comments on the Draft EIS/EIR:** This chapter provides a list of commenters, copies of their comments (alpha-numerically coded for reference), and the lead agencies' responses to those comments.
- **Chapter 3 – Changes to the Draft EIS/EIR:** This chapter includes all corrections and additions to the text of the Draft EIS/EIR. It also includes minor editorial changes made by the lead agencies. All changes to the text are indicated by revision marks. Tables and figures that have been changed are identified as "Revised."
- **Chapter 4 – Final Mitigation Monitoring and Reporting Program:** This chapter describes the final MMRP, as required by the CEQA Guidelines (Section 15097).

## 1.2 Project Overview

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### 1.2.1 Project History

In May 2002, the STNF issued a prospectus to existing marina operators offering the opportunity to relocate the operation of an existing marina on Shasta Lake to Turntable Bay. Seven Crown Resorts, Inc. (SCR) submitted a proposal in response to the prospectus to relocate its facilities at Digger Bay Marina to the Turntable Bay location. In response to SCR's proposal, the STNF issued a preliminary planning permit to prepare a conceptual Master Development Plan for the Turntable Bay Marina.

The Draft EIS/EIR prepared by the STNF addresses the environmental issues, alternatives, and impacts associated with the relocation of the existing marina at Digger Bay to Turntable Bay. After the public review period for the Draft EIS/EIR, the lead agencies prepared this Final EIS/EIR to satisfy their legal and regulatory requirements. As a federal agency, the U.S. Forest Service (USFS) is not required to comply with CEQA or other state environmental regulations. However, the project proponent would be required to obtain discretionary permits and approvals from the CEQA lead and

responsible agencies—the Regional Water Board, Caltrans, and CDFG—to construct and operate the marina.

## 1.2.2 Purpose and Need for the Project

The purpose of the Proposed Action is to improve the quality of the facilities and services currently provided by Digger Bay Marina through relocation of the marina operations to Turntable Bay. Specifically, the purpose is to provide a full-service, high-quality recreational marina on Shasta Lake that includes a launch ramp capable of operating at variable lake levels, a minimum of 100 additional public moorage facilities, adequate parking capacity to support the provided services, boat rentals, fuel for vessels, potable water, a retail store, refuse disposal, pump-out and disposal of sewage, and public restrooms.

The STNF manages the Shasta Unit of the National Recreation Area (NRA) as a showcase recreational area that supports the enjoyment and use of the natural environment. In the Shasta Unit, the key attraction, or recreational resource, is the water surface of Shasta Lake. Recreational boating on Shasta Lake is dependent on access to the water via shoreline facilities such as marinas, docks, and launch ramps.

The capacity of the marina facilities in the Whiskeytown and Trinity units of the NRA is considered adequate. However, the STNF has determined that there is a need for a new resort marina on Shasta Lake that would better accommodate fluctuating water levels, particularly low lake levels, and improve the dispersion of marina services around the 420-mile shoreline of the lake. The NRA Management Guide (USDA Forest Service 1996) identifies Turntable Bay as the most feasible location for a new resort/marina.

The project proponent recognized that the identified need could be met through the relocation of the existing facilities at Digger Bay to a new marina at Turntable Bay. Turntable Bay would provide a deep-water port with the flexibility for use during low water conditions, whereas the topography of Digger Bay does not provide such flexibility.

The NRA Management Guide (USDA Forest Service 1996) provides that, “Upon approval by the Forest Service, resort/marinas may merge, or consolidate to one location, or a resort-marina may move to a new location,” provided that the new location satisfies the following criteria:

- It would maintain or improve the dispersion of services around the lake.
- It would accommodate low-water conditions.
- It would remove or eliminate the threat for threatened and/or endangered species.
- The site can adequately support both land- and water-based facilities and services.
- Road access is feasible and reasonable (location and cost).
- Utilities (electricity and telephone) are reasonably available to the location.
- It would be compatible with existing commercial resort/marina locations.
- It would be compatible with natural resource values, such as preservation of watershed or fish habitat values.
- It would be compatible with public recreation sites or facilities.

There is a need for the STNF to act on (respond to) the application submitted by the project proponent requesting a special use authorization to construct and operate a full-service marina at Turntable Bay on Shasta Lake.

### **1.2.3 Description of the Proposed Action and Project Alternatives**

The Proposed Action and the alternatives that were developed to implement relocation of an existing marina to Turntable Bay are discussed in Chapter 2 of the Draft EIS/EIR along with the No-Action Alternative, which represents the baseline for NEPA purposes. The No-Action conditions and “existing conditions” (a CEQA concept) are essentially the same. The two action alternatives discussed below are considered feasible, and contain measures that would avoid or substantially lessen the potentially significant environmental effects of the project.

#### ***Alternative 1 (No-Action Alternative)***

Under the No-Action (No-Project) Alternative, SCR would not proceed with relocation of Digger Bay Marina to Turntable Bay. The No-Action Alternative represents the existing conditions at the Digger Bay and Turntable Bay sites.

#### ***Alternative 2 (Proposed Action)***

The Proposed Action is for the STNF to issue a 30-year term permit for the development and operation of Turntable Bay Marina. The marina and associated land-based facilities would be developed for recreational use. All proposed land-based facilities would accommodate a 20-foot increase in the full-pool elevation of Shasta Lake to 1,090 feet mean sea level (msl) resulting from a potential 18.5-foot increase in the height of Shasta Dam.

The project area encompasses the land- and water-based features. Water-based development at Turntable Bay would consist of docks and public moorage facilities as well as a store and other services. The dock/moorage system will be constructed in such a way that it can be reconfigured to accommodate variations in lake levels. Land-based development would include a day-use area and a walking trail. Other public facilities, including restrooms, would also be provided.

The shoreline of Shasta Lake in the project area is rugged. The development of roads and parking areas would require grading, resulting in an estimated 104,000 cubic yards of excess soil and rock to be placed at the North Point disposal area. The proposed design minimizes the total disturbed area, retaining as much of the area as possible in an undisturbed condition. The landscape design will emphasize the use of native vegetation. In addition, the design will incorporate elements to address visual resources, soil productivity, water quality, and noxious/invasive species management.

When the Resort/Marina Term special use permit authorizing construction at Turntable Bay is issued, the existing Resort/Marina term special use permit for Digger Bay will be modified to provide for the mutually agreed upon relinquishment of the permit and to provide for a bond to cover the costs of restoration of the Digger Bay site. When the proponent is authorized to open the marina at Turntable Bay to the public, the Digger Bay

special use permit will be relinquished. This will result in abandoning the current land-based operations at Digger Bay and relocating the water-based improvements to Turntable Bay or decommissioning unusable components at Bridge Bay Resort, a marina facility operated by SCR and recognized as a maintenance and repair facility by the STNF. Components that are not incorporated into existing or proposed facilities will be disposed of by SCR consistent with the terms of its permit. The land-based improvements at the Digger Bay site—paved access roads, parking areas, the boat launch ramp, and water and septic systems—will remain in place for use by the STNF once the special use permit for the Digger Bay location has been relinquished.

In addition, the Proposed Action would include a non-significant amendment to the STNF LRMP. This amendment is described below.

Standard and Guideline 21b(2) currently reads,

In the following sensitive travel corridors the foreground portions (areas located up to ¼ to ½ mile from the road viewer) will be managed primarily to meet the adopted Visual Quality Objective(VQO) of Retention (R): (2) Interstate 5.

This Standard and Guideline would be changed to read:

In the following sensitive travel corridors the foreground portions (areas located up to ¼ to ½ mile from the road viewer) will be managed primarily to meet the adopted VQO of R: (2) Interstate 5 with the exception of areas for the Turntable Bay Marina special use permit which will have a VQO of Modification.

The LRMP would also be modified to include Turntable Bay Marina in Prescription IV Roaded, High Density Recreation (4-48) rather than in Prescription III Roaded Recreation (4-64). This change would be reflected in Appendix F-7, Special Uses, to include the area within the project boundary for the proposed Turntable Bay Marina, Recreational Opportunity Spectrum (ROS) class: Roaded.

Two closure orders would be required to ensure that this alternative would be implemented in a safe and efficient manner, consistent with management direction. The Turntable Bay area would be closed to public access during the construction phase to protect the public from potential danger, including heavy equipment, building materials, unfinished grading, and other possibly unsafe situations. This closure would also be necessary to protect natural resources that might be at increased risk during the construction process and to protect facilities and equipment from vandalism. This closure would limit access from both the land and the water and would be in effect during the construction period, as authorized by the Forest Officer.

The Digger Bay area would also be closed to public access after the water-based facilities are removed from the permit area. This closure would be necessary to protect the public from potential dangers, including unmanaged infrastructure, slopes, and possible human activities. This closure would also be necessary to protect natural resources and infrastructure at the site. This closure would limit access from both the land and the

water and would be in effect until a new use for the site was established, as authorized by the Forest Officer.

### ***Alternative 3 (Revised Action)***

Alternative 3 was developed to respond to scoping comments received on the Notice of Intent to Prepare an EIS as well as to refine the project's ability to fully address significant issues, as approved by the STNF Forest Supervisor. While Alternative 3 is similar to Alternative 2 with respect to all water-based facilities and features, refined topography data resulted in rearranging the dock components to ensure adequate service during normal drawdown periods. Land-based features have been modified to respond to the significant issues identified during the scoping process.

Grading activities for roads, parking areas, and the boat launch ramp have been modified to reflect site-specific geotechnical requirements. Where feasible, slope angles have been steepened based on a field-verified and detailed geotechnical investigation. Excess excavation that would be disposed of at the North Point disposal area under Alternative 3 would be reduced, in part by incorporating excess material into the construction of roads and parking areas. This alternative reduces the volume of material to be placed at the North Point disposal area by about 29,800 cubic yards relative to Alternative 2. Similarly, Alternative 3 reduces the areal extent of the grading activities by approximately 15 percent, particularly in areas that have concentrations of perching habitat for bald eagles and osprey.

This alternative reflects an additional increase in the proposed grade of certain road segments and associated parking areas. This change ensures that any increase in the surface elevation of Shasta Lake would not jeopardize the integrity of the road prism and/or surface of roads within the project boundary (including fill slopes of I-5 northbound).

The North Point disposal area has been modified to shift the location away from the shoreline of Shasta Lake. This modification expands the buffer between land-based activities and Shasta Lake and increases the amount of vegetation, including large conifers that would be retained. This modification reduces the impacts to habitat, including potential perching habitat for bald eagles and ospreys in close proximity to the shoreline of Shasta Lake. This modification also reduces impacts to visual quality objectives, particularly for boaters on the lake surface.

Alternative 3 includes an alternative lighting configuration that was developed to decrease the visual impacts observable from Key Observation Points. It also includes modifications to on-site lighting of land- and water-based facilities to reduce illumination and glare.

Finally, Alternative 3 includes changes to the configuration of the parking areas, including a reduction in the number of parking spaces. These changes would enable the inclusion of approximately 1,750 feet of additional sidewalks to increase pedestrian safety. The length of the walking trail under Alternative 3 has been reduced to minimize impacts to the landscape. These changes would result in an overall decrease in the area that would be affected by land-based development.

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## 1.3 Summary of Project Impacts and Mitigation Measures

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The affected environment and the environmental consequences (impacts) of implementing each of the project alternatives are described in Chapter 3 of the Draft EIS/EIR, which is incorporated by reference.

## 1.4 Environmental Review Process

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STNF initiated the public scoping process by publishing a Notice of Intent (NOI) to prepare an EIS in the Federal Register on July 6, 2005. STNF also forwarded a Notice of Preparation (NOP) of an EIR to the California State Clearinghouse on August 8, 2005. The NOP was circulated to the public; to local, state, and federal agencies; and to other interested parties in order to solicit comments on the Proposed Action. The NOP and agency comments on the NOP were included as Appendix D of the Draft EIS/EIR.

The public scoping period was from July 6, 2005, through September 8, 2005. STNF held a joint NEPA/CEQA scoping meeting on August 18, 2005, in Redding, California. During this meeting, members of the public were asked what issues they felt should be addressed in the Draft EIS/EIR. As the public comment period continued, the lead agencies received letters that helped identify areas of concern. These areas of concern and other oral comments received at the scoping meeting were considered during the preparation of the Draft EIS/EIR. The scoping and public involvement process is also described in Appendix D of the Draft EIS/EIR.

The following substantive issues associated with the Proposed Action were identified during the public scoping process:

- relocation of Digger Bay Marina
- vegetation and habitat
- aesthetics (visual resources)
- noise
- cumulative effects
- alternatives

The Draft EIS/EIR was circulated for a 45-day public comment period from December 29, 2006, to February 12, 2007. Fifteen copies of the Draft EIS/EIR were submitted to the State Clearinghouse for distribution to state agencies having jurisdiction over resources affected by the project. Two state agencies, Caltrans and the Native American Heritage Commission, submitted comments to the State Clearinghouse. The lead agencies distributed copies to federal and local agencies with similar jurisdiction.

A Notice of Availability of the Draft EIS/EIR was published in the Redding *Record Searchlight* on January 17, 2007, and was posted on the STNF's website (<http://www.fs.fed.us/r5/shastatrinity/projects/nra-projects.shtml>). The notice was also mailed to all interested members of the public who participated in the project scoping process and to adjacent landowners within 300 feet of the project boundaries. The notice

announced availability of the Draft EIS/EIR, stated where the Draft EIS/EIR and supporting documents could be obtained or reviewed, the dates of the comment period, and the deadline for receiving written comments.

## **1.5 Decision Framework**

The Forest Supervisor will decide whether to implement the Proposed Action as described, select an alternative action that meets the purpose and need, or take no action at this time. The Record of Decision will be issued subsequent to completion of the Final EIS/EIR.

Turntable Bay Marina  
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**CHAPTER 2 COMMENTS AND  
RESPONSES TO COMMENTS ON DRAFT EIS/EIR**

# CHAPTER 2. COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIS/EIR

## 2.1 Introduction

Comments received on the Draft EIS/EIR do not indicate new significant impacts or “significant new information” that would require recirculation of the Draft EIS/EIR pursuant to CEQA Guidelines Section 15088.5. Because no new significant environmental issues were raised during the 45-day comment period for the Draft EIS/EIR, the lead agencies directed that a Final EIS/EIR be prepared.

## 2.2 List of Commenters

Table 2-1 identifies local property owners and representatives of agencies and organizations who submitted comments on the Draft EIS/EIR:

**Table 2-1. Commenters on Turntable Bay Marina Master Development Plan Draft EIS/EIR**

Comment Letter	Individual or Signatory	Agency/ Affiliation	Date Prepared	Date Received
1	Nova Blazej	Environmental Protection Agency	2-26-07	2-26-07
2	Patricia Sanderson Port, Regional Environmental Officer	U.S. Department of the Interior	2-26-07	2-26-07
3	<b>James C. Pedri, Assistant Executive Officer</b>	<b>Regional Water Board</b>	<b>1-11-07</b>	<b>1-11-07</b>
4	Dave Singleton, Program Analyst	Native American Heritage Commission	1-12-07	1-23-07
5	<b>Michelle Millette, Chief</b>	<b>Caltrans</b>	<b>1-31-07</b>	<b>1-31-07</b>
6	<b>Brandy Norton, Biologist</b>	<b>CDFG</b>	<b>1-5-07</b>	<b>1-5-07</b>
7	John and Janet Gless	Homeowners	1-12-07	1-16-07

Note: Responsible and trustee agencies under CEQA are noted with bold text.

## 2.3 Comments and Responses to Comments

The seven letters commenting on the Draft EIS/EIR are reproduced on the following pages. Immediately following each of the comment letters are the lead agencies’

responses to the comments. To assist in referencing comments and responses, each commenter has been assigned a number and each specific comment a letter of the alphabet. Responses are coded to correspond to the codes used in the margin of the comment letters. Where changes to the Draft EIS/EIR text result from comments, those changes are shown in Chapter 3 of this Final EIS/EIR. Comments that present opinions about the project or that raise issues not directly related to the substance of the Draft EIS/EIR are noted without a detailed response.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105-3901

February 26, 2007

R. Phipps  
Shasta-Trinity National Forest  
3644 Avtech Parkway  
Redding, CA 96002

Subject: Draft Environmental Impact Statement (DEIS) for the Turntable Bay Marina Master Development Plan (CEQ# 70001)

Dear Mr. Phipps:

The U.S. Environmental Protection Agency (EPA) has reviewed the document referenced above. Our comments are provided pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508) and our NEPA review authority under Section 309 of the Clean Air Act.

The Shasta-Trinity National Forest (STNF) is proposing to relocate the Digger Bay Marina to Turntable Bay on Shasta Lake. The purpose of the project is to improve the quality of the marina facilities and services. The STNF manages the Shasta Unit of the Whiskeytown-Shasta-Trinity National Recreation Area (NRA) and has identified Turntable Bay as the most feasible location for a new marina to better accommodate fluctuating water levels in the 1996 NRA Management Guide.

EPA rates the Preferred Alternative as Lack of Objections (LO) (see enclosed *Summary of EPA Rating Definitions*). Although there is additional information we would like to see in the Final EIS (FEIS), implementation of the preferred alternative (Alternative 3) with mitigation, should not result in significant environmental impacts. Alternative 3 incorporates reduced grading activities in areas with concentrations of nesting/roosting habitat for bald eagles and osprey when compared to Alternative 2. Alternative 3 also increases the vegetative buffer around the lake and reduces degradation of soil quality and erosion.

1-A

However, the DEIS does not describe how the project goals were formulated (for example, the number and size of parking lots needed to meet the project objectives). While this information may be included in the 1986 Environmental Assessment, it should be summarized in the FEIS to justify the amount of construction needed. Under the proposed project, grading associated with development of roads and parking areas would result in impacts to 2.18 to 2.21 acres of Waters of the U.S. Therefore, this NEPA document will also serve to meet Clean Water Act Section 404(b)(1) requirements. The FEIS should ensure that impacts to Waters of the U.S.

1-B

1-C

have been reduced to the lowest amount possible. The Clean Water Act Section 404 permit requires that the Least Environmentally Damaging Practicable Alternatives (LEDPA) be selected. Additionally, the DEIS notes that compensatory mitigation for direct impacts to jurisdictional waters shall be achieved through habitat improvement on Shasta Lake. Once these measures are determined, they should be included in the FEIS.

1-C cont.

1-D

Short-term increases in turbidity in Shasta Lake could violate the Water Quality Control Basin Plan for the Sacramento River and San Joaquin River Basins (Basin Plan). Therefore, we support the adoption of the reduced grading associated with Alternative 3 and the regular monitoring of Shasta Lake for elevated turbidity. The DEIS notes that after project implementation, public access to Digger Bay will be restricted until the STNF determines the dispensation of these facilities (p.1-7). Any future decisions regarding activities at Digger Bay that could result in sedimentation in Shasta Lake should be reviewed cumulatively with the activities at the Turntable Bay Marina.

1-E

1-F

In addition, while the STNF is in compliance with all national ambient air quality standards, the portion of the STNF where construction is proposed exceeds the California ambient air quality standard for particulate matter less than 10 microns in diameter (PM10). Table 3.11-4 notes that the construction activities associated with the project could result in significant increases in fugitive dust and associated particulate matter. Therefore, EPA is supportive of the minimization measures outlined on page 3.11-9. The FEIS should evaluate the possibility of completing the major construction of the marina at a time when fuel reduction projects in the STNF are not being undertaken.

1-G

We appreciate the opportunity to review this DEIS. When the FEIS is released, please send one copy to address above. If you have any questions, please contact me at 415-972-3876 or Summer Allen, the lead reviewer for this project. Summer can be reached at 415-972-3847 or allen.summer@epa.gov.

Sincerely,



for  
Nova Blazej, Manager  
Environmental Review Office

Enclosed: Summary of EPA Rating Definitions  
Main ID # 4634

## Response to Comment Letter 1

This comment letter contains seven distinct comments. Following are the responses to those comments.

### Comment 1-A

The commenter acknowledges that Alternative 3 results in less impacts to resources than the Proposed Action.

### Comment 1-B

The commenter requests information about how the project goals were formulated with respect to the number and size of parking areas.

The STNF used the Standards and Guidelines prepared for the NRA as the basis for identifying the total number of parking spaces relative to the services proposed in the action alternatives. The Standards incorporate the requirements of California Department of Boating and Waterways (DBAW), Americans with Disabilities Act (ABA), and Architectural Barriers Act Accessibility Guidelines (ABAAG).

Based on these standards, parking calculations were used to identify the total number of parking spaces required to respond to the needs of the STNF. The actual size and configuration of parking areas is controlled by the available land base within the project boundary. As described in the Draft EIS/EIR, detailed topographic information (e.g., slope) has been used to locate the parking areas in a manner that minimizes impacts associated with grading activities.

### Comment 1-C

The commenter states that the Final EIS should ensure that impacts to Waters of the United States have been reduced to the lowest amount possible.

Detailed topographic data acquired subsequent to the issuance of the Draft EIS/EIR has been used to recalculate the impacts to Waters of the United States. Table 2-2 shows the impacts of the alternatives on jurisdictional waters (waters under the jurisdiction of the U.S. Army Corps of Engineers [Corps]) that would be caused by grading at the project site. This table revises the information provided in Table 3.6-6 of the Draft EIS/EIR.

**Table 2-2. Revised Expected Maximum Areas of Disturbance to Jurisdictional Waters**

Corps Jurisdictional Waters	Approximate Area of Disturbance (Acres)		
	Alternative 1	Alternative 2	Alternative 3
Intermittent Creek	0.00	0.01	0.01
Lacustrine	0.00	2.17	1.69
<b>Total</b>	<b>0.00</b>	<b>2.18</b>	<b>1.70</b>

**Comment 1-D**

The commenter requests that mitigation measures for impacts to jurisdictional waters be quantified in the Final EIS/EIR. Section 3.6, Biological Resources, has been revised to quantify the compensatory mitigation submitted to the Corps in the application for a Clean Water Act Section 404 Permit. The ratio for mitigation was increased from 1:1 to 3:1 for affected waters of the United States. These revisions are included in Chapter 3 of this Final EIS/EIR.

**Comment 1-E**

The commenter acknowledges that Alternative 3 reduces the short-term impacts of grading that could result in increased turbidity to Shasta Lake. The mitigation and monitoring associated with Alternative 3 are adequate to ensure compliance with the Basin Plan.

**Comment 1-F**

The commenter suggests that future uses of Digger Bay that could result in a discharge of pollutants to Shasta Lake would require consideration of Turntable Bay impacts in the cumulative effects discussion in the environmental document prepared to analyze these future uses. The lead agencies acknowledge that any future actions at Digger Bay will be subject to NEPA and/or CEQA, including an analysis of cumulative watershed effects.

**Comment 1-G**

The commenter suggests that, in order to reduce air quality impacts, the Final EIS/EIR evaluate the possibility of completing major construction at a time when fuel reduction projects are not occurring. As the agency responsible for issuing the special use permit, the STNF will ensure that the cumulative impacts to air quality will be considered when evaluating fuel reduction projects within the Shasta Unit of the NRA.



# United States Department of the Interior

OFFICE OF THE SECRETARY  
Office of Environmental Policy and Compliance  
Pacific Southwest Region  
1111 Jackson Street, Suite 520  
Oakland, California 94607

IN REPLY REFER TO:  
ER07/50

26 February, 2007

R. Phillips, Forest Environmental Coordinator  
Shasta-Trinity National Forest  
3644 Avtech Parkway  
Redding, CA 96002

Subject: Review of the Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the Turntable Bay Marina Master Development Plan, Shasta-Trinity Counties, CA

Dear R. Phillips:

The U.S. Department of the Interior has received and reviewed the subject document and has no comments to offer.

Thank you for the opportunity to review this project.

Sincerely,

A handwritten signature in black ink that reads "Patricia Sanderson Port". The signature is written in a cursive style with a large initial "P" and a long, sweeping underline.

Patricia Sanderson Port  
Regional Environmental Officer

cc: OEPC, HQ  
FWS, CNOO

**Response to Comment Letter 2**

This comment letter acknowledges receiving and reviewing the Draft EIS/EIR and states that the commenter has no comments on the document. No response is required.



# California Regional Water Quality Control Board Central Valley Region



Linda S. Adams  
Secretary for  
Environmental Protection

Redding Office  
415 Knollcrest Drive, Suite 100, Redding, California 96002  
(530) 224-4845 • Fax (530) 224-4857  
<http://www.waterboards.ca.gov/centralvalley>

Arnold Schwarzenegger  
Governor

11 January 2007

Attn: Mr. R. Phipps, Forest Environmental Coordinator  
Shasta Trinity National Recreation Area  
3644 Avtech Parkway  
Redding, CA 96002

## STAFF COMMENTS, TURNTABLE BAY MARINA MASTER DEVELOPMENT PLAN – DRAFT ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT REPORT, SHASTA COUNTY

California Regional Water Quality Control Board, Central Valley Region (Regional Water Board) staff has reviewed the 29 December 2006 Turntable Bay Marina Master Development Plan Draft Environmental Impact Statement/Environmental Impact Report (Draft EIS/EIR) prepared by North State Resources in conjunction with the U.S.D.A. Forest Service. Our comments are as follows:

Section 1.9.2 – State, Regional Water Board (P. 1-10) & Section 5.1 – Lead and Participating Agencies (P. 5-1):

In the Draft EIS/EIR no lead agency for California Environmental Quality Act (CEQA) was identified. The Regional Water Board will serve as the State lead agency under CEQA, according to Title 14, Section 15051 of the California Code of Regulations due to the potential for the Regional Water Board to take the following discretionary actions: issuance of a Clean Water Act 401 Certification, Waste Discharge Requirements, NPDES General Permit for Storm Water Associated with Construction Activities, and NPDES General Industrial Storm Water Permit. The fact that the Regional Water Board is serving as the State lead agency for CEQA should be clearly stated.

3-A

Section 1.9.2 – State, Regional Water Board (P. 1-10):

The Draft EIS/EIR states, "The Regional Water Board also controls the discharge of waste to surface waters through the NPDES permit process. Waste Discharge Requirements are established in NPDES permits to protect beneficial uses." Waste Discharge Requirements are administered under the authority of the Porter Cologne Water Quality Control Act in the California Water Code and are separate from the Federal NPDES permit. An NPDES permit contains requirements that will prevent a discharge from a facility from adversely impacting the beneficial uses and exceeding the water quality objectives of the surface receiving waters. For example, the General Storm Water Permits are administered under the NPDES program.

3-B



Thank you for the opportunity to comment on the Draft EIS/EIR. If you have any questions, please contact Katie Bowman of my staff at (530) 226-3458 or the letterhead address

  
JAMES C. PEDRI, P.E.  
Assistant Executive Officer

KB: reb

cc: Mr. Paul Uncapher, North State Resources, Redding

U:\Clerical Documents\SA\_Correspondence\BowmanK\jan07\EIS\_EIRreview.doc



**Response to Comment Letter 3**

This comment letter contains two distinct comments. Following are the responses to those comments.

**Comment 3-A**

The Regional Water Board has stated that it will serve as the state lead agency under CEQA. Chapter 1, Purpose of and Need for Action, has been revised to reflect this change. The revision is included in Chapter 3 of this Final EIR/EIS.

**Comment 3-B**

The commenter clarifies the distinction between Waste Discharge Requirements and permits required under the National Pollutant Discharge Elimination System (NPDES). Chapter 1, Purpose of and Need for Action, has been revised to reflect this change. The revision is included in Chapter 3 of this Final EIS/EIR.

STATE OF CALIFORNIA

Arnold Schwarzenegger, Governor

**NATIVE AMERICAN HERITAGE COMMISSION**

915 CAPITOL MALL, ROOM 364  
 SACRAMENTO, CA 95814  
 (916) 653-6251  
 Fax (916) 657-5390  
 Web Site [www.nahc.ca.gov](http://www.nahc.ca.gov)  
 e-mail: [ds\\_nahc@pacbell.net](mailto:ds_nahc@pacbell.net)



clear  
 2-13-07  
 e

January 12, 2007

Mr. Ralph Phipps

**USDA FOREST SERVICE; SHASTA-TRINITY NATIONAL FOREST**

3644 Avtech Parkway  
 Redding, CA 96002



Re: SCH#2005084005; CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for Turntable Bay Marina Master Development Plan; USDA Forest Service; Shasta-Trinity national Forest; Shasta County, California

Dear Mr. Phipps:

Thank you for the opportunity to comment on the above-referenced document. The Native American Heritage Commission is the state's Trustee Agency for Native American Cultural Resources. The California Environmental Quality Act (CEQA) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per CEQA guidelines § 15064.5(b)(c). In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE)', and if so, to mitigate that effect. To adequately assess the project-related impacts on historical resources, the Commission recommends the following action:

- √ Contact the appropriate California Historic Resources Information Center (CHRIS). The record search will determine:
  - If a part or the entire APE has been previously surveyed for cultural resources.
  - If any known cultural resources have already been recorded in or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present.
- √ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.
- √ Contact the Native American Heritage Commission (NAHC) for:
  - \* A Sacred Lands File (SLF) search of the project area and information on tribal contacts in the project vicinity who may have additional cultural resource information. Please provide this office with the following citation format to assist with the Sacred Lands File search request: USGS 7.5-minute quadrangle citation with name, township, range and section: .
  - The NAHC advises the use of Native American Monitors to ensure proper identification and care given cultural resources that may be discovered. The NAHC recommends that contact be made with Native American Contacts on the attached list to get their input on potential project impact (APE).
- √ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
  - Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5 (f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
  - Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.
- √ Lead agencies should include provisions for discovery of Native American human remains or unmarked cemeteries in their mitigation plans.
  - \* CEQA Guidelines, Section 15064.5(d) requires the lead agency to work with the Native Americans identified by this Commission if the initial Study identifies the presence or likely presence of Native American human

4-A

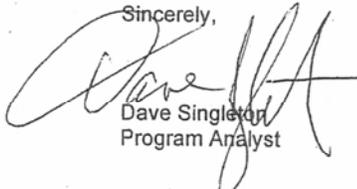
remains within the APE. CEQA Guidelines provide for agreements with Native American, identified by the NAHC, to assure the appropriate and dignified treatment of Native American human remains and any associated grave liens.

√ Health and Safety Code §7050.5, Public Resources Code §5097.98 and Sec. §15064.5 (d) of the CEQA Guidelines mandate procedures to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

√ Lead agencies should consider avoidance, as defined in § 15370 of the CEQA Guidelines, when significant cultural resources are discovered during the course of project planning.

Please feel free to contact me at (916) 653-6251 if you have any questions.

Sincerely,



Dave Singleton  
Program Analyst

Cc: State Clearinghouse

Attachment: List of Native American Contacts

4-A cont.

**Response to Comment Letter 4**

This comment letter contains one distinct comment. Following is the response to this comment.

**Comment 4-A**

The commenter informs the lead agencies of the requirements for addressing Native American interests and resources. This Final EIS/EIR is compliant with all requirements of Section 106 of the National Historic Preservation Act and CEQA as it pertains to the discovery of archaeological resources and human remains.

**DEPARTMENT OF TRANSPORTATION**  
**OFFICE OF COMMUNITY PLANNING**  
1657 RIVERSIDE DRIVE  
P. O. BOX 496073  
REDDING, CA 96049-6073  
PHONE (530) 229-0517  
FAX (530) 225-3578  
TTY (530) 225-2019



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Be energy efficient!*

IGR/CEQA Review  
Sha-5-29.32  
Turntable Bay Marina  
Environmental Impact Study  
SCH# 2005084005

January 31, 2007

Mr. Lee Simons  
US Forest Service  
Shasta-Trinity National Forest  
14225 Holiday Road  
Redding, CA 96003

Dear Mr. Simons:

The California Department of Transportation (Department) has reviewed the Environmental Impact Statement (EIS) submitted on behalf of the US Forest Service, Shasta-Trinity National Forest, for a 30-year term permit to Seven Crown Resorts, Inc. for the Turntable Bay Marina Master Development Plan (the Plan). The Plan would allow the applicants to build and operate a resort marina. The project is located at Turntable Bay on Shasta Lake and east of Interstate 5 (I-5). The site is also located approximately 7 miles north of the Cities of Redding and Shasta Lake.

Section 1.9.2 page 1-10 of the EIS addresses the Department’s required Encroachment permit. The last sentence of the paragraph should read “Caltrans will act as a CEQA responsible agency only for work to be performed in the State highway right of way, relying on the DEIS for CEQA compliance.” 5-A

The project involves the construction of access roads adjacent to and on Caltrans freeway easements or right of way that will require the above referenced Encroachment permit to demonstrate that all applicable laws are adhered to. 5-B

It is expected that detailed mitigation measures based on the project’s geotechnical study will be provided for hillside and/or access road development proposed adjacent to freeway slopes or easement areas. The encroachment permit process will also include those mitigation measures for the long-term maintenance of the proposed facilities adjacent to or within the affected areas. 5-C

The original project description included interchange illumination at the northbound and southbound freeway ramp intersections. This item was removed during project development because the project's hours of operation would be limited to daylight hours. However, this project condition is not stated in the EIS. Please add this to the final EIS. } 5-D

Thank you for the opportunity to provide comments on the proposed project. If you have any questions, or if the scope of this project changes, please call me at 229-0517.

Sincerely,



Michelle Millette, Chief  
Office of Community Planning

c: State Clearinghouse  
Paul Uncapher, North State Resources  
Bob Ekin, Lawrence & Associates  
Stacey Barnes, Caltrans  
Lisa Harvey, Caltrans  
Scott Lewis, Caltrans

**Response to Comment Letter 5**

This comment letter contains four distinct comments. Following are the responses to these comments.

**Comment 5-A**

The commenter clarifies Caltrans' role regarding the required encroachment permit. Chapter 1, Purpose of and Need for Action, has been revised to reflect this change. The revision is included in Chapter 3 of this Final EIS/EIR.

**Comment 5-B**

The commenter states that the Proposed Project will require an Encroachment Permit to demonstrate that all applicable laws are adhered to. Chapter 1, Purpose of and Need for Action, has been revised to reflect this change. The revision is included in Chapter 3 of this Final EIS/EIR.

**Comment 5-C**

The commenter suggests that additional mitigation measures could be developed in conjunction with the completion of an on-site geotechnical evaluation. In response to this comment, the project proponent retained Holdrege and Kull, Consulting Engineers – Geologists to perform an additional geotechnical engineering investigation, focused on the proposed access road within the I-5 right-of-way. This investigation is documented in a report entitled *Geotechnical Engineering Investigation Addendum No. 1 Report*. A copy of this report was provided to Caltrans and is available as part of the administrative record.

The investigation identified no adverse impacts to the constructed fill of northbound I-5. The report indicates that construction of the access road will not require mitigation measures in addition to those described in the Draft EIS/EIR.

**Comment 5-D**

The commenter requests that the condition for the project that limits operation of the marina facilities to daylight hours be stated in the Final EIS/EIR. Page 2-20 of the Draft EIS/EIR provides details on the operating hours of the marina. Commercial services will be available only during daylight hours; the provision of nighttime services will not be permitted. This statement is reinforced in Chapter 3 of the Final EIS/EIR.

From: Ralph Phipps [rhipps@fs.fed.us]  
Sent: Friday, January 05, 2007 11:02 AM  
To: Lee H Simons; Paul Uncapher  
Cc: Kristy Cottini  
Subject: Fw: Turntable Bay Marina Draft EIS/EIR Comments

This 1st comment was in the electronic comments box.

Ralph Phipps California RPF #1991

Forest Planning / Environmental & Appeals Coordination / Silviculture

Shasta-Trinity National  
Forest

USDA-FS, Pacific Southwest Region  
5

(530) 226-2421, rhipps@fs.fed.us

----- Forwarded by Ralph Phipps/R5/USDAFS on 01/05/2007 10:59 AM -----

"Brandy Norton"  
<BNORTON@dfg.ca.g To: <comments-pacificsouthwest-shasta-trinity@fs.fed.us>, <lsimons@fs.fed.us>  
ov> cc: "Bruce Webb" <BWebb@dfg.ca.gov>, "Bob Williams" <BWilliams@dfg.ca.gov>, "Eric Haney" <EHaney@dfg.ca.gov>  
01/05/2007 10:28 Subject: Turntable Bay Marina Draft EIS/EIR Comments  
AM

Kristy Cottini,

I have reviewed the Draft EIS/EIR for the Turntable Bay Marina and have the following comments regarding this project.

1. Page 3.6-31 in the Biological Resources Section the document states, "If CDFG determines that the Proposed Action could have substantial adverse effects on fish and wildlife, a Streambed Alteration Agreement is required\*\*." It is our understanding that Seven Crown Resorts, Inc. will be constructing the roads, including the necessary stream crossings, and docks. As such they are required to notify CDFG pursuant to Fish and Game Code section 1602. Based on the activities described we have determined that a Streambed Alteration Agreement is required. Please note, if the work were being performed by the Forest Service or by a party under contract with the Forest Service, notification would not be required.

6-A

2. Page 3.6-53 in the Biological Resources Section under the heading: 5. Long-eared Owl, Sharp-shinned Hawk, Cooper's Hawk, Osprey, and Vaux's Swift. The first bulleted item

6-B

states, "The project proponent shall retain a qualified biologist to conduct a minimum of one survey for nesting long-eared owls, sharp-shinned hawks, Cooper's hawks and Vaux's swift\*\*.." Osprey is not included in this item. The CDFG realizes that this may be an oversight, however being that there are several Osprey nests located near the project area, it is important that surveys for Osprey be performed.

6-B cont.

If you have any questions or comments please feel free to call me. Thank you for the opportunity to comment on this project.

Respectfully,

Brandy Norton

Brandy Norton, Biologist  
Habitat Conservation Planning  
California Department of Fish and Game  
601 Locust Street  
Redding, CA 96001  
530-225-2349  
Cell: 530-510-185

**Response to Comment Letter 6**

This comment letter contains two distinct comments. Following are the responses to these comments.

**Comment 6-A**

The commenter states that a Streambed Alteration Agreement under Section 1602 of the California Fish and Game Code will be required. Section 3.6, Biological Resources, has been revised to reflect this information. The revision is included in Chapter 3 of this Final EIS/EIR.

**Comment 6-B**

The commenter identified an oversight in the mitigation measure presented on page 3.6-53. Section 3.6 has been revised to reflect this information. The revision is included in Chapter 3 of this Final EIS/EIR.

Attention: Kristy Cottini, District Ranger  
Forest Service, Shasta-Trinity National Recreation Area-Shasta Lake Unit  
14225 Holiday Road  
Redding, CA 96003

I am submitting for your review my concerns regarding the **Turntable Bay Marina Master Development Plan Draft Environmental Impact Statement/Environmental Impact Report.**

As resident homeowners of a property located at 17235 Chapman Lane, directly overlooking Turntable Bay, we would like to voice our concerns and opposition to the proposed construction of a marina in this bay. In addition to our environmental concerns, we would like you to consider the direct impact this would have on our quality of life there.

7-A

Our primary concerns include:

- 1. Devastation of additional forest and habitat to relocate an existing marina and to construct a paved parking lot, paved two lane road and paved four lane launch ramp. - 7-B
- 2. Abandonment of an existing and viable marina site. - 7-C
- 3. Visual impact to residents from the addition of a commercial site. (Please find enclosed photos taken from the deck of our home) - 7-D
- 4. Increased fire hazard to homes adjacent to the area.
- 5. Toxic waste hazard from the gas dock, septic pumping, refuse collection and disposal, restrooms and leach fields. - 7-E
- 6. Impact of introduction of lighting and noise from the marina, moorage and retail store to residents. - 7-F
- 7. Increased congestion in an area of the lake that is already seriously crowded on busy weekends creating potentially hazardous boating conditions. - 7-G

As a family who has enjoyed Shasta Lake since 1971 we realize the it is a resource to be shared my many. We feel strongly however that the abandonment of an existing marina facility and its reconstruction in another area is a tragic waste of natural resources and has the potential to create hazardous consequences.

7-I

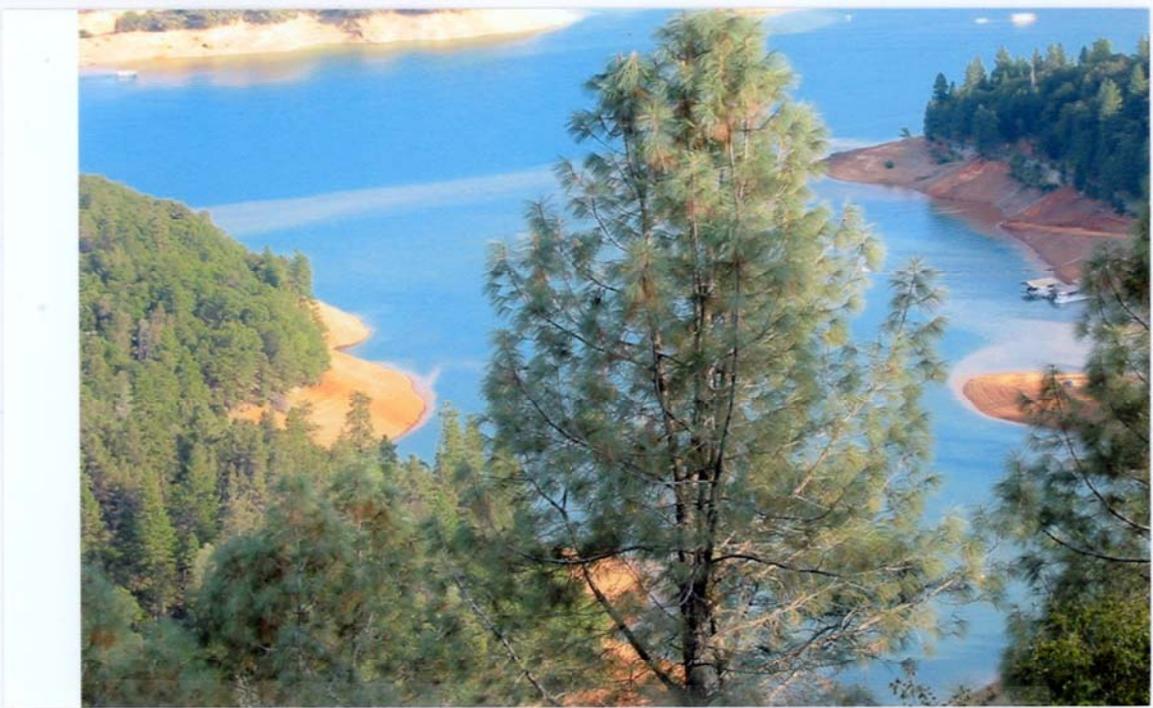
Thank you for your consideration.  
Sincerely,

John and Janet Gless

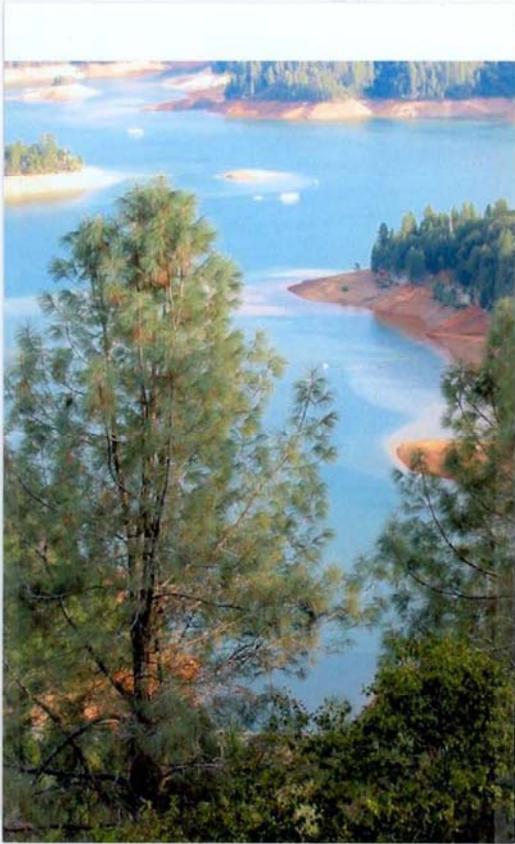


17235 Chapman Lane  
Lakehead CA 96051  
530-238-8510

1441 Ravenswood Lane  
Riverside CA 92506  
951-780-9715



\*\*\*\*\*  
\*\*\* IT SUKTI \*\*\*  
\*\*\*\*\*



John Gless

**GLESS  
RANCH  
INC.**



1441 Ravenswood Lane • Riverside, CA 92506

SAN BERNARD

12 JAN 2007



*Kristy Cottini  
Forest Service  
14225 Holiday Road  
Redding CA 96003*

**RECEIVED**

JAN 16 2007

Shasta-Trinity N.F.  
Shasta Unit, Box 4

96003+9401



**Response to Comment Letter 7**

This comment letter contains eight distinct comments. Following are the responses to these comments.

**Comment 7-A**

The commenters state their general opposition to the proposed construction of a marina in Turntable Bay. No response is required.

**Comment 7-B**

The commenters express concern about the biological impacts associated with project activities, but do not provide any new information to the Responsible Official for consideration. The comment identifies a general concern similar to one of the significant issues identified during the scoping process. Impacts related to biological resources are addressed in Section 3.6 of the Draft EIS/EIR. The lead agencies have assessed the impacts on biological resources and determined that the impacts, as mitigated, would be less than significant.

**Comment 7-C**

The commenters express concern about the abandonment of Digger Bay Marina, but do not provide any new information to the Responsible Official for consideration. The comment identifies a general concern similar to one of the significant issues identified in the scoping process. Impacts related to this issue were analyzed in Sections 3.2, 3.7, and 3.15 of the Draft EIS/EIR. The lead agencies have assessed the impacts from the abandonment of Digger Bay Marina and determined that the impacts, as mitigated, would be less than significant.

**Comment 7-D**

The commenters express concern about the visual impacts to residents in the project area, but do not provide any new information to the Responsible Official for consideration. No other residents in the viewshed provided input to either the scoping process or commented on the Draft EIS/EIR. The pictures provided are similar to those provided during the scoping meeting. The comment identifies a general concern similar to one of the significant issues identified in the scoping process. The lead agencies are sensitive to the impacts on visual resources and produced several simulations of the proposed project that were intended to characterize the type and nature of changes to the visual setting. Impacts related to this issue were analyzed in Section 3.8 of the Draft EIS/EIR. The lead agencies have assessed the impacts on aesthetic resources and determined that there would be no significant impacts on visual resources; therefore, mitigation would not be required.

**Comment 7-E**

The commenters express concern about an increased fire hazard to homes adjacent to the project area, but do not provide any new information to the Responsible Official for consideration. Chapter 2 of the Draft EIS/EIR outlines the project facilities that would be incorporated into the preferred alternative (water storage, pumps, etc). Potential impacts regarding fire hazards are addressed in Section 3.13 of the Draft EIS/EIR. The lead agencies have assessed the impacts related to fire hazards and determined that there

would be no significant impacts related to fire hazards; therefore, mitigation would not be required.

**Comment 7-F**

The commenters express concern about a potential toxic waste hazard, but do not provide any new information to the Responsible Official for consideration. Potential impacts from toxic waste are addressed in Section 3.13 of the Draft EIS/EIR. The lead agencies have assessed the impacts related to hazardous materials, including potential toxic wastes, and determined that there would be no significant impacts; therefore, mitigation would not be required.

**Comment 7-G**

The commenters express concern about potential impacts related to light and noise, but do not provide any new information to the Responsible Official for consideration. Potential impacts involving light and noise are addressed in Sections 3.8 and 3.14 of the Draft EIS/EIR. The lead agencies have assessed the impacts on aesthetic resources and determined that there would be no significant impacts; therefore, mitigation would not be required.

**Comment 7-F**

The commenters express concern about congestion on Shasta Lake, but do not provide any new information to the Responsible Official for consideration. Potential impacts regarding congestion on Shasta Lake are addressed in Section 3.7 of the Draft EIS/EIR. Additional information regarding the Water Recreation Opportunity Spectrum (WROS) is provided in Chapter 3 of the Final EIS/EIR.

**Comment 7-I**

The commenters express general concern regarding the replacement of Digger Bay Marina with the proposed project, but do not provide any new information to the Responsible Official for consideration. No response is required.

Turntable Bay Marina  
Master Development Plan  
Final Environmental Impact Statement/Environmental Impact Report

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## **CHAPTER 3 CHANGES TO THE DRAFT EIS/EIR**

# CHAPTER 3. CHANGES TO THE DRAFT EIS/EIR

## 3.1 Introduction

---

Several changes to the text of the Draft EIS/EIR were identified in the responses to comments provided in Chapter 2. Modifications made to the Final EIS/EIR in response to comments are shown in Section 3.2 with strikeout (deletions) and underline (additions) revision marks to clearly define the changes. Additional changes to address errors, omissions, additions to design data, and other minor revisions are shown with strikeout and underline revision marks in Section 3.3. None of the changes constitutes new significant information or results in new significant impacts or mitigation measures.

All revised figures are at the end of this chapter.

## 3.2 Changes to the Draft EIS/EIR in Response to Comment Letters

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### Chapter 1

Page 1-2, paragraph 4, of the Draft EIS/EIR has been revised to include the Regional Water Board as the lead agency under CEQA.

As a federal agency, the Forest Service is not required to comply with CEQA or other state environmental regulations. However, as described below under “Required Permits and Approvals,” the project proponent would be required to obtain discretionary permits and approvals from three California agencies that require CEQA compliance, the California Department of Transportation (Caltrans), the California Department of Fish and Game (CDFG) and the Central Valley Regional Water Quality Control Board (Regional Water Board), to construct and operate the marina. To facilitate the process for obtaining these permits and approvals, the Forest Service elected to achieve CEQA compliance through the preparation of this joint Draft EIS/EIR. The Regional Water Board will serve as the CEQA lead agency and, Caltrans, and CDFG will serve as responsible agencies for the Draft EIS/EIR. Early consultation between the project proponent, the STNF, and the U.S. Army of Engineers (Corps) indicated that the Proposed Action would affect “waters of the United States.” The Corps is responsible for issuing permits for actions that would affect such waters. This NEPA document will assist the Corps in meeting the requirements set forth in Section 404(b)1 of the Clean Water Act (CWA) as well as its obligations under NEPA.

Page 1-10, paragraph 4, has been revised to clarify the requirement for an encroachment permit from Caltrans.

### ***California Department of Transportation***

An encroachment permit would be required from Caltrans for activities that would encroach on the structures or improvements within the Caltrans right-of-way (ROW) along I-5. The Proposed Action ~~includes land-based construction as well as operation and~~

~~maintenance activities directly east of the northbound alignment of I-5 in the general vicinity of Turntable Bay, involves the construction of access roads adjacent to and on Caltrans freeway easements or ROW. Therefore, an encroachment permit will be required to demonstrate compliance with all applicable laws. Caltrans will act as a CEQA responsible agency only for work to be performed within the state highway ROW, relying on this Final EIS/EIR for CEQA compliance.~~

Page 1-10, paragraph 5, has been revised to clarify the distinction between Waste Discharge Requirements and the NPDES.

### ***Regional Water Quality Control Board***

The Regional Water Board will act as a CEQA responsible agency, relying on this Final Draft EIS/EIR for CEQA compliance. The Regional Water Board would be responsible for enforcing and protecting water resources in association with the Proposed Action. The Regional Water Board also controls the discharge of wastes to surface waters. Waste Discharge Requirements are administered under the authority of the Porter-Cologne Water Quality Control Act in the California Water Code. An NPDES permit contains requirements that will prevent a discharge from a facility from adversely affecting the beneficial uses and exceeding the water quality objectives of the surface receiving waters. through the NPDES permit process. Waste Discharge Requirements are established in NPDES permits to protect beneficial uses.

## **Chapter 2**

Page 2-20, paragraph 1, has been revised to emphasize the limited operating schedule that will be a condition of the special use permit.

### **Operating Schedule**

The operating schedule included in the original response to the STNF prospectus suggested that some nighttime activities could occur as part of the Proposed Action. Subsequent consultation and negotiations between the STNF, Caltrans, and the project proponent regarding the need for lighting at the Turntable Bay – I-5 Interchange resulted in a revised operating schedule that ~~essentially~~ excludes after-dark commercial operations. The STNF will condition the special use permit to ensure that the commercial facilities operate only during daylight hours. Anticipated operating hours that reflect seasonal patterns of use expected at Turntable Bay Marina are shown in Table 2-2.

## **Chapter 3**

### ***Section 3.3***

Page 3.3-5, paragraph 4, has been revised to update the geotechnical information acquired by the project proponent.

A geotechnical report was prepared by Holdrege & Kull (H&K) of Chico, California in November 2006 (Appendix E). H&K logged 21 test pits and performed seven seismic refraction lines, and stereonet projections of bedrock fractures in several locations in the

locations of the largest cuts and fills in the general vicinity of the parking areas north of Turntable Bay. An addendum to this report was prepared to assess the potential impacts to the constructed fill slope of I-5 at the request of Caltrans. This addendum was submitted to Caltrans as part of the encroachment permit application. The outcome of the technical analysis did not indicate the need for additional mitigation measures to address seismic safety or slope stability.

### **Section 3.6**

Page 3.6-31, paragraph 2, has been revised to confirm that a 1602 Streambed Alteration Agreement will be required by CDFG.

~~If CDFG determines that the Proposed Action could have substantial adverse effects on fish or wildlife,~~ CDFG has determined that a Streambed Alteration Agreement is required. As part of this agreement, CDFG may require reasonable modifications in the proposed construction that would allow for the protection of the fish and wildlife resources.

Page 3.6-42, paragraph 3, has been revised to update the acreages of impacts to jurisdictional waters.

#### Jurisdictional Wetlands and Other Waters of the United States

Construction activities associated with the project will result in temporary and permanent impacts to jurisdictional waters (e.g., wetland features) within the site (Revised Figure 3.6-7b). Revised Table 3.6-6 lists impacts to these wetland features for Alternative 2 and Alternative 3. Construction of Alternative 2 would result in a direct impact to 2.18 acres of jurisdictional waters (Table 3.6-6) and construction of Alternative 3 would result in a direct impact to ~~2.21~~ 1.70 acres of jurisdictional waters. Impacts to jurisdictional waters are considered significant.

#### **Revised Table 3.6-6. Expected Maximum Areas of Disturbance to Jurisdictional and Non-Corps Jurisdictional Waters**

<b>Corps Jurisdictional Waters</b>	<b>Approximate Area of Disturbance (Acres)</b>		
	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>
Intermittent Creek	0.00	0.01	0.01
Lacustrine	0.00	2.17	1.69
<b>Total</b>	<b>0.00</b>	<b>2.18</b>	<b>1.70</b>

Note: Shaded text represents changes from the Draft EIS/EIR

All figures referenced in this chapter are provided at the end of this chapter.

Pages 3.6-51 and 3.6-52 have been revised to enhance the description of mitigation measure 3.6-4a.

- Compensatory mitigation for direct impacts to jurisdictional waters shall be achieved through the implementation of habitat improvement measures on Shasta Lake. The measures to be implemented shall be determined in consultation with the Corps and may include, but are not limited to, the construction of manzanita brush structures, planting of willow and buttonbush (*Cephalanthus occidentalis*), and planting of annual cereal grains to improve the quality of fish habitat in the lake. Mitigation will occur at a ratio of not less than 1:1 (mitigation to impact, acreage basis).
- Manzanita Brush Structures. Manzanita brush structures will be placed in draws and ravines around Shasta Lake that are close to sources of manzanita. STNF biologists will be consulted to determine the most appropriate locations for the structures. The structures will be approximately 30 feet in diameter and approximately 10 feet high. The structures will be placed so as to achieve a mixture of branches and open space (approximate density of 85 structures per acre), and will be constructed when the lake level is low (late fall and winter).
- Willow Plantings. Willows will be planted in wet draws and around seeps bordering Shasta Lake. STNF biologists will be consulted to determine the most appropriate locations for the plantings. Rooted stock will be used for the plantings. Analysis of previous plantings in the area has found a long-term survival rate of approximately 10 percent. Thus, the initial plantings will be done at a density of 4,000 plants per acre in order to achieve a long-term survival density of 400 trees per acre.
- Seeding. STNF biologists will be consulted to determine the most appropriate locations for seeding. Suitable sites require good soils, a southerly aspect, and good access, and are not too steep. Such sites exist in numerous locations around Shasta Lake. Native grass seed acceptable to the STNF (cereal grains) will be planted at a density of 200 pounds per acre with fertilizer added at a density of 100 pounds per acre and mulch at a density of 1 ton per acre.

Page 3.6-53, first bulleted item, has been revised to include ospreys.

- The project proponent shall retain a qualified biologist to conduct a minimum of one survey for nesting long-eared owls, ospreys, sharp-shinned hawks, Cooper's hawks, and Vaux's swifts within a 250-foot buffer around proposed construction activities. The survey may be conducted no more than one week prior to the onset of any construction activity. Active nests located within 250 feet of construction activities shall be mapped.

## Chapter 4

There are no changes to Chapter 4.

## Chapter 5

Page 5-1, paragraph 2, has been revised to establish the Regional Water Board as the CEQA lead agency.

The NEPA lead agency for this Draft EIS/EIR is the Forest Service, and the Regional Water Board is the CEQA lead agency. As a lead agency, the Regional Water Board has assisted in the preparation of this document ~~While this document has been prepared to satisfy CEQA requirements.~~ The primary cooperating (NEPA) and responsible and trustee (CEQA) agencies are:

- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- California Department of Transportation
- California Department of Fish and Game
- ~~California Regional Water Quality Control Board, Central Valley Region~~

### **3.3 Editorial Changes to the Draft EIS/EIR to Address Minor Errors and Omissions and to Incorporate Additional Design Data**

In addition to revisions made in response to comments provided on the Draft EIS/EIR, the lead agencies have revised certain parts of the document to correct minor errors and omissions and to provide updated information based on additional design data. These changes are shown below, organized by chapter and section of the Draft EIS/EIR.

#### **Chapter 2**

Page 2-17, paragraph 5, has been revised to provide additional information on potential sources of potable water.

It is anticipated that Ppotable water would be provided by an on-site well or wells. It is anticipated that the well(s) would be approximately 200 to 400 feet deep based on test well results. In the event that groundwater sources are not adequate, alternative sources of potable water (i.e., Shasta Lake intake) would be developed. Any surface water source would require treatment to meet federal, state, and local requirements. A packaged water treatment system would be designed and constructed within the project boundary. The well(s) or other sources would provide water to a 20,000-gallon holding tank placed at an elevation that would facilitate a gravity-feed underground distribution system. ~~Preliminary test well results were inconclusive in terms of water quality requirements. Water treatment may be required at some point.~~

Page 2-26, paragraphs 3, 4, and 5, has been revised to reflect topographic information acquired since the Draft EIS/EIR was issued.

#### **Alternative 3—Revised Action**

Alternative 3 was developed to respond to scoping comments received on the NOI as well as to refine the project's ability to fully address significant issues as approved by the Forest Supervisor. Alternative 3 is the STNF's preferred alternative pursuant to 40 CFR 1052.14(e). As described below, this alternative incorporates changes to the original Proposed Action to address the significant issues discussed in Chapter 1 of this Draft

EIS/EIR. Revised Figure 2.4 provides a plan view of this alternative and illustrates the changes made to land- and water-based facilities.

Although Alternative 3 is similar to Alternative 2 with respect to all water-based facilities and features, the refined topographic information resulted in rearranging the dock components under Alternative 3 to ensure adequate service during normal drawdown periods. This reconfiguration reduced the dock area by almost 34,000 square feet, extending the structure about 140 feet further from shore. ~~However,~~ The land-based features described below have been modified to respond to the significant issues identified during the scoping process. For continuity, the following section describes this alternative with respect to the significant issues identified in the NEPA/CEQA scoping process.

This alternative reflects an additional increase in the proposed grade of certain road segments and associated parking areas. This change ensures that any increase in the surface elevation of Shasta Lake would not jeopardize the integrity of the road prism and/or surface of roads within the project boundary (including fill slopes of I-5 northbound). This alternative would increase the grade of constructed surfaces and incorporate various slope stability measures (e.g., retaining walls) in the final design for the road segments and parking areas. ~~for by 5 feet (1095 msl) for Road Segments 2 and 3 and Parking Areas 1 and 2.~~ Adjustments in grade and alignment would be incorporated into the final design of the various road segments, parking areas, Road Segment 4 and the boat launch ramp to ensure STNF grade and alignment requirements are met.

Page 2-26, paragraph 6, and Page 2-29, paragraphs 1 and 2, have been revised to reflect topographic information acquired since the Draft EIS/EIR was issued.

### ***Vegetation and Habitat***

Grading activities for roads, parking areas, and the boat launch ramp have been modified to reflect site-specific geotechnical requirements. Where feasible, slope angles have steepened based on an in-depth geotechnical investigation. In certain instances, cut slopes have been steepened to 1:1 and fill slopes have been steepened to 1½:1. Excess excavation that would be disposed of at the North Point disposal area under Alternative 3 would be reduced, in part by incorporating excess material into the construction of Road Segment 2. This alternative reduces the volume of material to be placed at the North Point disposal area by about ~~25,000~~ 29,800 cubic yards relative to Alternative 2. Similarly, it reduces the areal extent of the grading activities by approximately ~~10-15~~ percent, particularly in areas that have concentrations of perching ~~nesting/roosting~~ habitat for bald eagles and osprey. In general, the reduction in impacts to habitat would reduce the requirements for revegetation.

This alternative includes ~~69~~ 43 fewer parking spaces than Alternative 2. The size of the parking spaces in Parking Areas 3, 4, and 5 would be increased and the length of the walking trail adjacent to the upper-level parking areas would be decreased. The changes in the configuration of the parking areas are shown on Revised Figure 2.4. These changes would enable the inclusion of approximately ~~3,781~~ 1,750 feet of additional sidewalks to increase pedestrian safety. The length of the walking trail under Alternative 3 has been reduced to 1,000 feet to minimize impacts to the landscape. These changes

would result in an overall decrease in the area that would be affected by land-based development.

Page 2-27, Figure 2.4, has been revised.

Pages 2-30 to 2-33, Table 2-3, have been revised to reflect design refinements. Shading is used to indicate a change from the Draft EIS/EIR.

**Revised Table 2-3. Comparison of Alternative Elements**

Element	Units	Alternative 1 (No-Action)	Alternative 2 (Proposed Action)	Alternative 3 (Revised Action)
General access from I-5		Reasonable; 8 miles	Good; 1 mile	Good; 1 mile
Accessibility under ADA & ADABAAG	Compatible	No	Yes	Yes
Total area within project boundary	Acres of land	9.5	65.52	55.26
North Point disposal area	Acres	N/A	4.41	3.81
Parking areas	Number	3	5	5
Parking area <i>Estimated</i> total spaces	Passenger	158	348	374
	Trailer	36	153	80
	RV	0	0	7
	Handicap (acres)	2	6	5
Parking area 1 (moorage)	Passenger	N/A	78	122
	Trailer		0	0
	Handicap (acres)		0 1	2 1.1
Parking area 2 (boat ramp)	Passenger	25	31	0
	Trailer	32	0	0
	Handicap	0	0	2
	(acres)	1.1	1	0.6
Parking area 3 (ridge)	Passenger	50	51	26
	Trailer	11	14	0
	Handicap	0	0	1
	(acres)	1	1	0.2

**Revised Table 2-3. Comparison of Alternative Elements**

Element	Units	Alternative 1 (No-Action)	Alternative 2 (Proposed Action)	Alternative 3 (Revised Action)
Parking area 4 (ridge)	Passenger	50	108	120
	Trailer	4	116	76
	RV	0	0	7
	Handicap (acres)	1	2	3.1
Parking area 5 (overflow)	Passenger	N/A	80	112
	Trailer	N/A	23	4
	Handicap	N/A	0	0
	(acres)	N/A	1	1
Road segment 1 reconstruction	Miles	3.5	0.50	0.50
Road segments 2-6 new construction	Linear feet	N/A	8,452	6,500
Excavated volume, total	Cubic yards	N/A	194,000	164,200
Volume used: road, parking, ramp	Cubic yards	N/A	90,000	107,900
Excavated volume to North Point	Cubic yards	N/A	104,000	76,300
Riprap	Cubic yards	N/A	3,000	3,000
Boat launch ramp	Lanes	2	4	4
	Lake level (feet)	-60	-100	-100
Access to marina	Restricted below 1070	Yes -60	Yes -100	Yes -100
Sidewalk	Linear feet	0	250	2,000
Trail	Linear feet	N/A	4,000	1,000
Restrooms	Number	1 set	3 sets	3 sets
On-site residences	Number	2	0	0

**Revised Table 2-3. Comparison of Alternative Elements**

Element	Units	Alternative 1 (No-Action)	Alternative 2 (Proposed Action)	Alternative 3 (Revised Action)
Power and water utilities lines	Location	Overhead/ surface	Buried	Buried
Total dock space	Square Feet	129,174	312,381	278,435
Courtesy dock	Linear feet	100	700	700
Store/office/shop water-based	Square feet No. of buildings	300 1	9,700 3	9,700 3
Commercial houseboat moorage	Slips	74	60	40
Commercial small boat moorage	Slips	15	30	30
Private houseboat moorage	Slips	42	102	102
Private small boat moorage	Slips	104	144	144
Open transient moorage	Slips	0	30	30

Note: Shaded text represents changes from the Draft EIS/EIR

Table 2-4 has been revised to reflect refinement of the final project design. Shading is used to indicate a change from the Draft EIS/EIR.

**Revised Table 2-4. Comparison of Resource Effects by Alternative**

Resource	Alternative 1 No-Action	Alternative 2 Proposed Action	Alternative 3 Revised Action
<b>Land Use (Section 3.2)</b>			
LRMP amendment	No	Yes	Yes
Forest closure order	No	Yes	Yes

**Revised Table 2-4. Comparison of Resource Effects by Alternative**

<b>Resource</b>	<b>Alternative 1 No-Action</b>	<b>Alternative 2 Proposed Action</b>	<b>Alternative 3 Revised Action</b>
<b>Geology, Soils and Minerals (Section 3.3)</b>			
Grading impacts (acres)	0	30.22	28.50
Excess excavation	0	84,000	56,300
<b>Biological Resources (Section 3.6)</b>			
Upland habitat Impacts (acres)	No impact	28.04	26.21
Impacts to jurisdictional waters (acres)	No impact	2.18	1.70
Impacts to Bald Eagle perch trees (# of trees)	No impact	104	110
Impacts to Riparian Reserves (acres)	NA	9.71	9.71
<b>Recreation (Section 3.7)</b>			
Travel time to Centimudi boat ramp (time on water)	To Digger Bay 1-10 minutes	To Bridge Bay 10-60 minutes	To Bridge Bay 10-60 minutes
<b>Aesthetics (Section 3.8)</b>			
Impacts to VAUs Day and night	No Impact	Modification	Modification
<b>Air Quality (Section 3.11)</b>			
Increase in fugitive dust	No Impact	Some increase associated with construction	Some increase associated with construction
<b>Noise (Section 3.14)</b>			
Increase in noise from construction and operation	No impact	Minimal impact	Minimal impact

**Revised Table 2-4. Comparison of Resource Effects by Alternative**

Resource	Alternative 1 No-Action	Alternative 2 Proposed Action	Alternative 3 Revised Action
<b>Public Services, Utilities and Energy Use (Section 3.15)</b>			
On-site disposal of excavated material (yards <sup>3</sup> )	No impact	84,000	56,300
Emergency service response from Bridge Bay (sheriff boat)	10-15 minutes	5-10 minutes	5-10 minutes

Note: Shaded text represents changes from the Draft EIS/EIR

Figures 2.5d, 2.5e, and 2.5f have been revised to reflect updated topographic information acquired since the Draft EIS/EIR was issued.

## Chapter 3

### Section 3.3

Page 3.3-12, Table 3.3-2, has been updated to reflect revised areas and volumes of disturbance under Alternatives 2 and 3.

**Revised Table 3.3-2. Area and Volume of Soil Disturbance under Alternatives 2 and 3**

Activity Type	Alternative 2		Alternative 3	
	Size	Yards <sup>3</sup>	Size	Yards <sup>3</sup>
North Point disposal area	4.41 <sup>1</sup>	104,000	3.80 <sup>1</sup>	56,300
Parking areas 1-5	3.46 <sup>1</sup>	N/A	6.00 <sup>1</sup>	N/A
Road segments 2-6	8,452 <sup>2</sup>	N/A	6,500 <sup>2</sup>	N/A
Road Segment 6	2,276 <sup>2</sup>	N/A	2,276 <sup>2</sup>	N/A
Sidewalk	250 <sup>2</sup>	N/A	2,000 <sup>2</sup>	N/A
Boat launch ramp	800 <sup>2</sup>	N/A	800 <sup>2</sup>	N/A
Pedestrian trail	4,000 <sup>2</sup>	N/A	1,000 <sup>2</sup>	N/A

**Revised Table 3.3-2. Area and Volume of Soil Disturbance under Alternatives 2 and 3**

Activity Type	Alternative 2		Alternative 3	
	Size	Yards <sup>3</sup>	Size	Yards <sup>3</sup>
Cut volume (gross)	N/A	194,000	N/A	164,884

Note: Shaded text represents changes from the Draft EIS/EIR

<sup>1</sup>Area in acres

<sup>2</sup>Length in feet

<sup>3</sup>Cubic yards, including additional volume required to construct retaining walls

**Section 3.4**

Pages 3.4-6 and 3.4-7, Impact 3.4-1, have been revised as follows.

*Alternatives 2 and 3*

Under either of the action alternatives, construction and on-going operation would require the use of water provided by groundwater wells or supplemental surface water sources. The significance of declining (or increasing) water levels depends in part on the duration and permanence of the impact.

In the event Shasta Lake is used as a potable water source, all federal, state, and local requirements will be incorporated into the final project design. Incidental uses of water from Shasta Lake would occur in accordance with authorized entitlements. These uses could include water for construction activities and during project operation for activities such as rental boat and houseboat cleanup.

Potable water would be used during project operations (e.g., customer service facilities, restrooms, recreational boat use, and irrigation required for vegetation management). Potable water would be acquired from an on-site well, or series of wells, that would be drilled as part of the project. The drilled well(s) would be 200 to 400 feet deep. Water would be stored in an approximately 20,000-gallon holding tank for gravity feed to the various land- and water-based facilities. In the event surface water is used as a potable source, a packaged water treatment facility, adequate to meet federal, state, and local requirements, will be incorporated into the final project design.

**Section 3.6**

Figure 3.7-6b has been revised.

Page 3.6-36, Impact 3.6-1, has been revised to update impacts associated with bald eagle perch trees.

### Alternative 3

#### Bald Eagle

Alternative 3 will result in impacts to bald eagles similar to those of Alternative 2, although slightly fewer potential perch trees would be affected due to the reduced project footprint. This alternative also shifts the North Point disposal area upslope, providing a wider buffer strip adjacent to the shoreline of Shasta Lake. Alternative 3 will result in the loss of approximately ~~89~~ 110 potential perch trees, or ~~18.4~~ 15 percent of the potential perch trees within the project boundaries. As the majority of potential perch trees within project boundaries will not be affected, and given the availability of potential perch trees in the project vicinity (i.e., around Shasta Lake), this impact is considered less than significant.

Page 3.6-41, Impact 3.6-4, has been revised to update impact values.

### Alternative 2 and Alternative 3

#### Upland Habitats

Table 3.6-5 indicates the total acreage of permanent and temporary impacts to upland plant communities due to implementation of Alternative 2 and Alternative 3 (Figure 3.6-6a and Revised Figure 3.6-6b). The permanent loss of up to 28.04 acres of upland habitat is considered a less-than-significant impact due to the relative abundance of these upland plant communities in the local area.

**Revised Table 3.6-5. Expected Maximum Areas of Disturbance to Upland Plant Communities**

Upland Plant Community Type	Approximate Area of Disturbance (Acres)		
	Alternative 1	Alternative 2	Alternative 3
Montane hardwood – conifer	0.00	14.21	14.47
Montane hardwood	0.00	1.78	2.00
Ponderosa pine	0.00	8.73	8.73
Closed-cone pine – cypress	0.00	1.23	1.05
Annual grassland	0.00	0.00	0.00
Urban	0.00	2.09	0.00
<b>Total</b>	<b>0.00</b>	<b>28.04</b>	<b>26.25</b>

Note: Shaded text represents changes from the Draft EIS/EIR

Page 3.6-51 has been revised to update the last bulleted item in mitigation measure 3.6-4a.

- Compensatory mitigation for direct impacts to jurisdictional waters shall be achieved through the implementation of habitat improvement measures on Shasta Lake. The measures to be implemented shall be determined in consultation with the Corps and may include, but are not limited to, the construction of manzanita brush structures, planting of willow and buttonbush (*Cephalanthus occidentalis*), and planting of native grass seed ~~annual cereal grains~~ to improve the quality of fish habitat in the lake. Mitigation will occur at a ratio of not less than 34:1 (mitigation to impact, acreage basis).

### **Section 3.7**

Page 3.7-3 has been revised to include a paragraph following the fourth bulleted item that describes the Water Recreation Opportunity Spectrum (WROS).

A concept related to ROS that is also in use at Shasta Lake is the Water Recreation Opportunity Spectrum (WROS). WROS classes fall into six categories: Urban, Suburban, Rural Developed, Rural Natural, Semi-primitive, and Primitive. An inventory of WROS current conditions was conducted on Shasta Lake in July 2003. Figure 3.7-2 (new) illustrates the location and distribution of these WROS classes.

Page 3.7-4 has been revised to include a paragraph on the WROS following the final paragraph under the heading “Shasta Unit of the Whiskeytown-Shasta-Trinity National Recreation Area.”

The current condition for WROS at Shasta Lake (Figure 3.7-2) indicates that the project boundary used for this document is encompassed by the Rural Development WROS classification (Figure 3.7-2), which is characterized by the presence of noticeable human developments, including several of the largest marinas on Shasta Lake: Bridge Bay, Silverthorn, and Jones Valley. The proposed Turntable Bay Marina would be compatible with the current WROS class.

Page 3.7-8 has been revised to add text concerning the use and capacity of existing marinas on Shasta Lake following Table 3.7-2.

Collectively, these marinas are authorized to provide 778 commercial boat rentals and 1,939 slips for berthing private vessels on Shasta Lake. Several non-marina resorts and Recreation Residence tracts provide another 281 small boat slips on Shasta Lake. These facilities, combined with 100 additional moorage slips at Turntable Bay, provide all of the moorage allocations anticipated on Shasta Lake under the current management strategy. This ceiling on boat moorage facilities together with limited parking around Shasta Lake will serve to limit the growth of boating and other recreational activities at the lake. This limit is consistent with a recent capacity study (Graefe et al. 2005), which found that use levels at Shasta Lake should not increase if present recreational expectations are to be maintained. Limited growth also supports the WROS concept of diverse recreational experiences. As local, state, and regional populations grow, the

Forest Service will continue to manage use levels on Shasta Lake to maintain the naturalistic experiences mandated by Congress through the NRA's enabling legislation.

Page 3.7-18, paragraph 3, has been revised to include additional discussion of impacts to public services.

The 2005 carrying capacity study prepared for the STNF concluded that recreational users are generally satisfied with the experiences and services offered within the Shasta Unit of the NRA. This study also suggests that the McCloud Arm of Shasta Lake is a preferred destination. This information supports the concept that construction of Turntable Bay Marina is consistent with providing the level of public service described in the NRA Management Guide. To ensure that the water-based facilities are available during the normal drawdown period experienced on Shasta Lake, the dock components have been reconfigured to provide operational flexibility during lower water levels, as shown in Revised Figure 2.4. Therefore, these impacts would be considered less than significant.

### **Section 3.8**

Page 3.8-20, paragraph 2, has been revised to acknowledge visual changes resulting from fluctuating water levels.

#### **VAU #4: View from Private Residence—Eastern Ridge**

**Day View.** Views from KOP 4-1 of the facilities associated with the construction or operation of Turntable Bay Marina may be screened by evergreen and deciduous vegetation during part of the year. Many of the land- and water-based facilities associated with the Proposed Action would be fully or partially visible from KOP 4-2, including Parking Areas 1 through 5, Road Segments 3 and 4, infrastructure such as the land-based restroom, and various ~~the~~ boat docks components. The degree to which these features would be visible from KOP 4-2 would depend on seasonal vegetative changes. The visibility of the water-based facilities (i.e., dock components) would be subject to seasonal water fluctuations.

### **Section 3.11**

Page 3.11-10, paragraph 3, has been revised to update information concerning the effects of project construction on vehicle exhaust emissions.

There would be a slight difference in the amount of construction vehicle exhaust emissions produced by the two action alternatives, since Alternative 3 would require a lesser amount of cut and fill than Alternative 2. Under Alternative 2, approximately ~~174,000~~ 194,000 cubic yards of material would be excavated for the purpose of road construction and approximately ~~84,000~~ 90,000 cubic yards of material would be used as fill for road and parking area construction. Alternative 3 would require that approximately ~~144,000~~ 164,000 cubic yards be excavated for road construction and approximately ~~103,000~~ 108,000 cubic yards would be used for road and parking area fills.

### **Section 3.15**

Page 3.15-3, paragraph 4, has been revised to update information on water supplies.

#### *Water*

The STNF administrative facility has a potable water source located upslope from the parking area. This source is adequate to serve the needs of STNF personnel on a routine basis, but does not provide a source of water for fire suppression activities. One test well was drilled in the vicinity of Parking Area 5 during the feasibility assessment for the Turntable Bay Marina. While additional test wells are under consideration, the project proponent has also recognized the potential need to develop surface water as a potable water source for the planned development.

Page 3.15-10, Impact 3.15-5, has been revised to acknowledge the potential development of surface water as a potable source.

#### *Alternatives 2 and 3*

Under Alternatives 2 and 3, a land-based utility management area would be constructed that would encompass the infrastructure required to provide potable water and wastewater services for land- and water-based facilities. This area would include a water storage tank and, if required, water treatment facilities. In the event a surface source is developed for potable water, a packaged water treatment system will be incorporated into the final design. Wastewater treatment facilities (i.e., a pump-lift station and infiltration system) would also be constructed within the designated utilities management area in accordance with all regulatory requirements. Water well(s) will be developed in the general vicinity of the road segments/parking areas~~Parking Area 5~~, consistent with offset requirements between potable water sources and wastewater disposal systems.

### **Chapter 4**

No changes are required.

### **Chapter 5**

Page 5-2, paragraph 5, has been revised to correct a typographical error.

#### ***U.S. Army Corps of Engineers***

The project proponent ~~Reclamation~~ will be required to obtain a CWA Section 404 permit from the Corps. Discharge of fill material into “waters of the United States,” including wetlands, is regulated by the Corps under Section 404 (33 USC 1251-1376). Projects are permitted under either individual or general (e.g., nationwide) permits. Shasta Lake is not included in the Corps’ list of navigable waters ([http://www.spk.usace.army.mil/organizations/cespk-co/regulatory/ca\\_waterways.html](http://www.spk.usace.army.mil/organizations/cespk-co/regulatory/ca_waterways.html)). Therefore, Shasta Lake is not subject to Corps jurisdiction under Section 10 of the federal Rivers and Harbors Act (33 USC 401 et seq.).

## Appendix N

The cover page of this appendix has been revised to reflect the primary author.

# MANAGEMENT INDICATOR ASSEMBLAGES REPORT

## TURNTABLE BAY MARINA MASTER DEVELOPMENT PLAN

### NATIONAL RECREATION AREA

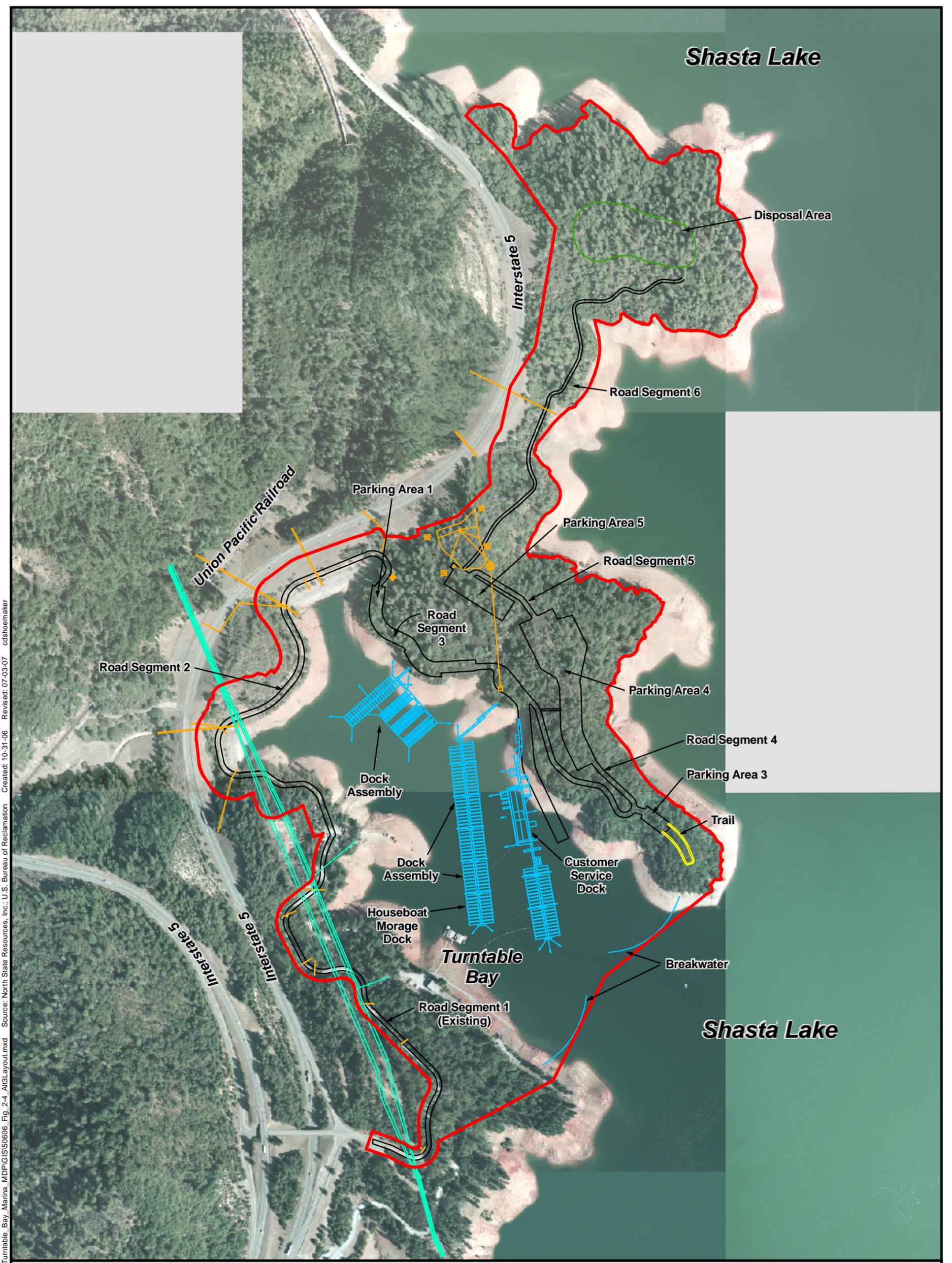
### Shasta-Trinity National Forest

Prepared By: North State Resources, Inc. Date: \_\_\_\_\_

~~Todd Johnson~~  
NATIONAL RECREATION AREA

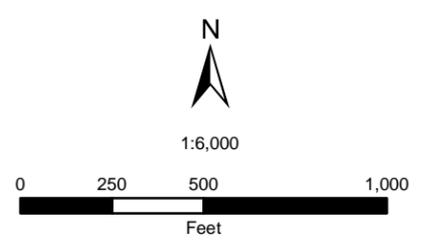
Reviewed By \_\_\_\_\_ Date: \_\_\_\_\_

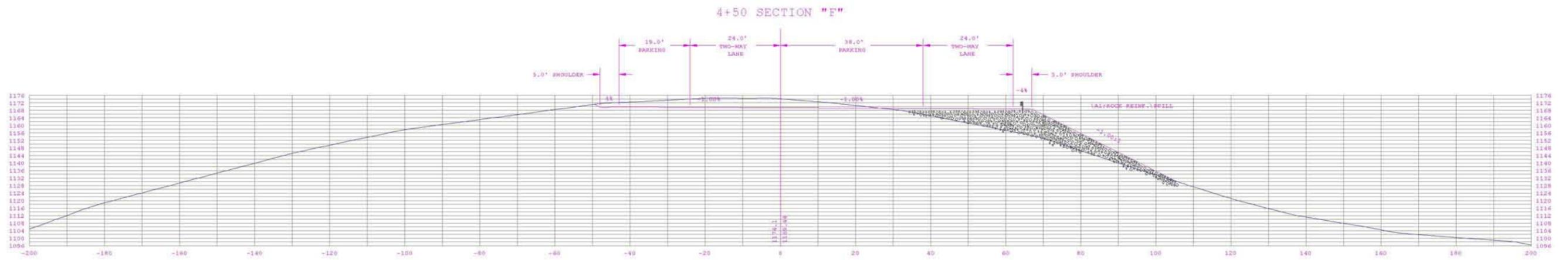
S. Kelly Wolcott and Todd Johnson  
Forest Biologists  
Shasta Trinity National Forest



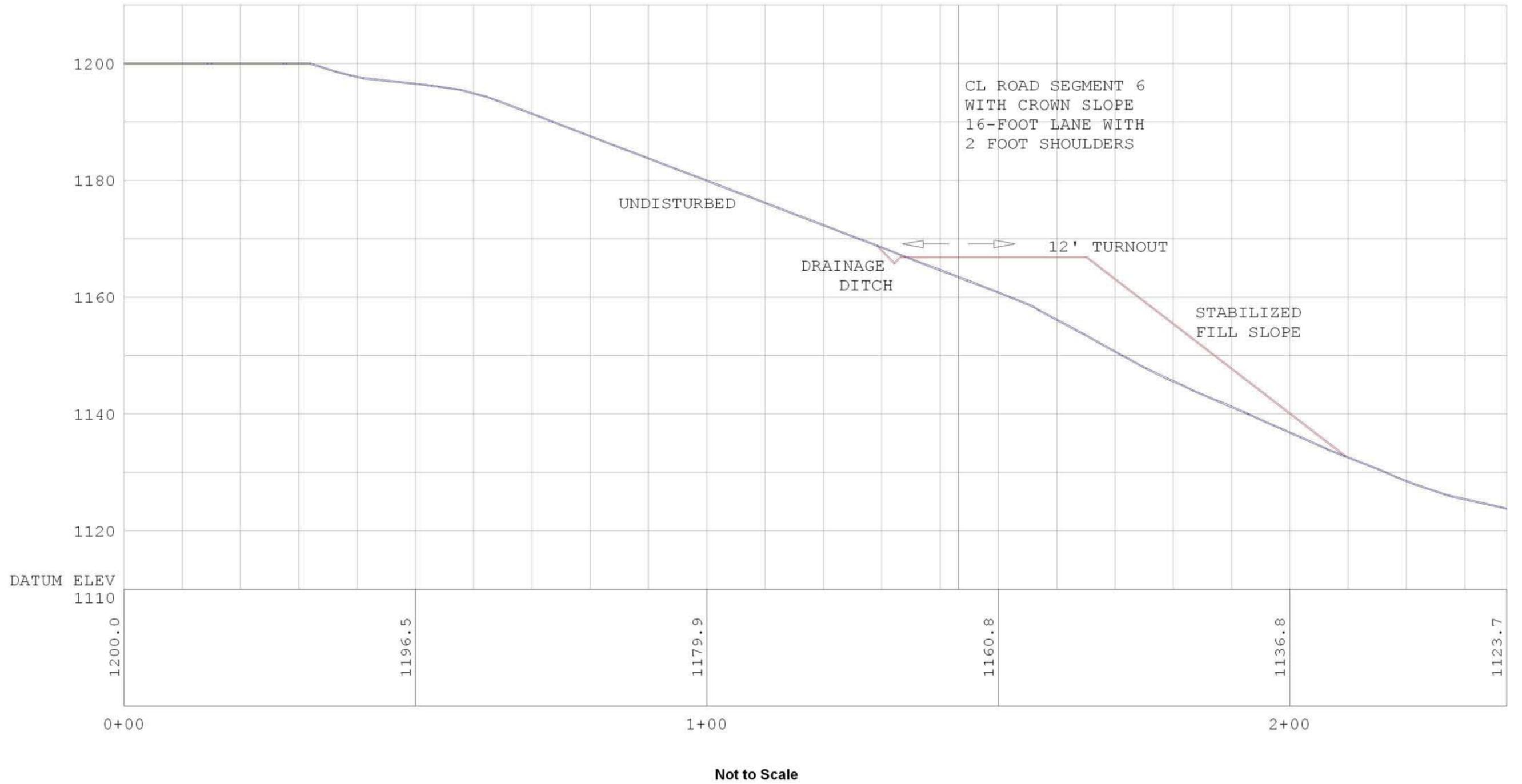
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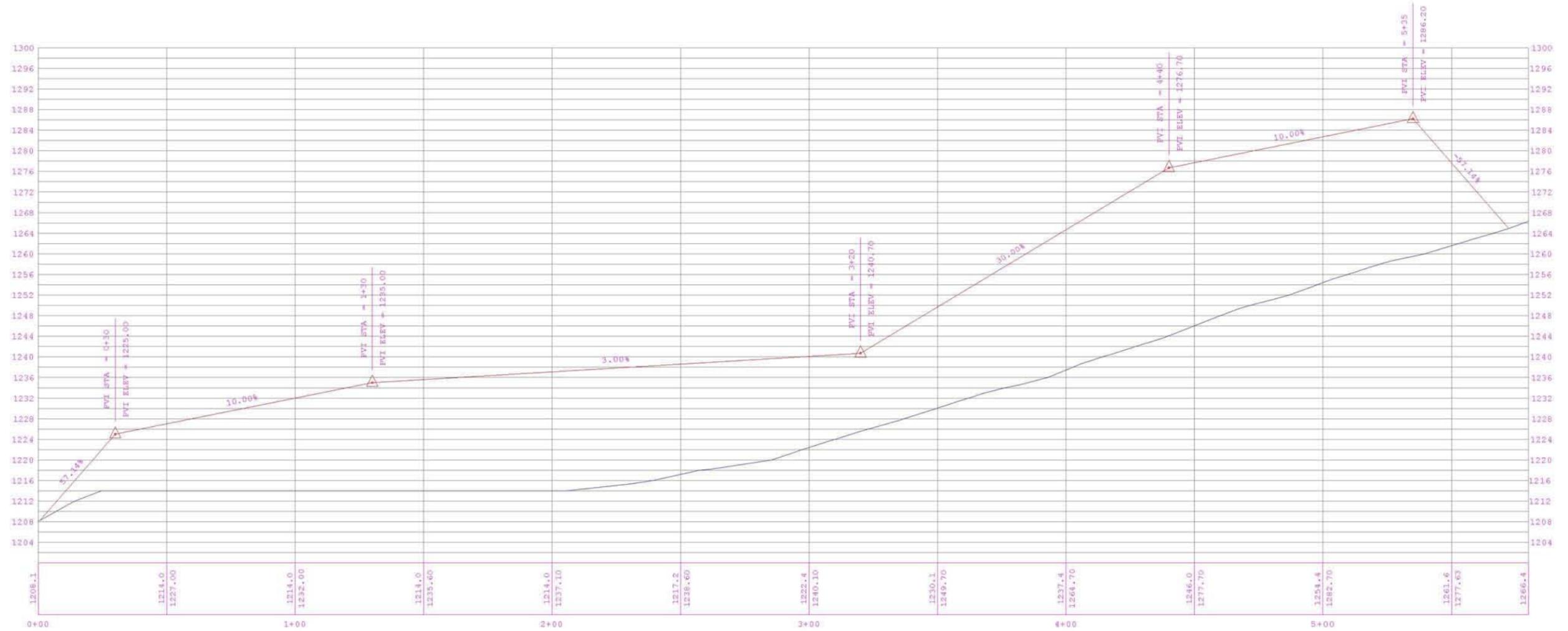
- Study Area
- Alternative 3 Project Layout**
- Boating Facilities
- Disposal Area
- Utility Infrastructure
- PG&E Utilities (Existing)
- Roads and Parking
- Trails



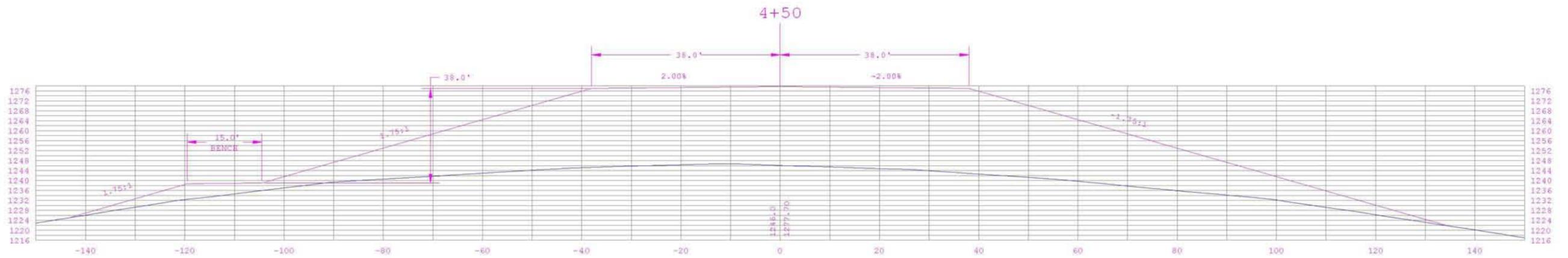


Not to Scale



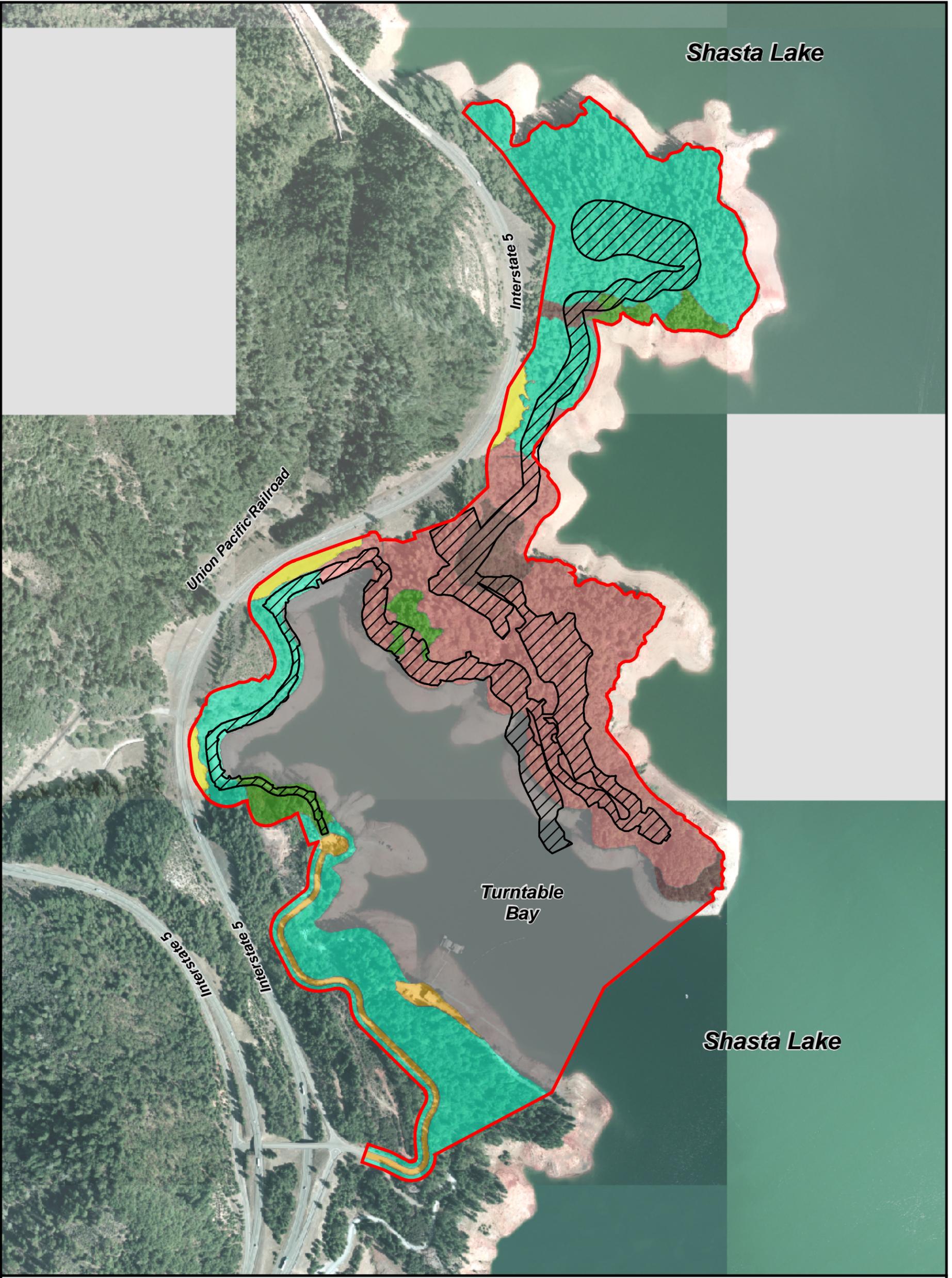


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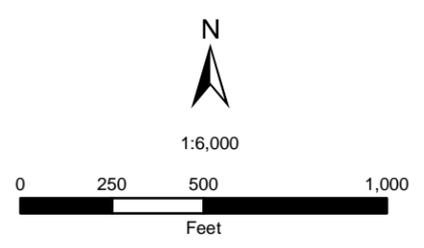
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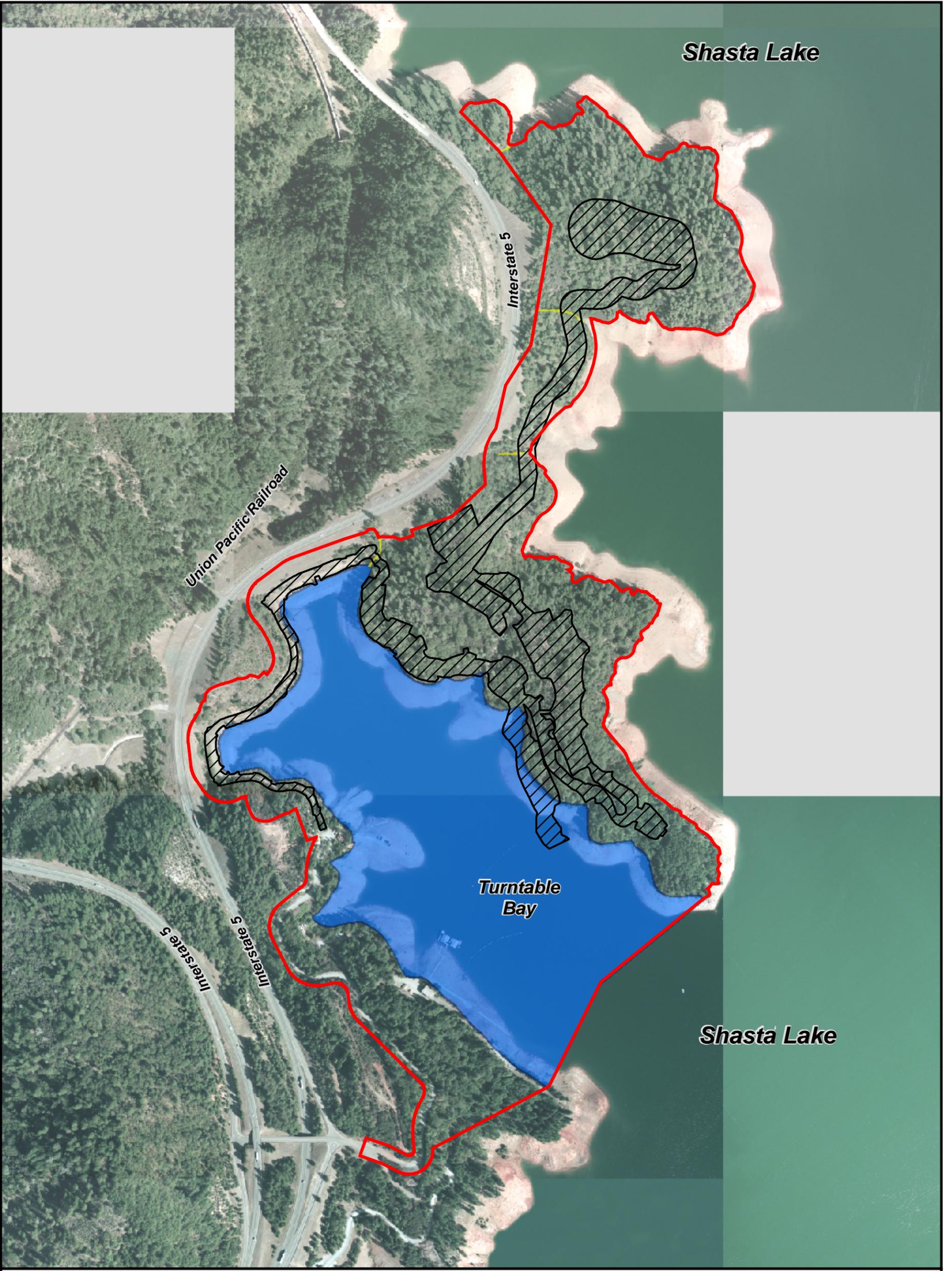


- Study Area
- Alternative 3 Impacts Footprint
- Wetlands

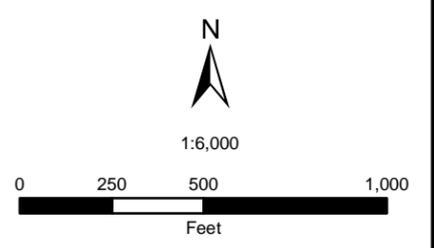
- Upland Plant Communities**
- Annual Grassland (AGS)
  - Closed-Cone Pine-Cypress (CPC)
  - Mixed Hardwood Conifer (MHC)
  - Montane Hardwood (MHW)
  - Ponderosa Pine (PPN)
  - Urban (URB)



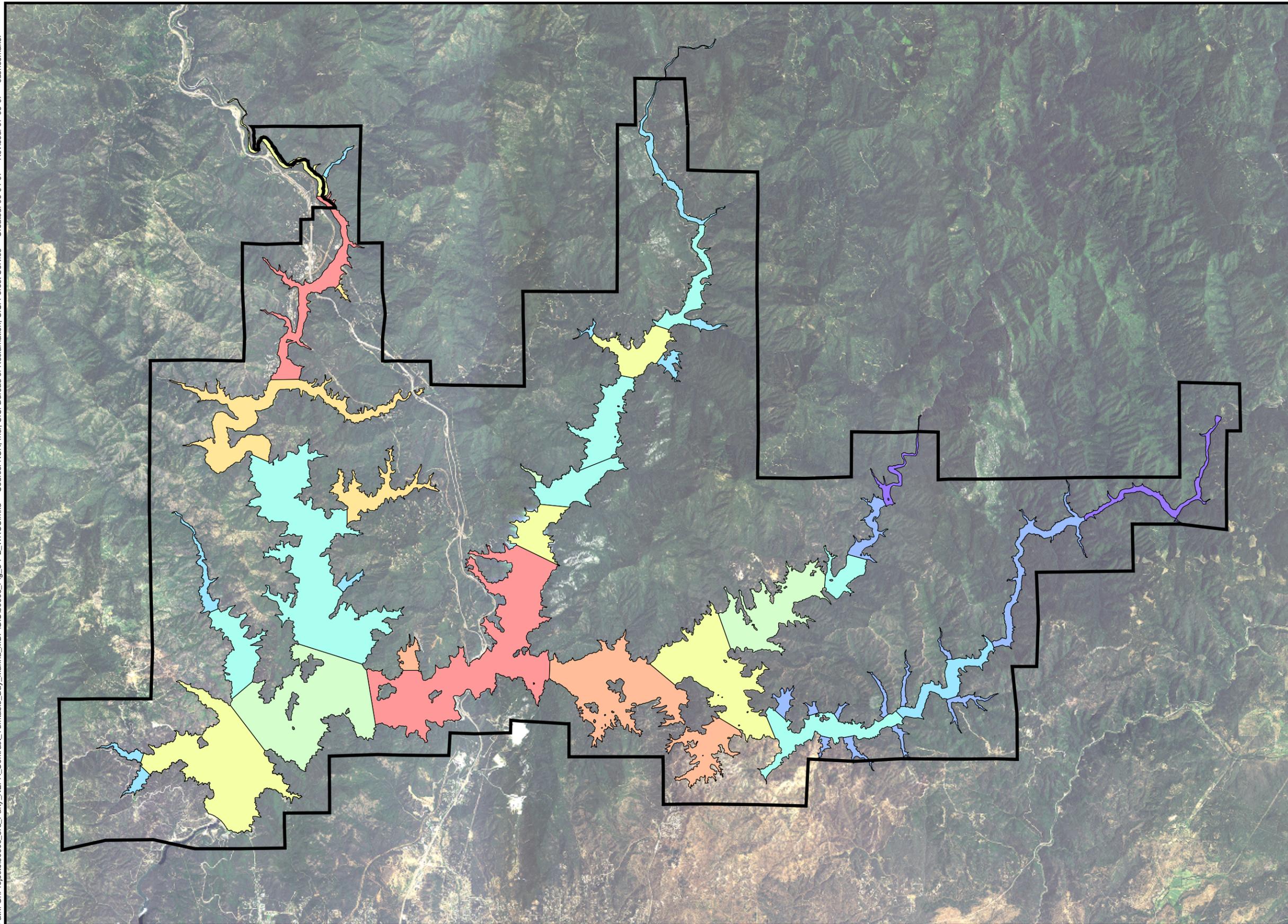
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- Study Area
- Alternative 3 Impacts Footprint
- Intermittent Creek
- Lacustrine



Path: G:\Projects\50606\_3rd\_Party\_NEPA\_Contract\_Turntable\_Bay\_Marina\_MDP\GIS\50606\_Fig\_3-7-2\_WROS.mxd Source: NSR, Inc.; U.S. Bureau of Reclamation; U.S. Forest Service Created: 06-04-07 Revised: 07-05-07 cdbhoemaker



**Legend**

- National Recreation Area (NRA)

**WROS**

**Classification (Scale Score)**

- Suburban (4)
- Rural Developed (4)
- Rural Developed (5)
- Rural Developed (6)
- Rural Natural (6)
- Rural Natural (7)
- Rural Natural (8)
- Semi-Primitive (8)
- Semi-Primitive (9)

N

1:130,000

0 1 2 4 Miles

Figure 3.7-2  
WROS in NRA

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**CHAPTER 4 DISCUSSION OF FINAL MITIGATION  
MONITORING AND REPORTING PROGRAM**

# CHAPTER 4. DISCUSSION OF FINAL MITIGATION MONITORING AND REPORTING PROGRAM

## 4.1 Introduction

Appendix A of the Draft EIS/EIR for the Turntable Bay Marina Master Development Plan (hereinafter referred to as project) provided a draft Mitigation Monitoring and Reporting Program (MMRP) for the project. This chapter addresses the elements associated with the Final MMRP and responds to comments on the mitigation measures and changes resulting from internal review by the lead agencies

Appendix 1 contains a stand-alone version of the Final MMRP that will be included in the various regulatory submittals necessary to implement this project. This appendix includes a table of comprehensive mitigation measures that are incorporated into the preferred alternative. The purpose of discussing the MMRP in the Final EIS/EIR is to reiterate to the reader the mitigation responsibilities of the USFS, the Regional Water Board, and other responsible agencies in implementing the project. The mitigation measures listed in the MMRP are required by law or regulation and will be adopted by the USFS and the Regional Water Board as part of the overall project approval.

Mitigation is defined by both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) – Section 15370 as a measure which:

- Avoids the impact altogether by not taking a certain action or parts of an action
- Minimizes impacts by limiting the degree or magnitude of the action and its implementation
- Rectifies the impact by repairing, rehabilitating, or restoring the impacted environment
- Reduces or eliminates the impact over time by preservation and maintenance operations during the life of the project
- Compensates for the impacts by replacing or providing substitute resources or environments

Mitigation measures provided in this Final MMRP are identified in Chapter 3 of the Draft EIS/EIR (as amended in this Final EIS/EIR) as feasible and effective in mitigating project-related environmental impacts. Comments received on the Draft EIS/EIR resulted in non-substantive changes to the mitigation measures contained in the Draft MMRP to clarify, and in some instances enhance, the mitigation measures identified in the Draft EIS/EIR. The revised mitigation measures are incorporated into the Final MMRP (Appendix 1).

The following section discusses specific topics related to the MMRP: legal requirements, the intent of the MMRP, the development and approval process for the MMRP, the authorities and responsibilities associated with the implementation of the MMRP, and resolution of noncompliance complaints.

## 4.2 Legal Requirements

The legal basis for the development and implementation of the MMRP lies within both CEQA (including the California Public Resources Code) and NEPA. Sections 21002 and 21002.1 of the California Public Resources Code state:

- Public agencies are not to approve projects as proposed if there are feasible alternatives or feasible mitigation measures available that would substantially lessen the significant environmental effects of such projects; and
- Each public agency shall mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so.

Section 21081.6 of the California Public Resources Code further requires that:

- The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation.
- The monitoring program must be adopted when a public agency makes its findings under CEQA so that the program can be made a condition of project approval in order to mitigate significant effects on the environment. The program must be designed to ensure compliance with mitigation measures during project implementation to mitigate or avoid significant environmental effects.

NEPA 40 CFR Section 1502.14f requires that:

- Agencies shall include appropriate mitigation measures not already included in the proposed action or alternatives.

## 4.3 Intent of the Mitigation Monitoring and Reporting Program

The MMRP is intended to satisfy the requirements of CEQA as they relate to the project. It is anticipated that the MMRP will be used by STNF and Regional Water Board staff, other participating agencies, project contractors, and mitigation monitoring personnel during implementation of the project.

The primary objective of the MMRP is to ensure the effective implementation and enforcement of adopted mitigation measures and permit conditions. The MMRP will provide for monitoring of construction activities as needed, on-site identification and resolution of environmental problems, and proper reporting to lead agency staff.

## 4.4 Timing and Verification

The timing for implementing the mitigation measures and the process for verifying that the mitigation measures have been implemented are described in detail in the MMRP.

## 4.5 Authorities and Responsibilities

Under the terms of a USFS special-use permit, the project proponent, Seven Crown Resorts (SCR), will have the primary responsibility for the execution and proper implementation of the MMRP. SCR will be responsible for the following activities:

- Coordination of monitoring activities
- Management of the preparation and filing of monitoring compliance reports
- Maintenance of records concerning the status of all approved mitigation measures

## 4.6 Summary of Monitoring Requirements

Table 1 in Appendix 1 identifies the significant impacts of the project under CEQA and summarizes the mitigation measures and associated monitoring requirements for the project. These mitigation measures are presented in the same form as originally prescribed in Chapter 3 of the Draft EIS/EIR, “Affected Environment and Environmental Consequences.” The mitigation measures are organized by environmental issue area (i.e., Land Use, Water Quality, etc.) for both the Proposed Action and the Preferred Alternative (Alternative 3). Table 1 is composed of the following four columns:

- **Mitigation Measure:** Lists the mitigation measures identified for each significant impact discussed in the Draft EIS/EIR for the project. The same mitigation numbering system used in the Draft EIS/EIR is carried forward in this MMRP.
- **Timing/Implementation:** Indicates at what point in time or project phase the mitigation measure will be implemented.
- **Responsible Parties (tasks):** Documents which agency or entity is responsible for implementing a mitigation measure and what, if any, coordination is required (e.g., approval from Caltrans). If more than one party has responsibility under a given mitigation measure, the tasks of each individual party are identified parenthetically (e.g., “implementation” or “monitoring”).
- **Verification:** Provides spaces to be initialed and dated by the individual responsible for verifying compliance with each specific mitigation measure.

## 4.7 Resolution of Noncompliance Complaints

Any person or agency may file a complaint that states noncompliance with the mitigation measures that were adopted as part of the approval process for the project. The complaint shall be directed to: Forest Service, Shasta-Trinity National Recreation Area – Shasta Lake Unit; Attention: Kristy Cottini, District Ranger; 14225 Holiday Road Redding, CA 96003. The complaint shall be in written form and provide detailed information on the purported violation. USFS shall conduct an investigation and determine the validity of the complaint. If noncompliance with a mitigation measure is verified, SCR shall take the necessary action(s) to remedy the violation. The complainant shall receive written confirmation indicating the results of the investigation or the final corrective action that was implemented to respond to the specific noncompliance issue.

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**APPENDIX 1 MITIGATION MONITORING AND  
REPORTING PROGRAM**

# FINAL MITIGATION MONITORING AND REPORTING PROGRAM

## Introduction

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This document comprises the Final Mitigation Monitoring and Reporting Program (MMRP) for the Turntable Bay Marina Master Development Plan (project). The purpose of providing the MMRP as a stand-alone document in the Final Environmental Impact Statement/Environmental Impact Report (Final EIS/EIR) is to make clear to the reader the mitigation responsibilities of the U.S. Forest Service (USFS), Regional Water Quality Control Board (Regional Water Board), and other responsible agencies in implementing the project. The mitigation measures listed herein are required by law or regulation and will be adopted by the USFS as part of the overall project approval.

Mitigation is defined by both the California Environmental Quality Act (CEQA) – Section 15370 and the National Environmental Policy Act (NEPA) as a measure which:

- Avoids the impact altogether by not taking a certain action or parts of an action
- Minimizes impacts by limiting the degree or magnitude of the action and its implementation
- Rectifies the impact by repairing, rehabilitating, or restoring the impacted environment
- Reduces or eliminates the impact over time by preservation and maintenance operations during the life of the project
- Compensates for the impacts by replacing or providing substitute resources or environments

Mitigation measures provided in this MMRP have been identified in Chapter 3, Affected Environment and Environmental Consequences of the DEIS/EIR, as feasible and effective in mitigating project-related environmental impacts.

This MMRP discusses the following topics: legal requirements, intent of the MMRP, development and approval process for the MMRP, the authorities and responsibilities associated with the implementation of the MMRP, a description of the mitigation summary table, and resolution of noncompliance complaints.

## Legal Requirements and Intent of the Mitigation Monitoring and Reporting Program

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The legal basis for the development and implementation of the MMRP lies within both CEQA (including the California Public Resources Code) and NEPA. Sections 21002 and 21002.1 of the California Public Resources Code state:

- Public agencies are not to approve projects as proposed if there are feasible alternatives or feasible mitigation measures available that would substantially lessen the significant environmental effects of such projects; and
- Each public agency shall mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so.
- Section 21081.6 of the California Public Resources Code further requires that: the public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation.
- The monitoring program must be adopted when a public agency makes its findings under CEQA so that the program can be made a condition of project approval in order to mitigate significant effects on the environment. The program must be designed to ensure compliance with mitigation measures during project implementation to mitigate or avoid significant environmental effects.

NEPA 40 CFR Sections 1502.14f requires:

- Agencies shall include appropriate mitigation measures not already included in the proposed action or alternatives

## **Intent of the Mitigation Monitoring and Reporting Program**

---

The MMRP is intended to satisfy the requirements of CEQA as they relate to the project. It is anticipated that the MMRP will be used by USFS and Regional Water Board staff, other participating agencies, project contractors, and mitigation monitoring personnel during implementation of the project.

The primary objective of the MMRP is to ensure the effective implementation and enforcement of adopted mitigation measures and permit conditions. The MMRP will provide for monitoring of construction activities as needed, on-site identification and resolution of environmental problems, and proper reporting to lead agency staff.

## **Development and Approval Process**

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The timing elements for implementing mitigation measures and the definition of the approval process has been provided in detail through this MMRP to assist staff from the USFS by providing the most usable monitoring document possible.

## **Authorities and Responsibilities**

---

Under the terms of a USFS special-use permit, the project proponent, Seven Crown Resorts (SCR), will have the primary responsibility for the execution and proper implementation of the MMRP. SCR will be responsible for the following activities:

- Coordination of monitoring activities

- Management of the preparation and filing of monitoring compliance reports
- Maintenance of records concerning the status of all approved mitigation measures

## Summary of Monitoring Requirements

---

Table 1, which identifies the significant impacts (CEQA), summarizes the mitigation measures and associated monitoring requirements proposed for the project. These mitigation measures are presented in the same form as originally prescribed in the Draft EIS/EIR - Chapter 3, Affected Environment and Environmental Consequences. The mitigation measures are organized by environmental issue area (i.e., Land Use, Water Quality, etc.) for both the Proposed Action and Alternative 2. Table 1 is comprised of the following four columns:

- **Mitigation Measure:** Lists the mitigation measures identified for each significant impact discussed in the Draft EIS/EIR for the project. The same mitigation numbering system used in the Draft EIS/EIR is carried forward in this MMRP.
- **Timing/Implementation:** Indicates at what point in time or project phase the mitigation measure will need to be implemented.
- **Responsible Parties (tasks):** Documents which agency or entity is responsible for implementing a mitigation measures and what, if any, coordination is required (e.g., approval from Caltrans). If more than one party has responsibility under a given mitigation measure, the tasks of each individual party is identified parenthetically (e.g., “implementation” or “monitoring”).
- **Verification:** Provides spaces to be initialed and dated by the individual responsible for verifying compliance with each specific mitigation measure.

## Resolution of Noncompliance Complaints

---

Any person or agency may file a complaint that states noncompliance with the mitigation measures that were adopted as part of the approval process for the project. The complaint shall be directed to: Forest Service, Shasta-Trinity National Recreation Area – Shasta Lake Unit; Attention: Kristy Cottini, District Ranger; 14225 Holiday Road Redding, CA 96003, in written form providing detailed information on the purported violation. USFS shall conduct an investigation and determine the validity of the complaint. If noncompliance with a mitigation measure is verified, SCR shall take the necessary action(s) to remedy the violation. The complaint shall receive written confirmation indicating the results of the investigation or the final corrective action that was implemented to response to the specific noncompliance issue.

**Table 1**  
**Summary of Mitigation Monitoring Requirements**

	Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date/initials)
1	<b>Impact 3.3-1: Implementation of the project could result in the degradation of Forest Soil Quality Standards related to ground cover, organic matter, and soil porosity.</b>			
	<p><b>Mitigation Measures</b>  <b>1a:</b> SCR will prepare an erosion and sedimentation control plan (Storm Water Pollution Prevention Plan [SWPPP]). The SWPPP will include measures that will minimize the compaction of soils, including limiting equipment to designated travel ways, using low-impact construction equipment. The SWPPP will also include measures to preserve topsoil from graded areas and preserve it for future use.  <b>1b:</b> Biomass will be retained on site and placed in appropriate areas to address ground cover and soil productivity requirements established by the STNF. If on-site material is inadequate to meet these requirements, additional material may be imported at the request of the STNF.</p>	Pre-construction Construction Post-construction	SCR	
2	<b>Impact 3.3-3: Construction activities associated with the project could result in increased soil erosion, mass wasting, and short-term sedimentation of Shasta Lake and its tributaries.</b>			
	<p><b>Mitigation Measures</b>  <b>3a:</b> SCR or its contractors shall implement the following measures during construction activities:</p> <ul style="list-style-type: none"> <li>▪ Areas where ground disturbance would occur shall be identified in advance of construction and limited only to those areas that have been approved by STNF.</li> <li>▪ All vehicular construction traffic shall be confined to the designated access routes and staging areas.</li> </ul>	Construction	SCR	

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date/initials)
<ul style="list-style-type: none"> <li>▪ Disturbance shall be limited to the minimum necessary to complete all rehabilitation activities.</li> <li>▪ All supervisory construction personnel shall be informed of environmental concerns, permit conditions, and final project specifications.</li> </ul> <p><b>3b:</b> SCR or its contractors shall prepare an SWPPP. The SWPPP will include measures for erosion control, which will be prioritized based on proximity to Shasta Lake. The following measures shall be used as a guide to develop this plan:</p> <ul style="list-style-type: none"> <li>▪ Restore disturbed areas to pre-construction contours to the fullest extent feasible.</li> <li>▪ Salvage, store, and use the highest quality soil for revegetation.</li> <li>▪ Discourage noxious weed competition and control noxious weeds.</li> <li>▪ Clear or remove roots from steep slopes immediately prior to scheduled construction.</li> <li>▪ Leave drainage gaps in topsoil and spoil piles to accommodate surface water runoff.</li> <li>▪ To the fullest extent possible, cease excavation activities during significantly wet or windy weather.</li> <li>▪ Use weed free rice straw and/or silt fencing as appropriate.</li> <li>▪ Before seeding disturbed soils, rip the topsoil to reduce compaction caused by construction vehicle traffic.</li> <li>▪ Spoil sites shall be located (North Point) such that they do not drain directly into a surface water feature, if possible. If a spoil site would drain into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Spoil sites shall be graded and vegetated to reduce the potential for erosion.</li> <li>▪ Sediment control measures shall be in place prior to the onset of the</li> </ul>	<p>Pre-construction Construction Post-construction</p>	<p>SCR</p>	





	<b>Mitigation Measure</b>	<b>Timing/ Implementation</b>	<b>Responsible Parties (task)</b>	<b>Verification (date/initials)</b>
	<p>nonfunctional must be repaired or replaced following their discovery or by the end of the work day if rain is imminent or if the National Weather Service has forecast a greater than 50 percent possibility of rain within the following 24 hours. In those cases where, for safety reasons, repairs cannot be made immediately, they should be completed as soon as the work can safely be performed. The overburden pile will have erosion control devices properly installed and maintained. All applicable erosion control standards will be required during stockpiling of overburden material.</p> <p><b>2c:</b> STNF shall monitor turbidity during and after rainfall events for the first year following completion of the project or until the STNF has determined that revegetation has adequately stabilized the disturbed areas. At a minimum, field turbidity measurements shall be collected whenever a visible increase in turbidity is observed.</p>	Post-construction	STNF	
<b>5</b>	<b>Impact 3.5-3: Construction of the project could cause contamination of Shasta Lake from hazardous materials spills.</b>			
	<p><b>Mitigation Measures</b></p> <p><b>3a:</b> STNF shall require that SCR prepare and implement a spill prevention and containment plan in accordance with applicable federal and state requirements.</p> <p><b>3b:</b> STNF shall require that SCR include in the construction contract documents a requirement that any construction equipment that would come in contact with Shasta Lake will need to be inspected daily for leaks. External oil, grease, and mud will be removed from equipment using steam cleaning. Untreated wash and rinse water must be adequately treated prior to discharge if that is the desired disposal option.</p> <p><b>3c:</b> STNF shall require that SCR include in the construction contract documents a requirement that hazardous materials, including fuels, oils,</p>	Pre-construction Construction	STNF/SCR	
		Pre-construction	STNF/SCR	
		Pre-construction	STNF/SCR	

	Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date/initials)
	and solvents, not be stored or transferred within 150 feet of the lake's edge. Areas for fuel storage, refueling, and servicing will be located at least 150 feet from the lake's edge. In addition, the construction contractor shall be responsible for maintaining spill containment booms onsite at all times during construction operations and/or staging of equipment or fueling supplies. Fueling trucks will maintain a spill containment boom at all times.			
<b>6</b>	<b>Impact 3.5-4: Construction and maintenance of the project could result in the degradation of the beneficial uses of Shasta Lake identified in the Basin Plan</b>			
	<p><b>Mitigation Measures</b> Mitigation measures that would reduce the significance of impacts related to sediment, settleable materials, suspended materials, turbidity, and increased stormwater runoff and subsequent potential for erosion are addressed under Impacts 3.5.1 and 3.5.2. Mitigation measures that would reduce the significance of impacts related to chemical constituents and toxicity impacts are addressed under Impact 3.5.3.</p>			
<b>7</b>	<b>Impact 3.6-3: Construction and operational activities associated with the project could result in the loss of Forest Service Sensitive or CNPS List plant and wildlife species or their habitat.</b>			
	<p><b>Mitigation Measures</b> <b>3a: Northwestern Pond Turtle</b></p> <ul style="list-style-type: none"> <li>▪ In the event that a pond turtle is observed within an active construction zone, the contractor shall temporarily halt construction activities in the immediate vicinity until the individual has been moved by a qualified biologist to a safe location outside of the construction zone but within similar habitat.</li> <li>▪ In addition, the project proponent shall implement the mitigation</li> </ul>	Construction	SCR	



Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date/initials)
<p>would result in disturbance to active roosts of non-listed special-status bats shall proceed prior to the completed surveys. If no active roosts are found, then no further action will be warranted. Because bats are known to abandon young when disturbed, if a maternity roost is located, a qualified bat biologist will determine the extent of a construction-free zone to be implemented around the roost. If either a maternity roost or hibernaculum is present, the following measures shall also be implemented. CDFG shall also be notified of any active nurseries in the construction zone.</p> <ul style="list-style-type: none"> <li>▪ If active maternity roosts or hibernacula are found, the project will be redesigned to avoid the loss of the tree occupied by the roost if feasible.</li> <li>▪ If an active nursery roost is located and the project cannot be redesigned to avoid removal of the occupied tree or structure, demolition of that tree or structure should commence before maternity colonies form (i.e., prior to March 1) or after young are volant (flying) (i.e., after July 31). The disturbance-free buffer zones described in Mitigation 1 should be observed during the maternity roost season (March 1 - July 31)</li> <li>▪ If a non-breeding bat hibernacula is found in a structure or tree scheduled to be removed, the individuals shall be safely evicted, under the direction of a qualified bat biologist (as determined by a Memorandum of Understanding with CDFG), by opening the roosting area to allow air flow through the cavity. Demolition shall then follow no less than the following day (i.e., there will be no less than one night between initial disturbance for airflow and the demolition). This action should allow bats to leave during dark hours, thus increasing their chance of finding new roosts with a minimum of potential predation during daylight. Trees with roosts that need to be removed shall first be disturbed at dusk, just prior to removal that same evening, to allow bats</li> </ul>			

	Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date/initials)
	<p>to escape during the darker hours.</p> <p><b>3d: Slender False Lupine</b> To ensure mitigation for the loss of individuals that will occur, slender false lupine will be included in the revegetation and monitoring plan for the project site. Efforts to reestablish this species could include relocation and/or propagation.</p>	<p>Pre-construction Post-construction</p>	SCR	
<b>8</b>	<p><b>Impact 3.6-4: Construction and operational activities could result in the loss of diversity and quality of habitats (including Jurisdictional Waters of the United States) that support viable populations of plants, fish, and wildlife</b></p>			
	<p><b>Mitigation Measures</b> <b>4a:</b> The following measures are recommended to avoid or minimize the potential for project-related impacts to “waters of the U.S.”, including wetlands:</p> <ul style="list-style-type: none"> <li>▪ Compensatory mitigation for direct impacts to jurisdictional waters shall be achieved through the implementation of habitat improvement measures on Shasta Lake. The measures to be implemented shall be determined in consultation with the Corps and may include, but are not limited to, the construction of manzanita brush structures, planting of willow and buttonbush (<i>Cephalanthus occidentalis</i>), and planting of annual cereal grains to improve the quality of fish habitat in the lake. Mitigation will occur at a ratio of not less than 3:1 (mitigation to impact, acreage basis).</li> <li>▪ Manzanita Brush Structures. Manzanita brush structures will be placed within draws and ravines around Shasta Lake that are close to sources of manzanita (STNF biologists will be consulted to determine the most appropriate locations for the structures.). The structures will be approximately 30 feet in diameter and approximately 10 feet in height. The structures will be placed so as to achieve a mixture of branches and</li> </ul>	<p>Pre-construction Construction Post-construction</p>	SCR	

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date/initials)
<p>open space (approximately density of 85 structures per acre), and will be constructed when the lake level is low (late-fall and winter).</p> <ul style="list-style-type: none"> <li>▪ Willow Plantings. Willows will be planted in wet draws and around seeps bordering Shasta Lake (STNF biologists will be consulted to determine the most appropriate locations for the plantings). Rooted stock will be used for plantings. Analysis of previous plantings in the area has found a long-term survival rate of approximately 10%. Thus, the initial plantings will be done at a density of 4,000 plants per acre in order to achieve a long-term survival density of 400 trees per acre.</li> <li>▪ Seeding. STNF biologists will be consulted to determine the most appropriate locations for seeding. Suitable sites require good soils, a southerly aspect, and good access and are not too steep. Such sites exist in numerous locations around Shasta Lake. Native grass seed acceptable to the STNF (cereal grains) will be planted at a density of 200 lbs/acre with fertilizer added at a density of 100 lbs/acre and mulch at 1 ton/acre.</li> </ul> <p><b>4b: Invasive Plants</b> The following measures are recommended to avoid or minimize the potential for project-related impacts from invasive plants:</p> <ul style="list-style-type: none"> <li>▪ Include C Provision 6.35, Equipment Cleaning (4/04), in all contracts.</li> <li>▪ Heavily disturbed soils will be seeded with native grass and forb seeds to discourage occupation by noxious weeds.</li> <li>▪ Annual weed monitoring of the project area will be conducted for three seasons after project completion. Monitoring and hand pulling will be done concurrently.</li> </ul>	<p>Pre-construction Construction Post-construction</p>	<p>SCR</p>	

	Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date/initials)
9	<p><b>Impact 3.6-5: Construction and operational activities associated with the project could result in the loss of species or habitat for species designated by the state as species of special concern or fully protected.</b></p> <p><b>Mitigation Measures</b>  <i>Long-eared Owl, Sharp-shinned Hawk, Cooper’s Hawk, Osprey, and Vaux’s Swift</i>                      If project construction occurs outside of the active nesting season (i.e., November 1 through February 28) no mitigation is necessary. If construction will occur during the nesting season, the following measures shall be implemented.</p> <ul style="list-style-type: none"> <li>▪ The project proponent shall retain a qualified biologist to conduct a minimum of one survey for nesting long-eared owls, sharp-shinned hawks, Cooper’s hawks, osprey and Vaux’s swifts within a 250-foot buffer around proposed construction activities. The survey may be conducted no more than one week prior to the onset of any construction activity. Active nests located within 250 feet of construction activities shall be mapped.</li> <li>▪ If an active nest (a nest containing eggs or young) is found a qualified biologist, in consultation with CDFG, will determine the extent of a construction-free buffer zone to be established around the nest. A qualified biologist shall monitor the nest(s) to determine when the young have fledged and submit status reports to the CDFG, as appropriate, throughout the nesting season. An active nest may only be removed after the young have fledged (based on field verification).</li> </ul>	Pre-construction Construction	SCR	

	Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date/initials)
<b>10</b>	<b>Impact 3.10-1: Implementation of the proposed project could result in the disturbance of previously undiscovered prehistoric or historic resources.</b>			
	<p><b>Mitigation Measures</b></p> <p><b>1a:</b> Prior to initiation of construction or ground-disturbing activities, all construction workers shall be alerted to the possibility of buried cultural remains, including prehistoric and/or historic resources. Personnel shall be instructed that upon discovery of buried cultural materials, work within 50 feet of the find shall be halted and the STNF’s designated archaeologist consulted. Once the find has been identified, the STNF will make the necessary plans for treatment of the finds(s) and for the evaluation and mitigation of impacts if the find(s) are found to be significant.</p> <p><b>1b:</b> In the event of the discovery of Native American human remains and associated items, the Native American Graves Protection Act (25 U.S.C. 3001) and its implementing regulations (43 CFR Part 10) will be followed.</p> <p><b>1c:</b> If the find is determined to be a historical resource or a unique archaeological resource, as defined by CEQA, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or other appropriate mitigation shall be made available. Work may continue on other parts of the proposed project while mitigation for historical or unique archaeological resources takes place.</p>	<p>Pre-construction Construction</p> <p>Pre-construction Construction</p> <p>Pre-construction Construction</p>	<p>SCR</p> <p>SCR</p> <p>SCR</p>	
<b>11</b>	<b>Impact 3.11-1: Construction activities associated with the project could result in an increase in fugitive dust and associated particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) levels</b>			
	<p>Mitigation Measures</p> <p><b>1:</b> SCR shall include provisions in the construction bid documents specifying that the contractor shall implement a dust control program to limit fugitive dust and particulate matter emissions. The dust control</p>	<p>Pre-construction</p>	<p>SCR</p>	

Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date/initials)
<p>program may include, but will not be limited to, the following elements, as appropriate:</p> <ul style="list-style-type: none"> <li>▪ Inactive construction areas shall be watered as needed to ensure dust control.</li> <li>▪ Pursuant to the California Vehicle Code (Section 23114), all trucks hauling soil or other loose material to and from the construction site shall be covered or should maintain adequate freeboard to ensure retention of materials within the truck’s bed (e.g., ensure 1-2 feet vertical distance between top of load and the trailer).</li> <li>▪ Excavation activities and other soil-disturbing activities shall be conducted in phases to reduce the amount of bare soil exposed at any one time. Mulching with weed free materials may be used to minimize soil erosion.</li> <li>▪ Watering with equipment and/or manually shall be conducted on all stockpiles, dirt/gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust.</li> <li>▪ All paved access roads, parking areas, and staging areas shall be swept (with water sweepers).</li> <li>▪ Roads shall be swept (with water sweepers) if visible soil material is carried onto adjacent public roads.</li> <li>▪ All ground-disturbing activities with the potential to generate dust shall be suspended when winds exceed 20 miles per hour.</li> <li>▪ The USFS or its contractor shall designate a person to monitor dust control and to order increased watering as necessary to prevent transport of dust offsite. This person will also respond to citizen complaints should any occur.</li> </ul>			

	Mitigation Measure	Timing/ Implementation	Responsible Parties (task)	Verification (date/initials)
12	<b>Impact 3.11-2: Construction activities associated with the project could result in an increase in construction vehicle exhaust emissions.</b>			
	<b>Mitigation Measures</b> 2: Motorized vehicles associated with construction shall comply with the Section 12 (§ 27153.5.) of the California Vehicle Code governing motor vehicle exhaust emissions.	Construction	SCR	
13	<b>Impact 3.15-2: Construction of the project could result in the generation of solid waste.</b>			
	<b>Mitigation Measures</b> Solid waste generated by grading and site preparation activities associated with project implementation will be transported to the North Point Disposal Area, which will be constructed in accordance with standard engineering design practices. Such practices will incorporate the mitigation measures relevant to this aspect of the project, such as erosion control, storm water management, as described in Section 3.4 (Water Resources), Section 3.5 (Water Quality), Section 3.7 (Vegetation/Wildlife), and Section 3.8 (Aesthetics).	Construction Post-construction	SCR	
14	<b>Impact 3.16-3: Construction activities could pose a safety hazard to motorists, pedestrians, and other users.</b>			
	<b>Mitigation Measures</b> 4a. SCR shall include provisions in the contract specifications that require the construction contractor to prepare and implement a traffic control plan that would include provision and maintenance of temporary access through the construction zone, reduction in speed limits through the construction zone, signage and appropriate traffic control devices, illumination during hours of darkness or limited visibility, and use of safety clothing/vests to ensure visibility of construction workers by motorists and other users.	Pre-construction	SCR	

Turntable Bay Marina  
Master Development Plan  
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**APPENDIX 2 AQUATIC CONSERVATION  
STRATEGY—CONSISTENCY EVALUATION**

# **AQUATIC CONSERVATION STRATEGY – CONSISTENCY EVALUATION**

## **Introduction**

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This evaluation provides the basis for determining the consistency of the proposed Turntable Bay Marina Master Development Plan with the Aquatic Conservation Strategy (ACS) in the Record of Decision (ROD) for the Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Related Species within the Range of the Northern Spotted Owl. The ACS was developed to restore and maintain the ecological health of watersheds and aquatic ecosystems contained within them on public lands. The ACS was incorporated into the 1994 Shasta-Trinity National Forest's Land and Resource Management Plan (1994 LRMP).

The intent of this evaluation is to ensure that the decision maker has the information necessary to determine whether the proposed management activity is consistent with the ACS objectives. This evaluation incorporates information provided in the McCloud Arm Watershed Analysis, supported by the Final Environmental Impact Statement/Environmental Impact Report for the Turntable Bay Marina Master Development Plan (Final EIS/EIR) and other information in the administrative record to assist the decision maker. In order to make the finding that a project or management action “meets” or “does not prevent attainment” of the ACS objectives, the decision maker must ensure that management actions that do not maintain the existing condition or lead to improved conditions in the long term would not be implemented.

The ACS acknowledges that species-specific strategies aimed at defining explicit standards for habitat elements would be insufficient for protecting even the targeted species. The intent of the ACS is to maintain and restore ecosystem health at watershed and landscape scales to protect habitat for fish and other riparian-dependent species and resources and to restore currently degraded habitats. This approach seeks to prevent further habitat degradation and restore habitat over broad landscapes as opposed to implementing individual projects or focusing on small watersheds. Because the ACS is based on natural disturbance processes, the ROD recognized that it is a long-term strategy that may take decades, and possibly more than a century, to accomplish all of its objectives.

The ACS contains four components: riparian reserves, key watersheds, watershed analysis, and watershed restoration. Each component is integral to improving the health of the aquatic ecosystems encompassed by the ROD. A detailed discussion of these components is provided in the ROD.

As part of the 1994 LRMP, the STNF adopted the specific land allocations described in Attachment A to the ROD. Under the 1994 LRMP, these land allocations are managed primarily to protect and enhance late-successional and old growth forest-related species. The attachment also includes the Standards and Guidelines (S&Gs) that were incorporated into the 1994 LRMP to ensure compliance with the ROD. Through the land

allocation process, a hierarchy of seven land allocations was developed for the STNF that correspond to the hierarchy described in Attachment A to the ROD.

1. Congressional Reserved Areas – Includes Wilderness, federal Wild and Scenic Rivers, National Monuments and other federal lands not administered by the Forest Service or BLM [Bureau of Land Management].
2. Late Successional Reserves – Lands identified with an objective to protect and enhance conditions for late-successional and old-growth forest ecosystems.
3. Adaptive Management Areas – Areas with objectives to develop and test new management approaches to integrate ecological and economic health and other social objectives.
4. Managed Late-Successional Areas – Specific Late Successional areas in the drier provinces where regular and frequent fire is a natural part of the ecosystem.
5. Administratively Withdrawn Areas – Areas identified in current Forest and District Plans or draft plan preferred alternatives. These areas include recreation and visual areas, back country and other areas where management emphasis precludes scheduled timber harvest.
6. Riparian Reserves – As a key component of the ACS, Riparian Reserves provide an area along all streams, wetlands, ponds, lakes and unstable/potentially unstable areas where riparian dependent resources receive primary emphasis. These reserves are important to the terrestrial ecosystem as well, providing connectivity corridors and dispersal habitat for certain terrestrial species.
7. Matrix – The matrix consists of those federal lands outside the six previous allocations.

There are two land allocations within the project boundary described in the Final EIS/EIR: Riparian Reserves and Matrix. This evaluation focuses on Riparian Reserves as illustrated on Figure A, Riparian Reserves – Turntable Bay Master Development Plan. Figure A identifies Riparian Reserves associated with the shoreline of Shasta Lake as well as three small streams that enter Shasta Lake from the west.

The following sections of this evaluation address the project’s consistency with the four components of the ACS and the nine ACS objectives described in Attachment B to the ROD.

## **Components of the Aquatic Conservation Strategy**

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### **Riparian Reserves**

The project area contains Riparian Reserves, as defined in the STNF’s 1994 LRMP. As shown on Figure A, these areas are adjacent, or in close proximity, to Shasta Lake. The designated widths of these Riparian Reserves are consistent with the S&Gs described on page 4-54 of the 1994 LRMP. The width of the Riparian Reserve established for the shoreline of Shasta Lake, a constructed reservoir, is 150 feet slope distance from the full-

pool elevation of 1070 feet mean sea level. The width of the Riparian Reserve for the three intermittent streams within the project boundary is 100 feet slope distance. Table 1 at the end of this document provides the S&Gs that were integrated into the preferred alternative.

## Key Watersheds

The watersheds upstream of Shasta Lake, including all lands managed by the STNF, were not designated as key watersheds in the ROD and, subsequently, in the LRMP. This component of the ACS is therefore not applicable to the project described in the Final EIS/EIR.

## Watershed Analysis

The STNF conducted a watershed analysis of the McCloud Arm of Shasta Lake. This analysis provided specific recommendations regarding the Riparian Reserve widths that were incorporated into the action alternatives described in the Final EIS/EIR. The watershed analysis did not specifically discuss the recreation activities or developments on Shasta Lake. Specifically, the analysis recommended that the widths of Riparian Reserves should be consistent with those established on pages 4-53 and 4-54 of the 1994 LRMP. Site-specific investigations confirmed that these widths are adequate to ensure consistency with the ACS.

## Watershed Restoration

By its nature, the development of full-service marina at Turntable Bay, specifically the land-based activities described in the Final EIS/EIR, will result in impacts to natural resources. Although watershed restoration is not a primary objective of the proposed action, the mitigation measures described in the Final EIS/EIR are intended to function in a restorative fashion to varying degrees.

## Aquatic Conservation Strategy Objectives

The following section evaluates the consistency of the preferred alternative with the nine ACS objectives listed in Attachment B of the ROD.

*The lands managed by the STNF within the range of the northern spotted owl will be managed to:*

1. *Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations, and communities are uniquely adapted.*

Turntable Bay, a small cove on the McCloud Arm of Shasta Lake, was identified in the 1994 LRMP as an alternative location for a recreational facility that supports water-based recreation within the Shasta Unit of the Whiskeytown-Shasta-Trinity National Recreation Area (NRA). Subsequently, the NRA Management Guide reinforced the Turntable Bay location as the recommended site for development of a marina. To the extent possible, the preferred alternative identified in the Final EIS/EIR was developed to maintain the

distribution, diversity, and complexity of watershed- and landscape-scale features, consistent with the requirements established in the authorizing legislation for the NRA.

2. *Maintain and restore spatial and temporal connectivity within and between watersheds. Lateral, longitudinal, and drainage network connections include floodplains, wetlands, upslope areas, headwater tributaries, and intact refugia. These network connections must provide chemically and physically unobstructed routes to areas critical for fulfilling life history requirements of aquatic and riparian-dependent species.*

The project boundary illustrated in the Final EIS/EIR includes several small first-order watersheds that are tributary to Shasta Lake, a large constructed reservoir that is the keystone for the Bureau of Reclamation's Central Valley Project (CVP). An interstate highway (I-5) and a railway system (Union Pacific) that run between Shasta Lake and the headwaters of these watersheds preclude the ability to restore spatial and temporal connectivity at this scale. The preferred alternative will maintain the existing connectivity by incorporating the applicable S&Gs for Riparian Reserves and will not prevent future attainment of this ACS objective.

3. *Maintain and restore the physical integrity of the aquatic system, including shorelines, banks and bottom configurations.*

As a constructed reservoir, Shasta Lake is operated as a storage facility in conjunction with other CVP facilities. While it does provide habitat for a variety of aquatic organisms, the fluctuating water levels result in a constantly changing shoreline that is essentially devoid of riparian vegetation adjacent to Turntable Bay. The operational impacts of the CVP along more than 400 miles of shoreline outweigh the localized effects to the physical integrity of the aquatic environment that could result from implementation of the preferred alternative, including the construction of a boat launch ramp. The preferred alternative also includes slope protection measures intended to maintain the physical integrity of the shoreline of Turntable Bay, therefore not preventing attainment of this ACS objective.

4. *Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. Water quality must remain within the range that maintains the biological, physical, and chemical integrity of the system and benefits survival, growth, reproduction, and migration of individuals composing aquatic and riparian communities.*

The preferred alternative described in the Final EIS/EIR incorporates Best Management Practices to ensure that effects on water quality are minimized. Additionally, mitigation measures were developed to further reduce potentially significant impacts effects on water quality from construction and operation of the proposed facilities. In addition to STNF authorization, the project will require the following discretionary approvals related to the Clean Water Act: Section 401 water quality certification and Section 404 permit and waste discharge requirements. These authorizations are intended to ensure that the preferred alternative meets the water quality standards established by the Regional Water Quality Control Board, Central Valley Region (Regional Water Board). As proposed, this project would be consistent with the requirements of the Regional Water Board and therefore would not prevent attainment of this ACS objective.

5. *Maintain and restore the sediment regime under which aquatic ecosystems evolved. Elements of the sediment regime include the timing, volume, rate, and character of sediment input, storage, and transport.*

The aquatic ecosystem of Shasta Lake is directly related to the storage of water and sediment from upstream sources. Additionally, the sediment regime within the watersheds generally associated with the project are influenced by rural housing development, the I-5/Union Pacific transportation corridor, and shoreline erosion resulting from the construction and operation of Shasta Lake. The three small tributaries that enter Shasta Lake within the project boundary are essentially runoff conveyance features from I-5.

The preferred alternative, including the specific mitigation measures described in the Final EIS/EIR, will result in some sediment input into Shasta Lake over time. While there may be a change in the timing or volume of sediment input, any incidental increase would not be measurable at the scale of Shasta Lake and not prevent attainment of this ACS objective.

6. *Maintain and restore in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing. The timing, magnitude, duration, and spatial distribution of peak, high, and low flows must be protected.*

The preferred alternative will not influence any in-stream flows. No modifications to the flow regime of the three small channels located within the project boundary are proposed; therefore, this ACS objective would be met.

7. *Maintain and restore the timing, variability, and duration of floodplain inundation and water table elevation in meadows and wetlands.*

There are no floodplains, meadows, or wetlands within, or in close proximity to, the project boundary. While Shasta Lake meets the Army Corps of Engineers' definition of a "Water of the United States," it is a man-made storage facility and this ACS objective would be met.

8. *Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration and to supply amounts and distributions of coarse woody debris sufficient to sustain physical complexity and stability.*

With the exception of small strips of riparian habitat on either side of the intermittent streams, the area surrounding Shasta Lake is devoid of functional riparian habitat. The preferred alternative may, in fact, enhance the STNF's ability to establish some riparian habitat in select locations along the shoreline of Turntable Bay by taking advantage of slope stabilization techniques to enhance native vegetation, including riparian plantings as appropriate. These slope stabilization measures are also intended to decrease the wave-related erosion along the shoreline of Turntable Bay, therefore meeting this ACS objective.

9. *Maintain and restore habitat to support well-distributed populations of native plant, invertebrate, and vertebrate riparian-dependent species.*

The riparian-dependent species associated with Shasta Lake are typically located in close proximity to well-defined riparian corridors associated with streams. As stated previously, while the project boundary includes three small intermittent streams, they are functionally truncated by the presence of I-5 and the railroad tracks immediately upslope from Turntable Bay. Therefore, the preferred alternative will not prevent attainment of this ACS objective.

## **Conclusion**

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Based on this evaluation, I find that the preferred alternative identified in the Final EIS/EIR has been designed and would be constructed in a manner that does not prevent future attainment of the Aquatic Conservation Strategy objectives. The management actions incorporated into the preferred alternative will maintain the existing condition or lead to improved conditions in the long term, consistent with the intent of the Aquatic Conservation Strategy.

**Table 1. ACS Applicable Standards and Guidelines***All Land Allocations*

Survey and Manage	2	<i>Survey prior to ground disturbing activities.</i>
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*Riparian Reserves*

Timber Management	TM 1-c	Apply silvicultural practices for Riparian Reserves to control stocking, reestablish and manage stands, and acquired desired vegetation characteristics needed to attain ACS objectives.
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Roads Management	RF-1	Federal, state, and county agencies should cooperate to achieve consistency in road design, operation, and maintenance necessary to attain Aquatic Conservation Strategy objectives.
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	RF-2	For each existing or planned road, meet Aquatic Conservation Strategy objectives by:
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	RF-2a	Minimizing road and landing locations in Riparian Reserves.
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	RF-2b	Completing watershed analyses (including appropriate geotechnical analyses) prior to construction of new roads or landings in Riparian Reserves.
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	RF-2c	Preparing road design criteria, elements, and standards that govern construction and reconstruction.
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	RF-2d	Preparing operation and maintenance criteria that govern road operation, maintenance, and management.
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	RF-2e	Minimizing disruption of natural hydrologic flow paths, including diversion of streamflow and interception of surface and subsurface flow.
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	RF-2f	Restricting sidecasting as necessary to prevent the introduction of sediment to streams.
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RF-3	Determine the influence of each road on the Aquatic Conservation Strategy objectives through watershed analysis. Meet Aquatic Conservation Strategy objectives by:
RF-3a	Reconstructing roads and associated drainage features that pose a substantial risk.
RF-3b	Prioritizing reconstruction based on current and potential impact to riparian resources and the ecological value of the riparian resources affected.
RF-3c	Closing and stabilizing, or obliterating and stabilizing roads based on the ongoing and potential effects to Aquatic Conservation Strategy objectives and considering short-term and long-term transportation needs.
RF-4	New culverts, bridges and other stream crossings shall be constructed, and existing culverts, bridges and other stream crossings determined to pose a substantial risk to riparian conditions will be improved, to accommodate at least the 100-year flood, including associated bedload and debris. Priority for upgrading will be based on the potential impact and the ecological value of the riparian resources affected. Crossings will be constructed and maintained to prevent diversion of streamflow out of the channel and down the road in the event of crossing failure.
RF-5	Minimize sediment delivery to streams from roads. Outsloping of the roadway surface is preferred, except in cases where outsloping would increase sediment delivery to streams or where outsloping is unfeasible or unsafe. Route road drainage away from potentially unstable channels, fills, and hillslopes.
RF-7	Develop and implement a Road Management Plan or a Transportation Management Plan that will meet the Aquatic Conservation Strategy objectives. As a minimum, this plan shall include provisions for the following activities:
RF-7a	Inspections and maintenance during storm events.
RF-7b	Inspections and maintenance after storm events.

	RF-7c	Road operation and maintenance, giving high priority to identifying and correcting road drainage problems that contribute to degrading riparian resources.
	RF-7d	Traffic regulation during wet periods to prevent damage to riparian resources.
	RF-7e	Establish the purpose of each road by developing the Road Management Objective.
Recreation Management	RM-1	New recreational facilities within Riparian Reserves, including trails and dispersed sites, should be designed to not prevent meeting Aquatic Conservation Strategy objectives. Construction of these facilities should not prevent future attainment of these objectives. For existing recreation facilities within Riparian Reserves, evaluate and mitigate impact to ensure that these do not prevent, and to the extent practicable contribute to, attainment of Aquatic Conservation Strategy objectives.
Lands	LH-2	Tier 1 Key Watersheds: For hydroelectric and other surface water development proposals, require in-stream flows and habitat conditions that maintain or restore riparian resources, favorable channel conditions, and fish passage. Coordinate this process with the appropriate state agencies. During relicensing of hydroelectric projects, provide written and timely license conditions to the Federal Energy Regulatory Commission (FERC) that require flows and habitat conditions that maintain or restore riparian resources and channel integrity. Coordinate relicensing projects with the appropriate state agencies.
	LH-3	Locate new support facilities outside Riparian Reserves. For existing support facilities inside Riparian Reserves that are essential to proper management, provide recommendations to FERC that ensure Aquatic Conservation Strategy objectives are met. Where these objectives cannot be met, provide recommendations to FERC that such support facilities should be relocated. Existing support facilities that must be located in the Riparian Reserves will be located, operated, and maintained with an emphasis to eliminate adverse effects that retard or prevent attainment of Aquatic Conservation Strategy objectives.

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	LH-4	For activities other than surface water developments, issue leases, permits, rights-of-way, and easements to avoid adverse effects that retard or prevent attainment of Aquatic Conservation Strategy objectives. Adjust existing leases, permits, rights-of-way, and easements to eliminate adverse effects that retard or prevent the attainment of Aquatic Conservation Strategy objectives. If adjustments are not effective, eliminate the activity. Priority for modifying existing leases, permits, rights-of-way and easements will be based on the actual or potential impact and the ecological value of the riparian resources affected.
General Riparian Area Management	RA-2	Fell trees in Riparian Reserves when they pose a safety risk. Keep felled trees on-site when needed to meet coarse woody debris objectives.
	RA-3	Herbicides, insecticides, and other toxicants, and other chemicals shall be applied only in a manner that avoids impacts that retard or prevent attainment of Aquatic Conservation Strategy objectives.

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