

FOLSOM

Folsom Lake State Recreation Area & Folsom Powerhouse State Historic Park
General Plan/Resource Management Plan



Volume 1: Chapters I – III
FINAL GENERAL PLAN &
RESOURCE MANAGEMENT PLAN

Approved by the State Park & Recreation Commission on October 8, 2009

Prepared for
California Department of Parks and Recreation and
United States Department of the Interior, Bureau of Reclamation

June 2010



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Prepared for

California Department of Parks and Recreation

Arnold Schwarzenegger, Governor
Mike Chrisman, Secretary for Resources
Ruth Coleman, Director of Parks and Recreation

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United States Department of the Interior, Bureau of Reclamation

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June 2010



Resolution 21-2009
Adopted by the
CALIFORNIA STATE PARK AND RECREATION COMMISSION
at its regular meeting in Sacramento, California
October 8, 2009

**General Plan and Environmental Impact Report
Folsom Lake State Recreation Area**

WHEREAS, the Director of the California Department of Parks and Recreation has presented to this Commission for approval the proposed General Plan and Environmental Impact Report ("Plan") for Folsom Lake State Recreation Area; and

WHEREAS, the Plan provides conceptual goals and guidelines for the long-term management, development, operation, and future use and enjoyment of the unit, and replaces the unit's 1979 General Plan and its subsequent amendments; and

WHEREAS, the Plan includes both Folsom Lake State Recreation Area and Folsom Powerhouse State Historic Park in a single document Plan and EIR for the purposes of continuity, but will be approved in separate resolutions; and

WHEREAS, the Plan and environmental analysis were prepared in cooperation with the U.S. Bureau of Reclamation and will serve as a Resource Management Plan and Environmental Impact Statement to meet federal requirements; and

WHEREAS, Public Resources Code Section 5002.2 requires compliance with the California Environmental Quality Act (CEQA - Public Resources Code 21000 et seq.) and specifies the preparation of an Environmental Impact Report (EIR) as part of a general plan, providing discussion, disclosure and analysis of the probable impacts of future development, and establishing goals, policies and guidelines addressing the requirements of an EIR; and

WHEREAS, the Plan and EIR function as a "tiered EIR" pursuant to Public Resources Code Section 21093, covering general goals and guidelines of the Plan, and the appropriate level of CEQA review for each subsequent project relying on the Plan;

NOW THEREFORE BE IT RESOLVED: That this Commission has reviewed and considered the information and analysis in the Plan prior to approving the Plan, and this Commission finds and certifies that the Plan reflects the independent judgment and analysis of this Commission and has been completed in accordance with the California Environmental Quality Act; and be it

RESOLVED: In connection with its review prior to approving the General Plan, this Commission independently finds that the environmental conclusions contained in the Environmental Analysis Section of the Plan are supported by facts therein and that each fact in support of the findings is true and is based on substantial evidence in the record and that mitigation measures, guidelines, or other changes or alterations have been incorporated into the Plan which will avoid or substantially lessen the potential impacts identified in the Plan; and be it

CONTINUED FROM PAGE 1

RESOLVED: That the location and custodian of the Plan and other materials which constitute the record of proceeding on which the Commission's decision is based is: California State Park and Recreation Commission, P.O. Box 942896, Sacramento, California 94296-0001, Telephone 916/653-0524, Facsimile 916/653-4458; and be it

RESOLVED: That the California State Park and Recreation Commission hereby approves the Department of Parks and Recreation's General Plan and Environmental Impact Report prepared for Folsom Lake State Recreation Area dated August 2009; and be it

RESOLVED: That a Notice of Determination will be filed with the Office of Planning and Research within five days of this approval.

Attest: This Resolution was duly adopted by the California State Park and Recreation Commission on October 8, 2009 at the Commission's duly-noticed public meeting at Sacramento, California.

By: 

Date: 10.8.09

Louis Nastro
Assistant to the Commission
For Ruth Coleman, Director
California State Parks
Secretary to the Commission



Resolution 22-2009
Adopted by the
CALIFORNIA STATE PARK AND RECREATION COMMISSION
at its regular meeting in Sacramento, California
October 8, 2009

**General Plan and Environmental Impact Report
Folsom Powerhouse State Historic Park**

WHEREAS, the Director of the California Department of Parks and Recreation has presented to this Commission for approval the proposed General Plan and Environmental Impact Report ("Plan") for Folsom Powerhouse State Historic Park; and

WHEREAS, the Folsom Powerhouse was formerly part of Folsom Lake State Recreation Area and was classified as a separate State Historic Park by this Commission in 1995; and

WHEREAS, the Plan provides conceptual goals and guidelines for the long-term management, development, operation and future use and enjoyment of this unit as a State Historic Park, and the Plan replaces the unit's 1979 General Plan and its subsequent amendments; and

WHEREAS, the Plan includes both Folsom Powerhouse State Historic Park and Folsom Lake State Recreation Area in a single document Plan and EIR for the purposes of continuity, but will be approved in separate resolutions; and

WHEREAS, the Plan and environmental analysis were prepared in cooperation with the U.S. Bureau of Reclamation and will serve as a Resource Management Plan and Environmental Impact Statement to meet federal requirements; and

WHEREAS, Public Resources Code Section 5002.2 requires compliance with the California Environmental Quality Act (CEQA - Public Resources Code 21000 et seq.) and specifies the preparation of an Environmental Impact Report (EIR) as part of a General Plan, providing discussion, disclosure and analysis of the probable impacts of future development and establishing goals, policies and guidelines addressing the requirements of an EIR; and

WHEREAS, the Plan and EIR function as a "tiered EIR" pursuant to Public Resources Code Section 21093, covering general goals and guidelines of the Plan, and the appropriate level of CEQA review for each subsequent project relying on the Plan;

NOW, THEREFORE BE IT RESOLVED: That this Commission has reviewed and considered the information and analysis in the Plan prior to approving the Plan, and this Commission finds and certifies that the Plan reflects the independent judgment and analysis of this Commission and has been completed in accordance with the California Environmental Quality Act; and be it

CONTINUED FROM PAGE 1

RESOLVED: In connection with its review prior to approving the General Plan, this Commission independently finds that the environmental conclusions contained in the Environmental Analysis Section of the Plan are supported by facts therein and that each fact in support of the findings is true and is based on substantial evidence in the record and that mitigation measures, guidelines or other changes or alterations have been incorporated into the Plan which will avoid or substantially lessen the potential impacts identified in the Plan; and be it

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RESOLVED: That the California State Park and Recreation Commission hereby approves the Department of Parks and Recreation's General Plan and Environmental Impact Report prepared for Folsom Powerhouse State Historic Park dated August 2009; and be it

RESOLVED: That a Notice of Determination will be filed with the Office of Planning and Research within five days of this approval.

Attest: This Resolution was duly adopted by the California State Park and Recreation Commission on October 8, 2009 at the Commission's duly-noticed public meeting at Sacramento, California.

By: _____

Date: _____

10.8.09

Louis Nastro
Assistant to the Commission
For Ruth Coleman, Director
California State Parks
Secretary to the Commission

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FOLSOM

General Plan/Resource Management Plan



EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

A. PARK DESCRIPTIONS

Folsom Lake State Recreation Area (SRA) and Folsom Powerhouse State Historic Park (SHP) are located at the confluence of the North and South Forks of the American River in the Sierra Nevada Foothills at the eastern edge of the Sacramento metropolitan region. Encompassing approximately 19,500 acres of water and land, the SRA extends across the boundaries of three counties (El Dorado, Placer, and Sacramento) as well as the City of Folsom and the communities of Orangevale, El Dorado Hills and Granite Bay. Folsom Lake SRA and Folsom Powerhouse SHP are composed of both Federal lands and waters (17,300 acres) administered by the U.S. Bureau of Reclamation (Reclamation) and State-owned lands (2,200 acres) acquired by the California Department of Parks and Recreation (State Parks). The Federal lands in both units are managed by State Parks through a lease agreement with Reclamation.

1. Folsom Lake SRA

Situated within the westernmost extent of the Sierra Nevada Foothills, the Folsom Lake SRA landscape consists of two reservoirs—Folsom Lake and Lake Natoma—surrounded by rolling oak-studded foothills, upland plateaus and deep river canyons carved by the North and South Forks of the American River. The dams and reservoirs were created as part of the Central Valley Water Project and the primary function of the reservoirs is to provide flood control, water supply and power generation. The two reservoirs are the unit's dominant physical features.

Folsom Lake, the larger of the two reservoirs, includes roughly 11,500 surface acres at full pool and over 75 miles of undulated shoreline that provides numerous and varied opportunities for water-dependent and land-based recreation activities and support facilities. Lake Natoma, an afterbay of Folsom Dam and Reservoir, is located about one mile below Folsom Dam. The long, narrow lake includes approximately 540 surface acres and 14 miles of highly scenic riparian shoreline and also displays the effects of past mining activities in the form of cobblestone dredge tailing piles up to several stories high.

With an average of 1.5 million visitors over the past five years, the Folsom Lake SRA is one of the most popular units in the State Parks system. This popularity is due largely to the location of the SRA within a growing metropolitan area, good highway access, and

opportunities for use year-round – although 75 percent of all visits occur during the warmer spring and summer months. Recreation facilities within the SRA include a marina, boat launch areas, swimming beaches, campgrounds, landscaped picnic areas, food and equipment concessions, interpretive facilities, scenic overlooks, restrooms, trailhead facilities and more than 90 miles of dirt trails and paved paths. Popular aquatic activities in the SRA include boating, personal water craft use, water skiing, wake boarding, sailing, rafting, rowing, paddling, swimming, and fishing. Upland activities include hiking, biking, picnicking, camping, and horseback riding. Lake Natoma is primarily managed for non-motorized and slow speed aquatic recreation use such as rowing, paddling and fishing. The Sacramento State Aquatic Center is located on Lake Natoma and functions through an operating agreement between State Parks and the university.

The SRA supports nine major vegetation communities typical of the lower foothills of California's Central Valley, including blue oak woodland/savanna, interior live oak woodland, chemise chaparral and annual grasslands. These communities provide habitat for a diverse mix of terrestrial and aquatic fauna, including several special status species.

As a cultural resource, the SRA is rich in history spanning more than 4,000 years and contains at least 229 known archaeological sites that are both prehistoric and historic in nature. Mining, settlement, and water development are dominant themes associated with the historic archaeological sites identified within the SRA. Remnants of buildings, roads, bridges and ditches associated with these historic activities can be found throughout the SRA. Many of the cultural sites are located below the full pool level of Folsom Lake and some of these sites get exposed at low lake levels.

2. Folsom Powerhouse SHP

The thirty five-acre Folsom Powerhouse State Historic Park (SHP) is located adjacent to Folsom Lake SRA along the southern shoreline of Lake Natoma. The Powerhouse was managed as a portion of Folsom Lake SRA until 1995 when it was classified as a separate unit within the State Park System to acknowledge the special historical significance of the site. The Folsom Powerhouse represents one of the oldest hydroelectric facilities in the world and the nation's first power system to provide high-voltage alternating current over long distance transmission lines. The historic structures that form the core of the SHP include the main powerhouse and turbine room, the pump room, transformers and switches, the lower powerhouse, the blacksmith shop, forebay, spillways and about one half mile of the canal that once brought water to the Powerhouse from the original Folsom Dam. The Folsom Powerhouse is listed on the National Register of Historic Places. It is also listed as a

California Historical Landmark, National Historic Landmark, National Historic Civil Engineering Landmark, and National Historic Mechanical Engineering Landmark.

Visitor service facilities at the SHP include a small picnic area, walking paths, restrooms, a small paved parking area and a modest visitor center constructed in 2007. Folsom Powerhouse SHP provides tours, exhibits, and interactive activities that explore the history of hydro-electric generation and transmission of electricity. Interpretive and education programs at the SHP are provided by the Folsom Powerhouse Docents, a group of volunteers with California State Parks. To date, most of the visitation at the Powerhouse occurs through pre-arranged tours for school groups and others, with some drop-in use on weekends. The Powerhouse visitation is estimated at 2,000-5,000 visitors annually.

B. PURPOSE FOR THE PLAN

This document represents a combined State Parks General Plan and Bureau of Reclamation Resource Management Plan (RMP) for the SRA and SHP. The document meets the planning requirements of both agencies, as well as State and Federal environmental analysis requirements under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). This Plan will provide the first RMP direction under Reclamation's land planning and management requirements. The previous General Plan (1979) for Folsom Lake SRA included Auburn Reservoir and approved by the California State Parks and Recreation Commission.

The previous General Plan for Folsom Lake SRA was adopted in 1979 and amended three times, twice in 1988 and again in 1996. Since the adoption of the 1979 General Plan, there have been changes in outdoor recreation trends and activities. Personal watercraft (jet skis) and wake boarding are now both very popular uses on Folsom Lake. Likewise, rowing, kayaking and other paddling sports have become favorite activities on Lake Natoma. Land-based recreational activities have also changed over the years. When the SRA first opened, the trails were used primarily by equestrians and hikers. The rising popularity of running and jogging in the 1970s, and mountain biking in the 1980s and 90s have greatly increased the volume and variety of trail use within the SRA.

The most significant change to occur since 1979 is the 62 percent increase in the population of the Sacramento region, and more specifically the new residential development in the immediate vicinity of the SRA. With urban development surrounding the southern half of the SRA, and roughly 930,000 new residents expected in the region by 2020, which is a 49

percent increase, the new Plan is needed to articulate: the character and level of use envisioned for the SRA; how existing facilities will be used; what future facilities may be needed; and how existing natural and cultural resources may be protected and managed.

Another change which has occurred since the 1979 General Plan is the designation of the Folsom Powerhouse State Historic Park as a separate State Park unit in 1995. This Plan will provide General Plan direction for both Folsom Lake SRA and Folsom Powerhouse SHP. Specific and detailed direction for the management of the Folsom Powerhouse SHP is provided in the Specific Area Goals and Guidelines for the Folsom Powerhouse SHP management zone.

This Plan will serve as the primary management document for both Folsom Lake SRA and Folsom Powerhouse SHP, providing a purpose and vision, long-term goals, and guidelines. The Plan defines the broad management framework for the development, ongoing management, and public use of the park. This framework will guide the day-to-day decision-making for the park, and serve as the basis for developing focused management plans, specific project plans, and other management actions necessary to implement the goals of the general plan.

C. KEY ISSUES AND OPPORTUNITIES

The following are the primary key issues and opportunities addressed by the Plan:

1. Recreation Use and Reservoir Operations

The operation of Folsom Lake as a reservoir for the purposes of flood control, water supply, power generation, and environmental enhancement results in the significant fluctuation of water levels over the course of a year. Water levels have a direct impact on the access to and quality of water dependent recreation activities at Folsom Lake since water levels determine the availability of boat ramps, beaches, mooring sites, and other facilities that depend largely on water depth or surface area. Water levels also impact the quality of other recreation activities that are enhanced by the proximity to water, such as picnicking, camping, and trail use. On average, the water levels of Folsom Lake fluctuate between 445 feet elevation in early summer (June) and 405 feet in early winter (December), although levels as low as 347 feet have occurred over the last 30 years. The normal operating full pool elevation of the reservoir is 466 feet, which is not achieved every year.

a. Flood Control

During the flood control season between October and May, a portion of the total capacity of Folsom Lake must be reserved to handle potential flood flows. Since only about 25 percent of annual SRA visits occur during the flood control season, winter flood control operations typically have relatively little impact on recreation use at Folsom Lake.

A number of measures to increase the flood protection of the Sacramento region have been implemented over the past two decades by the primary agencies responsible for flood protection culminating in the Folsom Dam Safety and Flood Damage Project. The key feature of this project is a new gated auxiliary spillway around Folsom Dam. The project may also include a 3.5 foot raise of the dams and dikes. The EIR/EIS for the Folsom Dam Safety and Flood Damage Project was completed in April 2007 and the Record of Decision was issued in May 2007.

Most of the recreation facilities within Folsom Lake SRA are located between the normal high pool elevation of 466 feet and the current top of the Dam elevation of 480.5 feet. During extreme flood events, if the reservoir surcharge space is needed for flood storage, these recreation facilities would be subject to flooding. The new spillway will increase the ability to release water downstream and will reduce the likelihood of these facilities getting inundated in an extreme flood event. The Folsom Dam Safety and Flood Damage Project will not alter the 466 foot elevation normal high pool operating level of the reservoir.

To address the impacts of a potential short term inundation in the instance of an extreme flood event, this General Plan provides for the preparation of a Flood Response Plan for the SRA in cooperation with the Army Corps of Engineers, the Sacramento Area Flood Control Agency (SAFCA) and other appropriate agencies to minimize the risk and potential damage to recreation facilities from inundation and for post-event clean-up. This General Plan directs State Parks and Reclamation to work closely with the U.S. Army Corps of Engineers and other agencies to minimize and mitigate construction related impacts of flood control projects on recreation facilities and resource areas in a manner consistent with this General Plan/Resource Management Plan.

b. Water Supply

From June through September, Folsom Lake is managed and water is released to meet water supply needs, to support water quality in the San Joaquin/Sacramento Delta and to maintain flows and temperatures necessary to support anadromous fish species downstream. Power generation generally conforms to these water supply demands. Seventy five percent of visits

to the SRA occur during this period, therefore management of the reservoir levels and water releases during the spring and summer months can have a big impact on recreation uses.

The availability of boat ramps for launching and the desirability of the recreation experience drops significantly when Folsom Lake levels dip below the 420 foot elevation. This General Plan provides direction to increase the efficiency of existing boat launch facilities on Folsom Lake and to increase the boat launch capacity at under-served lake levels, including low water levels. Any increase in boat launch capacity must be carefully considered relative to the surface area on Folsom Lake available for boating at various water levels and the desired boat density.

2. Future of Mississippi Bar

Mississippi Bar is an undeveloped, one-square-mile river terrace along the western shore of Lake Natoma between Lake Overlook and Negro Bar. While the area includes a rich variety of habitat types, the majority of Mississippi Bar is a highly disturbed landscape. Hydraulic and dredger mining were used to mine for gold in the Mississippi Bar area of the American River in the late 19th and early 20th centuries. A byproduct of these activities is the dredge tailings – piles of cobblestones up to several stories high which are a key feature of the Mississippi Bar landscape. Some of these tailings were subsequently mined for their value as aggregate.

Currently, recreation facilities at Mississippi Bar are limited to a small concession operated stables (Shadow Glen), the Snowberry Creek trailhead and staging area at Sunset/Main Avenues, the paved Lake Natoma bike path, and various dirt equestrian/pedestrian trails that are located in the area. Mississippi Bar represents a significant opportunity for the restoration of riparian wetlands, the development and enhancement of recreation opportunities, and the preservation and interpretation of historic cultural resources. This General Plan addresses the future use of this area through enhanced access and development of additional recreation facilities, while restoring natural resources and providing for historic interpretation.

3. Trails

The more than 90 miles of trails in the SRA link most of the SRA's facilities. The trail system, which includes both dirt and paved trails, accommodates a variety of users, including walkers and hikers, horseback riders, cyclists, and mountain bikers. Given the increasingly urban setting around the SRA, the demand for trails will continue to grow. However, the narrow land base of the SRA around both lakes is a constraint to the development of additional trails in some areas. Within this context, increased trail use in recent years has

raised concerns about conflicts between different trail users, particularly mountain bikers and equestrians.

This General Plan provides direction for the preparation of the Trail Management Plan which will provide detailed guidelines and direction for the management of trails, including reviewing and designating allowed uses on the existing trail system. The General Plan envisions a trail system that provides the broadest possible public benefit; balances the demands of a diverse and constantly growing user population; is flexible enough to respond to changes in recreational demand over time; is part of a larger, integrated regional system with connections to and access from other trail systems; and balances the need to expand with enhancement of the existing facilities.

4. Marina Capacity

The Folsom Lake Marina at Brown's Ravine is the only marina in the SRA. Existing facilities at the marina include 685 wet slips and 175 dry storage slips. Currently, there is a 5-year waiting list for a sixteen-foot or twenty-foot slip, and a 9-year wait for a twenty-four-foot slip. Interest in slip rentals has increased significantly in recent years in direct proportion to the growth in nearby residential development.

This General Plan calls for a 30-50 percent expansion in slip capacity at Folsom Lake Marina (between 200 and 340 additional slips) and the necessary upland facilities to support such expansion. It also calls for further detailed study into what, if any, structural improvements are needed to increase slip capacity, such as to the existing breakwater and dock system. Dredging of Brown's Ravine could be used to extend the boating season at Folsom Lake Marina.

5. Traffic Congestion at Major Day Use Areas

With more than 1.5 million visitors to the SRA each year, and only a handful of major access points, several facilities in the SRA reach capacity by midday on peak season weekends. These facilities include Beal's Point, Granite Bay, and Brown's Ravine. As the day use and boat launch parking lots at these facilities fill and eventually reach capacity—at which point access to the SRA is closed—traffic will backup along entrance roads and onto major access routes and local streets. The result is traffic delays, illegal parking, pedestrian hazards, noise, and access difficulties for SRA neighbors. This General Plan addresses access and circulation improvements at several facilities as a means of reducing delays, improving visitor experience, and minimizing the effects of SRA operations on surrounding neighbors. Improvements

proposed include the reconfiguration of entrances at Beal's Point and Granite Bay, the use of temporary electronic message boards in various locations to inform and direct approaching SRA visitors, and the use of radio public service announcements.

6. Camping

Three campgrounds in the SRA provide a total of 176 campsites that accommodate tent, trailer, RV, and group campers. Peninsula Campground includes 104 family campsites. Beal's Point Campground includes 49 family campsites and 20 RV sites. Negro Bar Campground is comprised of 3 reservation-only group campsites, two campsites accommodate 50 people and the third site accommodates 25 people. Full capacity is reached at all three campgrounds on peak season weekends.

Along with the urban and suburban development and growth around the SRA have come the crime and law enforcement challenges of the urban environment, which have diminished the quality of the camping experience at some locations. Other camping-related issues in the SRA include the need for additional group camping facilities and the continued demand for camping facilities statewide. Due to the proximity of the SRA to a large metropolitan area and the amount of residential development immediately adjacent to the SRA, this General Plan primarily focuses on providing high quality day use outdoor recreation opportunities. The Plan proposes to convert the three group campsites at Negro Bar into day use facilities and to convert a portion of the family camping at Beal's Point into group campsites. The Plan proposes to increase the number of campsites at the Peninsula Campground by 50 to 100 sites.

7. Wildland-Urban Interface

The interface between the SRA and adjacent suburban and rural residential development raises several issues. These issues include the visual quality impact of residential development on hillsides and ridgelines visible from within the SRA which alters the perception of the SRA as a rural, natural area. This GP/RMP provides direction work with local jurisdictions in the land use planning and development process to protect key views within the SRA.

Recreation use of the SRA can result in noise impacts to adjacent neighbors. The noise from power boat and personal watercraft engines and music from sound systems on boats traveling on Folsom Lake or moored near shoreline areas can travel great distances and generates some complaints from lakeside neighbors. The analysis in the Preliminary GP/RMP and DEIR/DEIS concluded that existing regulations regarding "peace and quiet in parks" and boat engine noise levels, if adequately enforced, are sufficient to minimize noise impacts. The

Preliminary GP/RMP also provides direction that additional site specific environmental analysis will be conducted prior to the development of additional facilities which will address the specific potential noise impacts of those facilities.

Informal access to the SRA from adjacent neighborhoods and private property can become a concern and problem when property owners add gates to the SRA boundary fence line to access the SRA property or completely remove property line fencing and construct spur trails, extend yards or other encroachments into the SRA. The Plan provides direction to develop additional access points as needed and appropriate. The Plan also provides direction to address informal access points from private property with unauthorized improvements, resource damage or use conflicts.

Finally, the proximity of residential development to the natural areas of the SRA raises concern from adjacent property owners and neighborhoods with wildfire risk. The General Plan/Resource Management Plan provides broad direction regarding fire management and includes direction to:

- suppress wildfires;
- collaborate with fire agencies, neighborhood groups fire safe councils and others on projects and programs to promote fire safe practices and reduce wildfire risk in areas adjacent to the SRA;
- provide for the use of prescribed fire and non-fire vegetation management strategies, such as shaded fuel breaks, where appropriate; and
- participate and involve local jurisdictions in land use planning and development process of adjacent lands to help reduce wildfire risk.

8. Off-Road Vehicle Use

At several locations in the SRA, including at Rattlesnake Bar and Beal's Point on Folsom Lake, visitors drive their vehicles off designated roadways and parking areas to access the receding lakeshore. Off-road vehicle use impacts shoreline vegetation, causes erosion and increased sedimentation and can damage and destroy archaeological resources located below the reservoir high water level which become exposed as the water levels drop. In some locations unauthorized off road vehicle use has led to conflicts and safety issues with legal

non-motorized trail users. This General Plan addresses off-road vehicle use in the SRA by restricting vehicles to designated roads and parking areas and by providing formal shoreline access in limited locations as appropriate.

9. Folsom Lake Quiet Day

Over the course of the planning process for the General Plan, a collection of neighbors, non-motorized boaters and trail users proposed the establishment of a weekly “quiet day” on Folsom Lake whereby the use of motorized boats would be restricted. This concept eventually received the support of a local planning advisory council and a local County Supervisor. This issue involves concerns about motorized boat noise and the compatibility and safety of non-motorized boaters and swimmers on Folsom Lake with motorized boat use. Establishing a weekly “quiet day” on Folsom Lake would displace a great many existing SRA visitors, particularly during the peak season. This General Plan proposes other ways to address the noise and safety concerns on Folsom Lake which would have less impact on existing users, including the extension of the 5 mph zone on the North Fork from Mormon Ravine down to Rattlesnake.

D. KEY PROPOSALS AND PLANNING CONCEPTS

The Plan provides both unit-wide direction for a variety of uses and resources and specific direction for 34 separate management zones within the SRA. Four basic land use designations were developed and each of the 34 management zones was assigned one of four designations: Recreation (high or medium intensity), Low Intensity Recreation/Conservation, Preservation or Administration. The land use designations provide a broad framework for the more detailed management area specific guidelines. Of the 19,800 acres within the SRA:

- 12,142 acres are designated High or Medium Intensity Recreation;
- 7,159 acres are designated Low Intensity Recreation/Conservation;
- 146 acres are designated Preservation; and
- 353 acres are designated Administration.

Some of the other key plan concepts and proposals include:

- Maintain and enhance Folsom Lake SRA as an important and popular recreation area that serves a broad range of uses while recognizing that the SRA cannot meet all of the

recreation demand in the region and is one segment in the spectrum of recreation opportunities in the region.

- Provide and enhance high quality day use outdoor recreation opportunities. Due to the proximity to the Sacramento metropolitan area and the residential development immediately adjacent to the SRA, the Plan emphasizes day use recreation. Specific proposals in the Plan include: improve aquatic recreation opportunities and facilities (see below); improve and add picnic and group picnic sites and areas; replace the old and worn Granite Bay Activity Center with a new building and develop additional multi-use facilities; develop additional trails and trailhead facilities.
- Provide a modest expansion of camping facilities. Despite the focus on day use opportunities, the Plan does provide for expansion of camping facilities as follows:
 - convert the three group campsites at Negro Bar into day use facilities;
 - convert a portion of the family camping at Beal's Point into group campsites; and
 - increase the number of campsites at the Peninsula Campground by 50 to 100 sites.
- Maintain and improve diverse aquatic recreation opportunities at both Folsom Lake and Lake Natoma including: extend or widen boat ramps at Folsom Lake to improve access at under-served lake levels, expand the existing marina, improve access and launch facilities at Lake Natoma for non-motorized and slow-speed uses.
- Coordinate and collaborate with adjacent jurisdictions on public access, trail connections and other issues of common interest. Coordinate with the City of Folsom to provide appropriate pedestrian/trail access and connections from the Historic District and future trail access from the City's Corporation yard property.
- Provide a trail system that serves the diverse array of trail users and abilities and is responsive to changes in recreation demand. Plan direction includes: complete recreation trail loops around both Lake Natoma and Folsom Lake; provide connections to other trail systems; prepare a trail management plan which will, among other things, address allowed uses on trails; reduce conflicts on trails through the promotion of trail etiquette and safety.

- Improve entrance stations and internal road circulation to increase the efficiency of access into and within the SRA and help reduce impacts to adjacent roadways and neighborhoods.
- Develop a visitor center for Folsom Lake SRA to provide information to the public and a location and facility to interpret the themes identified in the Plan. Several potential locations are suggested.
- Protect important and sensitive natural resources within the SRA including, vernal pools and seasonal wetlands, riparian areas and blue oak woodlands.
- Protect the wildlife habitat and movement corridors that Folsom Lake SRA provides between the Valley and Foothills.
- Coordinate Federal and State regulations and responsibilities for the identification, evaluation, protection and management of cultural resources within the SRA.
- Complete investigations necessary to propose a portion of the South Fork Arm of Folsom Lake for Cultural Preserve designation.
- Protect and restore the historic core of the Folsom Powerhouse SHP while improving access, public visitation, education and interpretation opportunities through the operation of the newly constructed Powerhouse visitor center.

E. MANAGEMENT PLANS

This General Plan/Resource Management Plan recommends the development of a number of more detailed and specific management plans and investigations, including:

- Trail Management Plan
- Fire Management Plan (a draft has been completed)
- Vegetation Management Plan
- Scope of Collections Statement
- Interpretive Plan for Folsom Lake SRA
- Interpretive Plan for Folsom Powerhouse SHP
- Flood Response Plan

- Designation of a Cultural Preserve along a portion of the South Fork Arm of Folsom Lake

F. PLANNING PROCESS AND PUBLIC INVOLVEMENT

In 2002, State Parks in cooperation with Reclamation began working with a team of consultants to update the General Plan/ Resource Management Plan (the Plan) for Folsom Lake State Recreation Area. One of the first tasks in the process was the preparation of the Resource Inventory for the SRA which documented existing conditions within the SRA, including natural resources, cultural resources, recreation use and facilities. This Resource Inventory was eventually completed and made available for public review.

In October 2002, a series of agency stakeholder and focus group meetings—involving recreation and environmental groups, SRA neighbors, responsible agencies, and other interested parties—were held to identify and clarify issues to be addressed in the Plan. A community workshop was held in November 2002 to introduce the project to the general public, review the findings of the draft Resource Inventory and to solicit public input on key issues and opportunities of concern to the public. During this initial round of public input the issue of trails was identified as a topic that warranted further consultation and analysis. Additional stakeholder meetings were held to further address trails and other specific issues, including the potential for creating an artificial whitewater course in the area of Nimbus Shoals in conjunction with a planned fish diversion structure below Nimbus Dam and the potential of locating the California Indian Heritage Center at Lake Natoma.

Two public surveys were used to expand the quantity and variety of public input. A telephone survey of 400 households in the region was conducted to identify how these households perceive the SRA, whether they use the SRA, and what recreation needs are not currently being met. An on-site visitor intercept survey was also conducted to gather more detailed information about the SRA and its facilities from those who use it. More than 1,300 responses were collected.

Using the information from the Resource Inventory, the initial public scoping input and the survey data, an Issues Opportunities and Constraints Memorandum was prepared to help identify key issues and opportunities to be addressed in the Plan.

Preliminary alternative concepts were then prepared based on the input from the general public, SRA visitors, public agencies, other stakeholders, and State Parks and Reclamation

management and staff. These alternatives were presented at a second community workshop in June 2003 and public input was solicited regarding preferences among these initial alternative concepts. Using this public input and the recommendations of State Parks and Reclamation staff, a preferred concept was refined and an administrative draft Preliminary General Plan/Resource Management prepared. Following agency review of the administrative draft, changes and edits were made to the Preliminary Plan and an administrative draft of a Draft Environmental Impact Report/Environmental Impact Statement (DEIR/EIS) was prepared.

The Preliminary Plan and DEIR/DEIS were released to the public on February 8, 2008. In consideration of requests from the public for additional time to review and comment on the document, the public comment period was extended twice through May 30, 2008. A total of 112 days were provided for public review and comment. Three public workshops were held during the comment period to provide information on the key plan concepts and proposals and to receive public comment. These workshops were held in the City of Folsom, Granite Bay and El Dorado Hills. Due to the extent and volume of public comment received, budget and contractual issues it has taken the planning team more than a year to develop this Response to Public Comment and Final EIR/EIS.

In addition to the stakeholder meetings and public workshops, four newsletters were prepared and sent out to a project mailing list of over 700 contacts. Information regarding the plan and various planning documents has been posted on the web pages devoted to the Plan update on State Parks internet site.

G. ENVIRONMENTAL ANALYSIS

The environmental analysis of the proposed plan and alternatives was prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) to disclose the potential environmental effects of the proposed plan. The environmental document for the Plan serves as a first tier EIR/EIS. Because the direction in the plan is broad and programmatic, the environmental analysis for the Plan is programmatic in scope and does not include detailed project specific analysis for facilities considered in this Plan. The EIR/EIS discusses probable impacts of implementing the future development and the goals and guidelines proposed in the Plan.

Additional project specific environmental analysis will be conducted as appropriate for facility development, management plans or other improvements proposed in the Plan and

the EIR/EIS will serve as a reference for these future environmental documents. When appropriate, the more detailed future project-specific environmental review will be “tiered” to the EIR/EIS prepared for this General Plan/Resource Management Plan.

This Plan includes guidelines that direct future project planning and environmental review to avoid or minimize potential adverse effects to resources during the design, construction and operation of facilities and improvements. Because the direction in the plan contains goals and guidelines designed to protect resources and avoid significant adverse environmental effects, no significant program level impacts were identified which could not be mitigated to a less than significant level.

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FOLSOM

General Plan/Resource Management Plan



Chapter I: INTRODUCTION

CHAPTER I – INTRODUCTION

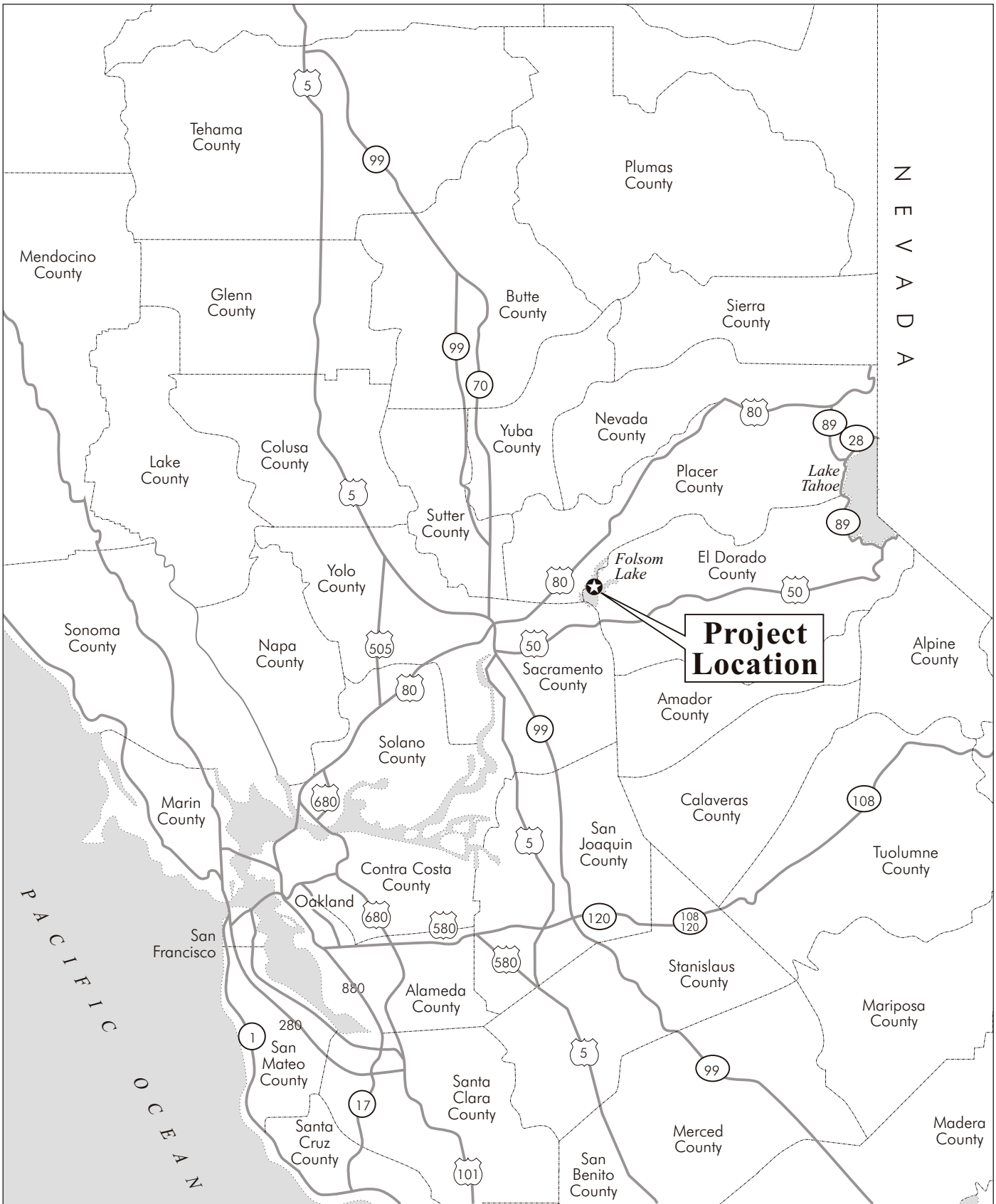
A. INTRODUCTION TO THE UNIT

1. Location

a. Folsom Lake State Recreation Area

Folsom Lake State Recreation Area (SRA) is located at the confluence of the North and South Forks of the American River in the Sierra Nevada Foothills at the eastern edge of the Sacramento metropolitan region. Encompassing approximately 20,000 acres of water and land, the SRA extends across the boundaries of three counties (El Dorado, Placer, and Sacramento) as well as the City of Folsom. Figure I-1 illustrates the regional location of the SRA. The majority of land within the State Recreation Area (SRA) is owned by the U.S. Department of the Interior Bureau of Reclamation (Reclamation) and managed by State Parks through an agreement. The California Department of Parks and Recreation (State Parks) has acquired some property within the SRA unit. Figure I-2 illustrates the SRA boundaries.

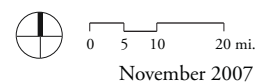
Access to the SRA is available through a network of regional and local roadways, bicycle and pedestrian facilities, and public transit. Regional access to the SRA is provided via two major freeways: Interstate 80 which connects the San Francisco Bay area with the Sacramento and Lake Tahoe/Reno regions, and Highway 50 which connects the Sacramento region with the southern Lake Tahoe region. Direct access from I-80 is provided via the interchange at Douglas Boulevard, while access from Highway 50 is provided via the interchange at Folsom Boulevard. Local access to the SRA is provided from six key roadways: Douglas Boulevard, Auburn-Folsom Road/Folsom Boulevard, East Natoma Street, Green Valley Road, Salmon Falls Road, and Hazel Avenue. In addition to bicycle facilities on several of these roadways, paved and unpaved trails—including segments of key regional trails such as the Jedediah Smith Memorial Trail and the Pioneer Express Trail—provide pedestrian, equestrian, and bicycle access to and through the SRA. Transit service to the area is provided by several agencies, including Folsom Stage Line, Roseville Transit, Sacramento Regional Transit, and Placer County Transit.

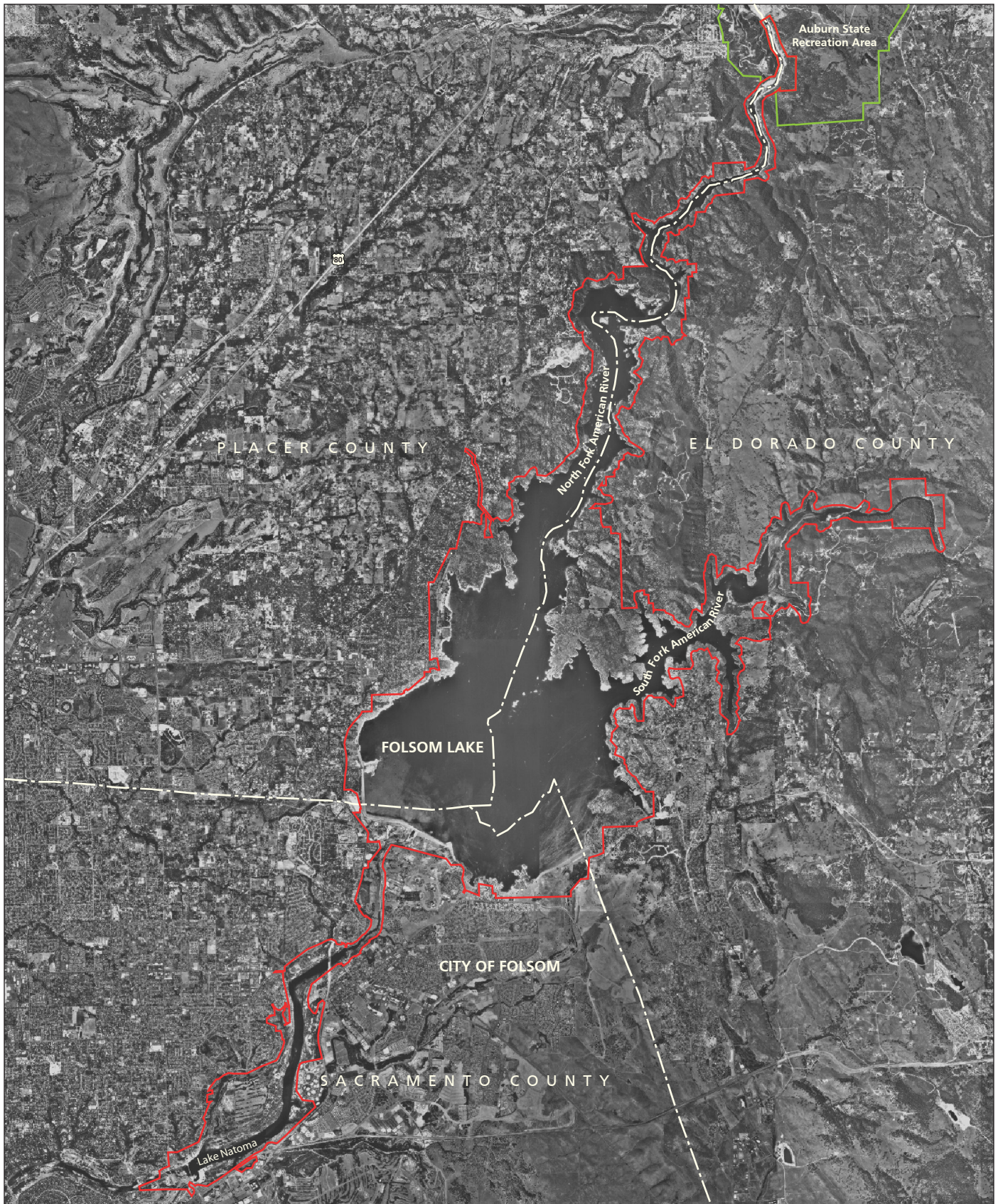


Folsom Lake State Recreation Area & Folsom Powerhouse State Historic Park
 General Plan/Resource Management Plan

Credit: LSA Associates

**Figure I-1
 REGIONAL LOCATION**

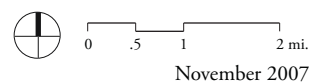




Folsom Lake State Recreation Area & Folsom Powerhouse State Historic Park
 General Plan/Resource Management Plan

Credit: Wallace Roberts & Todd, LLC

Figure I-2
FOLSOM LAKE STATE RECREATION AREA BOUNDARIES



b. Folsom Powerhouse State Historic Park

The Folsom Powerhouse State Historic Park (SHP) is located adjacent to Folsom Lake SRA along the southern shoreline of Lake Natoma. The park unit is also adjacent to the Historic District of the City of Folsom. The SHP is 35 acres in size, about half the unit is state-owned property and the other half is under U.S. Bureau of Reclamation ownership and managed by State Parks through the lease agreement for the SRA.

2. Unit Characteristics

a. Physical Characteristics

Situated within the westernmost extent of the Sierra Nevada Foothills, the unit's landscape consists of two reservoirs—Folsom Lake and Lake Natoma—surrounded by rolling oak-studded foothills, upland plateaus and deep river canyons carved by the North and South forks of the American River system. The reservoirs were created in the 1950's by damming the American River at Folsom. Developed as part of the Central Valley Water Project, the primary function of the reservoirs is to provide flood control, water supply and power generation for the Sacramento region. The waters of Folsom Lake and Lake Natoma comprise approximately 70 percent of the total SRA area and thus represent the unit's dominant physical features. Generally, the reservoirs are surrounded by a relatively narrow, and frequently steep, band of upland area.

Folsom Lake, which is the larger of the two reservoirs, includes roughly 11,500 acres of water surface area at an elevation of 466 feet and over 75 miles of undulated shoreline that provides numerous and varied opportunities for water-dependent recreation and support facilities. The largest and most natural upland area on Folsom Lake is the 1,465-acre Peninsula, which is formed by the confluence of the North and South forks of the American River. The Peninsula includes the highest point in the SRA, at just over 800 feet, and is also the most remote from urban development.

Lake Natoma, which is the afterbay of Folsom Dam, is located about one mile below Folsom dam at the foot of a steep river gorge. The long, narrow lake includes approximately 540 acres of water surface area and 14 miles of highly scenic riparian shoreline. The dramatic 300-foot high cliffs of the Lake Natoma Bluffs line the western shore of Lake Natoma from Negro Bar to Mississippi Bar. Mississippi Bar is the largest upland area along Lake Natoma. This 750-acre river terrace is undeveloped and includes an array of significant natural resources. It also displays the effects of past mining activities which left behind dredge tailings in the form of cobblestone piles up to several stories high.

The SRA represents a significant resource within the region on many fronts. As a visual and scenic resource, the SRA's many miles of shoreline coupled with hilly topography provide significant variety in both viewpoint orientation and available viewsheds and create a wealth of viewing conditions and opportunities. These resources include a combination of panoramic views and distinctive landscape and built features. As a natural resource, the SRA supports nine major vegetation communities typical of the lower foothills of California's Central Valley. These communities provide habitat for a diverse mix of terrestrial and aquatic fauna, including several special status species. As a cultural resource, the SRA is rich in history spanning more than 4,000 years and includes at least 229 known archaeological sites.

Folsom Powerhouse State Historic Park (SHP) is a separate unit in the State Parks system that is managed by the Folsom Sector and is also being addressed in this General Plan. The Folsom Powerhouse represents one of the oldest hydroelectric facilities in the world and the nation's first power system to provide high-voltage alternating current over long distance transmission lines. The historic structures that form the core of the SHP include the main powerhouse and turbine room, the pump room, transformers and switches, the lower powerhouse, the blacksmith shop, forebay, spillways and about one half mile of the canal that once brought water to the Powerhouse from the original Folsom Dam. The site also includes a bedrock mortar. Outside the core of the Folsom Powerhouse SHP, the area consists of interior live oak and riparian woodlands. Visitor services facilities include a small picnic area, walking paths, restrooms, and a small parking area. A small visitor center and improvements to the parking area at the Powerhouse which began construction in September 2006 will be completed in winter 2007 and will be opened to the public sometime in 2008.

b. Use Characteristics

With an average of 1.5 million visitors over the past five years¹, the SRA is one of the most popular units in the State Parks system. This is due largely to the location of the SRA within a growing metropolitan area, good highway access, and opportunities for use year-round – although 75 percent of all visits occur during the warmer spring and summer months.

Visitor use in the SRA varies by lake. On Folsom Lake, aquatic activities account for about 85 percent of all recreation visits. Due to the size of Folsom Lake, and the nature of the

¹ Visitor use figures are estimates derived from paid attendance counts, estimates of unpaid attendance and factors such as average number of occupants per vehicle. The formulas for estimating use at Folsom Lake SRA have not been altered for many years. It is believed that the use figures underestimate the actual use within the SRA, particularly the amount of unpaid use.

available facilities, it is ideal for a wide range of aquatic activities, including boating, personal water craft use, water skiing, wake boarding, sailing, windsurfing, swimming, and fishing. Due to their narrow configuration, the upper arms of the Folsom Lake are designated slow zones that accommodate quiet cruising, fishing, paddling and nature appreciation. In addition, each year as many as 80,000 whitewater rafters on the South Fork of the American River take their boats out of the water where the river empties into Folsom Lake. On Lake Natoma, aquatic activities account for about half of all recreation visits. The sheltered waters of Lake Natoma make it an ideal location for paddling (kayaking, rowing, canoeing, outriggers, etc.), swimming, and fishing. Motorized watercraft on Lake Natoma are limited to 5 mph.

Visitors to the SRA also participate in a variety of land-based activities, such as hiking, biking, picnicking, camping, and horseback riding. The more than 170 campsites in the SRA—which typically fill quickly on peak season weekends—range in setting from the more convenient and developed Beals Point Campground and Negro Bar Group Campground to the more primitive and out-of-the-way Peninsula Campground. The majority of the SRA’s campers are car campers, although RVs are also accommodated. Five major day use areas serve as the primary gateways to the SRA for approximately 60 percent of visitors. Granite Bay, Beals Point, Folsom Point, Negro Bar, and Nimbus Flat offer a full range of facilities including swim beaches, picnic areas, food and beach equipment concessions, restrooms and drinking water, equestrian staging areas, and trailheads. The 94 miles of trails in the SRA are increasingly popular with a host of users, including hikers and runners, equestrians, mountain bikers, and cyclists.

Folsom Powerhouse SHP provides tours, exhibits, and interactive activities that explore the history of hydro-electric generation and transmission of electricity. Interpretive and education programs at the SHP are provided by the Folsom Powerhouse Docents, a group of volunteers with California State Parks. The Friends of the Folsom Powerhouse, a non-profit charitable organization independent of State Parks, also provides support for the SHP. Over the past decade the Powerhouse has been open limited hours and has been staffed primarily by the docents. Most of the visitation at the Powerhouse occurs through pre-arranged tours for school groups and others, plus some drop-in use on weekends. The Powerhouse visitation is estimated at 2,000-5,000 visitors annually. These patterns of use will change when the new visitor center at the Powerhouse is completed.

3. Purpose of Acquisition

a. Folsom Lake State Recreation Area

In 1956, the construction of Folsom Dam by the U. S. Army Corps of Engineers and Nimbus Dam by the U.S. Bureau of Reclamation were completed, resulting in the creation of Folsom Lake and Lake Natoma. The dams and lakes were designed as part of the massive Central Valley Project, a network of dams, reservoirs, canals, powerplants, and pumping stations extending over 500 miles south from the Cascade Mountains and 100 miles west from the Sierra Foothills to the Coastal Range. The purpose of the project is to provide flood control, water supply and power generation. Responsibility for the operation of these facilities belongs to Reclamation.

Shortly after construction of the dams, State Parks entered into an agreement with Reclamation to build and manage recreation facilities on Reclamation's lands at Folsom Lake and Lake Natoma. The area was subsequently designated as Folsom Lake State Recreation Area (SRA) and the first facilities opened to the public in 1958. The earliest statements of purpose for the SRA, including the unit classification sheet completed in 1962, convey that the purpose of acquisition was to provide for and manage public use of the recreation opportunities created by the impoundment of Folsom Lake and Lake Natoma. The provision of facilities for aquatic recreation—including boating, fishing, swimming and water skiing—as well as trails and overnight use were also acknowledged. Other values highlighted include the Sierra foothill vegetation within the unit—oak woodland, grasslands and chaparral—and the varied historic values associated with the area from historic gold mining to the Folsom Powerhouse. The accessibility of the area to the Sacramento region and the San Francisco Bay area were also noted.

Since the creation and classification of the SRA, State Parks has and continues to acquire property for the SRA, thus adding to the original federal holdings around the lakes. Such acquisition has been motivated by a number of objectives, including improving public access to the SRA, protecting environmental and cultural resources, and enhancing recreational opportunity.

b. Folsom Powerhouse State Historic Park

The Folsom Powerhouse SHP is comprised of property deeded to California State Parks by Pacific Gas and Electric in 1957 and property owned by Reclamation that was withdrawn as part of the Folsom Dam Project and then leased to State Parks. State Parks acquired the PG&E property to preserve and protect the Folsom Powerhouse site, structures and historic

features. The Powerhouse was managed as a portion of Folsom Lake SRA until 1995 when it was classified as a separate unit within the State Park system. The Folsom Powerhouse was classified as a separate State Historic Park unit to acknowledge the special historical significance of the site, to focus public attention on these unique values, and to provide interpretive, educational and recreational opportunities to the people of California.

The Folsom Powerhouse is listed on the National Register of Historic Places. It is also listed as a California Historical Landmark, National Historic Landmark, National Historic Civil Engineering Landmark, and National Historic Mechanical Engineering Landmark.

4. Sense of Place

a. Folsom Lake State Recreation Area

The construction of Folsom and Nimbus Dams impounded waters of the American River to form Folsom Lake and Lake Natoma, which are the primary reasons for the existence of Folsom Lake State Recreation Area (SRA). However, in addition to the two lakes, the SRA also provides diverse landscapes, recreation opportunities, natural and cultural resources. The setting of these two reservoirs situated at the confluence of the North and South Forks of the American River and at the edge of the Sacramento Valley and the Sierra Nevada foothills is key to the SRA's sense of place. The visual contrast provided by the lakes reflecting blue sky against a backdrop of rolling foothills of oak woodland and grasslands, alternately green in winter and spring and golden brown in summer and fall, is striking. In summer, the reservoirs are a natural attraction for people seeking to escape the valley heat and recreate on or near the cool waters. The rich and diverse range of archaeological and historic resources throughout the area attests to the attraction this place has had for people long before the construction of the dams and reservoirs.

Human history on the American River spans more than 4,000 years. The number and variety of prehistoric sites within the SRA illustrate Native American lifeways and the importance of the river corridor for settlement and trading. The SRA's historic resources reflect the importance of the area during the Gold Rush, from early placer mining to later hydraulic mining and dredging. The development of water resources and hydropower is evident in the many historic sites related to these activities within the unit, most notably the Folsom Powerhouse.

There are a variety of landscapes in the SRA, from rugged canyons along the North and South Forks of the American River, to the rolling hills and upland plateaus above Folsom Lake, to the bluffs and broad river plain of Lake Natoma. These settings showcase many of the typical and unique landscapes of California—chaparral, blue oak woodland and savanna, and willow riparian plant communities—and support important habitat for a variety of native animal species including mule deer, coyote, bobcat, mountain lion, quail, bald and golden eagles, herons, egrets, western pond turtle and California horned lizard.

For all its beauty and history, the SRA's easy accessibility to both recreation and nature is one of its primary assets. Located in a metropolitan area of nearly 2 million people, increasingly surrounded by urban development, and close to the San Francisco Bay Area and the rapidly growing communities of the Central Valley, the SRA provides visitors of all ages and abilities the opportunity to experience its resources in an hour, an afternoon, a weekend, or longer. The SRA provides a wide variety of recreation opportunities and activities for visitors, whether it is part of a daily exercise routine, a weekly recreational change of pace or an annual special event. The lakes provide diverse aquatic recreation opportunities including fishing, water skiing, sailing, windsurfing, personal watercraft use, rowing, whitewater rafting, canoeing and kayaking. Upland facilities and activities include camping, hiking, jogging and running, road and mountain biking, and horseback riding. The SRA also provides opportunities for learning about nature, history and the intersection of technology and human use of this landscape. Salmon and steelhead spawning in the American River below Nimbus Dam, prehistoric Native American sites, the diversity of gold mining communities, power generation and water development are a few of the unique educational and interpretive opportunities the SRA provides.

Early weekday mornings find joggers and bicycle commuters hitting the paved paths along Lake Natoma to get a jump on the day while rowers glide silently along the glassy waters. In the evenings, these same paths and trails are popular with bicyclists and runners getting exercise to wind down the workday while others venture out for a walk in the cool air of dusk. Weekday afternoons provide the perfect opportunity to get away from the office to paddle on Lake Natoma or sail on Folsom Lake. Spring and summer weekends at the major recreation use areas of the SRA are a vibrant mix recreation pursuits including swimming and sunbathing; picnics, barbeques and family gatherings; water skiing and pleasure boating; walking, horseback riding, and biking; and the occasional rowing competition, special event, or festival. The SRA also provides the opportunity for escapes to more tranquil and remote areas along the North and South Forks of the American River. The backcountry of the SRA

is within reach of those willing to work a little harder—whether on foot, bike, horseback or boat—to experience the beauty of this classic Sierra foothills landscape.

As the population of the Sacramento region continues to grow, the demand for high-quality outdoor recreation in a natural setting, the importance of the remaining natural habitat and the need for open space will also intensify. A sustainable Folsom Lake SRA is vital to the quality of life for the region and to providing quality outdoor recreation opportunities for visitors.

b. Folsom Powerhouse State Historic Park

Folsom Powerhouse State Historic Park (SHP) preserves a complex of historic features and structures that provided the first long distance transmission of hydroelectric power west of the Mississippi. The complex includes the main powerhouse and its generators, turbines and transformers; the canal, forebay, wooden headgates and penstocks; and the lower powerhouse, office, shop, and other buildings. The complex provides a window into the technology of this pioneering facility that began generating electricity in 1895 and transmitting it 22 miles to Sacramento.

The integrity of the structure and associated features, the solid unadorned rectangular two-story brick main powerhouse building sitting on a granite outcropping, the granite masonry on the forebay, and massive bulkheads for the headgates all project a sense of stability and permanence. The generators, the marble-faced control switchboard, and other historic mechanical equipment sit as an anachronism amid recent development and allow visitors to imagine the end of the 19th century when electricity was a novelty and the dark of night dictated life's rhythm. With the modern hydroelectric plants of Folsom and Nimbus dams nearby, and the numerous other historic mining and water development features, the historical thread of water and power runs through the site and connects it to the larger watershed.

The scenic setting along the banks of Lake Natoma, the native interior live oak and blue oak woodlands surrounding the historic landscape, and the large bedrock mortar outcropping on the site all contribute to the rich opportunities for interpretation, education, recreation and inspiration that the SRA provides.

B. PLANNING PROCESS AND PUBLIC INVOLVEMENT

In Spring 2002, the California Department of Parks and Recreation (State Parks), in cooperation with the U.S. Department of the Interior Bureau of Reclamation (Reclamation), began working with a team of planners, scientists, and engineers to update the General Plan/Resource Management Plan (the Plan) for Folsom Lake State Recreation Area. This update represents the first comprehensive revision of State Park's general plan for Folsom Lake SRA since the current plan was adopted in 1979. The 1979 plan was amended three times: twice in 1988 (Nimbus Flat, Nimbus Shoals/Mississippi Bar) and 1996 (Negro Bar, Willow Creek, Beals Point). This plan will replace the 1979 plan and all three amendments. It also represents the first Resource Management Plan for the area under Reclamation's land planning and management requirements. An Environmental Impact Report in compliance with CEQA and Environmental Impact Statement consistent with NEPA were also prepared.

Since the adoption of the 1979 general plan for the SRA, outdoor recreation has changed substantially. The popularity of personal watercraft (jet skis), wake boarding, and sailing has transformed the boating environment on Folsom Lake. Likewise, rowing, kayaking and other paddling sports have become favorite activities on Lake Natoma. Land-based recreational activities have also changed over the years. When the SRA first opened, the trails were used primarily by equestrians and hikers. The rising popularity of running and jogging in the 1970s, and mountain biking in the 1980s and 90s have greatly increased the volume and variety of trail use within the SRA.

The most significant change to occur since 1979 is the 62 percent increase in the population of the Sacramento region, and more specifically the new development in the immediate vicinity of the SRA. With urban development surrounding the southern half of the SRA, and roughly 930,000 new residents expected in the region by 2020—a 49 percent increase—the new Plan is needed to articulate the character and level of use envisioned for the SRA, how existing facilities will be used, what future facilities may be needed, and how existing natural and cultural resources may be protected and managed.

Another change which has occurred since the 1979 General Plan and subsequent amendments were adopted is the designation of the Folsom Powerhouse State Historic Park as a separate State Park unit. This plan will be the first General Plan direction for the area since its designation as a State Historic Park.

The extended Plan update process represents the commitment by State Parks and Reclamation to prepare a comprehensive and in-depth plan that is adequate to guide the SRA through these times of change. Work began in June 2002 with the preparation of the Resource Inventory for the SRA. In October 2002, a series of agency stakeholder and focus group meetings—involving recreation and environmental groups, SRA neighbors, responsible agencies, and other interested parties—were held to identify and clarify issues to be addressed in the Plan. An initial community workshop was held in November 2002 to introduce the project to the general public, review the findings of the draft inventory of the SRA’s resources, and solicit public input on key issues and opportunities of concern to the public. During this initial round of public input the issue of trails was identified as a topic that warranted further consultation and analysis. As such, additional meetings were held with a select group of trail stakeholders to inform the overall goals and objectives for the SRA’s trail system and lay the groundwork for the preparation of a trails management plan after adoption of the updated General Plan/Resource Management Plan. Key stakeholder meetings were also held to discuss the potential for creating an artificial whitewater course in the area of Nimbus Shoals in conjunction with a planned fish diversion structure below Nimbus Dam. Reclamation has subsequently determined that a fish passage structure which also accommodates whitewater use is not feasible.

In addition to public meetings, two public surveys were used to expand the quantity and variety of public input. A telephone survey of 400 households in the region was conducted to identify how these households perceive the SRA, whether they use the SRA, and what recreation needs they might have that are not currently being met. A series of on-site intercept surveys were also conducted to gather more detailed information about the SRA and its facilities from those who use it. These surveys were conducted at different locations within the SRA and during different seasons of the year in order to capture a broad cross-section of current SRA users’ opinions. More than 1,200 responses were collected.

In the following months, preliminary alternative concepts for the SRA were prepared based on the input from the general public, SRA visitors, public agencies, other stakeholders, and State Parks and Reclamation management and staff. These alternatives were the subject of a second community workshop in June 2003. The workshop was used to present a series of preliminary alternatives for the SRA’s future, and solicit public input on a preferred SRA concept. Based on this input, further review of the Resource Inventory findings, and consultation with State Parks and Reclamation staff, a preferred concept was prepared and a Preliminary General Plan/Resource Management drafted. A third community workshop will

be held in December 2008 to present the Preliminary Draft General Plan/Resource Management Plan to the public.

The Plan update planning process involved substantial public consultation and input at each stage of development. As noted, agency and other stakeholders were involved in focus groups to highlight issues to be addressed in the plan. Three community workshops attended by more than 350 people kept the public informed about the planning process, and informed the planning team of issues and concerns that only those very familiar with the SRA could know. Five newsletters were prepared to inform and update the 600 contacts on the project mailing list, and countless others using the SRA's planning project web site, on the plan's progress. The SRA's planning project web site also facilitated on-going public forum and included an on-line comment form, as well as a posting of the alternative concept exhibits, and all interim planning and environmental documents. In all, some 150 comment sheets and letters were received by the planning team in addition to e-mail communication with an additional 100 people.

C. PURPOSE OF THE GENERAL PLAN/RESOURCE MANAGEMENT PLAN

1. State Parks General Plan

A park general plan is the primary management document for a unit of the State Parks system, establishing its purpose and management direction for the future. By providing a defined purpose and vision, long-term goals, and guidelines, the general plan defines the broadest management framework for the development, ongoing management, and public use of a park. This framework will guide the day-to-day decision-making for the park, and serve as the basis for developing focused management plans, specific project plans, and other management actions necessary to implement the goals of the general plan.

The scope of a park general plan is intended to be broad and programmatic in nature. The *State Parks Planning Handbook (January 2004)* indicates that general plans should include broad goals and strategies that define the ultimate purpose and aim of management, but should stop short of defining specific accomplishments and/or the timeframe for fulfilling those goals. The intent is to provide a long-lived planning document that is clear in its direction, but flexible in its proposed approaches to solving future management issues and concerns that are certain to arise. Specific objectives and strategies for implementation of the

general plan are intended to be developed in subsequent planning efforts as they are needed, including preparation of management plans and specific project plans.

Management plans define the specific objectives, methodologies and/or designs for accomplishing management goals. Occurring on an as-needed basis, they typically focus on specific management topics, goals, or issues. Depending on their purpose, management plans can apply to all or part of a park. Typical examples of management plans include resource management plans, operation plans, interpretive plans, concession plans, and facility development plans. Unlike the general plan, resource, use, or area-specific management plans are more dynamic, changing as necessary to be responsive to management's needs. Specific project plans are the detailed implementation plans needed to accomplish specific projects. For example, specific project plans would include design concepts, site plans, and details for development of the multi-use aquatic training/activity facility proposed at Brown's Ravine or Folsom Point.

Section 5002.2 of the Public Resources Code requires that a park general plan be prepared prior to the development of permanent facilities within a park. Park general plans are required by the California Environmental Quality Act (CEQA) to undergo a programmatic environmental analysis and prepare an Environmental Impact Report (EIR). Given the broad, goal-oriented and programmatic nature of general plans, subsequent development or enhancements proposed in a general plan are subject to additional project-specific environmental review to address specific matters that were either unknown or unforeseen during the general plan process. This project-specific environmental review may be "tiered" to the EIR prepared for the broader general plan if such projects are pursuant or consistent with the general plan. This approach encourages efficiency by eliminating the need to repeat the discussion of general matters already contained in the general plan EIR.

This Plan will provide General Plan direction for both Folsom Lake State Recreation Area and Folsom Powerhouse State Historic Park (SHP). Specific and detailed direction for the management of the Folsom Powerhouse SHP is provided in the Specific Area Goals and Guidelines for the Folsom Powerhouse SHP management zone.

This document will guide future efforts to balance recreation and conservation, protect the natural and cultural resources, and expand opportunities for public enjoyment of the Sierra Nevada Foothills setting. These goals will be achieved with new facilities, enhancements to existing facilities, resource management programs, and interpretive and educational activities, whose design will be undertaken subsequent to this General Plan. Not only must these

components of the park's future be consistent with the overall vision for the park as articulated in this plan, they must also clearly relate to each other in a comprehensive and coordinated manner and be consistent with the site's environmental values.

2. U.S. Bureau of Reclamation Resource Management Plan

This document represents a combined State Parks General Plan and Bureau of Reclamation Resource Management Plan for the SRA and SHP. As such, the document meets the general planning and resource management planning requirements of the respective agencies, as well as State and federal environmental analysis requirements under the California Environmental Quality Act (CEQA) and the National Environmental Protection Act (NEPA). As with a State Parks General Plan under CEQA, a Resource Management Plan for Reclamation must undergo programmatic environmental analysis and prepare an Environmental Impact Statement (EIS) under NEPA. "Tiered" environmental review of subsequent projects pursuant or consistent with the resource management plan is also encouraged under NEPA.

There are substantial similarities between the requirements for a State Parks general plan and a Reclamation resource management plan. Both documents are intended to identify and integrate management direction, implementation, and monitoring. The planning processes for both involve an inventory of resources, identification of issues, analysis of opportunities and constraints, formulation of goals and objectives, and identification of implementation procedures. As for the documents themselves, the required components of a resource management plan identified in the Reclamation *Resource Management Plan Guidebook* (February 2003) are almost identical to those required of a general plan under the State Parks *Planning Handbook* (February 2002).

Due to the similarities in purpose, process, and required components, there is no need or attempt to cross-reference State or federal requirements, or to specifically address consistency between State and federal requirements. A combined General Plan/Resource Management Plan for Folsom Lake SRA has been prepared that fully meets the planning requirements of both agencies.

As noted above, California State Parks manages Folsom Lake State Recreation Area through a long term agreement with the United States Bureau of Reclamation. The original fifty-year lease agreement between Reclamation and State Parks for the management of Folsom Lake SRA was executed on April 17, 1956. The lease agreement allows DPR to occupy the federal lands within the SRA for the purpose of developing, administering and maintaining the area

as a state park. This agreement expired in April 2006. Reclamation and DPR have been working on developing a new long term agreement for the continued operation and management of the Folsom Lake SRA. During the interim period DPR and Reclamation have been operating under the terms of the existing lease agreement until a new agreement is developed, finalized and executed.

At the outset of the process to develop a new General Plan/Resource Management Plan, both agencies expected the GP/RMP would be completed prior to the expiration of the lease agreement. Both agencies also anticipated having a new long term agreement in place by the time the original agreement expired. Reclamation and State Parks fully expect to reach agreement on a new long term agreement for the continued administration, operation and maintenance of Folsom Lake SRA. However, should the two agencies fail to reach a new long term agreement, all or portions of this plan may no longer be valid. If Reclamation and State Parks do not reach a new long term agreement and Reclamation develops a management agreement with another entity or manages the federal portion of the area on its own, this Plan may need to be revised, amended or redone completely.

Additionally, while the majority of the lands within the SRA are federal property acquired for Folsom Dam and Reservoir, California State Parks has acquired fee title to approximately 2,250 acres of additional property in various locations around the SRA. Should the two agencies not develop a new long term management agreement, it is likely that management plans for these federal and State lands would be developed separately and the designation of the area as a State Recreation Area would need to be re-considered.

As noted above, State Parks and Reclamation are both committed to developing a new long term management agreement for Folsom Lake SRA and are in the process of developing such an agreement at this time.

FOLSOM

General Plan/Resource Management Plan



Chapter II: EXISTING CONDITIONS

CHAPTER II – EXISTING CONDITIONS

A. UNIT SUMMARY

Folsom Lake State Recreation Area (SRA) encompasses approximately 20,000 acres of water and land at the confluence of the North and South Forks of the American River in the Sierra Nevada Foothills. Located at the eastern edge of the Sacramento Metropolitan Area, the SRA is bisected by the boundaries of three counties (El Dorado, Placer, and Sacramento) as well as the City of Folsom (see Figure I-2). The Folsom Lake reservoir and Lake Natoma afterbay are the primary features of the SRA and account for roughly 11,500 acres of the unit area.¹ The remaining 8,500 acres of upland area is comprised mostly of a narrow band of shoreline. Recreation facilities on the lakes include a marina, boat launch areas, swimming beaches, campgrounds, landscaped picnic areas, food and equipment concessions, interpretive facilities, scenic overlooks, restrooms, trailheads and equestrian staging areas, and more than 90 miles of dirt trails and paved paths. Popular aquatic activities in the SRA include boating, personal water craft use, water skiing, sailing, windsurfing, rafting, rowing, paddling, swimming, and fishing. Upland activities include hiking, biking, picnicking, camping, and horseback riding.

Folsom Powerhouse State Historic Park (SHP) is a separate designated unit within the State Parks system, which is located within Folsom Lake SRA and is also administered by the Folsom Sector. The Folsom Powerhouse which represents one of the oldest hydroelectric facilities in the world and the nation's first power system to provide high-voltage alternative current over long distance transmission lines.

1. Existing Land Use

For the most part, land uses within the SRA are recreation related and reflect a range of activity and development intensity. Recreation uses tend to occur in discrete recreation centers with, in most cases, several miles of undeveloped shoreline separating each center.

¹ It should be noted that the surface area of Folsom Lake varies considerably as water levels fluctuate over the course of a year. In a typical year, water levels fluctuate by about 40 feet resulting in a fluctuation in surface area of about 4,000 acres.

Non-recreation uses in the SRA are also prevalent and are related to operation of Folsom Lake and Lake Natoma for the purposes of flood control, water supply, and power generation. The very existence of the SRA is the result of the Central Valley Project, which dammed the American River at Folsom and created the unit's two lakes.

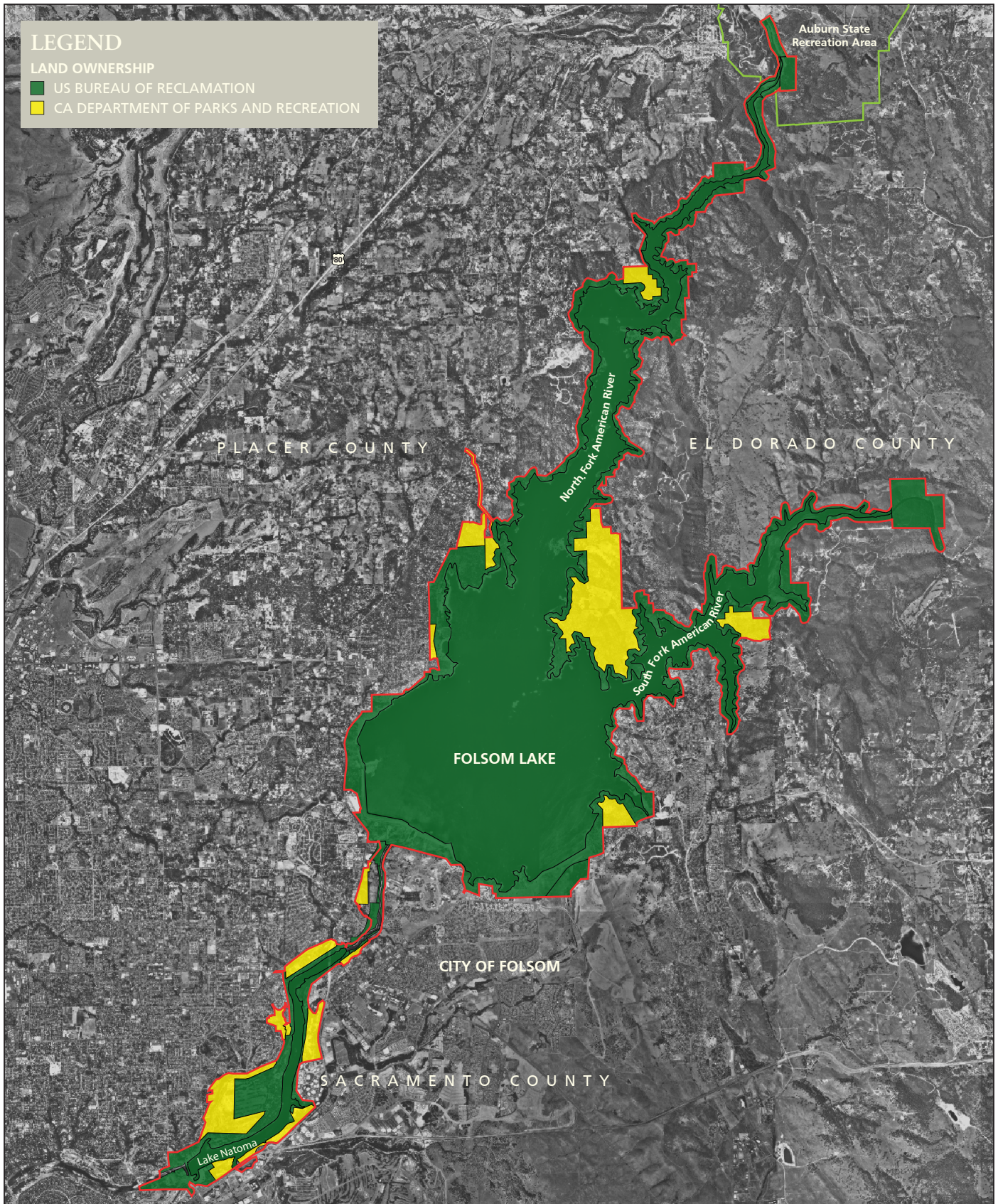
Folsom Lake SRA and Folsom Powerhouse SHP are composed of both federal lands administered by the U.S. Bureau of Reclamation and State-owned lands acquired by the California Department of Parks and Recreation (State Parks). Federal lands in the two units include approximately 17,300 acres and the State lands comprise approximately 2,200 acres. Figure II-1 shows the location of State Parks-owned land within the SRA. The federal lands in both units are managed by State Parks through a lease agreement with Reclamation.

a. Folsom Lake

The visitor areas on Folsom Lake provide for a range of recreational activities, with most accommodating multiple recreation uses. Primary visitor areas serve as gateways to the SRA and have the most developed facilities, providing a wide range of visitor services with easy access from major travel routes. Secondary visitor areas provide access to the shoreline in more remote and less developed settings (refer to Figure II-2).

Granite Bay and Beals Point are the primary visitor areas on the western shoreline of Folsom Lake, with large day-use areas that include swim beaches, landscaped picnic areas, boat launch facilities, restrooms, snack food and beach equipment concessions, trailheads, and associated parking. In addition, Granite Bay includes a modest multi-use activity center (available for rent) and Beals Point includes a 69-site campground. The smaller and more remote Rattlesnake Bar visitor area provides boat launch facilities and informal access to the shoreline for fishing, swimming and picnicking.

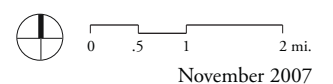
On the eastern shoreline, Brown's Ravine and Folsom Point are primary visitor areas. Brown's Ravine is home to the Folsom Lake Marina which provides 675 wet slips, 175 dry storage spaces, boat launch areas, marine provisions and fueling station, small picnic area, and restrooms. Folsom Point includes a picnic area, boat launch facilities, and restrooms. Secondary visitor areas on the eastern shore include Skunk Hollow/Salmon Falls whitewater rafting take-out areas, Old Salmon Falls/Monte Vista trailhead and equestrian staging area, and Peninsula Campground with 104 campsites. The El Dorado Irrigation District (EID) raw water pump station and associated facilities, operating under a license agreement with Reclamation, is also located in this portion of the SRA.

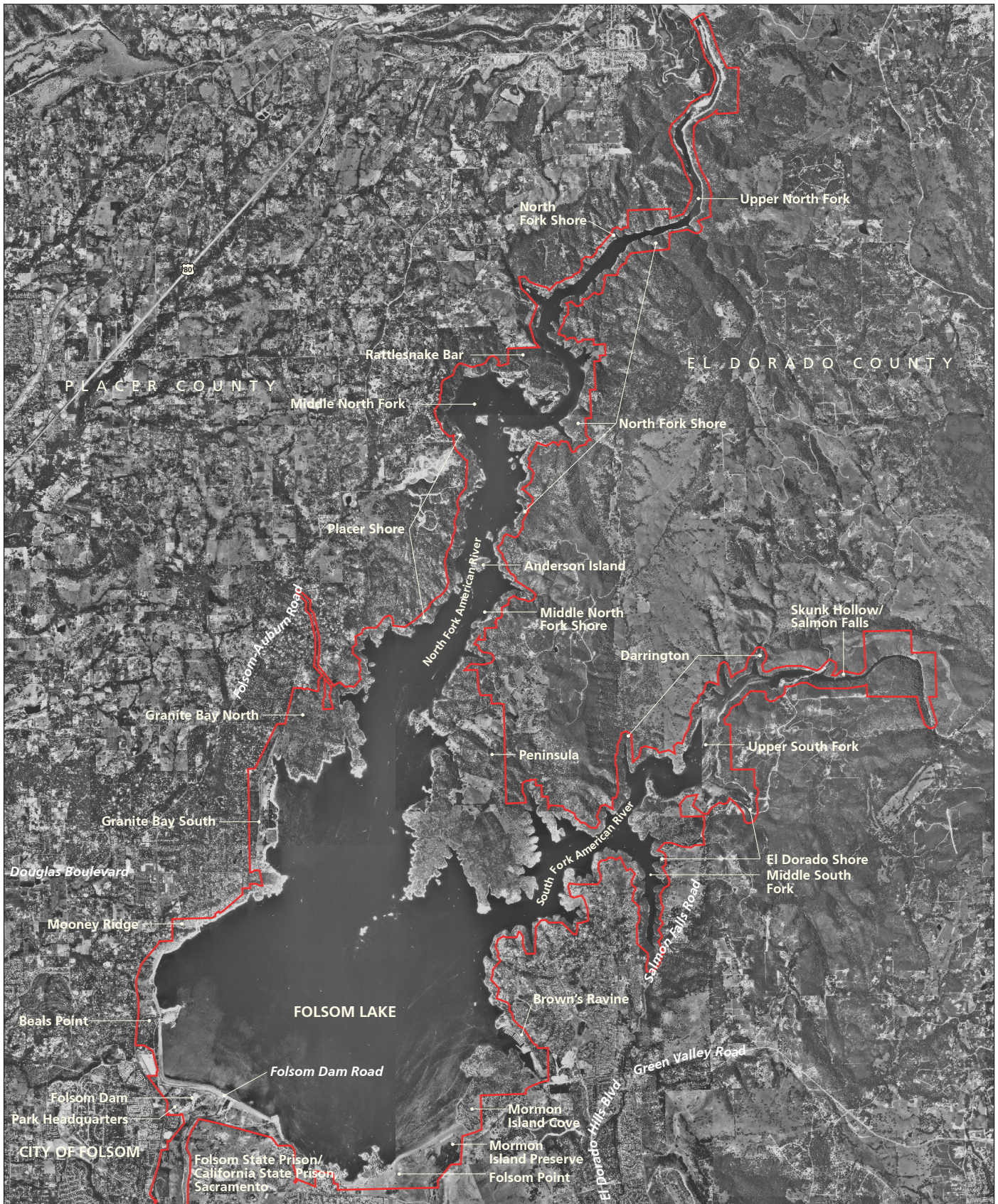


Folsom Lake State Recreation Area & Folsom Powerhouse State Historic Park
 General Plan/Resource Management Plan

Credit: Wallace Roberts & Todd, LLC

Figure II-1
FOLSOM LAKE STATE RECREATION AREA
LAND OWNERSHIP

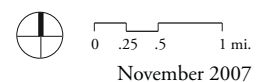




Folsom Lake State Recreation Area & Folsom Powerhouse State Historic Park
General Plan/Resource Management Plan

Credit: Wallace Roberts & Todd, LLC

Figure II-2
FOLSOM LAKE



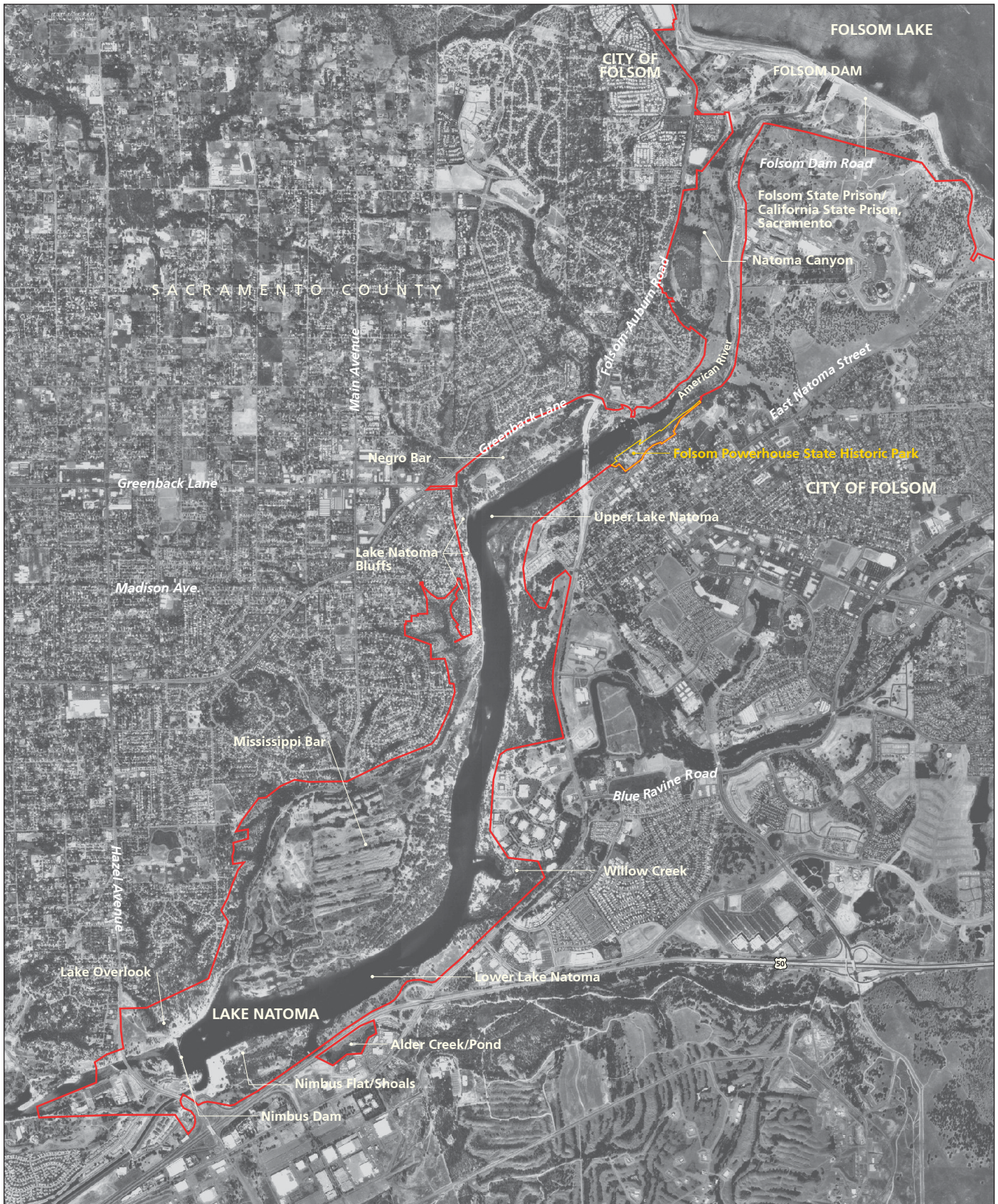
The SRA's system of trails and access points links all of the visitor areas on Folsom Lake. Recreation support facilities on Folsom Lake include the Park Headquarters compound at Folsom-Auburn Road and Folsom Dam Road which includes the Gold Fields District office and Folsom Sector office of the California Department of Parks and Recreation (State Parks), the Central California Area Office of the U.S. Department of the Interior Bureau of Reclamation (Reclamation), corporation yards for each agency, and the American River Water Education Center (cooperatively managed by Reclamation and State Parks). Non-recreation uses on Folsom Lake are generally associated with Folsom Dam and the operation of the reservoir. Folsom Dam is a 1,400-foot long and 340-foot high concrete structure flanked by earthfill wing dams and dikes with a total length of about nine miles.

The primary function of Folsom Lake for eight months of the year—between October 1 and May 31—is flood control. During this time, Folsom Dam holds back a large portion of the winter storm runoff in the American River watershed, and later the watershed's snow melt. In the summer months, water from Folsom Lake is released to prevent saltwater intrusion in the San Joaquin Delta and thereby maintaining water quality, and to maintain minimum flows and temperatures to facilitate anadromous fisheries (salmon and steelhead). Water from Folsom Lake is also used throughout the year to meet the local demand for drinking water and power generation. The water allocated to these various uses is carefully regulated and involves several federal, State, and local agencies.

As a functioning reservoir, water levels on Folsom Lake normally fluctuate between 440 feet in early summer and 405 feet in early winter. In some years the reservoir is drawn down below 400' elevation due to variations in precipitation and/or downstream demands for Folsom Reservoir water such as Delta water quality or anadromous fisheries needs. For instance, in November 2007 Folsom Reservoir is at 380 feet elevation. These fluctuations have a direct effect on both the aquatic and upland recreation opportunities on the Lake.

b. Lake Natoma

As the afterbay to Folsom Dam, Lake Natoma is essentially a wide spot in the American River characterized by sheltered waters and a highly scenic setting (refer to Figure II-3). As on Folsom Lake, the primary visitor areas on Lake Natoma accommodate multiple recreation uses and are separated by undeveloped shoreline. These areas include Nimbus Flat, California State University Sacramento (CSUS) Aquatic Center, and Negro Bar. The Nimbus Flat visitor area, located on the eastern shore of the lake just above Nimbus Dam, includes two small beaches, landscaped picnic areas, low docks for launching small watercraft, and restrooms. The CSUS Aquatic Center, which is operated by Sacramento



Folsom Lake State Recreation Area & Folsom Powerhouse State Historic Park
 General Plan/Resource Management Plan

Credit: Wallace Roberts & Todd, LLC

Figure II-3
LAKE NATOMA

State University under agreement with State Parks, is home to the university's water ski and rowing teams and also offers a full range of public courses and programs in watercraft instruction and aquatic safety. Facilities include an administrative building with offices and classrooms, equipment storage buildings, launch docks with mooring areas, and a small beach area. Located on the western shore, Negro Bar includes a full range of visitor facilities including a swim beach, landscaped picnic area, group campground, boat launch ramp, canoe/kayak concession, restrooms, and an equestrian staging area.

Secondary visitor areas on Lake Natoma include Willow Creek on the eastern shore and Lake Overlook and Mississippi Bar on the western shore. Each of the areas has limited facilities, but each provides water and trail access. The Willow Creek area includes a small picnic area, canoe and kayak concession, informal boat launch, vault toilets, and a small parking area. Lake Overlook, which provides sweeping views of Lake Natoma, the Sierra Foothills, and the Sacramento Valley from its vantage high above Nimbus Dam, includes a paved parking lot and trailhead. Mississippi Bar, the largest of the three areas, occupies a flat, river terrace between Lake Overlook and Negro Bar. The area is undeveloped, but has been highly modified by past mineral extraction activities. Significant portions of the area are covered with dredge tailings left over from early gold exploration and more recent aggregate mining. The area also includes several lagoons and ponds, some of which are accessible by canoe or kayak from Lake Natoma, as well as a heron rookery. Mississippi Bar represents a significant area of opportunity for future recreation and/or preservation.

Also located on Lake Natoma is the Folsom Powerhouse State Historic Park (SHP). Folsom Powerhouse SHP is a separate unit in the State Parks system that is managed by the Folsom Sector and is being addressed in this General Plan. The Folsom Powerhouse SHP is a premier cultural and interpretive attraction and is one of the oldest hydroelectric facilities in the world. The SHP includes the main powerhouse and associated buildings (including a gift shop), picnic area, restrooms, and a small parking area. Refer to Subsection d: Interpretive and Educational Resources, of this chapter for further information.

Non-recreation uses on Lake Natoma are generally associated with Nimbus Dam. The dam, which measures almost 1,100 feet in length and 76 feet in height, is designed to re-regulate flows into the American River and to generate electricity from water releases. Nimbus Dam includes two generators capable of producing more than 15,520 kilowatts of power. As a regulating reservoir, variations in water levels on Lake Natoma are much less than on Folsom Lake, generally between 2 and 4 feet only. Unlike Folsom, these variations are not seasonal, but can occur daily. These non-recreation uses include the transmission lines and the right

of way for those lines administered by the Western Area Power Administration (WAPA). These lines include the Nimbus-Folsom line that runs the length of Lake Natoma from Nimbus Dam Substation to Folsom Dam Substation and a short section of the Folsom-Roseville line which crosses the SRA.

2. Adjacent Land Use

When the SRA was established in 1958, the area around it was largely rural. However, the visual and recreational amenity provided by the SRA's lakes and uplands have served as a magnet to development and the area has undergone significant urbanization over the past half century. Today, only the northern and northeastern-most boundaries of the SRA adjoin truly rural areas. The majority of the development in the immediate vicinity of the SRA is relatively low-density single-family residential, although commercial retail and employment development also occurs in the surrounding areas. Development is likely to continue in the unit vicinity during the planning horizon of this General Plan, particularly in El Dorado County, resulting in additional areas of interface between the SRA and neighbors. The upland areas of the SRA generally comprise a relatively narrow strip of shoreline above the high water mark which puts development on private property adjacent to the unit's boundary in close proximity to various SRA use areas. This raises a variety of issues associated with the impact of neighboring development on the SRA, including night sky impacts, access and encroachment problems, noise, concerns regarding wildfire, spread of invasive exotic plant species, and the impacts of pets on unit natural resources.

a. Folsom Lake

Folsom Lake straddles the boundaries of Placer County, El Dorado County, Sacramento County and the City of Folsom. The western shoreline of the Lake is located within Placer County and land uses that abut the western SRA boundary generally decrease in intensity from south to north. North of the Placer County boundary with the City of Folsom, residential development is located adjacent to SRA boundaries, particularly near Granite Bay where some of the highest density residential development in the unincorporated portion of the County abuts the SRA. North of Granite Bay, residential densities decrease, transitioning from suburban densities to large-lot estates with very large homes and finally to rural lands. Development patterns in this area have attempted to optimize visual access to the lake by building on lake-oriented slopes and ridgelines. This is particularly true in the Lakeshore area where large homes are perched on the ridge above the North Fork of the American River between Granite Bay and Horseshoe Bar. Most of the adjoining areas in Placer County that provide views of Folsom Lake have been developed.

The very north end of the SRA abuts the Auburn State Recreation Area on the North Fork of the American River. Auburn SRA includes 26,000 acres of federal lands along 40-miles of the North and Middle Forks of the American River that were set aside for the construction of the Auburn Dam. Primary recreation activities at Auburn SRA include swimming, boating, fishing, camping, hiking, running, equestrian use, mountain biking, gold panning, off-highway motorcycle riding, and whitewater rafting. More than 100 miles of trails are located within Auburn SRA, including the Pioneer Express Trail along the North Fork of the American River which connects the Auburn and Folsom Lake SRA's.

The eastern shoreline of Folsom Lake is located within El Dorado County. As on the western shoreline, the lands abutting the SRA include residential development at densities that decrease from urban to rural as one moves north from the El Dorado County boundary with the City of Folsom. The most concentrated development abutting the eastern shoreline occurs above Brown's Ravine and north to New York Creek. Although densities decrease, residential development extends north along Salmon Falls Road to the South Fork crossing at Skunk Hollow. Lands adjoining the SRA in the Peninsula area are largely undeveloped at this point in time. These areas are designated in the El Dorado County General Plan for a mix of rural residential and agricultural uses.

The southern shoreline, stretching between Placer County in the west and El Dorado County in the east, is located in the City of Folsom (Sacramento County). Key uses along the southern shoreline include the 1,200-acre Folsom State Prison and California State Prison, Sacramento, and the offices of State Parks and Reclamation's Central California Area Office. These uses are located immediately south of, and below, Folsom Dam. To the west of prison, the SRA boundary is largely buffered from residential development by Folsom-Auburn Road, except in the area of Oak Avenue Parkway. To the east, new residential development in the area of East Natoma Street and Green Valley Road now backs onto the SRA boundary.

b. Lake Natoma

With the exception of the retail development that brackets Negro Bar at the intersections of Folsom-Auburn Road/Greenback Lane and Madison Avenue/Greenback Lane, single family residential development occupies most of the lands adjoining the west side of Lake Natoma. Retail and office development abuts SRA lands along the east side of Lake Natoma. Historic Downtown Folsom, a compact 5- by 3-block retail area along Leidesdorff and Riley streets, is located adjacent to Folsom Powerhouse SHP. South of Downtown, Folsom Boulevard generally serves as a boundary and buffer between the SRA and urban development.

However, in the area of Parkshore Drive and Blue Ravine Road, a campus industrial office park is located west of Folsom Boulevard, and backs directly onto State lands. South of the office park, limited retail is located along the west side of Folsom Boulevard with major commercial centers, such as the Folsom Premium Outlets (between Natoma Station Drive and Iron Point Road) and the Folsom Automall (at Highway 50) located along the east side of Folsom Boulevard opposite the SRA. South to Nimbus Flat, Highway 50 follows the SRA boundary separating it from industrial development to the east and south in unincorporated Sacramento County.

3. Significant Resource Values

Although designated as a State Recreation Area because of its recreation potential, the SRA also has significant resource values that need to be protected and managed. While the upland areas comprise only 30 percent of the total unit area, and often times consist of only a narrow strip of shoreline above the high water mark, they contain a variety of important natural and cultural resources. Natural communities within the SRA include chaparral, live oak woodland, blue oak woodland and savanna, annual grassland, riparian woodland, freshwater marsh, vernal pool, and open water. Cultural resources include the Folsom Powerhouse SHP, historic mining and settlement sites, as well as archaeological sites. The following is a summary of the key physical, natural, and cultural resources found in the SRA. A more detailed description of the SRA's resources is included in the *Folsom Lake State Recreation Area Resource Inventory (January 2004)*.

a. Physical Resources

1). *Climate*

The SRA is located where the transition from the Sacramento Valley to the Sierra Nevada Foothills begins. Meteorologically this means the SRA's weather and climate is more similar to the Valley than it is to the Sierra Nevada. As a result, winters are generally cool and moist and summers are hot and dry. Winter rains account for roughly 60 percent of the average annual rainfall, which is about 24 inches. Average annual snowfall is 0.1 inch. Summer high temperatures average in the mid-90s and low temperatures in the lower-60s. Winter high temperatures average in the low- to mid-50s, with low temperatures in the upper-30s.

The prevailing wind in the area is from the south due to marine breezes moving through the Carquinez Strait—a sea-level gap between the Coast Range and the Diablo Range—and the intervening flat terrain. In winter, these breezes diminish and winds from the north occur more frequently. Within the SRA, certain areas have more protection from the prevailing

winds, including Nimbus Flat, Negro Bar, and other areas on the Lake Natoma shoreline. Other more exposed areas, such as the main body of Folsom Lake, are subject to these winds, which makes the lake attractive for sailing and windsurfing when winds occur.

2). Geology, Topography and Soils

Geology

The SRA is situated in the westernmost extent of the Sierra Nevada Foothills, between the Central Sierra Nevada and the Central Valley Geomorphic Provinces. Four primary rock divisions are found in the SRA—ultramafic intrusives, metamorphics, granodiorite intrusives, and volcanic mud flows—each associated with a particular part of tectonic history and each with distinct mineral resources.

Ultramafic rocks found in the SRA have been lifted as much as 20 miles vertically by the faulting and underthrusting of the earth's crust. Since outcrops of ultramafic rocks tend to be resistant to erosion, these outcrops often form topographic highs. The largest exposure of ultramafic rocks occurs on Flagstaff Hill in the Peninsula area, and in the area of Iron Mountain near New York Creek on the South Fork arm of Folsom Lake. Mineral resources associated with ultramafic rocks include chromite, minor nickel, talc, and asbestos. The richest chromite mining in the western foothills of the Sierra occurred in the area of Flagstaff Hill just northeast of Peninsula Campground. Currently, these mines are idle or abandoned.

Metamorphic rocks in the unit occur in a north-northwest trending band that generally extends from Rattlesnake Bar south through the Peninsula area to the southern limit of the SRA. These rocks represent ancient chains of volcanic islands and associated seafloor sediments that were added to the western margin of North America when a vast ocean plate was subducted beneath the continent. Mineral resources associated with metamorphic rocks include disseminated gold, lode gold, copper, and zinc. The metamorphic band that extends through the SRA is considered an area where undiscovered mineral deposits similar to known deposits are reasonably expected to exist.

Two areas of granodiorite intrusive rocks—named the Rocklin and Penryn Plutons—have intruded older metamorphic rocks along western shore of Folsom Lake. Dark-colored mafic dikes containing magnesium and iron-rich minerals occur near the edges of these plutons with the best examples found at low water in the Peninsula area. It is worth noting these plutons are more recent than is typical of the high Sierra and that the typical gold-bearing quartz veins associated with other Sierran granitic intrusions are not associated with these plutons.

Volcanic mud flows and consolidated alluvial deposits occur below Folsom Dam and are best observed as the Natoma Bluffs on the northwest side of Lake Natoma and at Nimbus Dam. Two units exist within the SRA, including the Mehrten Formation and the Pliocene Laguna Formation. The bulk of the Natoma Bluffs exposes Merhten, a complex unit of volcanically derived sediments mixed with volcanic mudflows. Above the Merhten is the Laguna Formation, a sequence of gravel, sand, and silt derived mainly from granitic and metamorphic sources. Debris flow and stream deposits represent the mode of deposition for both units. Mineral resource associated with the Mehrten Formation is placer gold, which occurs in the bases of ancient stream deposits.

In addition to these primary geologic features, dredge deposits resulting from placer gold-mining activities are common within the SRA. These deposits—which consist of large gravel, cobbles, and boulders that have been washed clean of finer-grained sediment and left in large, unorganized heaps—cover the entire southeast side of Lake Natoma as well as a large portion of the northwest side. Dredge deposits represent a historical relict of the gold mining heyday of California.

Topography

The SRA is dominated by rolling hills and upland plateaus separated by major river canyons. Folsom Lake occupies the lower reaches of the canyons of the North and South Forks of the American River. Lake Natoma occupies a broad river valley that over the centuries has been deeply incised into sedimentary rocks. The margins of Folsom Lake and Lake Natoma have considerable topographic relief. Rolling hills and ridgelines surround Folsom Lake, and steep bluffs define a portion of Lake Natoma's western shore. Slopes are generally steep to moderately steep along the margins of Folsom Lake, the exceptions are at the Peninsula Campground area, Goose Flat, and the Granite Bay area. The highest elevation within the SRA is just over 800 feet and occurs in the hills on the Peninsula. The hillsides west of the North Fork, just outside the SRA, range from 800 to 900 feet elevation. The lower terraces at the south end of Lake Natoma are about 100 feet in elevation.

Soils

The majority of the soils in the vicinity of Folsom Lake (e.g., Ahwahnee, Andregg, Caperton and Sierra) developed over granite bedrock and are extremely coarse, sandy, and drain rapidly. As a result, these soils are highly erodible and evidence of excessive erosion has been observed in numerous locations places along the western shore of the lake. This situation is worsened by off-road vehicle use and the ad hoc creation and use of informal trails along the shoreline. Areas of gabbroic or serpentine soil also exist in the SRA. The Peninsula area

includes soils that were formed over serpentine bedrock. These soils are high in nickel, chromium, and manganese, giving them corrosive qualities and limiting the varieties of plants that can grow in them. As a result, the gabbroic habitats are uncommon and supported species are generally classified as Threatened or Endangered.

Soils in the vicinity of Lake Natoma are predominantly very deep and excessively well-drained soils in the areas of dredge tailings (xerorthents) that were formed of material with a high content of gravel and cobbles derived from mixed rock sources. The material was deposited as tailings after most of the fine-earth material was washed from it and removed during gold dredging activities. Soils in the area of the American River below Folsom Dam and above Lake Natoma formed in material weathered from granitic rocks (Andregg), are moderately deep, well-drained, and located on foothills. These coarse sandy loam soils are suitable for irrigated pasture, orchards, and rangeland. The primary limitation on urban use is depth to bedrock.

Hazards

The SRA is located in a seismically active region. One major fault zone—the Bear Mountains Fault Zone—traverses the unit. This fault zone trends nearly north-south from Auburn to El Dorado Hills, crossing Folsom Lake in the upper reaches of the North Fork arm near Manhattan Bar Road, and the South Fork arm near New York Creek. This portion of the fault zone is inactive. The only recorded moderate earthquake in the Sierra Nevada Foothills is the 1975 Oroville earthquake with a Richter magnitude of 5.7. The risk of ground shaking at the SRA as a result of a significant earthquake event on the nearest major fault line (located in the Bay Area) is very low due to the distance from these major faults, the hard bedrock, and the thin soil cover.

Landslides, mudflows, and rockfalls are not considered a major hazard in the Folsom Lake portion of the unit as most soils are too thin and slopes are generally too low to create conditions for mass wasting, although the steep bluffs along the northwest side of Lake Natoma are unstable. These bluffs are known to spill rocks or chunks of loosely consolidated material onto the popular walking and cycling path at the base of the slope, especially after a rain storm or during groundshaking from a distant earthquake. Further studies should be performed on the Natoma bluffs to determine the best method to protect park users from rockfalls.

3). Hydrology

The SRA is located within the American River watershed, which covers approximately 2,100 square miles northeast of Sacramento. The watershed is divided into three major sub-basins, including North Fork, South Fork, and Lower Fork. The North Fork sub-basin is located above Folsom Lake to the northeast and contains 28 dams and 1,318 miles of naturally-occurring waterways. The South Fork is located above Folsom Lake to the southeast and contains 29 dams and 1,145 miles of naturally-occurring waterways. The Lower Fork sub-basin begins at Folsom Dam and extends 30 miles downstream to the mouth of the American River at the confluence of the Sacramento River. It contains 8 dams and 380 miles of naturally-occurring waterways.

Several major creeks flow directly into the SRA, including: Willow Creek, Alder Creek, Hinkle Creek, Mormon Ravine, New York Creek, Hancock Creek, Sweetwater Creek, Kelly Ravine, Pilot Creek, Cooper Canyon, Anderson Creek, Indian Springs Creek, Deep Ravine, Knickerbocker Creek, and Skunk Canyon. There is concern that the rapid increase in development surrounding the SRA is impacting many of these creeks. Runoff from urban development can alter natural flows and adversely affect water quality by contributing sediment, petroleum residue, lead, zinc and other nutrients to creeks and streams in the SRA.

The most dominant and unique hydrologic aspect of the SRA is the operation of Folsom Lake as a reservoir in the Central Valley Project system. The use of Folsom Lake for the purposes of flood control, water supply, power generation, and environmental benefit results in significant annual fluctuations in lake levels, which in turn impact recreation uses in the SRA.

Folsom Lake Levels

As a functioning reservoir, Folsom Lake water levels fluctuate throughout the year – on average between 444 feet in early summer (June) and 405 feet in early winter (December), although levels as high as 466 feet and as low as 347 feet have occurred over the last 30 years. As an example, in November 2007, the reservoir level was at 380 feet elevation. The allocation of lake water to various uses, the competition of these uses during certain times of the year, and the weather combine to contribute an element of unpredictability when it comes to lake levels.

During the flood control season between October and May, a capacity of between 440,000 and 670,000 acre-feet must be maintained to handle potential flood flows. Lake levels must be lowered to 427 feet to accommodate the minimum capacity and lowered to 390 to

accommodate the maximum. Since lake levels during this period typically range from 405 to 444 feet, it is often necessary to release water through Folsom Dam and reduce lake levels to accommodate flood flows during storm events. A number of flood control improvement and dam safety projects, proposed or underway, will have both construction and operational impacts on recreation. These projects are described below.

Beyond the flood control season, water levels are typically between 444 feet (June) and 417 feet (September). Water releases from Folsom Lake are used during this time to maintain water quality in the San Joaquin Delta and maintain minimum flows to support anadromous fish species downstream. These releases are described in more detail below. This is also the time when 75 percent of visits to the SRA occur, and since aquatic activities account for about 85 percent of all recreation visits to Folsom Lake, water releases during the summer months have a direct impact on recreation uses. Refer to Section C.1 of this chapter for further information on the impacts of Folsom Lake operations on recreation use in the SRA.

Flood Control Operations

Folsom Dam holds back a large portion of the winter storm runoff in the American River watershed. The majority of this runoff is generated during the rainy winter months from October to May. From May to July, rainfall runoff is replaced with snowmelt from the upper portions of the watershed. Early floodplain maps adopted by the Federal Emergency Management Agency (FEMA) indicate that the majority of flows generated by a 100-year storm in the watershed could be contained within Folsom Lake; however, major storm events in 1986 and 1997 caused record flood flows and raised concerns regarding the adequacy of existing flood control system that protects Sacramento. A series of investigations by local, State, and federal agencies concluded that Folsom Dam only provides flood protection for an 85-year storm event and that several of the dikes and both of the wing dams needed work to meet current federal dam safety standards. As a result, a number of measures and projects have been proposed and/or implemented to increase the level of protection provided by the flood control system. Refer to Section C.1 of this chapter for further information.

New interim operational procedures adopted in 1995 allow Reclamation and the Sacramento Area Flood Control District to control an additional 270,000 acre-feet of water within Folsom Lake and to provide up to 670,000 acre-feet of flood control storage. The original 5-year agreement on these interim operational procedures was extended twice until 2002. A new interim operation agreement was developed in 2004 and guides the current flood control operations.

In 2002 the ACOE and other flood control agencies approved a plan to raise Folsom Dam and the earthen dikes by seven feet, increasing their height from an elevation of 480.5 feet to 487.5 feet, to provide additional storage space in the reservoir during serious flood events. The *American River Watershed, California Long Term Study (Folsom Dam Mini-Raise Project)*, in association with the other flood protection measures, would increase the level of flood protection for Sacramento to a 213-year flood event.

However, in early 2005 it became apparent that the plans to enlarge the outlets in Folsom Dam, a critical part of the package of flood protection measures, was more difficult, riskier and much more costly than previously projected. Concurrent to the proposals to increase flood protection at Folsom Dam and Reservoir, Reclamation has been investigating its need to strengthen the existing earthen dams and dikes around the reservoir due to hydrologic, seismic and seepage concerns. In the fall of 2005, the ACOE and Reclamation began working together on a Joint Federal Project to improve both dam safety and flood control. A new gated auxiliary spillway around Folsom Dam is the central piece of the flood protection measures in this new joint federal project. This new spillway would run from Observation Point on the south side of the left wing dam down to the river below the existing spillways and outlets. The ACOE and Reclamation have outlined a variety of alternatives which include the auxiliary spillway and proposals to raise the dam and dikes anywhere from zero to seventeen feet. An EIR/EIS was completed for the Folsom Dam Safety and Flood Damage Reduction Project in April 2007. The Record of Decision (ROD) for this project was released in May 2007. The first construction contract for the spillway portion of this project was awarded in October 2007.

The Folsom Dam Safety and Flood Damage Reduction Project will result in some construction related-impacts to recreation use and facilities at Folsom Lake SRA. However, mitigation measures are included in the ROD to minimize these impacts. As the work on this project continues DPR and Reclamation will work together and with the other involved agencies to minimize and mitigate these impacts.

Once the various dam modification and raise projects are completed, a permanent re-operation plan for Folsom Lake will be prepared by ACOE and the Sacramento Area Flood Control Agency (SAFCA). As part of this plan, Reclamation and ACOE are evaluating the use of an advance release strategy based on improved weather forecasts using the Advanced Hydrologic Prediction System of the National Weather Service. This would allow lake levels to be reduced in advance of a forecasted major storm event.

Water Supply Operations

Although flood control is the primary purpose of Folsom Lake, the water stored in the reservoir is allocated to a variety of supply-related uses throughout the year. While these demands are currently met within the existing allocations of water from Folsom Lake (less than one-third of the contracted water is diverted), it is expected that increased diversions will be necessary to meet increased water supply demands from population growth and other needs.

During the summer and fall months, water from Folsom Lake is released in part, for the purposes of maintaining water quality in the San Joaquin Delta. As water is pumped out of the Delta, water must be released from reservoirs upstream to prevent saltwater intrusion and maintain water quality. Due to its proximity to the Delta, Folsom Lake water is most often used when immediate infusions of fresh water are needed. Also during this time, cold water from Folsom Lake and other reservoirs is released to maintain minimum flows on the American, Sacramento, and other rivers for the purposes of protecting and restoring the natural production of federally-listed salmon and steelhead. At Folsom Lake, water managers work to keep enough cold water in the American River in summer to sustain these fish species while holding back enough to support spawning runs in the Fall before the temperatures drop and winter rains arrive. In short, balancing the need to maintain water quality in the Delta and minimum flows in various rivers to support anadromous fish species is a complex process that involves several federal and State agencies. It also contributes an element of unpredictability to water levels on Folsom Lake and to impacts on recreation use in the SRA.

b. Natural Resources

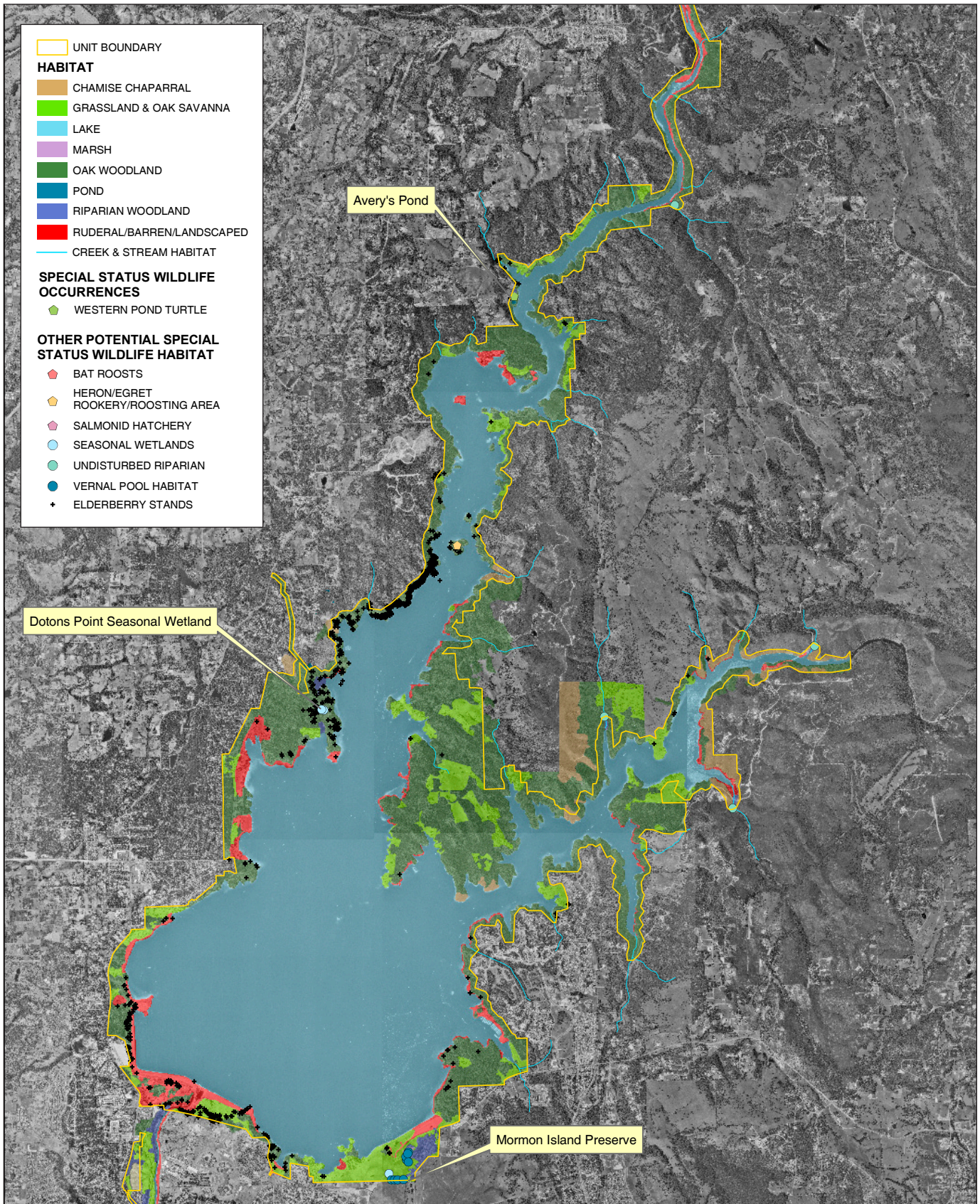
1). Plant Life

The SRA supports nine major vegetation communities typical of the lower foothills of California's Central Valley. These vegetation communities, in turn, provide habitat for a diverse mix of terrestrial and aquatic fauna, including several special status species. The unique mix of vegetation communities in the SRA is a product of complex interactions between natural and human influences that have shaped the region. The successful long-term protection and management of the SRA's vegetation must also take these interactions into account. Several special status plant species are known to occur or potentially occur in the SRA. For a complete list of plant species in the SRA, refer to the *Folsom Lake State Recreation*

Area Resource Inventory (January 2004). Figures II-4 and II-5 illustrate the location of vegetation communities in the SRA.² These communities include:

- The *Chamise chaparral* community is dominated by chamise, an evergreen shrub that accounts for more than 60 percent of the vegetative cover. Roughly 450 acres of chaparral can be found in the SRA, primarily along the steep south- and southwestern-facing slopes of the upper reaches of the South Fork of the American River. Chaparral is prone to frequent fires and cannot perpetuate itself in the absence of it. Where fire is not suppressed, chaparral typically burns on a 10 to 40-year cycle. Where fire is suppressed, grasses fill the openings created by dead chamise. Eleven special status plant species have the potential to occur in the SRA's chaparral community, particularly where this community occurs on gabbritic or serpentine soil types. Five of these plant species are federally listed as Threatened or Endangered.
- The SRA supports two types of oak dominated communities: *Interior live oak woodland and Blue oak woodland/savanna*. The Interior live oak woodland (about 3,900 acres in the SRA) ranges in appearance from closed canopy forest to open canopied woodland with a shrub layer of varying density and height. The Blue oak woodland/savanna (about 1,900 acres in the SRA) ranges in appearance from closed canopy forest to open canopied savanna with only a few trees per acre and a dense shrub layer or open grassland understory. Both communities provide a structurally diverse habitat that is attractive to wider range of resident species than found in other upland habitats in the SRA. Fourteen special status plant species have the potential to occur in the SRA's oak woodland and savanna communities.
- *California annual grassland* in the SRA is typically dominated by non-native annual grass species such as ripgut brome, soft chess, wild oats, and brachypodium. However, in a few locations, native grasses such as deergrass, purple needlegrass, and various native wildflowers are present in varying degrees. Roughly 1,100 acres of this community exist in the SRA. Invasive exotic species—such as yellow star thistle, medusa head, and mustard—are rapidly diminishing the habitat quality of the SRA's grasslands and associated and savanna areas. Occasional fires will help maintain grasslands. No special status plant species associated solely with grasslands are known to occur in the SRA.

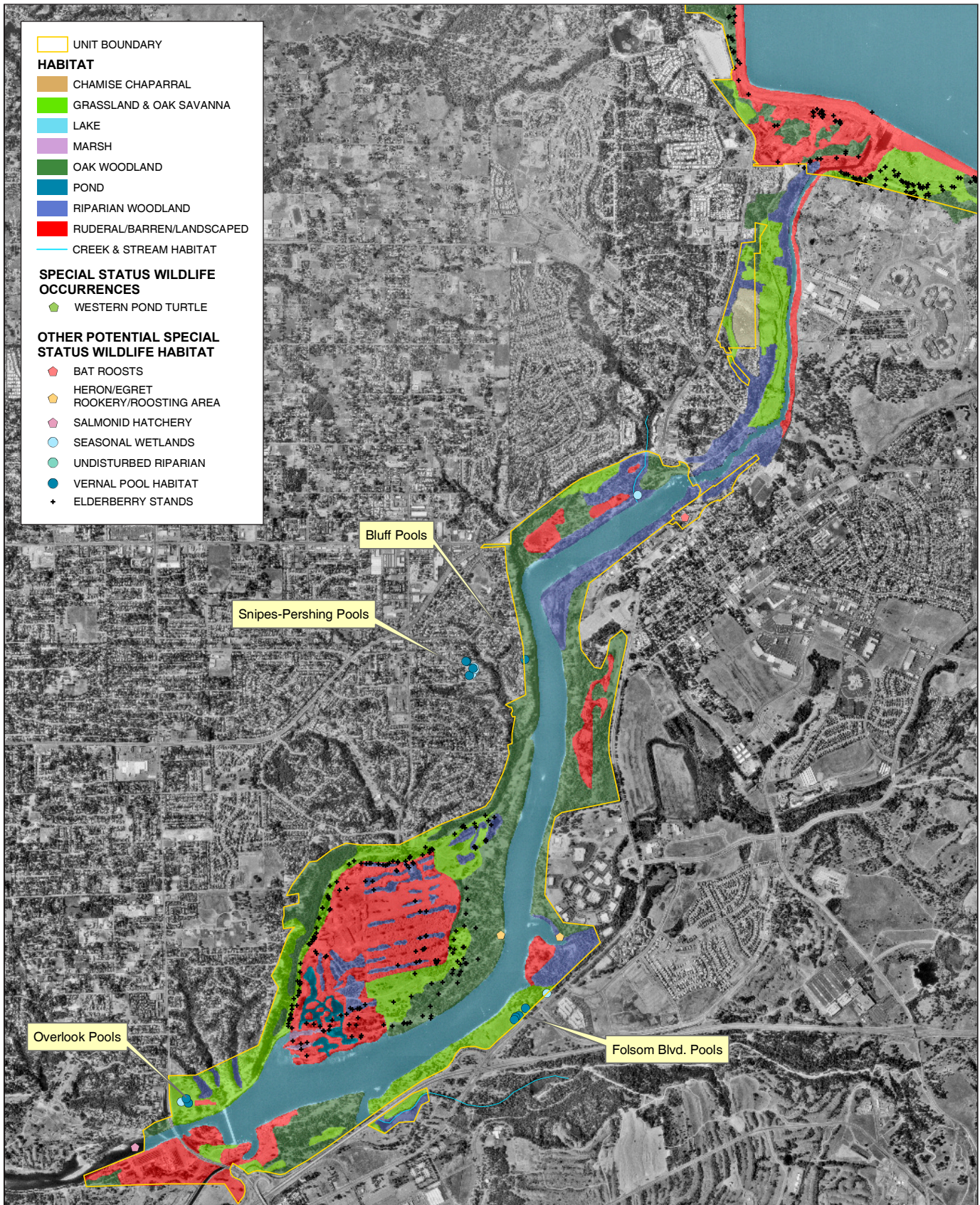
² It should be noted that the boundaries of each vegetation community were not surveyed but interpreted using aerial photos and some ground truthing. As such, the land area of each community is approximate and is intended for reference only.



Folsom Lake State Recreation Area & Folsom Powerhouse State Historic Park
 General Plan/Resource Management Plan

Source: LSA Associates, Jones & Stokes, USGS, CDPR

Figure II-4
FOLSOM LAKE VEGETATION AND HABITAT



Folsom Lake State Recreation Area & Folsom Powerhouse State Historic Park
General Plan/Resource Management Plan

Source: LSA Associates, Jones & Stokes, USGS, CDPR

Figure II-5
LAKE NATOMA VEGETATION AND HABITAT

The *Cottonwood/willow riparian* communities in the SRA (about 390 acres) are dominated by Fremont cottonwood, black willow, arroyo willow, and narrowleaf willow, and occur along rivers, streams, and portions of the lake shoreline where moist soils support different vegetation than the drier upland areas. Although many riparian habitats in the SRA have been disturbed and/or fragmented, the structural diversity of this community supports a greater diversity of wildlife species. The only special status plant species known to occur in this community is the Northern California black walnut.

- Roughly 10 acres of *Freshwater Marsh* exist in the SRA, characterized by dense stands of perennial, emergent marsh vegetation, such as cattails and bulrush up to 5 meters in height. Dense stands of shorter-statured marsh plants are found at marsh edges, while the interiors are often broken by open patches of water, often choked with smartweed and floating pond weeds. A number of exotic non-native species, including Pampas grass, Yellow iris, and Giant reed grass are known to occur within freshwater marsh. No special status plant species associated solely with freshwater marsh habitat are known to occur within the SRA.
- *Northern claypan and Northern hardpan vernal pools* (between 0.5 and 2 acres in the SRA) are identified by low herbaceous vegetation of hydrophytic species and a shallow layer of impermeable clay soil that forms a water-tight basin. Water from winter rain and overland flow creates these shallow wetlands that typically dry up during the late spring and fill again the following winter. In early mid-spring, relatively undisturbed pools are dominated by native annuals such as Sacramento pogogyne, vernal pool buttercup, and downingia. These species give way in late spring/early summer to annual hairgrass, goldfields, and coyote thistle. Since vernal pools contain a large number of species that occur in no other habitat, this habitat constitutes one of the most sensitive in the SRA and may support up to seven special status plant species, including three that are federal and/or state listed species.
- *Seasonal wetlands* in the SRA are characterized by limited periods of surface water—generally no deeper than 1 or 2 feet and usually for a period of between 1 and 4 months—and/or soil saturation during the rainy season. These conditions support a plant community dominated by sedges, rushes, and spikerush. Seasonal wetlands comprise roughly 3-5 acres of the SRA, primarily along streams. All of the special status plant species that may occur in vernal pools may also occur in seasonal wetlands, depending on the degree of disturbance and hydrological conditions.

- *Lake shoreline fluctuation zones* on Folsom Lake support a mix of plant species that are adapted to wet environments and to drier, ruderal conditions. Following the annual drop in lake level, stands of common broadleaf forbs colonize the newly-exposed soils, producing wildflower displays from such species as miniature lupine, butter and eggs, mustard, and pearly everlasting. Later in the season, sparse non-native annual grasses including wild oat, ripgut brome, and Italian ryegrass dominate. Most of the shoreline zone plant community is arrested in an early successional stage by seasonal changes in water level and human activities, such as driving vehicles below waterline during low pool periods. No special status plant species are associated with this community.
- *Ruderal and barren areas* (roughly 1,040 acres in the SRA) exist along roadsides, in boat-launch aprons, camping and picnic areas, and other areas where human activity has compacted the soil or otherwise heavily impacted the vegetation. These areas also include the dredge deposits along the shores of Lake Natoma resulting from placer gold-mining activities. This community is dominated by a mix of weedy plant species typical of Northern and Central California. Common species include those found in the non-wetland areas of the shoreline fluctuation zone, as well as invasive exotic plant species such as Yellow star thistle, Italian thistle, and White sweet clover. No special status plant species are associated with this community.

2). *Animal Life*

The SRA's vegetation communities described above provide habitat for a diverse mix of terrestrial and aquatic fauna, including several special status species. Additionally, the SRA contains substantial aquatic habitat—lakes, ponds, river and stream habitat—that support a large number of fish species and other aquatic organisms. For a complete list of animal species in the SRA, refer to the *Folsom Lake State Recreation Area Resource Inventory (January 2004)*.

Animal Life and Habitat Types

Animal life in the SRA, outlined here by habitat type, includes:

- *Chamise chaparral* provides habitat for animal species that rely on its dense vegetation to provide cover. Most species are likely to forage in nearby woodlands and grasslands where palatable plant species and prey are more common and accessible. Common amphibian and reptile species include the Western fence lizard, California whipsnake, and Western rattlesnake. Birds, foraging primarily for seeds, include the Western scrub jay, White-crowned sparrow, and American goldfinch. The vegetation also provides good

foraging habitat for predatory birds, such as the Red-tailed hawk, Turkey vulture, and American kestrel. Numerous mammals inhabit this area, including various species of mole, mice, and rabbit. Larger species include the Bobcat, Coyote, and Mule deer. Four special status wildlife species are known or likely to occur in the vicinity of the SRA's chaparral community, including: California horned lizard, Peregrine falcon, Prairie falcon, and Bell's sage sparrow.

- The trees and shrubs of the *Interior live oak woodland* and *Blue oak woodland/savanna* provide much for animal species. Longhorn beetles and Underwing moths hiding in tree bark are a source of food for Acorn woodpeckers, Western fence lizards, and white-breasted nuthatches. Trees also provide locations for bird perching, food, and nesting. Large trees provide nesting sites for the golden eagle, bald eagle, and red-tailed hawk, which require the height of tall trees to protect their nests. Herons and egrets use foothill pines as nesting sites in locations where oak woodlands occur in the vicinity of Folsom Lake and Lake Natoma. The dense vegetation in oak woodlands also provides concealment for large predators, such as mountain lions and bobcats, as they hunt. Five special status wildlife species are known or likely to occur in the vicinity of the SRA's woodland community, including: Valley elderberry longhorn beetle, Golden eagle, Bald eagle, Sharp-shinned hawk, Cooper's hawk, and Long-eared owl.
- *California annual grassland* in the SRA supports similar fauna as the oak savanna habitats. The large number of herbivores and insectivores foraging in grasslands and savannas provide a substantial prey base for many predatory species, such as the Common king snake, Red-tailed hawk, and Coyotes. Most species of raptors, including Red-tailed hawk, White-tailed kite, and Golden eagle, will forage in these habitats and will sometimes nest in nearby trees. Introduced animal species observed in this habitat include the Starling, Rock dove, Wild turkey, and Virginia opossum.
- The *Cottonwood/willow riparian* communities in the SRA provide significant food, shelter, cover, and nesting opportunities for wildlife. Compared to the drier oak woodlands, the riparian woodland's insect diversity, dense understory vegetation, and presence of relatively mature canopy are better suited to migratory bird species – the Western kingbird, Common yellowthroat, Blue-gray gnatcatcher, and Tree swallow. Species such as the Red-shouldered hawk and Duskyfooted woodrat are adapted to live in the denser canopies and willow thickets of the riparian habitat. Common raptor species found in riparian woodlands include Red-tailed hawk, Cooper's hawk, and Sharp-shinned hawk. Where riparian woodlands pass through grassland or savanna

habitats, the dense vegetation and taller trees provide the only suitable retreat for species such as Mule deer and Gray fox. Ten special status wildlife species are known or likely to occur in the vicinity of the SRA's riparian areas, including: Valley elderberry longhorn beetle, California red-legged frog, Western pond turtle, Golden eagle, Bald eagle, Sharp-shinned hawk, Cooper's hawk, Willow flycatcher, Yellow warbler, and Yellow-breasted chat.

- With its unique combination of land, shallow water, and dense vegetation, *freshwater marsh* provides habitat for many species of wildlife. The water in marsh habitats supports the micro-invertebrates that serve as the base of most aquatic food chains while the presence of extensive vegetation supports many of the herbivorous species that begin the terrestrial food chain. Several species of bird nest only in the dense vegetation of emergent marsh, including the American bittern and Red-winged blackbird. Five special status wildlife species are known or likely to occur in the vicinity of the SRA's freshwater marsh areas, including: California red-legged frog, Western pond turtle, Tricolored blackbird, Northern harrier, and White-tailed kite.
- Since *seasonal wetlands and vernal pools* typically do not contain fish, several amphibians—the Western spadefoot and Pacific treefrog for instance—use vernal pools for egg laying and larval habitat. Herbivores, such as Mule deer and California vole that feed on grassland forage will take advantage of the greener vegetation growing in seasonal wetlands as the grass and other forage in upland areas dries out. Several species of crustacean are able to survive the extreme conditions of this habitat, primarily vernal pools, with an accelerated life cycle that is completed within the short period of time water persists in the pools. In addition, several species of Solitary bees are specialized to pollinate only vernal pool flowers during their blooming periods. Two special status wildlife species are known or likely to occur in the vicinity of the SRA's freshwater marsh areas, including: Vernal pool fairy shrimp and Western spadefoot toad.
- *Lake shoreline fluctuation zones* and *ruderal and barren areas* are typically frequented by wildlife species associated with open habitats, such as grasslands and oak savannas. Several species of birds, such as Rock wren and Rufous-crowned sparrow are commonly seen foraging in these areas. Ground squirrels will commonly burrow into exposed soils and shorebirds such as the Western sandpiper, spotted sandpiper, and killdeer will forage in the shallow water along the barren shoreline. Canada geese forage within areas of turf and lawn and larger mammals such as Mule deer, Mountain lion, and Black bear have been observed using these areas as movement corridors. The shoreline zone of Folsom

Lake is the most significant example of this corridor function in the SRA, particularly where the shoreline interconnects several oak woodland, grassland, and riparian woodland habitats. These habitat areas are effectively isolated until the water levels recede, allowing for wildlife to resume movement along the exposed lake shoreline zones. Although no special status plant species are associated with this community, there is potential habitat for the Valley elderberry longhorn beetle, a federal Threatened species.

Animal life and Structures

Various buildings, dams, water control facilities, bridges and related facilities in the SRA may provide refuge for animal species that have adapted to survival in built landscapes and/or require the dark, cave-like recesses of bridges and abandoned buildings. In developed areas, species such as Striped skunk, Raccoon, and Rock dove forage on human-associated refuse. Other species, such as the Brazilian free-tailed bat, Myotis bat, Cliff swallow, and Deer mouse will use built structures as refuge if they are located away from human activity for at least part of the day. The historic Folsom Powerhouse and surrounding structures are known to provide such habitat. The single special status species associated with structures in the SRA is the Pallid bat.

Lake Natoma and Folsom Lake

Folsom Lake supports both warm water and cold water fish species due to thermal stratification during the summer months. Thermal stratification results in an upper layer of warm water, a narrow zone of rapid temperature transition, and a lower layer of cold water. Warm water sport fish present in the lake are non-native and include Largemouth bass, Smallmouth bass, Spotted bass, Sunfish, and Black and White crappie. Cold water sport fish species include Rainbow trout, Brown trout, and Chinook salmon. Native warm water fishes present in the lakes include Sacramento squawfish, Hardhead, California roach and Sacramento sucker. These fish species are all associated with streams in the Sacramento-San Joaquin River system as well as streams in the Sierra Nevada foothills, and are presumed to have been historically present in the American River prior to construction of the Folsom and Nimbus Dams.

Chinook salmon and rainbow trout are annually stocked from hatcheries into Folsom Lake. Rainbow trout reproduce in the North and South Forks of the American River, but the vast majority of rainbow trout caught in the lake are hatchery released fish. Landlocked chinook salmon ascend tributaries of Folsom Lake to spawn, however, the California Department of Fish and Game (Fish and Game) has not found their progeny in Folsom Lake.

Lake Natoma is not a particularly productive fishery due to the effects of water temperature variability associated with the lake's function as a regulating afterbay for Folsom Dam. Water released from Folsom Dam gradually warms as it spreads over the wider portions of Lake Natoma, creating conditions more favorable for warm water fish species. Fish species found in the lake are generally the same as those found in Folsom Lake. While Fish and Game annually stocks the lake with rainbow trout, warm water species predominate.

While no special status fish species are known to occur in Folsom Lake or Lake Natoma, the cold water releases from these reservoirs are critical to creating favorable flow and temperature conditions for two special status anadromous salmonids that are found in the Lower American River below Nimbus Dam. Chinook salmon and Central Valley steelhead both occur seasonally in the river, including in the Nimbus Shoals area of the SRA just below Nimbus Dam.

Ponds

Although there are no naturally-occurring ponds in the SRA, numerous small ponds have been constructed at Mississippi Bar – the result of historic dredger mining activities and more recent aggregate mining reclamation. In addition, Avery's Pond is a 2- to 3-acre body of water that is part of an historic water conveyance feature that was excavated on the northwest shoreline of Folsom Lake in the area of Rattlesnake Bar. These ponds are all less than ten feet in depth and support extensive aquatic vegetation growth providing cover, nesting, and foraging habitat for aquatic fauna. Most animal species associated with the ponds are introduced, including the Red-swamp crayfish, sunfish, bass, catfish, bullfrog, and muskrat. Native species, such as the Western pond turtles and waterfowl such as mallards, move from creek systems into the ponds and terrestrial birds and mammals will come to open water areas to drink and feed. Two special status wildlife species are known or likely to occur in the vicinity of the SRA's pond habitat, including: California red-legged frog and Western pond turtle.

Creeks and Streams

Creeks and streams consist of naturally-occurring water courses that are tributaries to Folsom Lake and Lake Natoma. Eight perennial creeks and 22 intermittent/ephemeral streams flow into Folsom Lake. Three additional perennial/intermittent creeks enter Lake Natoma. Perennial creeks contain water throughout the year and support aquatic habitat as well as sparse to dense cover of aquatic and wetland plant species and stands of riparian woodland habitat. Intermittent streams flow only part of the year and provide zones of seasonally wet habitat providing water, forage, cover and movement corridors for terrestrial and aquatic

species. Ephemeral streams do not provide appreciable habitat for aquatic species since they typically dry following the end of each storm event and do not contain seasonal pools.

Native fish species, such as California roach and Sacramento sucker, can survive in the small pools of intermittent streams. Non-native fish, such as sunfish and golden shiner, will move up creeks where they compete with native fish for insects and crustaceans. Species such as the Western pond turtle have adapted to small residual pools during the dry months and can survive without any surface water for some time. Three special status wildlife species are known or likely to occur in the vicinity of the SRA's creek and stream habitats, including: California red-legged frog, Foothill yellow-legged frog, and Western pond turtle.

c. Cultural Resources

1). *History*

The SRA's location on the American River system is rich in history spanning more than 4,000 years. Early prehistoric groups, who may have been the ancestors of today's Washoe people, occupied base camps in the area and made seasonal foraging rounds in the foothills. At the time of European contact, the area lay within the territory of the Nisenan, the southern linguistic group of the Maidu tribe. Located far from Spanish missions and settlements, late eighteenth- and early nineteenth-century Nisenan retained their traditional lifeways longer than many of California's native peoples. The first severe impact of the colonization of California came in the 1830s, when a series of epidemics swept through the Central Valley.

In 1839, Johann Sutter established a fort on the Sacramento River. Many native Californians came under Sutter's control working either at his New Helvetia settlement or at other ranchos in the region. Sutter's Fort soon became the major stopping point for overland travelers coming down from the Sierra Nevada. Sutter's dominance of the regional economy was shortlived when, in 1848, Sutter's foreman, James W. Marshall, discovered gold in the South Fork of the American River. Within months the American River region was flooded with gold seekers from a myriad cultures and countries. The colorful names given to early mining settlements—Mormon Island, Alabama Bar, Sailor's Bar, and Negro Bar among others—give an impression of the range of origins of the area's inhabitants. Stores, saloons, roads, ferries, and bridges were built to supply the miners with various necessities. California Historic Landmark #585, located between Dikes 5 and 6 along Folsom Lake, commemorates the Pioneer Express route used by miners to access mining camps and settlements along the North Fork during the gold rush.

By the 1850s, most of the gold which could be easily retrieved with simple tools had been taken from the hills and streams. Miners organized companies and turned to hydraulic mining. In the 1860s, Horatio Gates Livermore, owner of the Natoma Water and Mining Company, dammed the American River to generate electricity and provide a steady supply of water for crops. Though the elder Livermore did not live to see the completion of the project, his sons oversaw the construction of the first Folsom Dam in the 1880s using convict labor. In July of 1895, the Folsom Hydroelectric Plant (Folsom Powerhouse) was the first in the nation to provide high-voltage alternative current over long distance transmission lines by bringing electric power to Sacramento over 22 miles away. The Powerhouse remained in operation until 1952, and in 1955 two new dams were completed at Folsom to generate hydroelectric power, prevent flooding, and provide water for agriculture and domestic use. The lakes created by these dams are a valued recreation resource and the reason for establishing the Folsom Lake State Recreation Area.

2.) Cultural Features

Portions of the SRA are represented by various prehistoric and historical archaeological site types. At present, a total of 229 archaeological sites have been identified within the SRA. Of these sites, 150 are prehistoric, 58 are historical, 21 have both a prehistoric and historical component, and 27 remain unaccounted for due to incomplete documentation. Both prehistoric and historical sites are most likely to be located along the original American River channels. Mining, settlement, and water development are dominant themes associated with historical archaeological sites identified within the SRA. Areas of documented historical activity, such as the hydraulic mining remnants and dredge tailing fields around Rattlesnake Bar and the City of Folsom, tend to yield the greatest number of historical sites. Previous archaeological research indicates that normal fluctuations in seasonal water levels at Folsom Lake—particularly between 400 and 466 feet ASL—have damaged, and sometimes entirely destroyed, prehistoric and historical archaeological sites within the SRA. This destructive process has been cited as a probable reason for the higher site densities encountered in survey areas below the normal 400-466 feet ASL fluctuation zone, where the Lake's deep pool protects sites from repeated exposure and erosion.

Both Folsom Dam and Nimbus Dam have been determined to be eligible for the National Register of Historic Places. Reclamation has proposed the two dams for listing on the Register as part of a Central Valley Project multiple property listing.

3.) Folsom Powerhouse State Historic Park (SHP)

Located in the City of Folsom on the shores of Lake Natoma, the Folsom Powerhouse is the most important historic and interpretive facility in the park. It represents one of the oldest hydroelectric facilities in the world and was the nation's first power system to provide high-voltage alternative current over long distance transmission lines for major municipal and industrial use. The Powerhouse was operated by Pacific Gas and Electric Company until 1952 when the dam associated with the powerhouse was destroyed during the construction of the new Folsom Dam. Portions of the old Folsom Dam, canals and other structures are still present in the river gorge below the new Folsom Dam. The SHP complex includes: the main powerhouse and turbine room; lower powerhouse; associated forebay with wooden flumes and gates; blacksmith shop; ½-mile of the historic canal that fed the Powerhouse; picnic area; comfort station; and a small parking area. Significant improvements for this day use facility will be completed in 2007, including seismic upgrades, a larger parking area with room for buses, and a new visitor center located at the Powerhouse entrance.

Folsom Powerhouse is listed on the National Register of Historic Places (1981) as being significant in the areas of engineering and industry on the national level. It has been said that it represented a momentous advance in the science of generating and transmitting electricity. In 1895 the facility brought high-voltage alternating current over long distance transmission lines for the first time. It is also a National Historic Landmark, a National Historic Civil Engineering Landmark (1975), a National Historic Mechanical Engineering Landmark (1976) and is designated as California Registered Historical Landmark No. 633 (1958).

d. Interpretive and Educational Resources

Folsom Powerhouse SHP, American River Water Education Center, and the California State University Sacramento (CSUS) Aquatic Center are the primary interpretive and educational resources in the SRA. There is no visitor center in the SRA, but the public contact counter at the District/Sector Office located at the intersection of Auburn Folsom Road and Folsom Dam Road is an important source for public information regarding the SRA and other visitor services.

1). Folsom Powerhouse SHP

Folsom Powerhouse SHP provides tours, exhibits, and interactive activities that explore the historic hydro-electric generation and transmission of electricity. Inside the Powerhouse building, visitors can see the massive General Electric transformers—each capable of conducting from 800 to 11,000 volts of electricity—the Tennessee marble-faced control switchboard, and historic photos and exhibits on how the Powerhouse worked. Outside,

visitors can access the forebays and canal system that brought the water to the Powerhouse from the dam. A blacksmith shop and bookstore are also open to the public and a new visitor center for the SHP will open to the public in 2008. Interpretive and education programs at the SHP are provided by the Friends of the Folsom Powerhouse, a non-profit charitable organization independent of State Parks.

2). American River Water Education Center

The American River Water Education Center, which is managed by Reclamation and State Parks, provides tours, exhibits, and interactive activities that explore the watershed of the American River and water conservation. Exhibits describe the physical and biological characteristics of the watershed as well as the history of human use, including the diverse interests in American River water today. Flooding and droughts, dam construction, and hydro-electric power production are illustrated in physical displays. An outdoor exhibit features water-efficient irrigation systems and plants that do well in the semi-arid climate of California. The Center was also once the starting point for public tours of Folsom Dam, a program that was temporarily cancelled due to security concerns in the wake of the terrorist attacks on September 11, 2001. This program was reinstated in Summer 2004, but only for school groups in grades 2 through 8. The Center, located within the Park Headquarters complex, is visited by roughly 20,000 school children annually.

3). CSUS Aquatic Center

The California State University Sacramento (CSUS) Aquatic Center is located on Lake Natoma at the south end of Nimbus Dam. The Center is a cooperative operation of the Associated Students of California State University Sacramento, the University Union of CSUS, California Department of Boating and Waterways (DBW), and State Parks. CSUS manages the Center through an operating agreement with State Parks. The Center serves as one of several DBW Boating Instruction Safety Centers (BISC) in the state, providing on-the-water and in-the-classroom boating safety education. The Center is also the home of CSUS' water ski and rowing teams and aquatic courses. Also offered are a full range of public courses in sailing, windsurfing, jet skiing, kayaking, rowing, canoeing, etc., as well as youth programs and summer camps. Facilities include an administrative building with offices and classrooms, equipment storage buildings, launch docks with mooring areas, and a small beach area.

4). Nimbus Fish Hatchery

While not a part of the State Recreation Area, the Nimbus Fish Hatchery is a Reclamation owned facility, managed by the Department of Fish and Game which does have a visitor

center and interpretive displays related to anadromous fish life cycle, management and habitat.

e. Scenic Resources

The SRA represents a significant visual and scenic resource within the region. Although the manmade reservoirs were created for flood control, water supply and power generation, the resulting lakefront setting affords visitors with dramatic panoramas of the lakes and the surrounding natural landscape. The winding lake shoreline and hilly topography provide significant variety in both viewpoint orientation and available viewsheds, creating a wealth of viewing conditions and opportunities. In fact, there are few areas within the SRA that do not provide a positive viewing experience.

The SRA's most significant scenic resources are the dramatic and high quality panoramic views that are available. These panoramas include views across the lake, views from the lake, as well as views out over the surrounding non-SRA landscape. For instance, Lake Overlook above Nimbus Dam provides sweeping views of Lake Natoma and the Sierra Foothills to the north, while the view south extends to the Sacramento Valley and Mt. Diablo in the Bay Area. East-facing views from the western shores of Folsom Lake include the sweep of the lake surface in the foreground with the regionally characteristic landscape of rolling hills, open grasslands, and scattered oak and gray pine woodlands on the Peninsula. Each of these panoramas includes a unique combination of water, sky, and natural and built features.

The most distinctive landscape features in the SRA include: the steep gorges of the North and South Forks of the American River as they extend from Folsom Lake toward the Sierra Foothills; the rugged Peninsula area between the North and South Forks that lends a sense of wild undeveloped countryside; the Lake Natoma Bluffs rising 150 feet above the western shoreline of Lake Natoma between Negro Bar and Mississippi Bar; and the heavily vegetated shoreline of Lake Natoma that provides visual relief from the surrounding urban development. Unique built features in the SRA include the three bridges in Folsom that cross Lake Natoma—the historic truss bridge (1893), Rainbow Bridge (1917), and Lake Natoma Crossing (2000)—as well as the tall, slender brick building and associated structures that house the historic Folsom Powerhouse.

f. Recreation Resources

1). Recreation Activities and Use

With approximately 1.5 million visitors a year over the past 5 years, the SRA is one of the most popular in the State Park system. It is worth noting that, more than half of all visits to

the SRA typically occur at just three major facilities: Granite Bay, Beals Point, and Folsom Point. Although the SRA accommodates year-round recreation, 75 percent of all visits occur during the warmer spring and summer months. At Folsom Lake, aquatic activities account for about 85 percent of all recreation visits and the configuration and orientation of the Lake are such that certain users are attracted to certain areas. For instance, sailors prefer the open waters and high winds of the central area of the lake, while wake boarders and water skiers prefer the more sheltered waters of the narrow North and South forks of the American River. These areas are also preferred by boaters looking for quiet areas to cruise, drift, and swim.

At Lake Natoma, aquatic activities account for about half of all recreation visits. The sheltered waters—combined with the 5 mph speed limit for motorized watercraft—provide the perfect setting for paddling, rowing, and fishing. In fact, Lake Natoma is considered one of the best rowing locations in the world, due in large part to the facilities available at the CSUS Aquatic Center and the major rowing competitions hosted by CSUS at Nimbus Flat.

The SRA provides a wide range of land-based recreation opportunities for visitors who are not aquatic enthusiasts, including picnicking, camping, and trail use (walking, hiking, cycling, mountain biking, horseback riding, etc.). The extensive day-use facilities, 176 campsites, and some 90 miles of dirt trails and paved paths provide ample opportunity for landside recreation.

2). Recreation Facilities

The SRA includes a wide range of both aquatic and upland facilities. Support facilities are also present.

Aquatic

Aquatic facilities in the SRA include Folsom Lake Marina, various boat launch facilities, and the whitewater rafting facilities at Skunk Hollow/Salmon Falls. The Folsom Lake Marina includes 685 wet slips and 175 dry storage slips (see Table EC-1). The waiting list for slip rentals is several years long, due in part to increased urbanization in this area of El Dorado County. Commercial and private whitewater rafting are popular activities on the South Fork of the American River, one of the highest use rivers in the West. Boat launch facilities in the SRA include some 64 launch lanes across 9 day use areas on both lakes (see Table EC-2). These facilities accommodate launching at various lake levels on Folsom Lake. Facilities at Salmon Falls and Skunk Hollow are specifically intended to accommodate rafting activity (see Table EC-3). Between 50,000 and 60,000 commercial rafters take-out at Salmon Falls while as many as 24,000 private rafters take-out at Skunk Hollow. Both facilities receive

heavy use during peak season weekends, which results in traffic congestion onto Salmon Falls Road and overflow parking on the shoulders of Salmon Falls Road for about ½-mile in each direction from the entrances.

Table EC-1: Folsom Lake Marina Facilities

<i>Boat Slips</i>	<i>Total</i>	<i>16-foot Slips</i>	<i>20-foot Slips</i>	<i>24-foot Slips</i>	<i>Waiting List (years) 16 and 20-foot/24-foot</i>
Wet	685	72	368	245	5/9
Dry	175	N/A	N/A	N/A	5/9
<i>Launch Ramps</i>	<i>Lanes</i>	<i>Slope (%)</i>	<i>Length (ft.)</i>	<i>Construction</i>	<i>Minimum Lake Level (ft.)</i>
Main Ramp	4	15	420	Asphalt/ concrete	395
Hobie Cove	3	15	323	Concrete	375
<i>Concessions</i>	<i>Services Provided</i>				
Snack Bar	Yes				
Supply Sales	Yes				
Fuel Station	Yes				
Boat Equipment Rentals	Yes				
<i>Parking</i>	<i>Vehicle Spaces</i>	<i>Vehicle/Trailer Spaces</i>		<i>Disabled Spaces</i>	<i>Construction</i>
Main Ramp		404		5	Asphalt
Hobie Cove	41	150		3	Asphalt
Day Use		122			Asphalt
<i>Restrooms/Other Facilities</i>	<i>Total</i>				
Restrooms	2				
Information Kiosks	1				
Picnic Tables	38				
Barbeques	16				
Drinking Water	Yes				

Source: State Parks; Folsom Lake Marina Concessionaire; Wallace Roberts & Todd, 2005.

Table EC-2: Boat Launch Facilities

<i>Folsom Lake</i>	<i>Lanes</i>	<i>Slope (%)</i>	<i>Length (ft.)</i>	<i>Width (ft.)</i>	<i>Construction</i>	<i>Minimum Lake Level (ft.)</i>
Granite Bay						
Stage 1	2	15	300	60	Concrete	395
Stage 2	10	10	250	700	Asphalt/concrete	426
Stage 3	10	10	250	700	Asphalt/concrete	435
Stage 4	14	15	180/250	330	Asphalt/concrete	425
5 Percent	4	5	1,200	60	Asphalt	408
Low Water	2	15	60	45	Concrete	360
Folsom Point	4	11	900	80	Asphalt	406
Brown's Ravine						
Main Ramp	4	15	420	60	Asphalt/concrete	395
Hobie Cove	3	15	323	60	Concrete	375
Rattlesnake Bar	2	2	300	40	Asphalt	425
Peninsula						
Day Use	1	15	260	30	Concrete	434
South Ramp	1	10	750	25	Asphalt/concrete	410
Beals Point	1	5	400	40	Gravel	420
<i>Lake Natoma</i>	<i>Lanes</i>	<i>Slope (%)</i>	<i>Length (ft.)</i>	<i>Width (ft.)</i>	<i>Construction</i>	<i>Minimum Lake Level (ft.)</i>
Negro Bar	2	5	200	60	Concrete	115
Nimbus Flat						
Main Ramp	2	1	60	30	Concrete	115
Alternate	1	1	30	30	Gravel	120
Willow Creek	1	1	35	12	Gravel	115

Source: State Parks; Wallace Roberts & Todd, 2005.

Table EC-3: Whitewater Rafting Facilities

<i>Skunk Hollow</i>				
<i>Parking</i>	<i>Vehicle Spaces</i>	<i>Disabled Spaces</i>	<i>Loading Area</i>	<i>Construction</i>
Day Use	35	2	Yes	Asphalt
<i>Restrooms/Other Facilities</i>				
<i>Total/Description</i>				
Vault Toilets				2
Picnic Tables				3
Drinking Water				No
Raft Drying Rails				Yes
<i>Salmon Falls</i>				
<i>Parking</i>	<i>Vehicle Spaces</i>	<i>Vehicle/ Trailer Spaces</i>	<i>Disabled Spaces</i>	<i>Construction</i>
Day Use	32	12	1	Asphalt
<i>Restrooms/Other Facilities</i>				
<i>Total/Description</i>				
Vault Toilets				2
Picnic Tables				No
Drinking Water				Yes
Raft Drying Rails				No

Source: State Parks; Wallace Roberts & Todd, 2005.

Upland

Upland facilities in the SRA include campgrounds, day use facilities, and trails. There are a total of 176 campsites in the SRA that accommodate tent, trailer, RV, and group campers (see Table EC-4). These sites are spread across three separate camping areas including Peninsula Campground, Beals Point Campground, and Negro Bar Group Campground. Full capacity is often reached at all three campgrounds on peak season weekends, particularly at the more accessible Beals Point and Negro Bar sites. Day use facilities are the primary gateways to the SRA and accommodate the majority of total visitors and recreational activities. Key facilities on Folsom Lake include Granite Bay, Beals Point, and Folsom Point. Lake Natoma facilities include Nimbus Flat, Negro Bar, and Folsom Powerhouse State Historic Park (see Table EC-5). These day use areas also include boat launch facilities as indicated in Table EC-2 above. The parking areas at Granite Bay and Beals Point often reach capacity by midday on peak season weekends causing traffic to backup along entrance roads and into surrounding neighborhoods.

The trail system in the SRA is extensive, linking most of the SRA's facilities and accommodating a variety of users, including walkers and hikers, equestrians, bicyclists, and mountain bikers. Although there are 94 miles of existing trails within the SRA, not all areas

of the unit are accessible to all users and there is not a continuous trail connection around Folsom Lake. The demand for trail access continues to increase, and with this demand comes a growing concern about conflicts between the different kinds of trail users, particularly on multi-use trails. Currently there are 46 miles of pedestrian/equestrian trails, 20 miles of multi-use trails, 16 miles of Class I paved trails, 9 miles of mountain bike/pedestrian trails, and 3 miles of pedestrian-only trails (2 miles of which are ADA accessible) (see Table EC-6).

Many of the trails in the SRA have special designations as part of larger regional and national trail systems. The Class I paved trail between Beals Point and Nimbus Dam is part of the Jedediah Smith National Recreation Trail. In addition, the Pioneer Express Trail in the SRA that extends from the boundary with Auburn SRA to Beals Point is part of the Western States Pioneer Express Trail which is designated a National Recreation Trail.

Table EC-4: Campground Facilities

<i>Peninsula Campground</i>	<i>Total/Description</i>
Campsites	104 single
Restrooms	5
Showers	No
Hookups	No
Picnic Tables	104
Fire Pits	104
Drinking Water	Yes
Boat Ramps	1
<i>Beals Point Campground</i>	<i>Total/Description</i>
Campsites	49 single/20 RV
Restrooms	2
Showers	Yes
Hookups	Sanitary for RV sites
Picnic Tables	69
Fire Pits	69
Drinking Water	Yes
<i>Negro Bar Group Area</i>	<i>Total/Description</i>
Campsites	3 group
Restrooms	1
Hookups	No
Picnic Tables	17
Barbeques	15
Fire Pits	5
Drinking Water	Yes

Source: State Parks; Wallace Roberts & Todd, 2005.

Table EC-5: Day Use Facilities

<i>Beals Point</i>	<i>Total/Description</i>
Beach	Yes
Concession	Snack bar/beach equipment
Restrooms	3
Picnic Tables	53
Barbeques	31
Drinking Water	Yes
Trail Access	Lake Natoma/Granite Bay
Parking	387(including 8 disabled)

Table EC-5: Day Use Facilities

<i>Granite Bay</i>	<i>Total/Description</i>
Beach	Yes
Concession	Snack bar/beach equipment/boating equipment
Restrooms	5
Picnic Tables	100
Barbeques	42
Activity Center	Group use by reservation
Drinking Water	Yes
Equestrian Staging Area	Yes
Trail Access	Pioneer Express/Granite Bay/Beeks Bight-to Dotons/Beeks Bight ADA
Parking	793 (includes main beach, Beeks, Activity Center, Equestrian Staging)
<i>Rattlesnake Bar</i>	<i>Total/Description</i>
Equestrian Staging Area	Yes
Trail Access	Pioneer Express
Parking	15
<i>Peninsula</i>	<i>Total/Description</i>
Boat Ramp	Yes
Chemical Toilets	2
Picnic Tables	6 with ramadas
Drinking Water	No
Trail Access	Darrington Trail
Parking ¹	60
<i>Darrington Trailhead</i>	<i>Total/Description</i>
Trail Access	Darrington Trail
Parking	25
<i>Salmon Falls</i>	<i>Total/Description</i>
Trail Access	Sweetwater Creek Trail
Parking	15 (for trail access)
<i>Old Salmon Falls</i>	<i>Total/Description</i>
Chemical Toilets	2
Drinking Water	No
Equestrian Staging Area	Yes
Trail Access	Brown's Ravine/Sweetwater Creek
Parking ¹	15
<i>Brown's Ravine</i>	<i>Total/Description</i>
Equestrian Staging Area	Yes
Trail Access	Brown's Ravine/Old Salmon Falls Trail
Parking	10 (at trailhead/staging area)

Table EC-5: Day Use Facilities

<i>Mormon Island Cove</i>	<i>Total/Description</i>
Trail Access	Brown's Ravine
Parking	40
<i>Folsom Point</i>	<i>Total/Description</i>
Restrooms/Vault Toilets	2/2
Picnic Tables	50
Barbeques	46
Drinking Water	No
Trail Access	Brown's Ravine
Parking	77 (including 2 disabled)
<i>Observation Point</i>	<i>Total/Description</i>
<i>Facilities at Observation Point no longer available for public use due to the Folsom Dam spillway construction.</i>	
<i>Folsom Sector Office</i>	<i>Total/Description</i>
Trail Access	Lake Natoma/Beal's Point Trail
Parking	15
<i>Folsom Powerhouse</i>	<i>Total/Description</i>
Main Powerhouse	Museum
Concessions	Gift shop
Restrooms	1
Picnic Tables	10
Drinking Water	Yes
Trail Access	Powerhouse Loop
Parking ¹	35
<i>Willow Creek</i>	<i>Total/Description</i>
Concessions	Boating equipment
Boat Ramp	Yes
Vault Toilets	2
Picnic Tables	4
Barbeques	No
Drinking Water	No
Trail Access	Lake Natoma
Parking ¹	20 (including 1 disabled)
<i>Parkshore Access</i>	<i>Total/Description</i>
Trail Access	Lake Natoma
Parking	18

Table EC-5: Day Use Facilities

<i>Nimbus Flat</i>	<i>Total/Description</i>
Beach	Yes
Restrooms	2
Picnic Tables	37
Barbeques	11
Boat Ramp	2 small docks
Drinking Water	Yes
Trail Access	Lake Natoma
Parking	231 (including 8 disabled)
<i>Lake Overlook</i>	<i>Total/Description</i>
Restrooms/Toilets	No
Picnic Tables	No
Drinking Water	No
Equestrian Staging Area	Yes
Trail Access	Lake Natoma
Parking ¹	150
<i>Mississippi Bar/ Snowberry Trailhead (Main Avenue)</i>	<i>Total/Description</i>
Equestrian Staging Area	Yes
Trail Access	Lake Natoma/various trails
Parking	40
<i>Negro Bar</i>	<i>Total/Description</i>
Beach	Yes
Concessions	Boating equipment
Restrooms	2
Picnic Tables	32
Barbeques	4
Boat Ramp	Yes
Drinking Water	Yes
Equestrian Staging Area	Yes
Trail Access	Lake Natoma
Parking	96 (including 4 disabled)

¹ Estimated capacity as vehicle spaces are not striped.

Source: State Parks; Wallace Roberts & Todd, 2009.

Support

Support facilities in the SRA include the Park Headquarters complex. Located at the intersection of Folsom-Auburn Road and Folsom Dam Road, the complex is home to the Gold Fields District Office and Folsom Sector Office of State Parks and the Central California Area Office of the Bureau of Reclamation. Facilities include various maintenance and storage buildings as well as corporation yards for both agencies. The complex is also the location of the American River Water Education Center which provides tours, exhibits and interactive activities that explore the American River watershed and water conservation.

Table EC-6: Trail Facilities

<i>Trail</i>	<i>Start</i>	<i>Finish</i>	<i>Use</i>	<i>Length (Miles)¹</i>	<i>Surface</i>
Pioneer Express	SRA Boundary	Beals Point	Pedestrian Equestrian	21	Dirt
Los Lagos	Auburn-Folsom Road	Beeks Bight	Pedestrian Equestrian	1.5	Dirt
Granite Bay Multi-Use					
Granite Bay/Beals Point	Granite Bay Beach	Beals Point	Multi-use	2	Dirt
Granite Bay	Granite Bay Entrance	Beeks Bight	Multi-use	5	Dirt
Center Trail	Oak Point Beach	Beeks Bight	Multi-use	1	Dirt
Lake Natoma Paved					
East Trail	Folsom Truss Bridge	Nimbus Dam	Multi-use	6	Paved
West Trail	Beals Point	Nimbus Dam	Multi-use	10	Paved
Lake Natoma Dirt					
East Trail	Folsom Truss Bridge	Nimbus Dam	Multi-use	6	Dirt
West Trail	Beals Point	Lake Overlook	Pedestrian Equestrian	9	Dirt
Middle Ridge	Sunset/Main Avenues	Nimbus Dam	Pedestrian Equestrian	1	Dirt
Snowberry	Sunset/Main Avenues	Snipes Pershing Ravine	Pedestrian Equestrian	1.5	Dirt
Folsom Point/Brown's Ravine	Folsom Point	Brown's Ravine	Multi-use	4	Dirt
Brown's Ravine/Old Salmon Falls	Brown's Ravine	Old Salmon Falls	Pedestrian Equestrian	12	Dirt
Sweetwater Creek	Sweetwater Creek	Salmon Falls	Multi-use	2	Dirt
Darrington	Salmon Falls	Peninsula Campground	Mountain bike Pedestrian	9	Dirt
Pedestrian Trails					
Doton's Point (ADA)	Beeks Bight	Doton's Point	Pedestrian	1	Dirt
Powerhouse Loop	Powerhouse	Powerhouse	Pedestrian	1	Dirt
Peninsula (ADA)	Peninsula Campground	Peninsula Point (South)	Pedestrian	1	Dirt
<i>Total</i>				<i>94</i>	

Source: State Parks; Wallace Roberts & Todd, 2005.

4. Existing Facilities

In addition to the recreation facilities in the SRA described above, there are various circulation, utilities, and public service facilities.

a. Circulation

Regional access to the SRA is provided via two major freeways: Interstate 80 and Highway 50. Direct access from I-80 is provided via interchanges at Douglas Boulevard and Laird Road, while access from Highway 50 is provided via interchanges at Hazel Avenue, Folsom Boulevard, and Bidwell Street. Local access exists at several points along key roadways that abut or pass through the unit, including Douglas Boulevard, Auburn-Folsom Road/Folsom Boulevard, Natoma Street, Green Valley Road, Salmon Falls Road, and Hazel Avenue.

Bicycle and pedestrian access to the SRA is extensive. Several of the local streets listed above include bicycle lanes in addition to providing direct access to the SRA's recreation areas. Each recreation area provides formal or informal access to the trail system, and several connections exist where county or city streets and trails terminate at the SRA boundary providing additional access points. In addition, regional trail facilities, including segments of the American River Bikeway and the Pioneer Express Trail, provide pedestrian, bicycle, and equestrian access to and through the SRA from the surrounding region.

Public transportation to the SRA is provided by several agencies, including Folsom Stage Line, Roseville Transit, Sacramento Regional Transit, and Placer County Transit. Transit access to the SRA will improve greatly with the completion of the light rail extension by Sacramento Regional Transit from Mather Field/Mills Station to Downtown Folsom. Four of the proposed stations are located adjacent to the SRA—including at Hazel Avenue, Iron Point Road and Glenn Drive at Folsom Boulevard, and Downtown—and will permit direct access to Lake Natoma.

Planned roadway and/or intersection improvements may further improve access and circulation in the vicinity of the SRA, including Auburn-Folsom Road, East Natoma Street, Green Valley Road, El Dorado Hills Boulevard, and Hazel Avenue.

b. Utilities and Public Services

Existing water supply, wastewater, electric and gas, and telephone services are generally provided in the recreation sites and facilities in the SRA surrounded by development with

access to urban services. In recreation sites where such services are not provided, but are in close proximity to such infrastructure, services could be extended with relative ease. In more remote areas of the SRA where surrounding development is without urban services—or there is no surrounding development—SRA facilities are also without such services. In these areas, the number of visitors would not typically justify the cost of providing services.

Full urban services are provided to the following recreation areas in the SRA: Park Headquarters, Beals Point, Granite Bay, Browns Ravine, Folsom Point, Folsom Powerhouse, Nimbus Flat, and Negro Bar. Recreation sites that are without urban services, but to which nearby services could be easily extended, include: Observation Point, Mormon Island Wetland Preserve, Willow Creek, Mississippi Bar, and Lake Overlook. According to various utility representatives, the existing utility systems serving most recreation areas in the SRA have the capacity to accommodate additional park facilities. However, expansion at the Nimbus Flat and Lake Overlook recreation sites could be problematic. Given their location at the end of Sacramento County's water supply distribution network, these areas could have problems with water pressure. In 2007, the County completed upgrades to an interceptor line that provides service the Folsom area. This is projected to provide sufficient sewer capacity to service ultimate planned growth in the urban services area.

B. PLANNING INFLUENCES

Planning for state parks often deals with issues that cross park and regional boundaries. Often federal, county, or other state agencies are responsible for providing oversight for various planning related policies and law, such as the California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), the Clean Water Act-Section 404, the Americans with Disability Act of 1990, and more. And since the dams and lakes in the SRA are a critical part of the Central Valley Project, additional federal and state agencies are involved in their operation and maintenance. Numerous State Parks Resource Management Directives also help to guide planning processes.

The following are existing Central Valley Project, statewide, State Park System-wide, and regional planning influences that affect planning decisions at the Folsom Lake State Recreation Area.

1. System-wide Planning

a. Federal, State and Local Agencies

The very existence of the SRA is the result of the Central Valley Project, which dammed the American River and created Folsom Lake and Lake Natoma for the purposes of flood control, water supply, and power generation. Operation of the two reservoirs for these purposes involves several federal, State, and local agencies and results in a complex regulatory context.

Federal Agencies

Once construction of Folsom dam was completed in 1956 by the U.S. Army Corps of Engineers (ACOE), responsibility for their operation and maintenance was transferred to the U.S. Department of the Interior's Bureau of Reclamation (Reclamation). While Reclamation owns much of the land area within the SRA, a 1956 agreement was reached with State Parks for the purposes of developing, administering, and maintaining these lands as a state recreation area. Since that time State Parks has acquired, and continues to acquire, lands adjacent to the SRA in order to further its management objectives. Given their shared responsibilities for the operation of the reservoirs and adjoining lands, State Parks and Reclamation work closely on a variety of planning and management issues and projects. In fact, the headquarters for State Parks' Gold Fields District and Reclamation's Central California Area Office share the same office complex at Folsom-Auburn Road and Folsom Dam Road. The preparation of this combined General Plan/Resource Management Plan is an example of this relationship.

The ACOE continues to be involved in matters relating to the dams and reservoirs in the SRA. The ACOE works with the Sacramento Area Flood Control Agency (SAFCA), the State of California Reclamation Board and the U.S. Bureau of Reclamation to ensure the adequacy of the system to protect the Sacramento area from flooding, and designs and builds any system improvements deemed necessary. As previously noted, non-recreation facilities within the SRA include transmission lines and the right of way (ROW) for those lines administered by the Western Area Power Administration (WAPA). WAPA actively manages the vegetation within their ROW to ensure public safety. Finally, consistent with federal law, all federally-sponsored projects within the SRA by these agencies will be subject to environmental review under the National Environmental Policy Act (NEPA).

State Agencies

State agencies other than State Parks are involved in the SRA. The State of California Reclamation Board is the key State-level agency working with the federal agencies (Reclamation and ACOE), SAFCA, and local governments in establishing, planning, constructing, operating, and maintaining flood control works. The California Department of Boating and Waterways (DBW) plans, develops, and funds boating facilities across the State, establishes boating regulations, assists with local boating law enforcement, and promotes boating safety and education. Aquatic centers across the State are the focus of boating safety and education by providing classroom and on-the-water training to boaters at a variety of skill levels and for a variety of boat types. The California State University, Sacramento (CSUS) Aquatic Center is located on Lake Natoma within the SRA. The California Department of Water Resources (Water Resources) is responsible for developing and managing the water resources of the State, including State Water Project. Folsom Lake is an integral part of the State's water supply.

California Department of Fish and Game manages the State's fish, wildlife, and plant resources and their respective habitats as mandated by the State Fish and Game Code. The agency maintains the State's threatened or endangered species and coordinates with the United States Fish and Wildlife Service (Fish and Wildlife Service) to enforce the Federal Endangered Species Act. The Central Valley Water Quality Control Board (Water Quality Control Board) regulates all waste discharges to land and water to manage water quality within the basin. Finally, all future development within the SRA by State Parks will be subject to environmental review under the California Environmental Quality Act (CEQA).

The Department of Conservation includes the California Geologic Survey, the Division of Mines and Geology and the Division of Oil, Gas and Geothermal Resources. In certain circumstances, for certain resources, Department of Conservation has some regulatory authority and responsibility. This includes enforcing the provisions of the State Mining and Reclamation Act of 1975 (SMARA), requires the reclamation of lands mined (within certain thresholds) and the return of these lands to productive use.

Local Agencies

The vulnerability of Sacramento to flooding, and the large number of people potentially at risk in the area, led State and local leaders to form the Sacramento Area Flood Control Agency (SAFCA) in 1989. SAFCA is a joint powers agency that represents several local municipalities and the American River Flood Control District in matters of flood control, resource management, and planning on the Lower American River. The agency also

coordinates with the various federal and State agencies involved in flood control. SAFCA has also created the Lower American River Task Force to coordinate planning and resource management on this stretch of the river, which includes Lake Natoma. The Task Force has completed several management plans, as described below under Regional Planning Influences.

Other local agencies that have a regional planning influence on the SRA include the surrounding municipal jurisdictions whose plans and activities are relevant to the SRA and could affect the future development on adjacent lands or the involvement of State Parks. Municipal jurisdictions include the counties of Placer, El Dorado, and Sacramento, as well as the City of Folsom. Relevant planning efforts are described below under Regional Planning Influences.

b. State Park System-wide

The management and operation of Folsom Lake SRA will also be subject to the following rules, regulations and policies pertaining to all State Park units. These include, but are not necessarily limited to:

- Public Resources Code
- California Code of Regulations
- California State Park and Recreation Commission Statements of Policy
- Policies, Rules, Regulations, and Orders of the California State Park and Recreation Commission and the California Department of Parks and Recreation
- California Department of Parks and Recreation Operation Manual (DOM)
- California Department of Parks and Recreation Administration Manual (DAM)
- California State Parks System Plan
- California Outdoor Recreation Plan
- California Recreational Trails Plan
- California State Parks Mission Statement, The Seventh Generation – Strategic Vision and Initiatives of California State Parks
- The Central Valley Vision
- California State Parks Access to Parks Guidelines

- California Department of Parks and Recreation – Department Notices
- Various Resource Management Directives of the Department of Parks and Recreation.

2. Regional Planning Influences

As noted, Placer, El Dorado, and Sacramento Counties, and the City of Folsom, about the SRA boundary and undertake their own planning efforts that are relevant to the SRA and could affect the future use of adjacent lands or the involvement of State Parks. These efforts are summarized below.

a. Placer County

Countywide General Plan

No policies in the 1994 Placer County General Plan directly relate to the SRA, although several Plan policies are relevant and could affect future uses on adjacent lands or the involvement of State Parks. These policies relate to:

- Coordination with other public agencies with respect to the development of equestrian, pedestrian, and bicycle trails with connects to the countywide trail system;
- Protecting the watersheds of all water bodies associated with the storage and delivery of domestic water;
- Mitigating increases in stormwater peak flows and/or volume from new development on adjoining lands in the County and on properties immediately adjacent to the County;
- Coordination with other public agencies to preserve and protect significant biological resources, to preserve and enhance natural resources as open space, and to protect areas of natural resource value as open space.

Placer Legacy Open Space and Agricultural Conservation Program

Placer Legacy is intended to protect and conserve open space and agricultural lands in Placer County by: maintaining agricultural uses; protecting plant and animal diversity; protecting and expanding recreation areas; protecting scenic and historically significant areas and sites; establishing open-space buffers between communities; and ensuring public safety. The program, which is voluntary and non-regulatory, has resulted in: the planning for protection and improvement of seven watersheds; the development of strategies to protect, restore, and enhance natural areas; and focused efforts on grant funding, voluntary donations, and

public/private sector partnerships. This program is relevant to the SRA in that the County intends to coordinate with other public agencies to establish visual and physical links among open space areas in order to create an open space system.

Community Plan Policies

The Granite Bay and Horseshoe Bar/Penryn Community Plans address most of the lands in unincorporated Placer County that abut the SRA. The Granite Bay Community Plan includes policies that directly address the SRA and surrounding lands, including:

- Coordination of trails development with State Parks;
- Providing regional trails with access to County and State parks;
- Discouraging urban/suburban development within the Folsom Lake Watershed;
- Preserving valuable natural features, such as rolling terrain, streams, scenic corridors, meadowlands, ridge tops, and significant stands of trees;
- Avoiding areas rich in wildlife or of a fragile ecological nature;
- Ensuring open space is linked visually and physically to form an open space system; and
- Preserving a variety of scenic vistas.

The Horseshoe Bar/Penryn Community Plan reflects many of the policy directions included in the Granite Bay Community Plan as they relate to the SRA and surrounding lands. However, the Horseshoe Bar/Penryn Community Plan is more directive as it relates to the SRA. For instance, the Plan includes guidelines for development within the Folsom Lake Watershed. These guidelines recommend that: commercial development be prohibited; residential development densities be transferred out of the watershed; larger lot sizes be used where transfers out the watershed are not possible; roads and sewers be located outside the watershed; best management practices for water quality be implemented where infrastructure must be located in the watershed; septic systems be allowed only on parcels 4.6 acres and larger; and greater setbacks be required where there are steep slopes, highly erosive soils, or other factors which may increase the likelihood of development adversely affecting the quality of the water in Folsom Lake.

Both the Granite Bay and Horseshoe Bar/Penryn Community Plans incorporate the County's Draft Trails Plan, which was never formally adopted. Placer County is also currently working with State Parks to extend the existing network of trails throughout the American River Canyon. As such, the County is preparing a North Fork American River

Trail Plan for a multi-use trail that will begin at the confluence of the North and Middle Forks of the American River and end at Ponderosa Bridge, approximately 12.6 miles upstream. The trail is located entirely within the Auburn SRA.

b. El Dorado County

Countywide General Plan

The eastern half of the SRA is located in El Dorado County. A General Plan was adopted in 1996, but in 1999 the Superior Court, County of Sacramento, in the matter of *El Dorado County Taxpayers for Quality Growth, et al. v. El Dorado County Board of Supervisors and El Dorado County*, ruled that in certain respects the County failed to comply with the California Environmental Quality Act (CEQA) in the adoption of the General Plan. As a result, certification of the General Plan Environmental Impact Report (EIR) and adoption of the General Plan were set aside. In response to the Judgment and the Writ of Mandate, the County adopted a new General Plan in July 2004.

On March 15, 2005 the voters of El Dorado County approved the referendum on the plan adopted by the Board of Supervisors. This provided the opportunity for the County to return to the Sacramento County Superior Court to have the writ of mandate in the matter of *El Dorado County Taxpayers for Quality Growth, et al. v. El Dorado County Board of Supervisors and El Dorado County* lifted. On September 1, 2005 the Court ruled that the County had satisfied every term of the writ and it was discharged. The Courts ruling was appealed by the plaintiffs. On April 18, 2006 a settlement agreement was entered into by the County and the plaintiffs, settling the lawsuit resulting in the withdrawal of the appeal.

As in Placer County, no policies in the current El Dorado County General Plan directly relate to the SRA; however, several Plan policies are relevant and could affect the future development on adjacent lands or the involvement of State Parks. These policies relate to:

- Coordination with cities, State and federal government, schools and other local districts to develop and maintain an integrated network of countywide trails for public use and to provide public access to recreational resources, including rivers, lakes, and public lands;
- Maintaining areas of importance for outdoor recreation including areas of outstanding scenic, historic and cultural value; areas providing access to lake shores, beaches and rivers and streams; and areas which serve as links between major recreation and open space reservations including utility easements, banks of rivers and streams, trails and scenic highway corridors.

- Implementation of the River Management Plan for the South Fork of the American River;
- Pursuing lands that can be transferred to the County from federal, State, and other ownerships suitable and needed for public use;
- Protecting identified critical fish and wildlife habitat through any of the following techniques: utilization of open space, Natural Resource land use designation, clustering, large lot design, setbacks, etc.
- Including setbacks from all rivers, streams, and lakes in the Zoning Ordinance for all ministerial and discretionary development projects.

El Dorado County River Management Plan

The 2001 River Management Plan (RMP) establishes the operational rules for commercial and private boaters navigating the 20.7-mile segment of the South Fork of the American River between the Chili Bar Dam and Salmon Falls Road at the upper extent of Folsom Lake. As noted in the Recreation Resources section, commercial and private boaters on the South Fork take-out within the SRA. Commercial boaters are required to take-out at Salmon Falls while private boaters take out just east of the American River Bridge at Skunk Hollow. The RMP includes detailed educational, safety, transportation, monitoring, and agency coordination programs designed to implement the RMP. It also outlines permitting requirements, specifies the carrying capacity of the waterway, and identifies the regulations and ordinances that will operate the Plan.

Bikeway Master Plan and Hiking and Equestrian Trails Master Plan

El Dorado County has both a Bikeway Master Plan and a Hiking and Equestrian Trails Master Plan. The Bikeway Master Plan, adopted in 1979, represents the County's first attempt to identify countywide bikeway improvement needs with the intent of developing a system of bikeway facilities to safely accommodate bicycle travel for both transportation and recreational purposes. The Plan defines the general location and classification of all existing and proposed regional bikeways in the County. It also provides for connectivity between cities and the unincorporated areas, between the County and adjoining counties, and access to recreational areas and regional parks – including Folsom Lake SRA. The bicycle routes established in the Bikeway Master Plan are considered part of both the Parks and Recreation Element and the Transportation and Circulation Element of the County General Plan. The County's new General Plan calls for the update of the Bikeway Master Plan.

The Hiking and Equestrian Trails Master Plan, adopted in 1989 and amended in 1990, guides the creation of recreational trails for walking, hiking, and horseback riding. The Plan provides standards for general location, width, steepness, signage, offer of easement dedication, and other design standards.

c. Sacramento County

The southern portion of the SRA is located in Sacramento County. As in the other Counties, no policies in the Sacramento County General Plan directly relate to the SRA, although several key policies are relevant and could affect future uses on adjacent lands or the involvement of State Parks. These policies relate to:

- Permanently protecting areas of natural resource value, including wetlands preserves, riparian corridors, woodlands and floodplains, as open space;
- Maintaining open space and natural areas that are interconnected and of sufficient size to protect biodiversity accommodate wildlife movement and sustain ecosystems;
- Managing vegetation on public lands with special status species to encourage native species and discourage nonindigenous invasive species;
- Controlling human access to critical habitat areas on public lands to minimize impact upon and disturbance of threatened and endangered species.
- Encroachments within the designated floodway of Sacramento waterways shall be consistent with policies to protect marsh and riparian areas.
- Reducing bank and levee erosion by prohibiting erosive wake activity generated by recreational and commercial boating.
- Locating development to minimize visual intrusion in areas of scenic and/or cultural value including: recreation and historic areas; scenic highways; landscape corridors; State or federal designated wild and scenic rivers; visually prominent locations such as ridges, designated scenic corridors, and open viewsheds; Native American sacred sites.

Although no policies in the Sacramento County General Plan directly relate to the SRA, the County does have authority over land uses adjacent to Lake Natoma within unincorporated Sacramento County. This is due to the fact that Lake Natoma is part of the American River Parkway under the 1985 American River Parkway Plan (as described below). The County applies, as part of its Zoning Code, the Parkway Corridor (PC) Combining Zone within the Parkway to ensure land use compatibility and reduce visual intrusion on natural amenities.

American River Parkway Plan

In 1985, the California legislature acknowledged the statewide significance of the American River Parkway by adopting the American River Parkway Plan through the passage of the Urban American River Parkway Preservation Act (Public Resources Code § 5840). The Parkway Plan—a component of both the City and County of Sacramento general plans—has authority over the land uses within the Parkway which extends from Downtown Sacramento at the confluence with the Sacramento River to Folsom Dam within the SRA. The Plan includes land use designations and policies that direct all recreation, restoration, preservation and development of facilities.

As noted, the geographic scope of the Parkway Plan includes Lake Natoma, an area that is formally managed in compliance with the existing Folsom Lake State Recreation Area General Plan. The Parkway Plan incorporates the Folsom Lake General Plan by reference thereby acknowledging its validity as the land use plan for Lake Natoma. In keeping with this collaboration, the Parkway Plan states:

“In order to facilitate the coordination in the planning and management of the American River Parkway, it should be the responsibility of the respective State and county agencies to inform each other of any large scale public or private improvement proposals, requests for entitlement of use, plans for large scale events, or proposed policy changes which would affect the Parkway.”

The County began the American River Parkway Plan Update in 2002. After developing and adopting a detailed update process, the County formed a citizen advisory committee of citizens representing various environmental, recreational, and community stakeholder groups to guide the Plan update, which was completed in 2006. The County is currently in the process of developing an Environmental Impact Report for the Plan update.

Floodway Management Plan

The 1998 Floodway Management Plan documents a broad range of resource issues and concerns and develops goals and recommendations to better manage resources. Many of the recommendations included in the Plan are intended to provide guidance to resource managers on issues involving multiple resources. A great deal of the management direction provided by the Floodway Plan is carried forward in the River Corridor Management Plan (see below). Specific recommendations are intended to encourage additional research, communication, and documentation of important resource conditions and management needs. As with the American River Parkway Plan, the Floodway Management Plan applies to

Lake Natoma, an area that is formally managed in compliance with the Folsom Lake State Recreation Area General Plan.

River Corridor Management Plan for the Lower American River

The 2001 River Corridor Management Plan institutes a cooperative approach to managing and enhancing the Lower American River's aquatic and terrestrial ecosystems, flood-control systems, and recreation values within the framework of the 1985 American River Parkway Plan. The Plan also provides a significant foundation of policy and scientific research for the update of the Parkway Plan (currently underway). The Plan is used to inform resource managers and the community about the condition of American River Parkway resources and the goals, objectives, and recommendations for improving resource conditions in a cooperative manner. The Plan serves as a blueprint for enhancing Parkway resources so that entities working in the River can voluntarily coordinate their efforts and assess how they might be most effective in achieving the goals and objectives of the Plan.

The Recreation Management Element of the Plan includes specific recommendations relating to public access and trails, interpretation and education, land acquisition, adjacent land uses, public safety, public outreach, and operations and maintenance/recreation facilities. Specific recommendations related to the SRA include the acquisition of land for the Parkway—including the Snipes-Pershing property adjacent to Mississippi Bar recently acquired by State Parks—and coordination with State Parks on the completion of this General Plan for the SRA. The River Corridor Management Plan is not legally binding and does not alter the mission, authority, or responsibility of any management entity, nor does it alter the status or use of the Parkway Plan.

Preparation of the River Corridor Management Plan involved several federal, State, and local agencies, many of which are members of the Lower American River Taskforce which coordinated the work effort on the Plan. Key local agencies included the Sacramento Area Flood Control Agency (SAFCA), the City and County of Sacramento parks and planning departments, and Sacramento County Water Agency. State agencies included the departments of Fish and Game, Water Resources, and Parks and Recreation. Federal involvement included the Army Corps of Engineers, Fish and Wildlife Service, and Reclamation. A variety of community, fishing and boating, environmental, and recreation groups were also involved.

d. City of Folsom

The City of Folsom is located along the southern shore of Folsom Lake and straddles Lake Natoma. While no policies in the Folsom General Plan directly relate to the SRA, several key policies are relevant and could affect the future uses on adjacent lands or the involvement of State Parks. These policies relate to:

- Preservation and enhancement of existing natural vegetation, landscape features, and open space during new development.
- Incentives to encourage additional active parkland and open space, and preservation of natural habitat.
- Encouraging the preservation of open spaces and natural landscape features by means of clustered buildings, smaller lot sizes, or taller buildings.
- Bikeway and pedestrian master planning to link residential developments with sources of employment, public open spaces, parks, schools, neighborhood shopping areas, the central commercial district, other major recreational destinations, and adjoining communities.
- Providing routes for recreational travel including access to important recreational areas of the City, including Folsom Lake.
- Defining the border of sensitive habitat areas and open space with public access ways and orienting adjacent buildings toward such areas.
- Encouraging public access to recreational facilities and spaces through the publication of a trails and recreation guide which maps the trails, open spaces, and parks within the City of Folsom and shows the interconnection with adjacent recreation areas.
- Integrating City park sites with the Bikeways Master Plan and bicycle trails outside the City such as the American River Bike Path.
- Assisting State or County park rangers, i.e., Folsom Lake State Recreation Area, to provide leadership in programs that inform the community on topics such as conservation and fire safety.
- Working cooperatively with the County Department of Parks and Recreation, State Parks, Department of Corrections, and Department of Fish and Game in coordinating facility development and program offerings.

Bikeway Master Plan

The Bikeway Master Plan coordinates the expansion and integration of some 48 miles of proposed bike paths with the City's existing 95-miles bikeway system. The system is comprised of Class I, II, and III bike routes, undercrossings, and overcrossings that provide connectivity between City neighborhoods, neighboring communities, and Folsom Lake SRA. Trail facilities within the SRA are included in the City's Bikeway Master Plan as are proposed facilities that will require coordination between the City and State Parks, such as the Folsom Lake Trail that would extend from the Powerhouse Loop Trail in the SRA across Folsom State Prison lands to East Natoma Street.

e. Sacramento Area Council of Governments (SACOG)

The Sacramento Area Council of Governments (SACOG) is an association of local governments in the six-county Sacramento Region, including those noted in this Section as having a regional planning influence on the SRA – Placer, El Dorado, and Sacramento counties and the City of Folsom. SACOG provides transportation planning and funding for the region and serves as a forum for the study and resolution of regional issues. In addition to preparing the region's long-range transportation plan, SACOG approves the distribution of affordable housing in the region and assists in planning for transit, bicycle networks, clean air and airport land uses.

Regional Bicycle, Pedestrian, and Trails Master Plan

SACOG's Regional Bicycle, Pedestrian, and Trails Master Plan was mandated by the Metropolitan Transportation Plan (MTP) for 2025. The MTP takes an innovative regional approach to improving the transportation network by investing more resources than ever in alternatives to the automobile, as much as \$350 million to regional bicycle and pedestrian projects over the next 23 years. The Regional Bicycle, Pedestrian, and Trails Master Plan guides the long-term decisions for the Bicycle and Pedestrian Funding Program, adopted by the SACOG Board of Directors in September 2003.

The emphases of the bicycle and pedestrian plan and funding program are to provide facilities for walking and biking in the cities and towns of the region, and provide connections between cities and towns with the goal of integrating local plans to create a seamless regional bicycle and pedestrian system. This approach prioritizes local projects by their contribution to the regional network, providing key connections and access between communities, counties, and jurisdictions.

Local trail projects related to the SRA include:

- Class I bike path from the Powerhouse Loop trail in the SRA to East Natoma Street across Folsom State Prison lands;
- Class I bike path to close the gap between the Lake Natoma Crossing bridge and the Historic Truss Bridge;
- Mormon Islands Wetland Trail to connect with City of Folsom’s Humbug-Willow Creek Trail; and
- Folsom Lake SRA trail map and brochure.

The Master Plan was adopted by the SACOG Board of Directors in November 2004.

d. U.S. Bureau of Land Management

The Bureau has significant, though scattered, land holdings along the South Fork of the American River. In 2004, the Bureau completed a management plan to guide the use of these lands. As one of several agencies with jurisdiction over the American River, the Bureau began developing the Plan in 2002 through an extensive local citizen participation process that reflected the considerable private holdings—which are regulated by El Dorado County—along the river. The Plan provides a balanced management approach that allows public access and recreation while respecting adjacent private property. The Plan permits hiking, whitewater rafting, camping, hunting, and small-scale gold seeking consistent with habitat and historical protection goals. The Plan's Pine Hill Planning Unit abuts Folsom Lake, and a specific policy for this area states that the Bureau will evaluate the equestrian use of the trails system. The policy further states that the Bureau will not provide horse trailer parking, but rather would allow equestrian access through connections with the Folsom Lake SRA trail system.

e. Other Organizations

There are several ongoing efforts by regional conservation organizations to protect open space. These groups may provide opportunities for partnerships with State Parks in acquiring, or protecting by other means, important open space lands and significant habitat areas that abut the SRA. For instance, the American River Conservancy works with land owners in El Dorado County who are interested in selling or donating land. The Conservancy recently acquired an 8-mile greenbelt and hiking trail corridor along the South Fork that will eventually accommodate a trail between the SRA at Salmon Falls and

Highway 49 near Coloma. The Conservancy also owns and manages the Pine Hill Ecological Preserve – a 1,300-acre area of rare and endangered plant habitat adjacent to the SRA at Salmon Falls with the potential to be expanded to include a total of 5,000 acres.

In Placer County, the Placer County Land Trust works with landowners and conservation partners to permanently preserve natural open space and agricultural lands. The Trust is currently working with other groups to preserve critical lands adjacent to the North and Middle Forks of the American River. Among other organizations working in this area is Protect American River Canyons (PARC). In Sacramento County, the Sacramento Valley Conservancy has preserved more than 1,300 acres of open space and sensitive habitat areas. The Conservancy also participated along with other local groups and community members to assist State Parks in the acquisition of the Snipes-Pershing Ravine along the Lake Natoma Bluffs. The site provides a link between Orangevale and the American River Bikeway along the western shore of Lake Natoma in the SRA.

3. Demographics

The SRA is located in a fast growing and increasingly diverse metropolitan region. As a result, the SRA will have to accommodate both increased use and likely changes in use brought about by the cultural preferences of the population and new recreational activities over time.

a. Population and Trends

The Sacramento Region continues to attract new residents with its warm climate, recreational activities, educational resources, and career opportunities. In the period between 1990 and 2000, the Region added 370,000 new residents—an increase of 19 percent—for a total current population of approximately 1.94 million. The Sacramento Area Council of Governments (SACOG) projects that growth in the region will accelerate, adding another 928,000 residents (49 percent) and 510,000 jobs (60 percent) by 2025.³

At the local level, the counties and city within which the SRA is located will also continue to see tremendous growth to 2025. Placer County is projected to see the most significant growth with a population increase of 75 percent, followed by El Dorado County at 56

³ The Sacramento Region is defined as the six-county area comprising the Sacramento Area Council of Governments (SACOG), including El Dorado, Placer, Sacramento, Sutter, Yuba, and Yolo Counties.

percent, and Sacramento County at 39 percent. The City of Folsom is projected to see a population increase of 42 percent.

It is estimated that more than 1.5 million visitors currently access the SRA annually. It is likely that the projected increase in population both regionally and locally will also increase the number of visits to the SRA. As noted, 928,000 new residents will call the Sacramento Region home by 2025, and an additional 747,000 residents will be living in the counties and city that the SRA spans.

b. Population Diversity

The Sacramento Region is not only fast growing, but also diverse in many respects. With respect to race, 70 percent are White, 9 percent are Asian, 7 percent are Black or African-American, with the remaining 14 percent comprised of other races or a combination of races. At the county level, Sacramento is the most racially diverse in the Region with 64 percent of its population being White. El Dorado and Placer Counties are the least diverse with 90 percent and 89 percent of their respective populations being White. Seventy-eight percent of the City of Folsom population is White.

With respect to income, the median annual household income in the Sacramento Region is estimated to be about \$43,520. At the county level, Placer has the highest median annual household income at \$57,535, followed by El Dorado County at \$50,250, and Sacramento County at \$43,800. The City of Folsom has the highest median annual household income in the Region at \$73,175. Closely related to median annual household income is the proportion of households comprised by families and the level of home ownership. Not surprisingly, 73 percent of the households in El Dorado and Placer Counties and the City of Folsom are family households with owner occupancy levels between 73 and 76 percent. Sacramento County has a lower proportion of family households (66 percent) and owner occupancy (58 percent).

c. Visitation Characteristics

With more than 1.5 million visitors in 2000, the SRA is one of the most popular units in the State Park system. This is due to a combination of factors, including location of the SRA within a growing metropolitan area, good highway access, and opportunities for year-round use. Although the SRA provides for a variety of aquatic and upland pursuits year round, roughly 75 percent of all visits occur during the spring and summer months. Since water-related activities account for most visits to the SRA, the peak season begins as the weather warms and is usually in full swing by the Memorial Day weekend. High use levels continue

through Independence Day and then gradually fall off until spiking again on the Labor Day weekend. Falling water levels on Folsom Lake and extremely hot weather are the key reasons for the drop off in attendance in the late summer.

Generally weekends are much busier than weekdays, with several recreation areas—Granite Bay, Beals Point, and Brown’s Ravine—reaching capacity by midday. The campgrounds at Beals Point and the Peninsula also reach capacity on summer weekends. On weekdays, peak use periods generally occur during the early morning and early evening hours with visitors running, cycling, walking dogs, or paddling on Lake Natoma. Surveys indicate that the SRA appears to have become predominantly a local destination for those interested in daily exercise and weekend activities. The majority of the SRA’s visitors currently tend to be located within a short walk or drive.

Folsom Lake SRA Visitor Survey

A major user survey effort was conducted during the summer of 2003 to characterize SRA visitors, their activities, likes and dislikes, and desires for additional facilities and programs. Three rounds of intercept surveying were completed in May, July, and September at various locations in the SRA in order to capture the full range of users. These surveys were supplemented by 400 telephone surveys completed in November and December. The findings of the survey effort are important to informing the future planning for the SRA. With respect to visitor characteristics, the survey found that neither gender dominates SRA use (51 percent female and 49 percent male) and that the median visitor age is 46. Half of all visitors have a bachelor degree or higher. Seventy-five percent of all visitors are White and the median annual household income of visitors is between \$68,750 and \$93,750. Eighty-five percent of visitors are local and live in a “95” zip code, and more than 84 percent recreate with friends and/or family. The months of May and July are the most popular with visitors.

With respect to visitor activities, 50 percent of users were participating in swimming; 43 percent were picnicking; 41 percent were participating in beach activities; and 40 percent were walking for fitness or fun. Visitors were also asked to select and rank the recreation activities most important to them. The top-ranked recreation activities include:

- Swimming;
- Bicycling on paved surfaces;
- Beach activities;
- Walking for fitness or fun;

- Picnicking in developed sites;
- Motor boating;
- Mountain biking;
- Whitewater rafting, kayaking, or canoeing;
- Fishing; and
- Hiking.

When asked to rate the adequacy of various SRA facilities and programs, visitors were most satisfied with the safety of areas and facilities, the number of paved bike trails, the number of equestrian trails, trail maintenance, and frequency of enforcement patrols. Visitors were least satisfied with the number of shower facilities at campgrounds, number of education and interpretive programs, number of fish cleaning stations, number of docks or temporary moorage, and screening between campsites. More than 74 percent rated their interaction with SRA staff as “somewhat positive” or “very positive” while about 11 percent were neutral. Roughly 13 percent did not interact with staff. Just over 1 percent of respondents rated their interaction with SRA staff as “somewhat negative” or “very negative.”

Finally, when asked to prioritize potential improvements to SRA facilities and programs, visitors ranked their desired improvements as follows:

- Developing more multi-use, non-motorized trails for horseback riding, hiking and/or mountain biking;
- Constructing more developed campgrounds with flush toilets, hot showers and food lockers;
- Increasing the presence of uniformed law enforcement personnel;
- Constructing more basic campgrounds with picnic tables, cold water and pit toilets;
- Increasing parking at day use picnic sites;
- Constructing a visitor center;
- Providing more educational programs and services;
- Providing more group picnic sites that accommodate large families or groups of 20 or more persons;
- Providing a second marina;
- Providing sheltered lodging facilities such as rustic cabins, tent cabins, etc.;
- Providing more boat launching facilities; and
- Constructing RV campgrounds with electrical and water hookups, sewer dump stations and pull-through sites.

d. Other Regional Destinations

Several regional recreational facilities in this part of Northern California offer similar recreational experiences. Reservoirs of comparable size to Folsom Lake within a fairly easy drive of Sacramento include Lake Oroville to the north, Lake Berryessa to the west, and Lake Camanche to the south. Lake Oroville is a 15,500-acre reservoir resulting from the damming of the Feather River in Butte County. The reservoir is the centerpiece of the 28,450-acre Lake Oroville SRA that includes a visitor center, swim beach and picnic area, 3 formal boat launch areas, 210 developed campsites (including 6 group sites and 8 boat-in campgrounds), and about 6 miles of trails.

Lake Berryessa is a 19,250-acre reservoir created by the damming of Putah Creek in Napa County. The Bureau of Reclamation provides two large day use areas, several smaller and dispersed day use areas, and a launch ramp. Seven resorts around the reservoir are managed by concessionaires under contract with Reclamation and provide camping (688 short- and 1,300 long-term sites), day use, boating facilities (including marinas), and food services. To the south is Lake Camanche in Calaveras County. The reservoir is operated by the East Bay Municipal Utility District and is the result of the damming of the Mokelumne River. The 7,700-acre reservoir offers a full service marina, boat rentals, and boat launch facilities provided on both the north and south shores. It also includes more than 300 campsites, an RV park, housekeeping cottages, equestrian stables and trails, and day use areas with picnic tables, barbeques, and food and equipment concessions.

Several smaller reservoirs are located along the I-80 and Highway 50 corridors east of the SRA. Facilities along Highway 50 in El Dorado County include Jenkinson Lake, Ice House Reservoir, Union Valley Reservoir, and Loon Lake Reservoir. Facilities along I-80 in Placer and Nevada Counties include Lake Spaulding, Donner Lake, and Stampede Reservoir. Most of these reservoirs are located on National Forest Service lands and provide boat launch facilities and rentals, as well as a full range of camping and trail facilities. However, access roads to most of these reservoirs are closing during the winter since they are located at higher elevations than Folsom Lake SRA.

While other regional recreation destinations offer similar opportunities, they do not provide the physical setting, range of activities, and access that make Folsom Lake SRA unique. The SRA provides a variety of landscapes from rugged canyons along the North and South Forks of the American River, to the rolling hills and upland plateaus above Folsom Lake, to the bluffs and broad river plain of Lake Natoma. These settings showcase many “classic” California landscapes, including chaparral, blue oak woodland and savanna, and willow

riparian plant communities. In addition, few regional recreation destinations provide as diverse a range of recreation opportunities as Folsom Lake SRA. Fishing, swimming, water skiing, sailing, windsurfing, jet skiing, wake boarding, rowing, whitewater rafting, canoeing and kayaking are available for aquatic enthusiasts. On land, hiking, jogging and running, road and mountain biking, horseback riding, and camping provide opportunities for exercise, education, and interpretation.

Perhaps the most unique aspect of the SRA when compared to other regional recreation destinations is its easy access. Located in a metropolitan area of nearly 2 million people, and bracketed by the I-80 and Highway 50 corridors, the SRA is easily reached from within the Sacramento region, the Central Valley, and the San Francisco Bay Area. This makes the SRA a very popular day-use destination. In addition, as development surrounding the SRA has increased, nearby residents tend to consider the SRA as an extension of their own backyard. Whether it is an early morning run, bike, or paddle, or an evening walk or sail to wind down the workday, the SRA has become an important part of the daily routine for many residents.

It is this distinct range of settings and activities that attract both neighbors and those from farther afield to the SRA. In this way, the SRA serves both as a local urban park and as a regional natural habitat and open space area. Each role will continue to be in high demand as the local and regional population continues to grow.

4. Public Input

The planning process for this General Plan provided a number of opportunities for public input and elicited meaningful contribution from a wide range of stakeholders. In addition to agency involvement at the local, state, and federal levels, numerous user groups (e.g., runners and walkers, hikers and horseback riders, cyclists and mountain bikers, boaters and sailors, paddlers and rowers, fisherman, and more), conservation groups, neighboring residents, and other concerned parties provided input. Each was encouraged to participate through a series of stakeholder meetings, three community workshops, six newsletters, online and offline comment forms, and the project website. Hundreds of e-mails, letters, comments forms, and telephone calls were recorded. Over 350 people attended the community workshops and the project mailing list swelled to more than 600 names.

a. Stakeholder Meetings

In October 2002, a series of agency stakeholder and focus group meetings were held to clarify roles, identify issues to be addressed in the plan, and provide support for completion of the Resource Inventory document. Four meetings were held and facilitated by the planning team with individual sessions for trails and upland recreation stakeholders, aquatic recreation stakeholders, natural and cultural resource stakeholders, and neighboring uses stakeholders. Approximately 100 people attended the four meetings over a two-day period.

Each meeting was two hours long and intended to introduce the attendees to the planning team and the project, and to gather input on key issues related to the meeting's topic area with respect to the SRA. It also provided an opportunity for the stakeholders to introduce themselves, their interest in the project, and the role they saw themselves playing in the planning process. The project background and planning process were described, including future opportunities for the attendees to provide the planning team with input. Comments were recorded and a questionnaire specifically geared to the meeting topic area was distributed to the attendees so that they could provide additional information. More than half of all attendees completed the questionnaire.

The initial round of stakeholder meetings—and subsequent community workshop—raised trail use and facilities as an issue that warranted additional consultation and analysis. In response, three meetings were held with a select group of trails stakeholders to better understand trail users concerns and needs, formulate appropriate goals and guidelines for the SRA's trail system, and lay the groundwork for the preparation of a trail management plan subsequent to adoption of this General Plan.

b. Community Workshops

Three community workshops attended by more than 350 people were held over the course of the project. Not only did the workshops inform and update the public on the planning project, but also they informed the planning team of issues and concerns that only those very familiar with the SRA could know.

1). Community Workshop #1: "Issues and Opportunities"

An initial community workshop was held in November 2002 to introduce the project to the general public, present the findings of the draft inventory of the SRA's resources, and solicit public input on key planning issues and opportunities to be addressed during the process. Large map exhibits illustrating various SRA characteristics and resources were displayed for public viewing and members of the planning team were on hand to clarify the data and

answer questions. Attendees were also invited to provide written comments and more than 60 comment sheets were collected at the workshop or mailed to the planning team. For the most part, the comments and feedback received at this Workshop were similar to those raised at the stakeholder meetings held the previous month. Key issues identified, include:

- Re-designating Lake Natoma as a separate State Park unit from Folsom Lake State Recreation Area as a way to protect and enhance its peaceful and picturesque character;
- Developing an artificial whitewater slalom course as proposed as part of the Bay Area Olympic bid;
- Maintaining facilities in the SRA to a higher standard;
- Fire management along the SRA boundaries, particularly where it adjoins residential areas;
- Lack of natural and cultural resource interpretation; and
- Trail system expansion, user education, and enforcement.

Roughly 130 people attended the workshop and provided input.

2). Community Workshop #2: "Exploring Alternatives"

In the months following the first workshop, alternative concepts for the SRA were prepared by the planning team based on the input received from agency and other stakeholders, general public, SRA visitors, and State Parks and Reclamation management and staff. These alternatives were the subject of a second community workshop in June 2003. The purpose of this workshop was to review a preliminary set of alternative concepts for the SRA, and solicit public input to assist the planning team in preparing a preferred SRA concept.

The alternative concepts presented at the workshop incorporated a range of ideas and options relating to land use, facilities, and management issues. Two alternative concepts were presented—Alternative #1: Enhancement with Minor Additions and Alternative #2: Enhancement with Major New Expansion—for land use, aquatic facilities, upland facilities, and trail facilities. Preliminary management zones and land use designations, management alternatives, and management issues across alternatives were also presented. Viewing stations were set up to illustrate the alternative concepts, and several of these stations allowed workshop participants to select alternatives or answer questions directly on the displays as a means of gauging support for the concepts.

Key findings of the second workshop include:

- Support for Alternative #1 with respect to upland facilities (camping and day use);
- Support for Alternative #1 with respect to aquatic facilities (boat launch ramps, marina, etc.);
- Support for Alternative #2 with respect to trail facilities (trails, trailheads, etc.);
- Expanded opportunities for interpretation and education;
- Minor expansion of concessions and special events;
- Continued acquisition to expand the SRA; and
- Elimination of off-road vehicle access.

Roughly 110 people attended the workshop and provided input.

3). Community Workshop #3: "Draft General Plan"

Using the input received at the second workshop, the planning team re-evaluated and re-worked the preliminary alternative concepts based on those concepts that had significant support from the public, State Parks, and Reclamation. This evaluation allowed the planning team to develop a draft preferred SRA concept that provided the basis for this General Plan. The final community workshop(s) will be held in Winter 2008 to present the draft General Plan to the public. The purpose of these workshops will be to provide an overview of the preferred concept and draft plan as a kickoff to the public review period.

C. ISSUES AND ANALYSIS

This section summarizes key issues that were identified by the planning team during the planning process. The intent is to highlight important issues that are addressed by the General Plan goals and guidelines in Chapter 3 of this Plan.

1. The SRA and Reservoir Operations

The operation of Folsom Lake as a reservoir for the purposes flood control, water supply, power generation, and environmental enhancement results in the significant fluctuation of water levels over the course of a year. Water levels have a direct impact on the access to and quality of water dependent recreation activities at Folsom lake since water levels determine the availability of boat ramps, beaches, mooring sites, and other facilities that depend largely on water depth or surface area. Water levels also impact the quality of recreation activities

that are not water dependent but are enhanced by the proximity to water, such as picnicking, camping, and trail use. This is particularly true of picnicking as the distance between the shade of picnic facilities and the water's edge increases. In general, the quality of the recreation experience at Folsom Lake begins to diminish as water levels drop during the summer months and on into the fall.

a. Existing Reservoir Operations

Flood control is the primary purpose of Folsom Lake. During the flood control season between October and May, a portion of the total capacity of Folsom Lake must be maintained to handle potential flood flows. During this time, water levels can be lowered to between 427 and 390 feet during storm events (lake levels during this period typically range from 444 to 405 feet). Since only about 25 percent of annual SRA visits occur during the flood control season, winter flood control operations typically have relatively little impact on recreation use at Folsom Lake. An exception to this pattern occurs in years when the water level is dropped in the spring in response to a late storm and there is insufficient run-off to re-fill the reservoir. Such years can have a significant impact on recreation use throughout the summer season.

Beyond the flood control season, when water levels are typically between 444 feet (June) and 417 feet (September), water from Folsom Lake is released to meet local drinking water and power generation demand, maintain water quality in the San Joaquin Delta, and maintain minimum flows and temperatures to support anadromous fish species downstream. This is also the time when 75 percent of visits to the SRA occur. Since aquatic activities account for about 85 percent of all recreation visits to Folsom Lake, water releases during the summer months have a direct impact on recreation uses.

b. Future Reservoir Operations

There are several flood control and water supply projects and proposals in the works that will affect the operation of Folsom Dam and water levels in the reservoir, which in turn will affect the future planning, operation, and maintenance of the SRA (refer to text on hydrology in Section A.3.a in this chapter).

1). Flood Control Projects

A number of measures to increase the flood protection of the Folsom Dam flood protection system have been proposed and/or implemented over the past two decades by the primary agencies responsible for flood protection, the ACOE, Sacramento Area Flood Control Agency (SAFCA), the California State Board of Reclamation and the Department of Water

Resources. These projects include the proposed Folsom Dam Modification Project and the Folsom Dam Mini-Raise Project. More recently due to the difficulty and cost of enlarging the outlets in Folsom Dam, a critical part of the Folsom Dam Modification Project and the whole package of flood improvement projects, the ACOE and Reclamation combined forces to work on a joint federal project to improve both dam safety and flood control. A new gated auxiliary spillway around Folsom Dam is the center piece of the flood protection measures (in lieu of enlarging the outlets) in the new Folsom Dam Safety and Flood Damage Project. The project may also include a 3.5 foot raise of the dams and dikes. If this 3.5 foot raise is determined to be necessary to meet flood protection objectives, additional environmental analysis may be conducted for this raise. The EIR/EIS for the Folsom Dam Safety and Flood Damage Project was completed in April 2007 and the Record of Decision was issued in May 2007.

Folsom Reservoir is currently operated with a normal high pool elevation of 466 feet. Most of the recreation facilities within Folsom Lake SRA are located between this normal high pool elevation of 466 feet and the current top of the Dam elevation of 480.5 feet. During extreme flood events these recreation facilities are subject to flooding. The Folsom Dam Safety and Flood Damage Project will increase the ability to release water downstream (primarily via the new spillway) and will reduce the vulnerability of these facilities getting inundated in an extreme flood event. While a raise of the dams and dikes may increase the number of facilities that might be subject to inundation in the case of an extreme flood event, the increased flood protection will reduce the potential for facilities to get inundated. The Folsom Dam Safety and Flood Damage Project will not alter the 466 foot normal high pool operating level of the reservoir.

In addition to the above facility improvements, new interim operational procedures adopted in 1995 allow Reclamation and SAFCA to control an additional 270,000 acre-feet of water within Folsom Lake and to provide up to 670,000 acre-feet of flood control storage. A new interim operational agreement was developed by Reclamation and SAFCA in 2004. Once all of the proposed flood protection facility improvements have been made to the Folsom Dam flood control system, it is anticipated that a plan for permanent re-operation of Folsom Dam and Reservoir will be developed and adopted. It is anticipated that this permanent re-operation will utilize forecast based operations.

2). Water Supply Projects

The water stored in Folsom Lake is allocated to a variety of supply-related uses in compliance with contractual, legal and regulatory obligations.. Water from Folsom Lake is also allocated

for the purposes of maintaining water quality in the San Joaquin Delta and for maintaining minimum flows on the American, Sacramento, and other rivers to protect and restore the natural production of federally-listed salmon and steelhead fish species. These releases are somewhat unpredictable and make it difficult to determine the cumulative impact of future water supply projects on Folsom Lake water levels and hence the recreation facilities on the lake.

c. Impacts of Future Reservoir Operations

Not only will future reservoir operations affect lake levels, but the various flood control projects associated with future operations involve major construction activities that will directly affect recreation in the SRA.

1). *Lake Levels*

As noted, water levels on Folsom Lake normally fluctuate between 444 feet in early summer (June) and 405 feet in early winter (December), although levels as high as 465 feet and as low as 347 feet have occurred over the last 30 years. The normal operating full pool of the reservoir is 466 feet. Several studies have attempted to correlate visitor use to water levels on Folsom Lake. A 1989 study (*Folsom Reservoir Re-operation Study Recreation Impact Assessment*, Chuck Watson Environmental Consulting for California State Parks) estimated that the maximum potential visitor use drops by 70 percent as lake levels fall from 435 feet to 400 feet. Considering the elevation of boat ramps and other recreation facilities on Folsom Lake, it is no surprise that visitor use would drop significantly as levels fall below 425 feet (see Table EC-7). In a 1995 study (*Folsom Reservoir Re-operation Recreation Impact Study*, Dave Martinez for SAFCA), the loss in potential recreation use from re-operation of Folsom Lake using existing water demand conditions was estimated to be between 47,000 and 60,000 visits annually – about 2 percent of total use. A similar study completed in 1998 (*Folsom Reservoir Re-operation Recreation Impact Study*, MTZ Associates for SAFCA in Appendix E of American River Next Step, SAFCA Information Report) using existing *and* projected water demand conditions to the year 2030 estimated a loss in potential recreation use to be between 9,700 visits under existing conditions and 83,000 visits under future conditions. It is unclear why the visitor impact resulting from existing water demand conditions differed between the 1995 and 1998 studies.

It is worth noting that both studies recommended money for facility enhancement, such as improving access to Folsom Lake at lower water levels, as a means of offsetting lost recreation use. Lost recreation use means lost revenue for State Parks. The 1989 study estimated annual revenue losses of between \$67,000 and \$575,000. Concession operations are also directly

affected by lower water levels. Concessionaires on Folsom Lake include the Folsom Lake Marina operator and boat rental and food operators at Beals Point and Granite Bay. At the marina, boats must be removed from the slips at a water level of 412 feet. At Beals Point, the distance to the water's edge from parking, picnic, and other facilities becomes significant when the lake level falls below 430 feet. At Granite Bay, access to the water is greatly reduced when the Stage 2 ramp goes out of service at 425 feet.

Within the 1995 Final EIR/EIS for Interim Re-operation of Folsom Dam and Reservoir, the SAFCA committed to funding the extension of the Hobie Cove and Browns Ravine Marina Boat Ramps to ensure boaters have access to the reservoir at all foreseeable reservoir levels. Additionally, SAFCA committed to fund additional DPR personnel for patrol and maintenance when re-operation reduces reservoir levels to a point where increase patrol and maintenance is required.

In the past, State Parks has used large tents to create shaded areas near the shoreline, and temporary parking areas have been established below the high water mark at Beals Point and Granite Bay to ease public access to the water for swimming and beach activities. Under existing operations, a general rule of thumb used by park managers and staff at Folsom Lake SRA to determine if it has been a good year on the water is whether or not Folsom Lake Marina is open through the Labor Day weekend.

Table EC-7: Boat Launch Facility Operations by Lake Level

<i>Facility</i>	<i>Lanes</i>	<i>Minimum Lake Level (ft.)</i>	<i>Maximum Lake Level (ft.)</i>
Granite Bay			
Stage 1	2	395	420
Stage 2	10	426	435
Stage 3	10	435	450
Stage 4	14	425	466
5 Percent	4	408	466
Low Water	2	360	410
Folsom Point			
	4	406	406
Brown's Ravine			
Main Ramp	4	395	465
Hobie Cove	3	375	426
Rattlesnake Bar			
	2	425	468
Peninsula			
Day Use	1	434	467
South Ramp	1	410	466
Beals Point			
	1	420	466

Source: State Parks; Wallace Roberts & Todd, 2005.

The complicating factors in assessing the impact of various flood control and water supply projects on future Folsom Lake water levels include the summer releases for maintaining San Joaquin Delta water quality and downstream anadromous fisheries. Releases to the Delta in particular are somewhat unpredictable. When these factors are combined with a permanent re-operation plan for Folsom Lake—to be prepared once the Folsom Dam Safety and Flood Damage Reduction Project is completed—and increased diversions needed to meet water supply demands, it becomes extremely difficult to estimate the cumulative impacts of these projects on future water levels. When a permanent re-operation plan is developed and environmental review completed, the impacts to lake levels and recreation will be analyzed.

Environmental analyses completed for the re-operation plans generally predict lower water levels during winter months—particularly December through February—when recreation use on Folsom Lake is at its lowest. Environmental analysis completed for the Water Forum Agreement found that water levels would drop below 412 feet (the elevation at which Folsom Lake Marina must close) during summer months on average between 4 and 6 more years based on the 70-year hydrological record. However, when re-operation is combined with future water demand for all purposes, there is the potential for significant impacts on recreation use in the SRA in years when Folsom Lake is lowered and subsequent precipitation and runoff are insufficient to refill the reservoir. This situation has already occurred in recent years when in 1997 and 2001, water levels dropped to 395 and 414 feet respectively, the reservoir was insufficiently refilled, and a low water summer season at the SRA resulted. As the various demands for Folsom Lake water increase as projected, it will become increasingly difficult for water managers to retain water throughout the summer months and low water years will become more frequent. In 2004 for instance, water levels in Folsom Lake were not dropped particularly low in the winter when compared to previous seasons; however, spring and summer releases to the Delta and downstream fisheries combined with below average precipitation and runoff resulted in low water conditions during the summer season.

2). Construction

The proposed flood protection and dam safety projects will result in construction related-impacts to recreation use and facilities at Folsom Lake SRA. These impacts will occur over the course of the project. Borrow operations in or around Folsom Reservoir, construction staging areas and construction activities will all have some impact on recreation use. The ROD for the project contains mitigation measures to minimize the impacts to recreation. State Parks and Reclamation will continue to work with the other involved agencies to address impacts to recreation as specific project plans and activities develop and occur.

The original proposals to raise Folsom Dam included a provision to construct a temporary bridge across the canyon below the Dam to accommodate the traffic that would be displaced from the Folsom Dam Road. A federal authorization in 2004 approved construction of a permanent bridge. The ACOE and the City of Folsom are moving forward with a joint project to construct a permanent bridge across the canyon below Folsom Dam.

A Draft EIR/EIS for the new Folsom Dam Bridge was released in Spring 2006 and a final EIR/EIS was issued later in 2006. The alignment of the new bridge and roadway will run from the current alignment of Folsom Dam Road at Observation Point to a new intersection with Folsom-Auburn Road just south of the current intersection with Folsom Dam Road. The Folsom Dam Bridge project will require the re-alignment of portions of the paved bike path between Lake Natoma and Beal's Point and may involve relocation of some Reclamation and CDPR administrative facilities. Some habitat mitigation will also be required. Construction of the new bridge began in 2007 and work on the bridge is anticipated to be completed in early 2009.

In separate actions and decisions from the bridge project, Folsom Dam Road has been closed to public use. In 2003, as a result of security concerns raised following the attacks of September 11, 2001, Folsom Dam Road was closed indefinitely to public use. Reclamation analyzed the permanent future of Folsom Dam Road in an EIS that was finalized in 2005.

3). Planning for Future Reservoir Operations

While it is difficult to determine with any certainty how the SRA will be affected by various flood control and water supply projects on Folsom Lake associated with future reservoir operations, it is necessary to plan for the potential impacts nonetheless. With respect to future water levels, recreation planning should consider improving water access to lower water levels by extending existing boat ramps and ensuring that any marina development and expansion be operable at lower than current elevations. However, any increase in water access must be carefully considered relative to the surface area on Folsom Lake available for boating at various water levels. In this way, the provision of related upland facilities (such as parking) may be balanced with the desired boating capacity (refer to Section C.5 in Chapter 3). This General Plan maximizes the efficiency of existing boat launch facilities on Folsom Lake and provides the opportunity to extend launch ramps if warranted by continued low water levels.

The Folsom Dam Safety and Flood Damage Reduction Project will increase the ability to release water downstream and will reduce the vulnerability of these facilities getting inundated in an extreme flood event. However, future recreation planning on Folsom Lake

should also consider the impacts of short term inundation in the instance that an extreme flood event requires utilization of the surcharge space. Such impacts on recreation facilities and resources in the SRA could be substantial and may require significant clean-up and repair. This General Plan provides for the preparation of a Flood Response Plan in cooperation with the Army Corps of Engineers (ACOE), the Sacramento Area Flood Control Agency (SAFCA) and other appropriate agencies to minimize the risk and potential damage to recreation facilities from inundation and provide funding mechanisms for post-event clean-up and resource mitigation. In the response to comments for the Final EIR/EIS for the American River Watershed Long Term Study (2002) SACFA committed to work with State Parks to develop or fund a flood response plan for flood proofing or post-flood rehabilitation of existing facilities. The General Plan/Resource Management Plan is direction to follow up in completion of such a plan.

Finally, future planning in the SRA should consider the construction-related impacts of various flood control and dam safety projects on SRA resources. These projects will likely involve long-term construction activity that will have some impacts on recreation facilities. This General Plan seeks to avoid and minimize the impacts of these projects on SRA resources by calling for State Parks and Reclamation to work closely with the U.S. Army Corps of Engineers and other agencies to mitigate adverse impacts to recreation facilities and resource areas in a manner that is consistent with the vision and direction for these areas as provided in the General Plan/Resource Management Plan. The ROD for the Folsom Dam Safety and Flood Damage Reduction Project contains mitigation measures to minimize and address impacts to recreation and other resources. State Parks and Reclamation will continue to work with the other involved agencies to address impacts to recreation as specific project plans and activities develop and occur.

2. Future of Mississippi Bar

Mississippi Bar is an undeveloped, one-square-mile river terrace along the western shore of the Lake Natoma between Lake Overlook and Negro Bar. While the area includes a rich variety of habitat types, including interior live oak woodland, blue oak woodland and savanna, grassland, and riparian woodland, the majority of Mississippi Bar represents a highly disturbed landscape. This is due to the fact that the area played a significant role in the exploration for gold in the American River during the 1850s. Within a few short years after gold was discovered by James W. Marshall upriver on the South Fork, most of the gold which could be easily retrieved with simple tools had been taken from the hills and streams and major engineering efforts were required to extract the remaining big gold deposits under

rivers or in prehistoric riverbeds. Hydraulic mining was used to mine the American River in the area of Mississippi Bar, a byproduct of which was dredge tailings – piles of washed cobblestones up to several stories high. These tailings were subsequently mined for their value as aggregate.

Today, the interior areas of Mississippi Bar reflect a landscape of dredge tailings as well as lagoons and ponds that were created in an attempt to restore the area when the aggregate mining activity ceased in the 1990s. Although some of these lagoons and ponds are accessible by canoe or kayak from Lake Natoma, recreation facilities at Mississippi Bar are limited to Shadow Glen Stables, a trailhead at Sunset/Main avenues, the paved Lake Natoma bike path, and various dirt equestrian/pedestrian trails that criss-cross the area. In short, Mississippi Bar represents a significant area of opportunity for the restoration of riparian wetlands, the development and enhancement of recreation opportunities, and the preservation and interpretation of historic cultural resources.

In the past Mississippi Bar has been considered by the U.S. Army Corps of Engineers and other agencies as a potential borrow site for proposed Folsom Dam Mini-Raise Project (refer to Chapter II, Section C.1 for further information). The current plans to provide additional flood protection at Folsom Dam/Reservoir do not include utilizing Mississippi Bar as a borrow site. If in the future Mississippi Bar is again considered as a borrow site, State Parks and Reclamation want to ensure that there is adequate mitigation of any possible impacts on existing natural, cultural, and recreation resources and that the area is returned to a condition consistent with the vision, goals and guidelines for this specific area outlined in this General Plan.

This General Plan addresses the future use of this area as recreation resource while restoring natural resources and providing for historic interpretation. Refer to guidelines in Section D.4 in Chapter III related to the Mississippi Bar management zone.

3. Trails

The trail system in the SRA is extensive (more than 90 trail miles) and links most of the SRA's facilities. It also accommodates a variety of users, including walkers and hikers, horseback riders, cyclists, and mountain bikers. Given the increasingly urban setting around the SRA, the demand for trails will continue to grow. However, the SRA's narrow land base combined with steep topography around both lakes significantly limits the opportunities to

develop new trail facilities. Within this context, increased trail use in recent years has raised concerns about conflicts between different trail users.

During the initial round of stakeholder meetings in October 2002, and again in the first community workshop in November 2002, it became clear that trails represented the primary recreation resource issue. In particular, the tension between equestrians and mountain bikers was brought into sharp focus. Equestrians raised concerns about mountain bikers riding on designated equestrian/pedestrian trails and the dangers of mixing these two uses on one trail. Equestrians cited examples of horses being spooked by bikers, of riders being thrown, and of horses being injured. In addition, equestrians wanted to ensure that the push for multi-use trails in the SRA does not come at the expense of equestrian/pedestrian trail miles. The primary concern of mountain bikers is the lack of trail miles in the SRA designated for bike use – a use that continues to increase in popularity. At this time, mountain bikes are permitted on 45 miles of the 94 miles of trails in the SRA while equestrians have access to 66 trail miles. Also, single-use mountain bike trails total only 9 miles compared to the 46 miles designated for equestrian use only. In addition, mountain bikers are concerned that their reputation with equestrians has been damaged by a handful of bikers who ride illegally on equestrian/pedestrian trails and who do not practice proper trail etiquette.

In order to respond to these issues more fully, the planning team held three working sessions with a select group of trails stakeholders. The planning team heard that while additional trail miles would be nice, there is a significant need for multi-use access to the trail system. The planning team also heard that in order to do this without significantly adding trail miles, parallel paths would be necessary on existing trails. In addition, trail users called for increased patrol and enforcement as well as education efforts to increase awareness on trail etiquette if more trail miles in the SRA are to be designated multi-use. The trail stakeholder group helped to inform the overall goals and objectives for the SRA's trail system under this General Plan and lay the groundwork for the preparation of a Trail Management Plan once the General Plan is adopted.

This General Plan provides clear direction for the preparation of the Trail Management Plan. It envisions a SRA trail system that provides the broadest possible public benefit; balances the demands of a diverse and constantly growing user population; is flexible enough to respond to changes in recreational demand over time; is part of a larger, integrated regional system with connections to and access from other trail systems; and balances the need to expand with enhancement of the

existing facilities. Refer to guidelines in Section C.3b. in Chapter III (guidelines VISIT-34 through VISIT-65) related to trails.

4. Marina Capacity

The Folsom Lake Marina at Brown's Ravine is the only marina facility in the SRA. It includes 685 wet slips and 175 dry storage slips. Currently, there is a 5-year waiting list for a sixteen-foot or twenty-foot slip, and a 9-year wait for a twenty-four-foot slip. Interest in slip rentals has increased significantly in recent years in direct proportion to the growth in residential development nearby. In order to determine if a market for expanded marina capacity in the SRA exists, the planning team completed a preliminary survey of similar marina facilities in the region—including at Lake Oroville, Lake Camanche, Pardee Lake, Bear Lake, Lake Tahoe, and the San Joaquin Delta—and reviewed documented trends in the California boating industry. The survey found that:

- Slips at a majority of the marina facilities surveyed were completely sold out during the peak season (May through October);
- While these facilities provided similar slip sizes to Folsom Lake Marina (16-25 feet), the demand is greater for larger rather than smaller slips;
- Facilities nearer to large urban centers experience greater demand for slips and such facilities attract more local use; and
- The demand for slips at Folsom Lake Marina is higher than at any other facility surveyed.

Based on the survey findings, the planning team determined that a market exists for expanded marina capacity in the SRA. Several potential locations for a second marina, including New York Creek, Peninsula, Dike 5, and Buzzard Cove, were selected based solely on the suitability of underwater topography from an engineering standpoint, i.e. good basin elevation with reduced deepening dredging volumes. A number of criteria were then used to determine the suitability of these locations from a landside perspective, including:

- Sufficient upland area to support needed landside facilities, such as parking and access, office and concessions, restrooms and public use amenities, etc.;
- Suitable access, including distance from main roads and services availability;

- Compatibility with both management zone land use designation and surrounding land use; and
- Potential impacts on the SRA's natural and cultural resources.

Based on this analysis, the planning team determined that none of the potential locations was suitable for a second SRA marina facility. For instance, while suitable access and services could be easily provided at the New York Creek and Dike 5 locations, inadequate upland area for landside facilities and incompatibility with surrounding land uses ruled these locations out. A marina at the Peninsula location would be too far from a large concentration of users and significant upgrades to Rattlesnake Bar Road would be required. In addition, such a facility would likely have significant impacts on some of the SRA's most sensitive natural and cultural resource areas and would not be in keeping with the Conservation designation of the Peninsula management zone. Finally, the Buzzard Cove location while suitable for access and compatibility with surrounding land uses and SRA resources would require the acquisition of neighboring property to provide the necessary landside facilities.

The planning team then focused on various options for expanding the slip capacity of the existing marina at Brown's Ravine without the need to dredge the basin. A single point buoy berthing alternative would yield only 36 additional slips (a 5 percent increase) and provide little control and stability on buoyed vessels. A double point alternative, which would improve the stability of buoyed vessels, would yield 290 additional slips (a 42 percent increase). A more aggressive double point alternative could accommodate 490 additional slips (a 71 percent increase) by limiting the space between boats to 5 feet. However, it was determined that any form of buoy berthing may not be practical at Folsom Lake where significant annual drawdowns in the reservoir—typically about 40 feet each year—would result in the need for significant cable maintenance using this approach. It was also determined that any significant increase in slip capacity at Brown's Ravine would likely require development of major landside facilities, such as parking, restrooms, concessions, etc. Due to the limited amount of upland area at Brown's Ravine, and the proximity of neighboring residential development, it is also likely that a portion of such landside facilities would have to be constructed on the southern shore of Brown's Ravine at Mormon Island Point.

After discussions with the Folsom Lake Marina concessionaire and representatives of the California Department of Boating and Waterways, it was determined that the most appropriate means of expanding slip capacity at Brown's Ravine would be to extend the existing dock system. Two alternatives were analyzed: a 150-foot dock expansion yielding

260 additional slips (a 38 percent increase); and extensions to the maximum length possible without the need for dredging the basin yielding 460 additional slips (a 68 percent increase). However, it was determined that the second alternative would be infeasible since the design, use, and maintenance of such long docks—some would be up to 800 feet long—would be extremely difficult. In any case, it is likely that the expansion of slip capacity using this approach would require improvements to the existing mooring system, including the possibility of a system that automatically adjusts to fluctuating water levels. It is possible that improvements to the existing breakwater will be necessary to reduce the exposure of extended docks to wind and wave energy off Folsom Lake.

As noted earlier in this Section, it is important that recreation planning on Folsom Lake consider improved water access to lower water levels by extending existing boat ramps and ensuring that any marina development and expansion be operable at lower than current elevations. While dredging of Brown’s Ravine may not be required to accommodate the various expansion alternatives analyzed in the preparation of this General Plan, dredging could be pursued as a means of extending the boating season by allowing access to Folsom Lake at lower water levels. Currently, boats at the marina are pulled from the water when levels drop below 412 feet—water levels in a typical year drop to about 405 feet—which in a good year does not occur until after Labor Day.

This General Plan calls for a 30-50 percent expansion in slip capacity at Folsom Lake Marina (between 200 and 340 additional slips) and the necessary upland facilities to support such expansion. It also calls for further detailed study into what, if any, structural improvements are needed to increase slip capacity, such as to the existing breakwater and dock system. Dredging of Brown’s Ravine could be used to extend the boating season at Folsom Lake Marina.

Refer to guidelines in Section C.3a in Chapter III (guidelines VISIT-16 through VISIT-18) related to marina capacity. Also refer to policies in Section D.26 in Chapter III related to the Brown’s Ravine management zone.

5. Traffic Congestion at Major Day Use Areas

With more than 1.5 million visitors to the SRA each year, and only a handful of major access points, several facilities in the SRA reach capacity by midday on peak season weekends. These facilities include Beals Point, Granite Bay, and Brown’s Ravine. As the day use and boat launch parking lots at these facilities fill and eventually reach capacity—at which point

access to the SRA is closed—traffic will backup along entrance roads and onto major access routes and local streets. In the case of Granite Bay, traffic can backup along Douglas Boulevard all the way to Folsom-Auburn Road. The result is traffic delays, illegal parking, pedestrian hazards, noise, and access difficulties for SRA neighbors. Traffic congestion is also an issue in the Skunk Hollow/Salmon Falls area when parking areas reach capacity and queuing for the whitewater rafting take-out areas backs up onto Salmon Falls Road.

This General Plan addresses access and circulation improvements at several facilities as a means of reducing delays, improving visitor experience, and minimizing the effects of SRA operations on surrounding neighbors. Improvements proposed include the reconfiguration of entrances at Beals Point and Granite Bay, the use of temporary electronic message boards in various locations to inform and direct approaching SRA visitors, and the use of radio public service announcements.

Refer to guidelines in Section C.3.e in Chapter III related to circulation. Also refer to guidelines in Sections D.14 and D.16 in Chapter III related to the Beals Point and Granite Bay South management zones.

6. Camping

There are three campgrounds in the SRA providing a total of 176 campsites that accommodate tent, trailer, RV, and group campers. Peninsula Campground includes 104 family campsites. Beals Point Campground includes 49 family campsites and 20 RV sites. Negro Bar Campground is comprised of 3 reservation-only group campsites, two of which are designed to accommodate 50 people and the third site 25 people. Full capacity is often reached at all three campgrounds on peak season weekends.

There are several issues related to camping in the SRA, particularly with respect to Beals Point. Due to the proximity of Beals Point Campground to urban development, there has been an increase in law enforcement problems at the campground, including partying and underage drinking, drug dealing, and violent crimes. This has also had the effect of diminishing the quality of the camping experience at this facility – the District has received many complaints regarding the visitor experience here. These problems are exacerbated by the dense layout of the campground with its many small sites and minimal vegetation screening that provides little privacy. Finally, access to Beals Point for campers with reservations can be difficult during peak season weekends when the day use parking area fills and traffic backs up onto Folsom-Auburn Road.

Other camping-related issues in the SRA include the need for additional group camping facilities and the demand for showers at Peninsula Campground. This General Plan addresses these issues as a means of improving access and providing a visitor experience that is in keeping with the vision for the SRA.

It should be noted that the continued demand for camping facilities statewide, coupled with the limited additional capacity developed by State Parks in the last decade, has resulted in a severe shortage of campsites in the state. Many campsites in the State Parks system are reserved months in advance and campgrounds tend to reach capacity every weekend during the peak season – 6.5 million people camped at State Parks facilities in 2001-02. In response, the State Park System Plan (2002) proposes the development of some 20,000 additional campsites over the next 20 years. In order to make this happen, State Parks must carefully balance this need with the particular natural and cultural resources present at each park unit. At Folsom Lake SRA, this General Plan must determine if family camping remains an appropriate use at Beals Point, and if not, where this camping capacity may be relocated.

This General Plan proposes the conversion of a portion of the family camping at Beals Point to group camping and the relocation of the family camping capacity to another location within the SRA – most likely to Peninsula Campground.

Refer to guidelines in Section C.3b. in Chapter III related to camping (guidelines VISIT-30 through VISIT-35). Also refer to guidelines in Sections D.5, D.14, and D.22 in Chapter III related to the Negro Bar, Beals Point, and Peninsula management zones.

7. Wildland-Urban Interface

The interface between the SRA and adjacent lands raises several complex issues related to the proximity of urban and rural development to the SRA. While the majority of urban and rural development surrounding the SRA is residential in nature and of low intensity and scale—exceptions include more intense non-residential uses that abut the SRA in the City of Folsom—neighboring development does raise several concerns.

First, the proximity of development results in visual intrusion where visitors can see outside development from within the SRA. When land was originally acquired in the 1950's to create the reservoirs, little consideration was given to the potential for urban encroachment. As the Folsom area continues to urbanize, homes are being built on the ridgelines

overlooking Folsom Lake. In fact, views of the lake are a key selling point for such real estate. Residential development on overlooking hillsides and ridgelines has an adverse effect on views from the SRA since homes here tend to be silhouetted against the sky and significantly alter the skyline and the perception of the SRA as a rural, natural area. On Folsom Lake, examples of the visual intrusion of development on the SRA include Granite Bay and Brown's Ravine on Folsom Lake. On Lake Natoma, views from the SRA are generally more limited and of higher quality due to the dense riparian vegetation along the shoreline and the Lake Natoma Bluffs. Although some visual intrusion from development does occur in the area of Lake Overlook and Nimbus Flat, simple buffering and screening here would soften the interface between the SRA and adjacent lands. The reality is that it is difficult for State Park to influence development activity outside of the SRA.

Second, there are locations in the SRA where noise is an issue. In these locations, visitors are affected by noise coming from beyond the SRA or neighbors are affected by noise coming from within the SRA. For visitors, noise coming from outside the SRA is limited to those locations proximate to major roadway routes that parallel or cross the SRA, including Nimbus Flat on Lake Natoma where Highway 50 and Hazel Avenue pass close by, and Negro Bar in the area of the Lake Natoma Crossing (Folsom Boulevard), and Folsom Bridge (Riley Street). For neighbors, noise coming from inside the SRA is generally the result of traffic backups at popular day use facilities that reach capacity on peak season weekends, and from water-based activities on Folsom Lake. The noise from power boats and jet skis on Folsom Lake can travel great distances depending upon atmospheric conditions and wind direction (see discussion of a "quiet day" on Folsom Lake below). In addition, music coming from boats moored or floating in nearshore areas does generate complaints from lakeside neighbors, particularly in the lower reaches of the North and South Forks of the American River.

Third, access is an important interface issue for two reasons. First, several facilities in the SRA—such as Beals Point, Granite Bay, and Salmon Falls/Skunk Hollow—reach capacity by midday on peak season weekends, which results in traffic delays, illegal parking, pedestrian hazards, noise, and access difficulties for neighbors of the SRA. Second, informal access to the SRA from abutting neighborhoods is a concern with homeowners often adding gates to access the SRA property or completely removing property line fencing and extending their yard use into the SRA. In rare instances, homeowners use SRA lands as a dump site for yard waste and personal refuse.

Finally, the proximity of residential development to the natural areas of the SRA raises the issue of wildfire safety, particularly in the northern portions of the SRA along the North and South Forks of the American River. In these more remote rural areas of unincorporated Placer and El Dorado counties, emergency response times are higher and the natural landscape within the SRA poses the highest risk of wildfires and property loss. A Draft Prescribed Fire Management Plan has been prepared concurrently with this General Plan and relevant land use policies are incorporated as appropriate.

State Parks and Reclamation have a number of policies which address fire and fuel management. State Parks goal is to prevent unplanned human caused wildfires and to protect people, property, natural and cultural resources from unplanned and unwanted wildfires. State Parks develops wildfire management plans which outline the prevention, suppression and restoration activities associated with wildfires.

State Parks manages wildland properties which contain native plant communities and ecosystems which are fire prone or fire-dependent. Fire is a natural process and condition under which these plant communities evolved. Buildings and developments constructed adjacent to park units with wildland-urban interface are at risk from wildfires. Many of the risk factors for these structures are associated with siting, design and construction materials. State Parks expects adjacent property owners and jurisdictions to provide appropriate setbacks, fuel clearance on their own property and the use of appropriate building materials to help reduce wildfire risk. State Parks policy is to prohibit the construction and maintenance of fuelbreaks and fuel modification zones except under specific circumstances, including: where required by State law; where previous legal commitments were made; or park vegetation within 130 feet of a habitable non-Department structure which is at specific risk of ignition from wildfire.

State Parks policy and goal is to restore fire to its proper role as a natural ecological process in native ecosystems. The Department develops prescribed fire programs for appropriate park units for the purpose of restoring and maintaining native plant communities and structure, improving wildlife habitat, the control of exotic species and other ecological purposes. State Parks develops unit prescribed fire management plans, which provide programmatic direction, and project burn plans to guide and implement the prescribed fire program.

Refer to guidelines in Section C.3e in Chapter III related to circulation, Section C.3f in Chapter III related to visual resources and aesthetics, and Section C.4e in Chapter III related to wildfire management.

8. Off-Road Vehicle Use

At several locations in the SRA, including at Rattlesnake Bar and Beals Point on Folsom Lake, visitors drive their vehicles off designated roadways and parking areas to access the water. Some visitors also drive along shoreline areas not previously accessible at high water. This activity becomes prevalent later in the peak season as lake levels drop and shoreline areas become exposed. Off-road vehicle use impacts SRA resources in several ways. First, shoreline vegetation above high water is affected as visitors establish pioneer routes between designated roadways and parking areas and the shoreline itself. Second, the erosion caused by vehicles can prevent the growth of shoreline vegetation below high water in the lake fluctuation zone, vegetation that can slow and reduce stormwater runoff by allowing percolation into the soil. As a result, fine-grained soils are washed into Folsom Lake when the first rains of the winter season arrive, which in turn contributes to reduced water quality in the SRA. Third, as lake levels drop and archaeological resources located below high water become exposed, there is increased risk that these resources may be damaged or destroyed by off-road vehicle activity. Finally, littering below high water becomes a problem since trash receptacles are generally not provided.

Off-road vehicle use in the SRA results in increased operational costs for State Parks from the patrol of exposed shoreline areas, barricading and temporary signing of areas closed to vehicle use, litter removal, and maintenance of access roads below the high water. This General Plan addresses off-road vehicle use in the SRA by restricting vehicles to designated roads and parking areas and by providing formal shoreline access in limited locations as appropriate. Refer to guidelines in Section C.4d. in Chapter III related to off-road vehicle use.

9. Whitewater Course

Whitewater kayaking interests have periodically expressed the desire for a year-round artificial whitewater kayaking course utilizing the drop from Lake Natoma around Nimbus Dam to the river below in the area of Nimbus Shoals. This concept was recently raised as part of the bid by the San Francisco Bay Area Sports Organizing Committee (BASOC) for the 2012 Olympics. While the Bay Area was unsuccessful in its bid for the 2012 games, interest in the potential for an artificial whitewater kayaking course at Nimbus Dam increased, including by the River City Paddlers, a local paddling group based in Sacramento, who sponsored a preliminary concept study of the idea. Also, whitewater kayaking interests have expressed a desire that the scope of Reclamation's plan to replace the fish diversion

structure at Nimbus Dam be broadened to include the development of this structure as a multi-purpose facility that would provide both fish passage and whitewater recreation.

The existing fish diversion structure is an in-stream weir below Nimbus Dam that diverts anadromous fish (salmon) from the American River to the Nimbus Fish Hatchery. Reclamation is currently working through design concepts to replace this structure with a channel across Nimbus Shoals to the Hatchery. Based on preliminary design analysis Reclamation has determined that a multi-purpose fish diversion channel which provides both fish passage and whitewater recreation is not a feasible or desirable option. In light of this, government and whitewater paddling stakeholders have met to discuss other opportunities to enhance whitewater recreation in this area. There may be opportunities to create a play/wave hole or other water feature in conjunction with the removal of the existing fish diversion weir.

This General Plan addresses whitewater recreation in the area of the Nimbus Dam by supporting such opportunities within the confines of this Plan. Refer to guidelines in Sections D.1 and D.2 in Chapter III related to the Nimbus Flat/Shoals and Nimbus Dam management zones.

10. Folsom Lake Quiet Day

Over the course of the planning process for the General Plan, a collection of neighbors and trail users proposed the establishment of a weekly “quiet day” on Folsom Lake whereby the use of motorized boats would be restricted. The planning team received several letters, e-mails, and phone calls on the concept, which eventually received the support of a local planning advisory council and a Board Supervisor in El Dorado County. Several issues were cited by these members of the public, including:

- Adverse effects of motorized boat noise on the experiences of non-motorized boaters (sailors, canoeists, paddlers) and swimmers, upland visitors to the SRA, and nearby residents, particularly in the canyon areas of the North and South Fork arms of the American River; and
- Compatibility and safety of non-motorized boaters and swimmers on Folsom Lake that may be difficult to see in open waters and are adversely affected by the wakes from motorized boats. Designated areas for non-motorized boaters and swimmers and was suggested.

The reality of establishing a weekly “quiet day” on Folsom Lake is that it would displace a great many SRA visitors, particularly during the peak season. This General Plan proposes other means of addressing noise and safety concerns on Folsom Lake without singling out a particular type of SRA visitor, including the extension of the 5 mph zone on the North Fork from Mormon Ravine down to Rattlesnake Bar and monitoring boat noise on Folsom Lake during high use periods to document existing conditions and determine the need for adopted standards. Refer to guidelines in Sections D.30 through D.34 in Chapter III related to the Folsom Lake aquatic management zones.

11. State Indian Museum

The 1979 General Plan for the SRA reserved a 28-acre grassland area—commonly referred to as “Museum Flat”—on the eastern shore of Lake Natoma between Willow Creek and Nimbus Flat as a possible future site for the California Indian Heritage Center. Despite a 1991 study on the proposal, and a more detailed follow-up in 1993, a decision was never reached on where the facility should be located. In August 2002, Senate Bill 2063 established the California Indian Cultural Center and Museum under State Parks and a task force to recommend a location, design, content, and governing structure. The center is anticipated to include:

- A 60,000 square foot building, 3 acres of parking, and an entrance from Folsom Boulevard;
- Village site with examples of traditional dwellings and other structures;
- Native plant garden;
- Campfire/ceremonial meeting area;
- Playing field for traditional games and events; and
- Access to Lake Natoma for demonstrations.

As with the 1979 General Plan, this Plan also reserves the Museum Flat area as a potential site for the future California Indian Heritage Center. In October 2004, the task force recommended that two sites be considered and that further analysis be conducted to determine which is most feasible. At that time the preferred location was located on the Lower American River east of Discovery Park in the City of Sacramento. The second choice is the Museum Flat site within the SRA. The taskforce re-confirmed the Lower American River as the preferred site in a 2005 decision. However, plans for a site along the Lower

American River did not work out, and the task force decided to focus planning for the Center at a site in West Sacramento near the confluence of the Sacramento and American Rivers. The task force is working with the City of West Sacramento regarding the land for the site and planning for the Center continues at the West Sacramento site. The General Plan/Resource Management Plan will reserve the Museum Flat location as a potential site for the Center until plans for West Sacramento as the preferred site are finalized. Refer to guidelines in Section D.9 related to the Natoma Shore South management zone.

FOLSOM

General Plan/Resource Management Plan



Chapter III: THE PLAN

CHAPTER III – THE PLAN

A. UNIT PURPOSE AND VISION

This section of the Plan establishes the overall long-range purpose and vision for the future of Folsom Lake State Recreation Area (SRA). It also lays out the purpose and vision for the Folsom Powerhouse State Historic Park (SHP), a separate unit in the State Parks system that is also addressed in this General Plan. Specific goals and supporting guidelines that further clarify the vision for the future of both the SRA and the SHP are found in Section D of this Chapter. These goals and guidelines are designed to address the issues identified as critical in Chapter II, Section C, while providing a solid foundation for future facility development; resource protection, restoration, management and interpretation within the two units. The goals and guidelines provide direction for the design and implementation of subsequent management and development plans to be prepared in the future as funding is available.

This plan also fulfills Reclamation objectives identified in that agency’s strategic plan: to protect, manage and develop water and selected resources to meet the needs of current and future generations; and to operate, maintain and rehabilitate facilities safely, reliably and effectively to provide Reclamation project benefits. Although much of the content of this plan has been driven by current issues, the intent is for the General Plan to provide a vision for the future. Since the General Plan cannot predict the future with any degree of accuracy, it is intended to be a dynamic document that will allow managers the opportunity to incorporate newly emerging technologies and improved management concepts for resolving both current issues, along with the ability to provide adequate direction for resolving those that may arise in the future.

1. Folsom Lake State Recreation Area

Under the California Public Resources Code, State Recreation Areas are “...selected and developed to provide multiple recreational opportunities to meet other than purely local needs. The areas shall be selected for their having terrain capable of withstanding extensive human impact and for their proximity to large population centers, major routes of travel, or proven recreational resources such as manmade or natural bodies of water (PRC § 5019.59).” The Public Resources Code also states that each unit in the State Parks System

must have its own Declaration of Purpose that describes the purpose of the unit, as determined by its prime resource values and opportunities, and the significance it represents to California and the State Park System (PRC § 5002.2 (b)).

a. Unit Purpose

The Declaration of Purpose for Folsom Lake State Recreation Area is as follows:

To preserve and make available to the people for their enjoyment and inspiration the outstanding recreational opportunities provided by Folsom Lake and Lake Natoma on the American River system, including aquatic and upland recreational activities and facilities ranging from high-use areas in developed settings to low-use areas in primitive settings, and to provide for the protection, restoration and interpretation of natural and cultural resource values. These resource values include the oak woodlands and savanna, riparian woodlands, chaparral, vernal pool and other characteristic habitats of the foothills and plateaus surrounding these reservoirs and the rich number and diversity of pre-historic archaeological and historic gold mining and settlement sites and resources along the American River system. The reservoirs, river canyons and surrounding rolling foothills, bluffs and uplands all form an important open space and scenic resource for the region.

To accomplish this purpose, resources in the SRA will be managed by balancing recreational opportunities with the protection and management of its natural, cultural, and scenic resources. Diverse opportunities for high-quality outdoor recreational activities will be provided while promoting a visitor experience that benefits from and promotes stewardship of the SRA's natural and cultural resources.

b. Unit Vision

The Unit Vision provides an image of the SRA's ideal future appearance and character. The Unit Vision for Folsom Lake State Recreation Area is as follows:

Folsom Lake State Recreation Area will continue to be a premier place for aquatic recreation and for upland recreation benefiting from the proximity to water, offering visitors of all ages and abilities access to a wide spectrum of outdoor recreational pursuits. Opportunities and settings will range from the easy access and social atmosphere of developed areas to the solitude and wildness of primitive areas. Visitors will experience the open waters and expansive views of Folsom Lake, the quiet and tranquil waters of Lake Natoma, and the intimacy of the canyons along both forks of the American River. Natural resources will be restored and managed to preserve the native plants, animals and

habitats of the unit including the characteristic oak woodlands and savanna of the rolling foothills and bluffs surrounding the two reservoirs. The extensive and diverse archaeological and historic cultural sites and resources will be documented and protected to preserve the artifacts and information they contain. Education and interpretation of the natural and cultural resources of Folsom Lake SRA will occur in a variety of ways and venues giving visitors a natural and human context of the park and building a stewardship ethic.

2. Folsom Powerhouse State Historic Park

The purpose of a State Historic Park is to “...preserve objects of historical, archaeological, and scientific interest, and archaeological sites and places commemorating important persons or historic events” (PRC § 5019.59). As such, the Unit Purpose and Declaration of Purpose for the Folsom Powerhouse SHP are distinct from that of the Folsom Lake SRA.

a. Unit Purpose

The Declaration of Purpose for Folsom Powerhouse State Historic Park is as follows:

To preserve and protect for the public the educational, inspirational, and recreational benefits of the complex of historic features associated with the production of electrical energy in 1895 and the first long-distance transmission of hydropower west of the Mississippi River. The complex is listed on the National Register of Historic Places, is a California Historical Landmark (No. 663), is designated a National Historic Civil and Mechanical Engineering Landmark, and includes the original facility's generating equipment and transformers, forebay and penstocks, and portions of the canal and transmission lines. Other important features are the bedrock mortars and oak woodland habitat on the site.

To accomplish this purpose, resources in the SRA will be managed by balancing visitor use with the protection and management of its cultural, natural, and scenic resources. Visitor experience will be enhanced by improved facilities and aesthetics.

b. Unit Vision

The Unit Vision for Folsom Powerhouse State Historic Park is as follows:

Folsom Powerhouse State Historic Park will continue to offer visitors of all ages and abilities access to the interpretive and educational opportunities provided by the historic

electrical energy generation and transmission features of this nationally-recognized site. Visitors will have the opportunity to experience and learn about the significant historic and cultural resources of the site through improved educational and interpretive facilities and programs that also provide an appropriate level of comfort in a peaceful, park-like setting nestled between the shores of Lake Natoma and historic Downtown Folsom. Cultural resources will be interpreted to provide visitors the human context of the park and the area, particularly the human use of water and power. Natural resources will be interpreted in support of this context.

B. CLASSIFICATION AND MANAGEMENT ZONES

Management of the Folsom Lake State Recreation Area is directed by a hierarchy of mandates, the most general of which is the mission of the Department of Parks and Recreation, which is to:

Provide for the health, inspiration, and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation.

1. Classification

The classifications of Folsom Lake as a State Recreation Area and the Powerhouse as a State Historic Park continue to be the most appropriate classifications for these units and consistent with the Public Resource Code and Department policies¹, public use and acceptability, and unit management flexibility. These classifications also best accommodate the range of recreational uses, resource protection and resource restoration proposed in the Plan.

a. Sub-unit Classifications

In addition to the overall unit classification of State Recreation Area, two sub-units within the State Recreation Area are classified as Natural Preserves in recognition of their significant and sensitive resource values, including Anderson Island Natural Preserve and Mormon Island Wetland Natural Preserve. Anderson Island, located on the North Fork of the American River between Doton's Point and Rattlesnake Bar, is a rookery/roosting area for several heron and egret species. Mormon Island Wetland Natural Preserve represents

¹ Specifically PRC 5019.50-5019.80 and California State park and Recreation Commission Policy III.2.

significant freshwater marsh habitat that is uncommon in the SRA. Key concepts in the definition of a Natural Preserve include:

“...areas of outstanding natural or scientific significance established within the boundaries of other state park system units. The purpose of natural preserves shall be to preserve such features as rare or endangered plant and animal species and their supporting ecosystems, representative examples of plant or animal communities existing in California prior to the impact of civilization, geological features illustrative of geological processes, significant fossil occurrences or geological features of cultural or economic interest, or topographic features illustrative of representative or unique biogeographical patterns. Areas set aside as natural preserves shall be of sufficient size to allow, where possible, the natural dynamics of ecological interaction to continue without interference, and to provide, in all cases, a practicable management unit. Habitat manipulation shall be permitted only in those areas found by scientific analysis to require manipulation to preserve the species or associations that constitute the basis for the establishment of the natural preserve.” (PRC § 5019.71)

The General Plan proposes that a third sub-unit in the SRA be classified as a Cultural Preserve based on evidence of prehistoric archaeological resource value. The classification of this sub-unit, located along the South Fork of the American River below the Salmon Falls Road, will require a separate classification and naming document that will be reviewed and considered by the State Park and Recreation Commission concurrent with this General Plan. However, the fundamental direction to designate this area as a Cultural Preserve is established in this General Plan. Key concepts in the definition of Cultural Preserve include:

“...areas of outstanding cultural interest established within the boundaries of other state park system units for the purpose of protecting such features as sites, buildings, or zones which represent significant places or events in the flow of human experience in California. Areas set aside as cultural preserves shall be large enough to provide for the effective protection of the prime cultural resources from potentially damaging influences, and to permit the effective management and interpretation of the resources. Within cultural preserves, complete integrity of the cultural resources shall be sought, and no structures or improvements that conflict with that integrity shall be permitted.” (PRC § 5019.74)

The planning and management of these sub-units are specifically addressed in General Plan policies that relate to the management zones within which these areas are located.

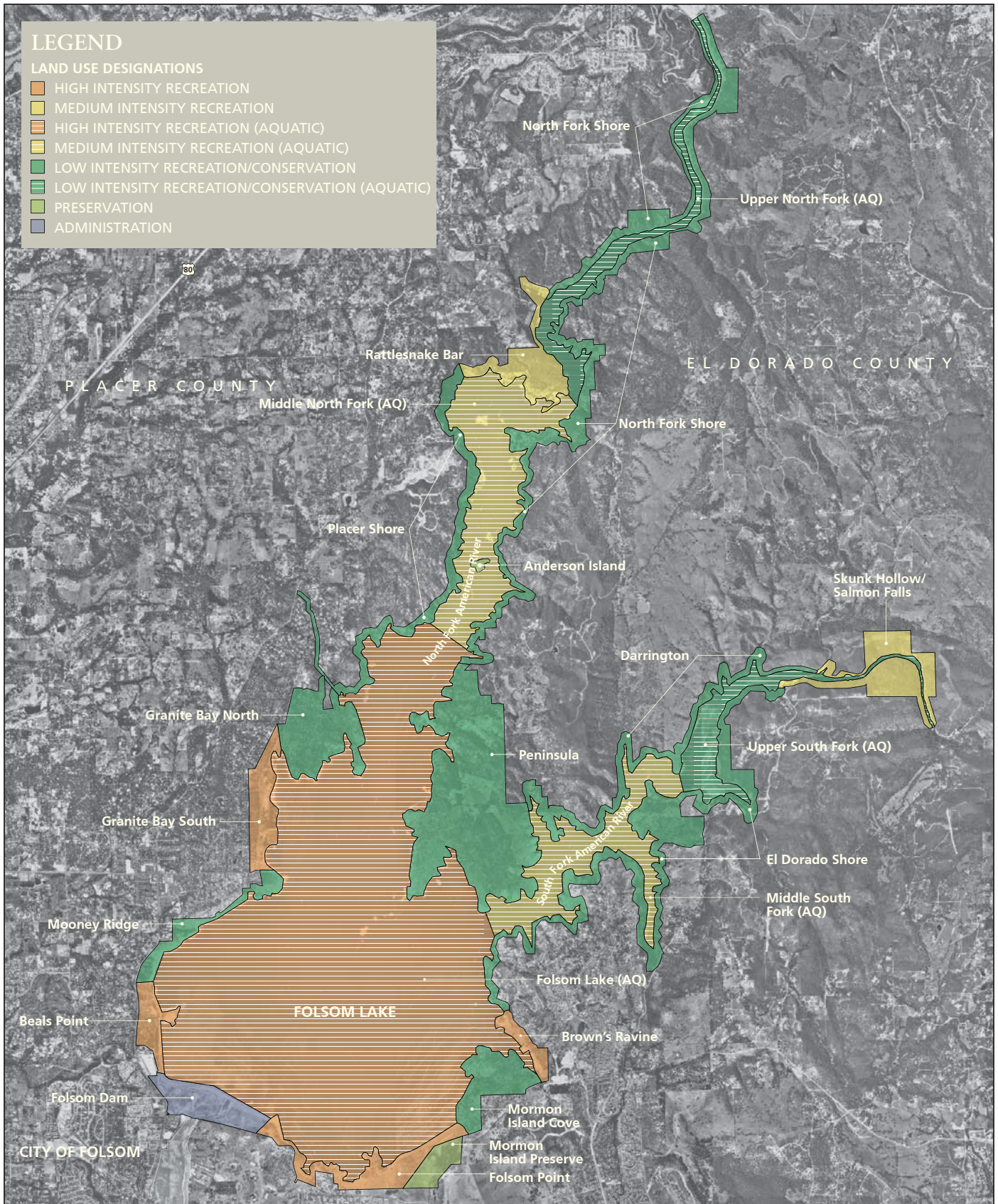
2. Management Zones

The creation of management zones represents the first and most general attempt to spatially define the management scheme for the SRA. Due to the size of the unit, thirty-four management zones are established by the General Plan – twenty-two on Folsom Lake and twelve on Lake Natoma. The management zones reflect the consideration of a number of factors, including existing and potential type and intensity of land use and visitor experience, existing and potential resource values, and the practicalities of day-to-day management and operations. The zones generally represent areas of the SRA that share common physical and use characteristics and should be managed as identifiable components or subareas.

The management zones are further used to designate each area of the SRA, including both upland and aquatic areas, with one of four broad land use designations: Recreation; Low Intensity Recreation/Conservation; Conservation; Preservation; and Administration. The intent of the land use designations is to reflect the varying physical, social, and management attributes throughout the SRA and to provide a framework for making future management decisions. The physical attributes of an area include the degree of, or proximity to, development and the degree of resource modification. The social attributes of an area include the degree of visitor presence and concentration, recreation diversity, and visitor comforts. The management attributes of an area include the degree of management presence, the degree of recreation facilities and public access, and the degree of resources present. In this way, a desirable range of recreation uses, resource values, and visitor experiences throughout the SRA are recognized and managed differently despite the overall classification of the unit as a State Recreation Area.

At Folsom Lake State Recreation Area, the degree to which these attributes are present varies from the more developed, suburban settings of Nimbus Flat or Granite Bay to the more rural settings of Old Salmon Falls or Rattlesnake Bar on the North and South Forks of the American River. The determination of land use designation is based on the degree of these various attributes within in each management zone. Figures III-1 and III-2 show how the land use designations are applied within the unit.

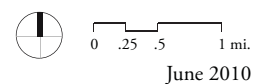
The General Plan land use designations are informed by a new classification scheme relating to water recreation resources, the application of which is currently being tested on Reclamation reservoirs in the West, including those in California in partnership with State Parks. The classification scheme, called the Water Recreation Opportunity Spectrum (WROS), builds on the Recreation Opportunity Spectrum (ROS) scheme used by the U.S. Forest Service and Bureau of Land Management in forest-based settings and commonly applied in recreation areas. Both WROS and ROS use a similar type and number of

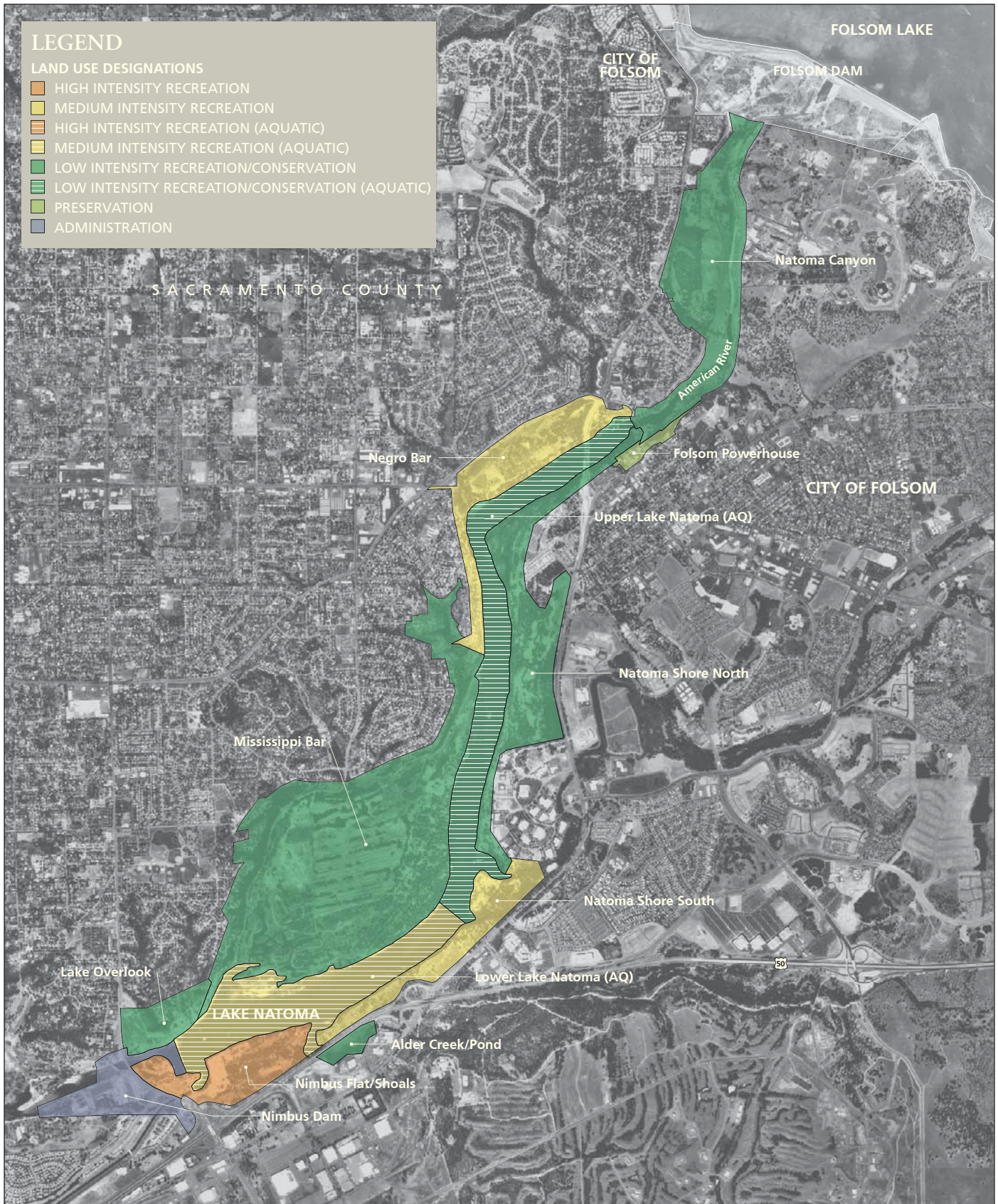


Folsom Lake State Recreation Area & Folsom Powerhouse State Historic Park
 General Plan/Resource Management Plan

Credit: Wallace Roberts & Todd, LLC

Figure III-1
LAND USE DESIGNATION BY MANAGEMENT ZONE -
FOLSOM LAKE

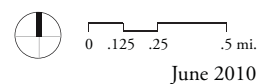




Folsom Lake State Recreation Area & Folsom Powerhouse State Historic Park
General Plan/Resource Management Plan

Credit: Wallace Roberts & Todd, LLC

Figure III-2
LAND USE DESIGNATION BY MANAGEMENT ZONE -
LAKE NATOMA



classifications, nomenclature, mapping criteria, recreation experience descriptions, and processes. The difference is that WROS provides more detailed guidance for water resources in large, publicly managed lands. The use of and applicability of WROS at Folsom Lake State Recreation Area is based on the fact that the water resources in the SRA—Folsom Lake and Lake Natoma—are also the primary recreation opportunities in the SRA.

The General Plan land use designations represent a blend of these two approaches tailored to better reflect the unique characteristics of the SRA and its setting. The general definition for each land use designation is presented below. A more detailed definition of each designation with respect to visitor experience, visitor activities, visitor facilities, access, and resource management is included in Appendix A.

- **Recreation.** Areas that can accommodate more intensive recreational use in a developed and structured setting. These areas accommodate the highest levels of visitor use in the SRA, provide easy access to a full range of recreational and interpretive activities and facilities, and are of a sufficient size to locate the parking, utilities, and infrastructure needed to support the visitor use. The focus of resource management in these areas is to minimize or avoid additional impact to resources and to restore resource values where appropriate. The Recreation designation is further classified by intensity of use. High Intensity Recreation represents the most extensively-developed areas in the SRA and the major gateways for visitors, such as Granite Bay, Beals Point, Brown’s Ravine, and Nimbus Flat. Medium Intensity Recreation areas are somewhat less developed and offer fewer facilities, although these areas remain significant visitor gateways. Medium intensity recreation areas in the SRA include Rattlesnake Bar, Folsom Point, and Negro Bar.
- **Low Intensity Recreation/Conservation.** Areas whose natural and cultural resource values will be protected and restored while accommodating lower intensity recreation and interpretation that is compatible with and dependent on the resource values. Recreation use and facilities occur in these areas, however the level of use is generally lower intensity than Recreation areas. While some developed facilities are located in these areas, there tend to be fewer and less developed facilities than in Recreation areas and direct vehicle access may not always exist. Recreation use and facilities, while present, do not dominate these areas. These areas offer opportunities for more challenging recreational activities in a natural setting. Resource management in Low Intensity Recreation/Conservation areas emphasizes protecting and restoring natural processes with only minor modification of non-sensitive resources permitted to accommodate additional visitor use as appropriate.

- **Preservation.** Areas with unique, fragile or important natural and cultural resource values that need to be protected and preserved. Access, management, and use of these areas are controlled to protect the resources for which the area was designated. In natural preserves, any manipulation of habitat will occur only as necessary to preserve or restore species or associations representing the basis for the Preservation designation. Limited interpretive facilities and activities may be provided as appropriate to the observation, understanding and protection of the key preserve resources. At the State Historic Park, interpretive facilities will not be located in the historic core of the park. Preservation areas in the SRA include Anderson Island Natural Preserve, Mormon Island Wetland Natural Preserve, and Folsom Powerhouse State Historic Park.
- **Administration.** Areas with facilities associated with the operation and maintenance of Folsom Lake and Lake Natoma for the purposes of flood control, water supply, and power generation, or of the SRA itself. Interpretive and visitor information facilities and activities may be provided as appropriate. Access to these areas is generally restricted to staff and related personnel associated with facilities operations. Resource management in Administration areas generally emphasizes the operation and maintenance of related facilities over natural processes. Administration areas in the SRA include Folsom Dam and the Park Headquarters, and Nimbus Dam and the fish hatchery. Facilities in these areas are administered by the U.S Bureau of Reclamation (Reclamation), the California Department of Fish and Game and the California Department of Parks and Recreation (State Parks).

3. Land Use Summary

The General Plan is intended to guide future use and enhancement of the Folsom Lake State Recreation Area over the coming decades. The General Plan strives to provide a balance of uses that protects the SRA's natural and cultural resources, while enhancing the public's ability to enjoy and understand them. The total area of the State Recreation Area is approximately 19,800 acres, of which roughly 11,340 acres are water and 8,460 acres are uplands. As described above, the General Plan divides this total acreage into four land use categories: recreation areas, low intensity recreation/conservation areas, preservation areas, and administration areas. Table P-1 provides a summary of the land use area associated with each land use category.²

² It should be noted that the boundaries of each management zone were not surveyed but interpreted using aerial photos. As such, the land area of each zone is approximate and is intended for reference only.

Table P-1: Management Zone Land Use Summary

<i>Management Zone</i>	<i>Land Use Category (acres)</i>			
	<i>Recreation</i>	<i>Low Intensity Recreation/ Conservation</i>	<i>Preservation</i>	<i>Administration</i>
<i>Lake Natoma</i>				
1. Nimbus Flat/Shoals	119			
2. Nimbus Dam				96
3. Lake Overlook		53		
4. Mississippi Bar		750		
5. Negro Bar	143			
6. Natoma Canyon		263		
7. Folsom Powerhouse			20	
8. Natoma Shore North		263		
9. Natoma Shore South	127			
10. Alder Creek/Pond		17		
11. Lower Lake Natoma (AQ)	234			
12. Upper Lake Natoma (AQ)		256		
<i>Folsom Lake</i>				
13. Folsom Dam				257
14. Beals Point	139			
15. Mooney Ridge		168		
16. Granite Bay South	227			
17. Granite Bay North		419		
18. Placer Shore		351		
19. Rattlesnake Bar	292			
20. North Fork Shore		942		
21. Anderson Island			13	
22. Peninsula		1,465		
23. Darrington		337		
24. Skunk Hollow/Salmon Falls	389			
25. El Dorado Shore		835		
26. Brown's Ravine	91			
27. Mormon Island Cove		276		
28. Mormon Island Preserve			113	
29. Folsom Point	293			
30. Folsom Lake (AQ)	8,098			
31. Middle North Fork (AQ)	1,162			
32. Upper North Fork (AQ)		371		
33. Middle South Fork (AQ)	828			
34. Upper South Fork (AQ)		393		
<i>Total (acres)</i>	<i>12,142</i>	<i>7,159</i>	<i>146</i>	<i>353</i>

Source: State Parks; Wallace Roberts & Todd, 2005.

Approximately 61.5 percent of the SRA area, or 12,142 acres, is designated as recreation area. Recreation areas include 1,817 acres of uplands and 10,325 acres of water (of which Folsom Lake accounts for 8,100 acres). Upland recreation areas on Folsom Lake represent the major day-use and water access areas, including: Beals Point, Granite Bay, Rattlesnake Bar, Skunk Hollow/Salmon Falls, Brown's Ravine, and Folsom Point. The main body of Folsom Lake is also designated Recreation. On Lake Natoma, upland recreation areas include Negro Bar and Nimbus Flat. The lower portion of the Lake Natoma is designated Recreation.

Low Intensity Recreation/Conservation areas in the SRA include some 7,159 acres, or about 36 percent of the total area. Of this area, 6,139 acres are in uplands and 1,020 acres are water. Upland conservation areas on both Folsom Lake and Lake Natoma include shoreline areas between the day use areas designated Recreation. In some cases, trails and related facilities are the only improvements in these areas. In other areas, such as the Peninsula, there are developed facilities such as the campground, boat ramps and day use area which are surrounded by a large undeveloped natural area. The North and South Forks of the American River and the upper portion of Lake Natoma are also designated Low Intensity Recreation /Conservation.

Preservation areas total 145 upland acres, or approximately 0.75 percent of the total SRA area. About 125 preservation acres are located on Folsom Lake, including Anderson Island Natural Preserve and Mormon Island Wetland Natural Preserve. On Lake Natoma, Folsom Powerhouse State Historic Park (20 acres) is the only preservation area.

Finally, 350 acres, or 1.75 percent of the total area, is designated as Administration. These areas include Folsom and Nimbus Dams, Nimbus Fish Hatchery, and the Park Headquarters Complex which includes the State Parks Gold Fields District and Folsom Sector offices and the Central California Area Office of Reclamation.

C. UNIT-WIDE MANAGEMENT GOALS AND GUIDELINES

1. Resource Management and Protection

This section presents unit-wide goals and guidelines related to resource management, interpretation, visitor services, operations, and visitor capacity in all geographic areas of the unit. More detailed area-specific management guidelines are provided in the subsequent section of this Chapter. These goals and guidelines are intended to implement the

Declaration of Purpose and Unit Vision for the Folsom State Recreation Area. Management of the SRA will balance recreational resources with the protection and restoration of its natural, cultural, and scenic resources. Management of the unit will also fulfill the legislative purposes for the Folsom and Nimbus Dams and the two reservoirs.

a. Unit-wide Management Goals and Guidelines for Natural Resources

In response to the mission of the Department of Parks and Recreation, the Strategic Plan of the Bureau of Reclamation and the Declaration of Purpose and Unit Vision for the Folsom State Recreation Area, the following goals and guidelines establish a management framework that will protect the SRA's existing natural resources while establishing an active program for restoring these resource values. The management framework will incorporate, as appropriate, various elements of existing State Parks policy, programs and protocols for natural resource management, including: Department Notices; Chapter 0300 of the Department Operations Manual (DOM); the Inventory, Monitoring and Assessment Program (IMAP); and the Natural Resource CAMP (Computerized Asset Management Program) database program.

The Inventory, Monitoring and Assessment Program (IMAP) provides a process for inventorying, monitoring, and assessing the condition of natural resources throughout the State Parks system based on scientifically sound data collection. The IMAP planning process involves fifteen steps, including gathering information about unit resources, identifying knowledge gaps, setting desired conditions for resources, and prioritizing what resources will be inventoried and monitored. Although State Parks has funded and implemented many monitoring projects during its history, the majority of this monitoring has been focused on the results of specific projects, such as non-native species control and habitat restoration. Future IMAP projects at the Folsom Lake State Recreation Area will allow the District to track the success of the natural resource goals and guidelines of the General Plan in protecting and managing unit resources.

CAMP is a database application adapted by State Parks as a means of planning, budgeting, tracking, and reporting on annual natural resource maintenance activities, including invasive exotic weed control, prescribed burning, native vegetation management, and annual monitoring of each park unit. State Parks uses CAMP to determine annual funding allocations for each District, track actual amounts spent on natural resource maintenance, and determine natural resource maintenance funding needs for developing the annual budgets for the Department. Each fiscal year, funding is allocated based on the natural resource information collected and evaluated by resource ecologists at each District through the conditions assessment process.

When the CAMP program was established, each park unit was divided into natural resource management units. Conditions assessments were then conducted to identify the types of resources, potential threats to resources, and necessary maintenance activities required for each management unit. Work plans and annual cost estimates were developed for each of these work activities. Each fiscal year, the District issues a set of work orders outlining the work plans for specific natural resource maintenance activities for all park units in that District. The District plans and tracks natural resource maintenance work from these work orders, records the actual work and amount spent, and closes out the work orders at the end of each fiscal year. Information gathered during the conditions assessment process is reflected in the Resource Inventory prepared for the General Plan and in the goals and guidelines that follow. As such, any natural resource maintenance activities proposed in the General Plan can be easily integrated into the CAMP program.

Goals

- Manage unit resources by balancing access to its recreational and scenic resources with the protection and restoration of its natural and cultural resources for the enjoyment of the people of the Sacramento region and the State of California.
- Protect, maintain and restore self-sustaining native plant and animal populations and their habitats and naturally occurring plant communities through the maintenance or re-establishment of natural processes.
- Integrate natural resource management efforts with existing State Parks programs, such as IMAP and CAMP.

1). Plant Life Management

The General Plan intends to protect and restore native vegetation and plant communities that provide important wildlife habitat values. The park supports nine major vegetation communities typical of the lower foothills of California's Central Valley and provides habitat for a diverse mix of terrestrial and aquatic fauna, including several special status species (refer to Chapter 2 and the *Folsom Lake State Recreation Area Resource Inventory (January 2004)*). The unique mix of vegetation communities in the park is a product of complex interactions between natural and human influences that have shaped the region. Several special status plant species are known to occur or potentially occur in the SRA.

Native Plant Communities

Goal

- Preserve and restore native plant communities within the unit.

Guidelines

The following management guidelines will be implemented on a unit-wide basis.

PLANTS-1: Pre-screen potential locations of new construction or site alteration activities based on the potential for special status plants to occur. Conduct site-specific surveys by a qualified biologist in areas with potential habitat for special status plants. If special status plant species are present, the goal is to avoid impacts to populations of special status species. If avoidance is not possible, mitigate as required and appropriate.

PLANTS-2: Develop and implement vegetation management plans, programs and actions for the unit that will achieve the following:

- Protect threatened and under-protected vegetation communities such as chaparral, oak woodlands and savanna, vernal pools, and riparian areas.
- Develop and implement proactive management strategies to protect unit resources against exotic invasive pathogens such as sudden oak death syndrome;
- Locate, plan and design future facility development to avoid or minimize impacts to chaparral, oak woodlands and savanna, vernal pools, and riparian communities; and
- Protect special status plant species and their habitats that occur within the unit.

PLANTS-3: Implement a prescribed fire program within the unit that utilizes the Unit-wide Prescribed Fire Management Plan to set priorities and to develop and implement recommended burn plans. Prescribed fire within the unit should be used primarily to maintain and restore native vegetation communities and to control invasive exotic species. Fuel reduction to reduce wildfire risk is a secondary benefit. In urban/wildland interfaces use shaded fuel breaks and other strategies that balance fuel management with the protection of native plant communities.

PLANTS-4: Where prescribed burning is determined infeasible, develop appropriate alternative management actions for grasslands and woodlands.

PLANTS-5: Rare, threatened, endangered or other special status plant species will not be used for revegetation unless the revegetation is part of a restoration plan for that species. Native species extirpated from the unit may be restored when the following conditions are met: there is adequate habitat to support the species and eventually allow it to be self-perpetuating; the genetic type used in restoration most nearly approximates the extirpated genetic type; and the extirpation of the species was the result of human induced change rather than natural processes. The most likely areas for special status or extirpated native plant restoration are the Conservation and Preservation Areas.

Invasive Exotic Plants

All of the unit's natural communities support invasive exotic plant species (also called "noxious weeds"). Many of these weed species displace native vegetation, reduce habitat value for wildlife, cause resource management problems and reduce the aesthetic value of the unit (refer to the *Folsom Lake State Recreation Area Resource Inventory (January 2004)* and Appendix B).

Goal

- Prevent the introduction and control the spread of invasive exotic plants within the unit. Eradicate invasive exotic species where practicable and feasible.

Guidelines

PLANTS-6: Develop a long-term invasive exotic plant management plan and implementation program for both natural and disturbed areas in the unit in accordance with the guidelines in Appendix B. The program should:

- Build on the Resource Inventory to identify and more specifically map invasive species;
- Prioritize areas for treatment; and
- Recommend methods of treatment and long-term management, including manual, mechanical, biological, and chemical removal.

PLANTS-7: Implement a proactive aquatic weed management program that identifies and treats infestations before they have an opportunity to spread, in accordance with the guidelines in Appendix B.

PLANTS-8: Where necessary and as appropriate, coordinate with other agencies (e.g. Western Area Power Administration), weed management groups and organizations, and adjacent Counties and jurisdictions in developing and implementing programs and projects to treat and control invasive exotic plant species.

2). Management Guidelines for Specific Plant Communities

The following resource management recommendations relate to specific vegetation communities in the unit. These recommendations address a range of resource issues—special status species, exotic biota, fuels management, etc.—that should be addressed in each vegetation community. Although individual vegetation communities tend to occur in more than one of the management zones established by the General Plan, not all management recommendations for a particular vegetation community apply to all management zones where it occurs. For instance, prescribed fire recommendations for oak woodlands may only apply to those management zones where conditions surrounding oak woodlands allow for prescribed burning. Appendix C identifies where specific management actions should be applied by relating management recommendations to designated management zones.

Fire Management in Chaparral

Chaparral communities in the vicinity of the Peninsula and South Fork depend on a cyclic pattern of fires (refer to Chapter 2 and the *Folsom Lake State Recreation Area Resource Inventory (January 2004)*). The absence of such fires will lead to excessive fuel accumulation and development of a senescent or mature vegetation structure with increasingly poor habitat value for endemic flora. The exclusion of fire from this plant community can contribute to the potential for higher intensity fires that might be more difficult to control and have the potential to cause substantial ecological damage.

Goal

- Restore fire to its role as a natural ecological process within the chaparral community to restore a mosaic of successional stages. Restoration of a natural fire regime will help prevent catastrophic wildfires and improve habitat conditions for special status plant species and wildlife.

Guidelines

The *2003 Draft Prescribed Fire Management Plan* contains a prescribed fire program for two fire management units that contain chaparral. The program is designed to ultimately re-establish a natural cyclic fire regime that will promote improved habitat conditions including habitat for special status plants associated with chaparral. The following management practices are recommended in chaparral:

- CHAPARRAL-1: Following approval of the unit-wide plan, prepare and implement project burn plans that describe specific operations and constraints in detail for each burn unit.
- CHAPARRAL-2 Seek to prevent conflicting land uses adjacent to chaparral areas that could limit the park's ability to effectively control wildfires or to conduct prescribed burning. Work with El Dorado County to ensure the development of new subdivisions in the vicinity of the Peninsula and South Fork Arm of Folsom Lake have adequate setbacks, buffers and other mitigation to reduce wildfire risk of building in these areas. Take an active role at local public hearings and during the CEQA public comment process. Inform local decision-makers of the risks of constructing housing developments in or near fire prone chaparral habitat, and the costs and constraints such development places on the park's ability to manage wildfires.
- CHAPARRAL-3: Seek mitigation from future adjacent developments that will result in additional costs and constraints on the park's ability to manage wildfires as part of the CEQA review process. Develop a mitigation cost schedule based on the additional person-hours and equipment that would be needed to deal with such additional constraints.
- CHAPARRAL-4: Consider fire and fuel management conditions in developing new public access or facilities in chaparral areas.

Special Status Plant Species in Chaparral

The Peninsula and South Fork chaparral have soil conditions suitable for supporting the following federally-listed endangered or threatened plant species: Eldorado bedstraw (*Galium californicum ssp. sierrae*), Layne's ragwort (*Senecio layneae*), Pine Hill ceanothus (*Ceanothus roderickii*), Pine Hill flannelbush (*Fremontodendron decumbens*) and Stebbin's morning glory (*Calystegia stebbinsi*). A range of other special status plants may also occur in chaparral areas

(refer to Chapter 2 and the *Folsom Lake State Recreation Area Resource Inventory (January 2004)*). The following management guidelines and practices are provided for these species.

Goal

- Manage chaparral to protect special status plant species.

Guidelines

CHAPARRAL-5: Where improvements are proposed in the Peninsula and South Fork areas, conduct site assessments by qualified biologists to determine if suitable habitat is present for federally-listed plant species. Conduct protocol-level surveys for these species, where needed to adequately assess impacts of the proposed improvements. If suitable habitat is found to be present, or if surveys indicate that the species are present, the goal is to avoid all impacts to the species and their habitats to the maximum extent feasible, consistent with requirements of the U.S. Fish and Wildlife Service, California Department of Fish and Game, and other appropriate agencies.

CHAPARRAL-6: In chaparral areas where prescribed burning is proposed, conduct special status plant surveys in chaparral habitat in the Peninsula and South Fork areas in the spring and summer in accordance with U.S. Fish and Wildlife Service and California Native Plant Society (CNPS) guidelines. If one or more of these species are determined to be present, adjust burn plans to include provisions for ensuring that burns are conducted in a manner that maintains and promotes habitat for these species.

CHAPARRAL-7: Coordinate management activities with those implemented by the Bureau of Land Management and other agencies in the nearby Pine Hill Preserve.

California Horned Lizard in Chaparral

This species may occur in the open areas of chaparral on the east side of the SRA (see the Resource Inventory). Areas most likely to support horned lizards occur on the Peninsula. In these locations, the following management practices should be implemented.

Goal

- Manage chaparral on the east side of the park to protect California horned lizards.

Guidelines

CHAPARRAL-8: Take into account the potential presence of California horned lizard when planning any proposed park infrastructure improvements in the vicinity of chaparral in the eastern portions of the SRA. Conduct surveys to locate remaining populations of the species prior to design of such improvements. Use appropriate and recognized survey methods to determine the presence of these lizards. Avoid habitat where this species still occurs.

CHAPARRAL-9: Manage habitat where this species still resides to encourage sparse vegetation. Enhance occupied or potential habitat for California horned lizard in the Peninsula area through implementation of the 2003 Draft Prescribed Fire Management Plan.

Invasive Exotic Pest Plants in Chaparral

Exotic plant species occur in all of the unit's natural communities (see Plant Life Management above). Failure to manage weed species within and adjacent to chaparral areas could cause a decline in the biological value of the park's chaparral habitats.

Goal

- Prevent the introduction and control the spread of invasive exotic plants within chaparral areas. Eradicate invasive exotic species where practicable and feasible.

Guidelines

CHAPARRAL-10: Develop and implement a monitoring plan for the following Priority One and Priority Two invasive exotic weed species: woolly mullein, Scotch broom, French broom, and Spanish broom. If the weed species are found to be present, implement management actions for their control or eradication in accordance with the guidelines in Appendix B.

CHAPARRAL-11: Develop and implement management plans for the control of the following Priority Three invasive exotic weed species from selected locations in accordance with the guidelines in Appendix B: bull thistle, Italian thistle, and yellow starthistle.

Special Status Species in Oak Woodland, Savanna and Grassland

In most regions of the SRA, oak woodland, savanna, and grassland communities form an interrelated complex that is well suited to integrated management approaches (refer to

Chapter 2 and the *Folsom Lake State Recreation Area Resource Inventory (January 2004)*. This diverse mix of vegetation communities offers a wide range of habitat opportunities for many wildlife species. With the exception of the Peninsula/South Fork area, invasive exotic plants, isolation and fragmentation of habitat, and human disturbance significantly affect this complex. Within some woodland areas, it is possible that one or more of the special status species described for chaparral areas (see above) could occur particularly where inclusions of gabbroic and serpentine soils occur such as in the Peninsula and South Fork areas.

Goal

- Manage oak woodlands to protect special status species.

Guidelines

WOODLAND-1: Conduct focused special status plant surveys in oak woodland areas within the Peninsula and South Fork areas in the spring and summer in accordance with U.S. Fish and Wildlife Service and CNPS guidelines. If one or more of these species are determined to be present, manage oak woodlands in a manner that protects these species.

WOODLAND-2: Conduct site assessments by qualified biologists to determine if suitable habitat is present for federally-listed plant species where improvements are proposed in the oak woodlands of the Peninsula and South Fork areas. Conduct protocol-level surveys for these species, where needed, to adequately assess impacts of the proposed improvements. If suitable habitat is found to be present, or if surveys indicate that the species are present, the goal is to avoid all impacts to the species and their habitats to the maximum extent feasible, consistent with requirements of the U.S. Fish and Wildlife Service, California Department of Fish and Game, and other appropriate agencies.

Vegetation Management in Oak Woodland, Savanna and Grassland

Goal

- Manage vegetation in oak woodlands, savannas and grasslands to protect and restore these native plant communities and the habitat values they provide.
- Restore fire to its natural role as an ecological process within oak woodland, savanna and grasslands to perpetuate these plant communities.

Guidelines

- WOODLAND-3: Work with local jurisdictions to avoid the development of conflicting future land uses adjacent to the SRA which would limit the ability to effectively control wildfires or to conduct prescribed burning. Work with the local cities and Counties to ensure that new subdivisions have adequate setbacks to provide all necessary and adequate fuel clearance on private property adjacent to the SRA.
- WOODLAND-4: Implement management actions for the eradication of the following Priority One invasive exotic weed species in accordance with the guidelines in Appendix B: firethorn and cotoneaster.
- WOODLAND-5: Develop and implement a monitoring plan for the following Priority One and Priority Two invasive exotic weed species: firethorn, cotoneaster, Scotch broom, French broom, and Spanish broom. If the weed species are found to be present, implement management actions for their eradication in accordance with the guidelines in Appendix B.
- WOODLAND-6: Develop and implement management plans for the control of the following Priority Three invasive exotic weed species from selected locations in accordance with the guidelines in Appendix B: medusahead, bull thistle, Italian thistle, and yellow starthistle.
- WOODLAND-7: Where existing constraints preclude safe implementation of prescribed burning, consider alternative vegetation management strategies.

California Horned Lizard in Grasslands

Goal

- Protect California horned lizard in the open grasslands.

Guideline

- GRASSLAND-1: Apply the same management practices for protecting the California horned lizard in grasslands as recommended for chaparral.

Burrowing Owl in Grasslands

Burrowing owls are not known to currently occur in the SRA and suitable foraging habitat is very limited due to disturbance and isolation of grasslands. It is possible that burrowing owls

could re-establish themselves in the SRA in grassland areas where suitable burrows are present.

Goal

- If determined to be present, protect burrowing owl in grasslands.

Guidelines

In grassland locations where burrowing owls might re-establish, the following management practices should be implemented:

GRASSLAND-2: Prior to considering park facility improvements or other habitat modification in areas that have been identified as potential habitat for burrowing owl, conduct protocol surveys for burrow sites. Conduct surveys for both winter residents and during the breeding season. If evidence of burrowing owls is found, the goal is to design improvement plans to avoid the burrow areas. If impacts are unavoidable mitigate as required and appropriate.

GRASSLAND-3: If the criteria for animal re-introduction specified in Department policy (specifically DOM 0311.5.5.1) on natural resources can be met, re-establish burrowing owl colonies by relocation efforts and establishment of artificial burrows in suitable locations such as grasslands that are remote from areas of active recreation and sufficiently open to minimize predation. The re-introduction criteria include the species once occurred naturally in the area and was extirpated as a result of human causes, adequate habitat exists to support the species and the species is likely to be self-perpetuating once re-introduced, natural re-establishment is improbable but restoration has a good chance for success, and a restoration plan has been developed that analyzes potential release sites and includes long-term monitoring.

Loggerhead Shrike in Grasslands

Loggerhead shrike is believed extirpated from the Mormon Island Wetland Natural Preserve (see the Resource Inventory), the only location where this species was known to occur in the SRA. There is the potential for species to occur in grasslands and shrubby areas that adjoin open areas within the SRA.

Goal

- Where present, protect loggerhead shrike in grasslands.

Guidelines

In grassland locations that adjoin open areas where loggerhead shrike might occur, the following management practices should be implemented:

GRASSLAND-4: Prior to considering park facility improvements or other habitat modification in areas that have been identified as potential habitat for loggerhead shrike (grasslands and shrubby areas that adjoin open areas) conduct surveys to detect active nests during the nesting season. If active nests are found, design improvement plans to avoid these locations until the young have fledged.

Invasive Exotic Pest Plants in Grasslands

With a few notable exceptions, all of the grassland areas in the SRA are overwhelmingly dominated by non-native annual grass species, primarily yellow starthistle. The on-going colonization and spread of invasive exotic pest plants is rapidly diminishing the habitat quality of the unit's grasslands and associated woodland and savanna areas.

Goal

- Prevent the introduction and control the spread of invasive exotic plants within grassland areas. Eradicate invasive exotic species where practicable and feasible.

Guidelines

GRASSLAND-5: Implement management actions for the eradication of the following Priority One invasive exotic weed species in accordance with the guidelines in Appendix B: rush skeletonweed, Russian thistle, and woolly mullein.

GRASSLAND-6: Develop and implement a monitoring plan for the following Priority One and Priority Two invasive exotic weed species: klamathweed, pampas grass, rush skeletonweed, Russian thistle, Scotch broom, French broom, Spanish broom, and woolly mullein. If the weed species are found to be present, implement management actions for their eradication in accordance with the guidelines in Appendix B.

GRASSLAND-7: Develop and implement management plans for the control of the following Priority Three invasive exotic weed species from selected locations in accordance with the guidelines in Appendix B: medusahead, bull thistle, Italian thistle, and yellow starthistle.

Invasive Exotic Pest Plants in Ruderal, Barren and Developed Areas

Ruderal (weedy habitat) barren and developed areas support a host of pest plants that probably function as seed sources for colonization of adjacent natural areas (refer to Chapter 2 and the *Folsom Lake State Recreation Area Resource Inventory (January 2004)*).

Goal

- Control invasive exotic pest plants.

Guidelines

RUDERAL-1: Implement management actions for the eradication of the following Priority One invasive exotic weed species in accordance with the guidelines in Appendix B: Pampas grass, tree-of-heaven, cotoneaster, firethorn, and Himalaya blackberry.

Burrowing Owl in Ruderal, Barren and Developed Areas

Burrowing owls, a California Species of Concern, were once likely to have been common in the Unit's grasslands, but are not known to currently occur. However suitable burrowing owl habitat is still found and there are opportunities for re-introduction of the species (refer to Chapter 2 and the *Folsom Lake State Recreation Area Resource Inventory (January 2004)*).

Goal

- Where present, protect burrowing owl in ruderal, barren and developed areas.

Guideline

RUDERAL-2: Refer to the burrowing owl management recommendations described above for grasslands.

Bats in Ruderal, Barren and Developed Areas

In the past Brazilian free-tailed bats and an unidentified species of myotis bat have roosted in the Folsom Powerhouse (see Chapter 2 and the *Folsom Lake State Recreation Area Resource Inventory (January 2004)*). The western red bat may also roost in the Powerhouse vicinity. Bats may also roost in the vicinity of barns, buildings, bridges, caves, rock outcrops or ledges, and hollow trees.

Goals

- Protect bats in ruderal, barren and other natural areas.
- Use passive means to exclude bats from inhabiting developed facilities used by the public and agency staff to prevent potential human health impacts, where bat presence conflicts with the primary management objectives of a facility and from historic structures where the management priority is protection of the cultural resources.

Guideline

RUDERAL-3: Account for the potential presence of roosting bats with any proposed improvements in the vicinity of the Folsom Powerhouse and other structures, caves, rock outcrops or ledges, and large hollow trees. Conduct surveys to detect any roosting locations and to determine whether the site is used as a day roost, night roost, or nursery roost. Identify and protect foraging areas. If day/night or nursery roosts are found, design improvement plans to avoid these sites. If impacts are unavoidable, or if the presence of bats conflicts with public health or cultural resource protection goals (and consistent with DOM 0311.5.6.1), alter night roosts to discourage use and avoid nursery roosts until the young have matured enough to fly, then alter to discourage use. Suitable alternative roosts may be necessary. Consult with the California Department of Fish and Game and U.S. Fish and Wildlife Service as needed or required.

Vernal Pool Habitat Protection

Vernal pools or seasonal wetlands that support vernal pool vegetation occur at the Lake Overlook, the Mormon Island Wetland Preserve, in the vicinity of Snowberry Way, in the grassland area west of Folsom Boulevard, near Beek's Bight, at the flat above Snipes-Pershing Ravine (northwest side of Lake Natoma), and at Doton's Point (refer to Chapter 2 and the *Folsom Lake State Recreation Area Resource Inventory (January 2004)*).

Goal

- Protect vernal pool habitat.

Guidelines

In locations with vernal pool habitat, apply the following management practices:

VERNAL-1: Maintain the quantity and quality of localized run-off by avoiding placement of fill material, excavations or other surface alterations to the watershed area's

vernal pools. Prevent nutrient-laden or sediment-laden run-off from adjacent development areas to flow into the pool systems.

- VERNAL-2: Establish zones of protection, marked with interpretive and cautionary signage around the park's vernal pool systems. Ideally the zone of protection should include the entire vernal pool system, including the pools themselves, seasonal wetlands, as well as the associated watershed area.
- VERNAL-3: Discourage activities that would cause extensive human intrusion into vernal pools (e.g., trampling of pool side slopes, collection of flowering annuals, litter).
- VERNAL-4: Utilize prescribed burning, mowing or other vegetation management strategies in vernal pool areas in the early-to-mid summer after native annuals have completed flowering and seed release in order to help perpetuate this native habitat. Focus on those pools that are in relatively disturbed condition, such as in the vicinity of Folsom Boulevard. Burning, grazing or mowing (in which the clippings are removed) prevents non-native annual grasses from forming dense thatches that inhibit the growth of native vernal pool annuals. Use this program to promote high quality vernal pools, coupled with re-introducing native annual plants.
- VERNAL-5: Implement management actions for the eradication of the following Priority One invasive exotic weed species in accordance with the guidelines in Appendix B: klamathweed and woolly mullein.
- VERNAL-6: Develop and implement a monitoring plan for the following Priority One and Priority Two invasive exotic weed species: perennial pepperweed, klamathweed, and woolly mullein. If the weed species are found to be present, implement management actions for their eradication in accordance with the guidelines in Appendix B.

Vernal Pools and Special Status Species Protection

The SRA's vernal pools potentially support federally-listed plant and animal species (i.e., vernal pool fairy shrimp, tadpole shrimp, orcutt grass, Sacramento orcutt grass - refer to Chapter 2 and the *Folsom Lake State Recreation Area Resource Inventory (January 2004)*). As a consequence, vernal pools are particularly sensitive habitats in the SRA, subject to protection under the Federal Endangered Species Act. Additionally, some of the park's vernal pools may

be subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps) and Regional Water Quality Control Board (Board) under Section 404 and 401 of the Federal Clean Water Act and the State Porter-Cologne Act.

Goal

- Protect vernal pool wetland and special status species.

Guidelines

VERNAL-7: Avoid any activities that would adversely impact vernal pools. Filling, grading or excavation work in vernal pools would likely require federal and state wetland permits. Consultation with the U.S. Fish and Wildlife Service (USFWS) would also be required and USFWS protocol-level surveys for these species could also be required. Other activities that could adversely affect these species (e.g., draining) could also trigger the need for USFWS consultation and protocol-level surveys.

VERNAL-8: Conduct surveys for special status plants and animals such as slender Orcutt grass, Sacramento Orcutt grass, vernal pool fairy shrimp and western spadefoot toad to learn more about the biological quality of the park's vernal pools.

VERNAL-9: Protect vernal pool fairy shrimp and western spadefoot toad habitat by protecting all vernal pools from direct and indirect impacts. In particular, the remaining watershed areas of vernal pools should not have any further intrusions such as filling, grading or infrastructure that would reduce or alter the quantity or quality of runoff into the pools.

Vernal Pool Interpretation

Goal

- Interpret vernal pools to promote the protection and public stewardship of these sensitive resources.

Guideline

VERNAL-10: Provide appropriate access and interpretive signs in the Lake Overlook, Mormon Island Wetland Preserve and Snipes-Pershing locations to provide opportunities for the public to view flowering displays of vernal pool endemic plants during the spring and early summer while protecting pool vegetation and structure.

Vernal Pool Restoration

Goal

- Restore vernal pool habitat where it may have historically occurred.

Guideline

VERNAL-11: Restore vernal pool habitat where it may have historically occurred in the Unit. One option is to consider vernal pool restoration to be funded from off-site natural resource mitigation sources only if it can be demonstrated that vernal pool habitat is being restored where it once occurred and it can be sustained in these locations under current circumstances and the entire restoration effort, and the associated monitoring and long-term management can be sustained and funded at no cost to State Parks.

Riparian Wetland Protection

The unit supports extensive stands of riparian habitat along the lake shorelines and along stream courses (refer to Chapter 2 and the *Folsom Lake State Recreation Area Resource Inventory (January 2004)*). Some, or all, of the unit's riparian habitat is subject to the regulatory authority of the U.S. Army Corps of Engineers, Regional Water Quality Control Board and California Department of Fish and Game.

Goal

- Protect riparian habitat.

Guideline

RIPARIAN-1: To the degree feasible, avoid activities that would adversely impact riparian habitat. Such activities would likely require state and federal wetland permits (Section 1601 Streambed Alteration; Sections 401 and 404 Clean Water Act). If impacts are unavoidable, then design and implement mitigation measures as required..

Invasive Exotic Plant Infestations in Riparian Areas

The vegetation maps indicate several mapped infestations of tree-of heaven, broom, Himalaya berry and privet within and adjacent to riparian areas. Other exotic plant species are also known or likely to occur (see Plant Life Management above). Failure to manage these weed species will cause a further decline in the biological value of the park's riparian habitats.

Goal

- Eradicate and control invasive exotic plants in riparian areas in order to protect and restore this important habitat.

Guidelines

RIPARIAN-2: Implement management actions for the eradication of the following Priority One invasive exotic weed species in accordance with the guidelines in Appendix B: English ivy, firethorn, oleander, Pampas grass, privet and tree of heaven.

RIPARIAN-3: Develop and implement a monitoring plan for the following Priority One and Priority Two invasive exotic weed species: English ivy, firethorn, oleander, Pampas grass, privet, tree of heaven, Chinese tallow, giant reed, salt cedar, and scarlet wisteria. If the weed species are found to be present, implement management actions for their eradication in accordance with the guidelines in Appendix B.

RIPARIAN-4: Develop and implement management plans for the control of the following Priority Three invasive exotic weed species from selected locations in accordance with the guidelines in Appendix B: Himalaya blackberry.

Protection of Valley Elderberry Longhorn Beetle (VELB)

VELB, a federally-listed species, may occur in numerous riparian and shoreline locations throughout the park where elderberry shrubs or trees occur.

Goal

- Protect Valley Elderberry Longhorn Beetle (VELB) habitat.

Guidelines

In these locations, the following management practices:

RIPARIAN-5: To the degree feasible, avoid any activities that would adversely impact VELB habitat (e.g., removing, trimming or damaging elderberry shrubs or trees). If such activity is unavoidable, consult with U.S. Fish and Wildlife Service (USFWS) as required prior to any disturbance and implement any required conditions or mitigation.

RIPARIAN-6: Enact a unit-wide management protocol for any future infrastructure, operational or management plans that could occur in the vicinity of elderberry plants. Include the following tasks in the unit-wide management protocol: (1) map sites and count individual elderberry clumps or shrubs, analyze for exit holes if appropriate; (2) protect elderberry stands and associated riparian vegetation with buffer zones of at least 20-25 feet from the edge of driplines; (3) consult with the U.S. Fish and Wildlife Service as required.

RIPARIAN-7: Where VELB habitat has been impacted or altered by human uses, restore VELB habitat in selected reaches of streams and lake shorelines through a riparian planting program that includes elderberry in locations where human access and use is limited, where State Parks does not envision future improvements and where the restoration will not conflict with other management objectives. Integrate the program with the unit-wide management protocol discussed above.

Special Status Aquatic Amphibians and Reptiles in Riparian Areas

Known or potential habitat for special status amphibians and reptiles occur in backwaters at Mississippi Bar, and in various perennial and intermittent streams. Western pond turtle (WPT) occurs in Avery's Pond. California Red-legged Frog (CRLF) and Foothill Yellow-legged Frog (FYLF) are unlikely to occur in these locations, but they do provide marginally suitable habitat for these species.

Goal

- Protect habitat for special status aquatic amphibians and reptiles in riparian areas.

Guidelines

In these locations, the following management practices should be implemented:

RIPARIAN-8: Protect potential red-legged frog and foothill yellow-legged frog habitat areas. Take into account the potential presence of these frog species with any proposed improvements in the vicinity of the SRA's ponds and various perennial and intermittent creeks. Prior to design of such improvements, conduct surveys for the presence of the species in accordance with U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game protocols. If the surveys establish the presence or potential presence of red-legged or yellow-legged frogs, make every effort to avoid impacting

the habitat and to establish an adequate buffer zone (usually 300 feet). Acknowledge that habitat mitigation will likely be required for any unavoidable direct or indirect impacts. Enhance habitat through such measures as bullfrog control and habitat creation in suitable areas of the SRA. If special status frog species are present, consult with the USFWS and/or DFG as appropriate.

RIPARIAN-9: Protect and restore potential habitat for the two special status frog species through such measures as bullfrog control and habitat creation (new ponds) in suitable areas of the SRA. Discuss the potential for re-introduction of the two species with the U.S. Fish and Wildlife Service and the California Department of Fish and Game.

RIPARIAN-10: Protect potential habitat areas for western pond turtle in the same manner as discussed above for red-legged frog. Survey for pond turtles using appropriate and recognized methods.

RIPARIAN-11: Place interpretive signs along trails at Mississippi Bar that discuss current and historic habitat for western pond turtle, California red-legged frog and foothill yellow legged frog.

Wading Bird Roosting Areas and Rookeries

Great egrets, great blue herons and double-crested cormorant feed in the marshes, lakes, creeks and ponds of the park. These birds typically nest in tall trees adjacent to larger bodies of water. In the park, nesting occurs primarily in mature foothill pines. Rookery site trees are usually isolated from disturbance on islands and in marshes. Existing or former rookeries and/or roosting areas occur on Anderson Island Preserve, in the Willow Creek area, at Mississippi Bar along Lake Natoma, in the river gorge above Rainbow Bridge near the Department of Corrections' property and east of the El Dorado Irrigation District pumping facility along the South Fork Arm of Folsom Lake. Additional rookeries or roosting areas could be located in other isolated locations within the SRA, where large trees are present.

Goal

- Protect wading bird roosting areas and rookeries.

Guidelines

For these locations, the following management practices are provided:

RIPARIAN-12: Take into account the potential presence of nesting egrets, herons and/or cormorants with any proposed improvements or activities in the vicinity of roosting or nesting sites. Survey and map known or potential rookery sites, including surveys of active rookeries, during future nesting seasons. If active rookeries are found, design improvement plans to avoid these sites until the young have fledged. Conduct any construction work in the vicinity outside of the breeding season. Consider establishing exclusion zones around potential rookery sites for watercraft and other active recreational uses during the nesting season.

RIPARIAN-13: Protect active or potential rookery locations from disturbance during the nesting season. In particular, consider former rookery sites that continue to be used for roosting purposes (e.g., Anderson Island Preserve) as sites that have a reasonable probability of becoming future rookery sites. Additionally, consider tall mature foothill pines adjacent to or near open water as potential roosting and/or nesting sites. Monitor roosting areas/rookery sites annually for active nests during the nesting season. Map any new nesting areas. Consider establishing exclusion zones around potential rookery sites for watercraft and other active recreational uses during the nesting season.

RIPARIAN-14: Develop a public stewardship program, including the use of volunteers, to help protect rookery sites during the nesting seasons.

Yellow-breasted Chat; Yellow Warbler

The primary concern regarding yellow-breasted chat and yellow warbler is to locate and protect active nesting locations in the park from disturbance during the nesting season. Potential nesting sites for these species occur in riparian habitats with dense willow thickets and stands of Himalayan blackberry.

Goal

- Protect habitat for yellow-breasted chat and yellow warbler.

Guidelines

In these locations, the following management practices are provided:

RIPARIAN-15: In areas of potential yellow-breasted chat and yellow warbler nesting habitat—dense riparian vegetation (willow thickets and blackberry

stands)—conduct surveys during the nesting season to determine the presence of active nests. Avoid construction or restoration work in the vicinity of nesting sites during the nesting season. If active nests are found, improvement plans should be scheduled to avoid these locations until after the breeding season.

RIPARIAN-16: Survey for nesting activity in areas proposed for Himalayan blackberry management. Do not conduct management work until the nesting season is completed, all young have been fledged, and the nests have been abandoned.

Interpretation of Special Status Aquatic Amphibians and Reptiles

The SRA's marshes and ponds provide known or potential habitat for the same special status amphibians and reptiles discussed above under Riparian Habitat Management Issues. The same constraints would apply.

Goal

- Interpret special status aquatic amphibians and reptiles in ponds and marshes to complement efforts to protect them.

Guideline

The following management practice is provided:

MARSH/POND-1: Place interpretive signs at pond and marsh areas, as appropriate, to describe current and historic habitat for rare aquatic species and habitat protection and restoration efforts.

Aquatic Weed Management

Goal

- Prevent introduction, control the spread and eradicate aquatic weeds as feasible.

Guidelines

MARSH/POND-2: Implement management actions for the eradication of the following Priority One invasive exotic weed species in accordance with the guidelines in Appendix B: parrot's feather and water hyacinth.

MARSH/POND-3: Develop and implement a monitoring plan for the following Priority One and Priority Two invasive exotic weed species: parrots' feather, water hyacinth, Brazilian waterweed, curly-leaf pondweed and hydrilla. If the weed species are found to be present, implement management actions for their eradication in accordance with the guidelines in Appendix B.

Tri-colored Blackbird Protection and Management

Tri-colored blackbird may occur in cattail marshes at the Mormon Island Wetland Preserve, the dredge tail ponds of Mississippi Bar, protected coves along Lake Natoma, along the banks of larger perennial creeks such as New York Creek and Willow Creek, and in ephemeral streams such as Indian Springs and Hancock Creek. Tri-colored blackbird may also occur along the edges of Avery's Pond.

Goal

- Where present, protect tri-colored blackbirds in marsh/pond areas.

Guidelines

In these locations, the following management practices are proposed:

MARSH/POND-4: Avoid any activities that would adversely impact freshwater marshes. Obtain and comply with all required State and federal permits (Sections 401 and 404 of the Clean Water Act and DFG Streambed Alteration Permits).

MARSH/POND-5: Avoid construction work in the vicinity of nesting sites during the nesting season. Conduct surveys to detect active nests during the nesting season. If active nests are found, design and schedule improvement activities to avoid these locations until the young have fledged.

Avery's Pond

Avery's Pond is an historic water conveyance feature which provides marsh and pond habitat for native species. The management emphasis for Avery's Pond and associated canals will be protect and where appropriate interpret the historic features and to provide aquatic and riparian habitat for native species. If appropriate, native aquatic species may be restored to the pond.

Goal

- Manage Avery's Pond to protect significant historic features and to provide aquatic habitat for native species. Interpret natural and cultural resources as appropriate.

Guideline

MARSH/POND-6: Gather data regarding Avery's Pond in order to best determine measures to continue to protect the historic features and to provide aquatic habitat for native species. Information to be gathered may include: recording historic features, water quality data, aquatic wildlife inventory and survey, and bathymetry or depth profile of the pond.

Lake Shoreline Wildlife Corridors

In locations such as Granite Bay, Iron Mountain area, Mooney Ridge, and Mormon Island Dam area, wildlife movement is restricted when the lake waters are at or above 466 feet. Even when the water level is below 466 feet, wildlife movement in these areas is limited for part of the year to very narrow corridors of barren or poorly vegetated ground, less than 100 feet wide and often heavily used by humans for recreation.

Goal

- Protect lake shoreline wildlife corridors.

Guidelines

SHORELINE-1: As appropriate and feasible, restore the utility of the lake shoreline corridor zones for wildlife by improving vegetative cover. Plant willows and cottonwoods at or slightly below the 466 foot level to provide additional vegetative cover.

Exotic Wildlife and Nuisance Native Wildlife

Exotic wildlife species occur in virtually all upland habitats in the SRA and include turkey and feral cats. The presence of exotic species is inconsistent with unit goals for maintaining native species and natural systems. Nuisance native species such as ground squirrels, Canada geese, yellow jackets, and raccoons, are problems in areas of the SRA such as campgrounds and picnic areas where a high level of human activity occurs in close proximity to natural areas.

Goal

- Manage, control and eliminate exotic species as necessary and feasible in order to: protect natural processes, species and habitats; protect human health and safety; or to protect other park resources.
- Manage and control nuisance native wildlife in upland habitats where necessary to control unnaturally high population concentrations that are impacting native communities, to protect human health and safety, or to protect specific cultural resources. (see DOM 0311.5.6.1)

Guideline

NUISANCE-1: Develop exotic wildlife and nuisance native wildlife management plan (s) as needed and in close consultation with the California Department of Fish and Game. Include management actions such as: (1) controlling California ground squirrels within picnic areas and campgrounds in order to reduce the health and safety risks to park users; and (2) prevent or discourage the feeding of geese and ducks at Nimbus Flat and other locations in order to reduce bacteriological contamination (see Appendix C).

3). Animal Life Management

The General Plan is intended to protect the most valuable wildlife habitat areas by designating them as Conservation or Preservation areas. The SRA's vegetation communities provide habitat for a diverse mix of terrestrial and aquatic fauna, including several special status species. Additionally, the SRA contains substantial aquatic habitat—lakes, ponds, river and stream habitat—that support a large number of fish species and other aquatic organisms. The following unit-wide management measures will protect wildlife species and restore wildlife habitats.

Goal

- Preserve and restore wildlife habitat and wildlife populations.

Guidelines

WILDLIFE-1: Pre-screen potential locations of new construction or site alteration activities based on the potential for special status wildlife to occur. Conduct site-specific assessments or protocol-level surveys by a qualified biologist in areas with potential habitat for special status wildlife. If special status wildlife species or their habitats are found to be present, the goal is to avoid

impacts to the extent feasible, as may be required by California Department of Fish and Game and/or the U.S. Fish and Wildlife Service. If avoidance is not feasible, mitigate as required and appropriate.

- WILDLIFE-2: Ensure that wildlife management and protection plans, programs, and actions are consistent with State Parks goals for biodiversity.
- WILDLIFE-3: Protect and restore important, under-protected, and sensitive habitat resources, including vernal pools and wetlands, riparian areas, and wildlife corridors.
- WILDLIFE-4: Monitor, develop, and implement protective actions and strategies for heron/egret rookeries and roosting sites, as per RIPARIAN-15 through RIPARIAN-17.
- WILDLIFE-5: Conduct field surveys within designated Conservation and Preservation areas to determine presence of special status animal species that may exist in the park, including: California horned lizard; burrowing owl; loggerhead shrike; vernal pool fairy shrimp; tadpole shrimp; valley elderberry longhorn beetle; western pond turtle; and red-legged frog foothill yellow-legged frog. Prioritize surveys by likelihood of presence and potential threats.
- WILDLIFE-6: Collaborate with other agencies, organizations, and volunteers on wildlife protection and management activities and programs.
- WILDLIFE-7: Manage lake wildlife corridor zones to optimize their utility for wildlife movement particularly during periods of high lake water levels.
- WILDLIFE-8: Develop and implement a unit-wide program to control and manage nuisance wildlife species to protect unit resources and public health in accordance with the guidelines contained in Appendix C. Appendix C provides guidelines and priorities for the elimination of non-native nuisance species from the unit to the extent feasible and practicable, and the management of native nuisance species where warranted by public safety and other park management requirements.

WILDLIFE-9: Assess, control, manage, and eradicate invasive exotic species, as appropriate and needed to protect park resources in accordance with the guidelines contained in Appendix B.

4). Fisheries

The General Plan is intended to protect the SRA's natural and recreational fishery resources. Folsom Lake, and to a lesser extent Lake Natoma, provide a warm and cold water recreational fishery that is supported by the California Department of Fish and Game (CDFG) through an annual rainbow trout stocking program, and through CDFG's Inland Chinook Salmon Program which stocks chinook salmon into Folsom Lake from the Nimbus Hatchery. Additionally, the water released from the Folsom and Nimbus dams helps to support special status native fish populations downstream in the Lower American River. Flow releases from the lakes are critical to creating favorable flow and temperature conditions for Central Valley spring-run Chinook salmon, Central Valley fall/late fall-run Chinook salmon and Central Valley steelhead in the Lower American River.

Downstream Natural Reproduction of Steelhead and Chinook Salmon

Water releases from Folsom Lake can favorably influence the populations of naturally-reproducing fall/late fall-run Chinook salmon and Central Valley steelhead in the Lower American River. Reductions in water temperature in the Lower American River during critical stages in the life cycles of these species will increase the number of these fish spawning naturally in the river.

Goal

- Support the protection and restoration of native anadromous fisheries below Nimbus Dam including special status species such as Central Valley Steelhead and Chinook Salmon.

Guidelines

FISHERY-1: Continue coordination of actions and policies relating with the Lower American River Fisheries and Instream Habitat (FISH) working group, Reclamation, California Department of Fish and Game, and other stakeholders.

FISHERY-2: As feasible, support the on-going summer and fall releases of cold water from Folsom Lake to favorably influence the populations of naturally-reproducing

fall/late fall-run Chinook salmon and Central Valley steelhead in the Lower American River.

Enhancement of Recreational Fishery

The recreational fishery in the two lakes is largely dependent on annual stocking programs (see Resource Inventory). However, natural rainbow trout reproduction is occurring in both forks of the American River upstream of Folsom Lake. With future management efforts, these natural reproducing fish could potentially become a larger component of the lake's sport fishery.

Goal

- Provide and support recreational fishing opportunities at Folsom Lake and Lake Natoma. The California Department of Fish and Game has primary responsibility for the management of fisheries.

Guidelines

FISHERY-3: As appropriate, support DFG programs to provide recreational fisheries at Folsom Lake and Lake Natoma. In selecting the species and locations to provide recreational fisheries, the priority for providing recreation fisheries will be as follows:

- Self-sustaining populations of native species; and
- Self-sustaining populations of non-native species that do not threaten native species or other resources.

FISHERY-4: Partner with fishing clubs and organizations to enhance recreational fisheries where these actions and programs will not adversely impact native species or conflict with other resources and uses. Follow the priorities in FISHERY-3 in providing recreational fisheries.

FISHERY-5: Support efforts to study trout natural reproduction success in the north and south forks of the American River to identify measures that could benefit the population of this naturally reproducing fish species.

5). Biological Resource Data Keeping

State Parks does not currently maintain a centralized database and maps of plant and animal species observed in the SRA by State Parks personnel and by other resource agencies and the public. The GIS created as part of the General Plan will provide the means for accomplishing this.

Goal

- Maintain a centralized biologic resource database and maps that is accessible to both State Parks and Reclamation.

Guidelines

BIODATA-1: Regularly update the GIS database by expanding the layers associated with special status plants and animals and invasive exotic plant infestations. Incorporate new observations from park personnel, and from such sources as: the Reclamation, California Natural Diversity Database, U.S. Fish and Wildlife Service, Audubon Society bird counts, and studies conducted under CEQA/NEPA documentation for projects inside and near to the SRA.

BIODATA-2: Facilitate long-term habitat restoration and management efforts in the SRA, particularly with regard to special status biota and invasive exotic species, by maintaining current data in the GIS system for each layer. Include the following key attributes in the GIS database for each community:

Vegetation Attributes

- Dominant overstory plant species
- Dominant understory plant species
- Dominant ground cover
- Common plant species
- Observed special status plant species
- Potential special status plant species
- Invasive exotic plant species
- Typical overstory density
- Typical understory density
- Typical ground cover density

Faunal Attributes

- Common animal species
- Observed special status animal species
- Potential special status animal species
- Observed nuisance species
- Introduced animal species
- Observed nesting and burrowing sites
- Observed roosting sites
- Other notable species
- Special habitat features

6). Watershed and Water Quality Management

The SRA is located within the American River watershed, which covers approximately 2,100 square miles northeast of Sacramento. The watershed is divided into three major sub-basins, including North Fork, South Fork, and Lower Fork. There are also 14 larger perennial and seasonal creeks that flow into either Lake Natoma or Folsom Lake. The increasing urban and rural development within the watershed has impacts on many of the creeks that flow into the park. Runoff from this development can adversely affect water quality by contributing sediment, petroleum residue, lead, zinc and other pollutants to creeks and streams in the park.

Watershed Protection

Goals

- Protect water quality in Folsom Lake and Lake Natoma and the streams within the SRA that feed into these water bodies. Protect water quantity in the creeks that feed into Folsom Lake and Lake Natoma.
- Identify water quality problems and work with regulatory agencies, adjacent jurisdictions and property owners to correct water quality problems from storm water runoff and other causes in the surrounding watershed.

Guidelines

WATER-1: Protect watershed and streams within the SRA by avoiding adverse impacts to streambank and bed morphology, floodplain features, and riparian vegetation.

WATER-2: Ensure that unit operations, facilities, and uses avoid or minimize impacts to water quality.

WATER-3: Work with adjacent property owners, adjacent jurisdictions, user and interest groups, schools, local water purveyors and others to provide education regarding the protection of water quality.

Water Quality Database Coordination

Water quality data and analyses in the SRA are conducted by several different agencies, including Reclamation, Sacramento Coordinated Monitoring Program (CMP), and Sacramento County Department of Environmental Management. There is a need to coordinate data collection and analysis efforts.

Goal

- Coordinate water quality data and analysis.

Guidelines

WATER-4: Develop a central database for timely input of water quality results from all sampling programs. At a minimum, notify a program manager for the District of sampling events and analyses, as well as how the resulting data can be accessed.

WATER-5: Expand regular water quality sampling by adding monitoring stations beyond the three Reclamation stations that are currently monitored in the SRA. In addition to the current monitoring parameters, consider water quality factors such as possible occurrence of anoxic events in backwater areas, and contamination from adjacent land uses and waterfowl in order to understand the water quality characteristics of Folsom Lake and Lake Natoma.

Bacteriological Monitoring and Management

State standards, under the Central Valley Regional Water Quality Control Board Basin Plan, for fecal coliform bacteria levels in the SRA are twice as stringent as for most other waters with water contact recreation, in recognition of the heavy use the area's waters get from swimmers and water skiers.

In the past there was no regular monitoring of fecal coliform levels by any State or county public health agencies, although irregular sampling occurred most years (see Resource Inventory). However, during the summer of 2004, Reclamation started collecting weekly

bacteriological samples at nine locations in the SRA, including both major bathing beaches (Granite Bay and Beals Point).

In recent years, there have been notable instances of sewage spills in and around SRA waters (see Resource Inventory). The SRA has not always been promptly notified of these spills because it is not on the standard list of agencies to be notified following a spill event for the three surrounding counties.³ Such notification would allow the SRA to promptly close bathing beaches and restrict other water-contact recreation, as necessary.

Goal

- Improve bacteriological monitoring and emergency response procedures for sewage spills to insure public health and safety are protected for water contact recreation.

Guidelines

WATER-6: Continue the weekly bacteriological sampling program, instituted in 2004, at the SRA's bathing beaches and in other appropriate locations (e.g. Lake Natoma downstream of the City of Folsom storm water overflow locations and the Folsom State Prison) to insure public health and safety are protected for water contact recreation.

WATER-7: Designate State Park and Reclamation personnel to be contacted in the event of a hazardous materials release within the SRA's watersheds. Coordinate with the local Certified Unified Program Agency, Administering Agency, or Participation Agency (offices of emergency services or environmental health departments of the adjacent counties) to ensure that State Park contacts be added to the notification list.

Methylmercury Monitoring

In addition to public health concerns regarding bacteria levels, a second concern is the level of methylmercury in the fishes of Lake Natoma. The mercury in the area is a result of historic mining practices dating from the Gold Rush. Miners used mercury to extract gold from mined materials and discharged the waste into streams. The mercury has accumulated

³ The *California Hazardous Material Spill/Release Notification Guidance* (November 2004) of the Office of Emergency Services requires that notification must be given to local emergency response agencies (i.e. police and fire departments), California Department of Fish and Game, Regional Water Quality Control Board, and relevant federal agencies. Other entities, such as State Parks may request notification.

in Lake and stream sediments. Bacteria convert the inorganic mercury into methylmercury, and organic form of mercury that can accumulate in fish. Based on studies conducted by the

U.S. Geological Survey and U.C. Davis, the Sacramento County Office of Environmental Health Hazard Assessment and Cal EPA have issued a public health advisory regarding limiting the consumption of fish from Lake Natoma.

Goal

- Support monitoring of mercury and methylmercury levels in fish from Lake Natoma and Folsom Lake.

Guideline

WATER-8: Continue to support the investigation of mercury and methylmercury levels in water, sediment, fish and other biota conducted by the U.S. Geological Survey and the University of California, Davis. Continue to coordinate with Sacramento County Office of Environmental Health Hazard Assessment (OEHHA) and Cal EPA regarding appropriate advisories for Lake Natoma.

7). Geologic Resources and Soil Management

Geologic Resource Protection and Management

The topography of the Folsom Lake is characterized by the deep, narrow V-shaped canyons of the North and South Forks of the American River and the valley at the confluence of the two forks. Lake Natoma lies in the wide gulch of the American River cut into Tertiary sedimentary rocks below Folsom Dam. Elevations within the Unit range from 100 feet along Lake Natoma to 800 feet in the hills surrounding the Peninsula. The SRA is located at the western extent of the Sierra Nevada foothills between the Central Sierra Nevada and the Central Valley geomorphic provinces. The Folsom Lake region is dominated by rolling hills and upland plateaus located between major river canyons. One major fault line traverses the SRA, the west trace of the Bear Mountains Fault Zone. The portion of the fault zone within the park unit is characterized as not active and the risk of shaking at the unit is very low.

The SRA is predominated by a northwest-southeast trending belt of metamorphic rocks with included ultramafic rocks. The unit also contains metamorphic rocks, known as the Copper Hill Volcanics, and younger granitic intrusive plutons that intruded and obliterated some of the metamorphic belt. The most interesting geologic feature of the Folsom Lake area is the contact between the younger, intruded plutons and the older, pre-existing metamorphic rocks. This boundary is well exposed near the Peninsula campground and at Rattlesnake Bar.

Landslides, mudflows, and rockfalls are generally not considered a major hazard in the Folsom Lake portion of the Unit as most soils are too thin and slopes too low to create conditions for mass wasting. However, landslide conditions may be present in site specific locations such as the steep bluffs along the northwest side of Lake Natoma where rocks or chunks of loosely consolidated material could spill onto the path at the base of the slope especially after a rain storm or during an earthquake.

Shoreline erosion around the Folsom Lake appears to be caused mainly by wind-generated and boat-generated waves lapping along a margin with no sand armor. Changing lake water levels and wave action have effectively stripped the soil from most areas around the lake margin and re-deposited that sediment within the lake basin. Areas undergoing greater than normal erosion are those where runoff from land is funneled into gullies and streams surrounding the lake basin. In places, runoff from paved surfaces surrounding the lake has caused considerable erosion.

Goals

- Protect and manage the integrity of existing geologic features within the unit. Allow geologic processes to operate to the fullest extent feasible.
- Interpret geologic resources where appropriate and consistent with the interpretive themes and plans for the unit.

Guidelines

- GEO-1: Inventory and monitor geologic features within the unit as needed to protect and manage these resources.
- GEO-2 Limit human-caused impacts to important geologic features through design and location of visitor use facilities, educational materials and the use of barriers as appropriate.
- GEO-3 Remove non-historic defacements of geologic features as feasible and restore damaged sites to as natural an appearance as possible.
- GEO-4 Intervene in natural geologic process only when necessary in emergencies to protect human life and property, there is no other way to protect other park resources or facilities, or when necessary to restore impacted natural conditions.

- GEO-5 Site facilities to avoid geologic hazards. Where existing facilities are already located in hazardous areas, examine the feasibility of relocating the facility or mitigating any risks to human life or property.
- GEO-6 Protect natural caves and the natural resources within caves, including sub-surface water quality. Prior to permitting any public entry and use of caves, develop a cave management plan which ensures the natural resources and geologic features in the cave will be protected and provides for human safety. If these conditions cannot be met consider closing cave to public access and use.

Soil Resource Management

Soils within the Folsom Lake State Recreation Area are generally well-drained, silty, sandy and gravelly mixtures developed over either granitic or metamorphic bedrock. Higher elevation soils are thin with numerous outcroppings of igneous and metamorphic rock and have limited permeability. Loose soils of decomposed granite are common on the north and west sides of Folsom Lake, while clayey, denser soils are common on the south side of the Lake. Soils developed over granite bedrock are extremely coarse and sandy and drain rapidly; consequently, granitic soils are highly erodible. Evidence of excessive erosion was observed at numerous places along the north shore; most of it appears to have been worsened by off-road vehicle users as well as by use of unpaved trails. Another problem associated with granitic soils is excessive drainage. Leach fields should not be constructed in this soil type, because leachate will travel rapidly through the soil and emerge at the surface downslope.

Serpentine soil forms over serpentine bedrock, the bulk of which lies in a north-south swath through the Peninsula area of Folsom Lake and south of the south Fork of the American River. Serpentine soils contain high levels of nickel, chromium and manganese that limit the varieties of plants that can grow in it. However, a number of special status plant species have adapted to the toxicity of serpentine soil and can be found only in this soil type.

Much of the area around Lake Natoma has been modified by large-scale dredging for gold resulting in extensive deposits of dredge tailings composed of small to large cobbles and boulders of smooth rock occurring in a hummocky or lumpy pattern. Water washes through these cobbles so quickly that any fine-grained material is soon washed away, leaving the tailings piles largely unvegetated.

Goal

- Preserve soil resource within the unit and prevent to the extent possible unnatural erosion, removal and contamination of soils.

Guideline

SOILS-1: Minimize soil excavation, erosion and soil migration in the construction and operation of facilities. Minimize human-induced erosion by reducing concentrated run-off, avoiding over-watering with irrigation systems and limiting disturbance to fragile soils.

b. Unit-wide Management Goals and Guidelines for Cultural Resources

The SRA area and the associated American River system is rich in history, with human habitation of the area spanning more than 4,000 years. A total of 229 archaeological sites have been identified within the park. Of these sites, 150 are prehistoric, 58 are historic, 21 have both a prehistoric and historic component, and 27 remain unaccounted for due to incomplete documentation. Prehistoric and historic sites are most likely to be located along the original American River channels. Prehistoric themes in the unit include resource procurement, settlement patterns and trade. Mining, settlement, and water development are dominant themes associated with historical archaeological sites identified within the unit.

The cultural resources section of the *Resource Inventory* prepared in conjunction with the General Plan identifies the known cultural resources within the unit, describes existing and potential threats to these resources, and recommends management practices to reduce or eliminate impacts to these resources. The following goals and guidelines provide a framework that will protect, enhance, and interpret the park's cultural resources. More detailed direction on how to implement the goals and guidelines is also provided in *Appendix F – Cultural Resources Management*.

Cultural Resource Laws and Regulations

A number of State and federal laws provide the legal context in which the protection and management of cultural resources is conducted. Federal laws include the National Historic Preservation Act of 1966 as amended (NHPA), the National Environmental Policy Act (NEPA), the Archaeological Resources Protection Act (ARPA), the Native American Graves Protection and Repatriation Act (NAGPRA), the American Indian Religious Freedom Act (AIRFA) the Archaeological and Historic Preservation Act of 1974 and the Historic Sites Act of 1935. State laws include the California Environmental Quality Act (CEQA), the California Native American Graves Protection and Repatriation Act (CalNAGPRA) and various sections of the Public Resources code including 5024 and 5097. A synopsis of these federal and State laws is provided in Appendix F.

Cultural Resource Program

The Cultural Resources Branch at Reclamation's Mid-Pacific Region, which includes five full-time staff, provides oversight for cultural resources management throughout the region, including the compliance process for cultural resources on federal lands within Folsom Lake SRA. State and federal cultural resource specialists coordinate in order to meet the requirements of federal and state cultural resource laws and regulations. Leadership and expertise are needed within State Parks at the District level to provide adequate management of Cultural Resources. Without the stability of a fully-funded District Cultural Resources Manager, an effective program of cultural resources protection and management will be difficult.

Goal

- Provide for a full time District Cultural Resources Program Manager. This position would be held by a cultural specialist from either the State Archaeologist or State Historian classifications at no less than the Associate level.

1). Cultural Resource Record Management

A key challenge to the protection and effective management of cultural resources in the SRA is the lack of a comprehensive, up-to-date cultural resource inventory and the availability of standardized comparable site record information. It is anticipated the cultural resources will be incorporated into California State Park's CAMP applications which will help track cultural resources and the management of these resources.

Goal

- Provide well-coordinated cultural resource record-keeping and records management among agencies and organizations that ensures that information necessary for the management of cultural resources in the unit is properly maintained and accessible.

Guidelines

CULTURE-1: Conduct archival research in all of the relevant land management agencies and interested parties (Reclamation, State Parks, U.S. Bureau of Land Management (BLM), Placer, Sacramento, El Dorado Counties, City of Folsom, California State University Sacramento Northern Central Information Center (NCIC), local historical societies in all three counties, and resource interest groups and professional groups). Additional detailed direction is also provided in *Appendix F – Cultural Resources Management*.

- CULTURE-2: Create a comprehensive “working” map of recorded cultural resources within the unit in coordination with Reclamation’s GIS mapping. Make mapped cultural resource data available to Reclamation, NCIC, and State Parks. The location data in the “working” map should be considered tentative until field verification of site locations is completed. The use of this information and availability to the public is subject to limits under State and federal laws in order to protect cultural resources.
- CULTURE-3: Develop a database of cultural resources within the unit which is linked to GIS spatial data of the site locations. When cultural resources data is developed for the CAMP program, the District data should be coordinated and consistent with CAMP. The use of this information and availability to the public is subject to limits under State and federal laws in order to protect cultural resources
- CULTURE--4: Create an index for John Plimpton’s American River Study (the “Plimpton Papers”). Digitize the complete study. The previous two tasks could be completed as a thesis project(s) for a graduate student in history. Develop protocols and process for access to the Plimpton Study.

2). Resource Identification and Recordation

Currently there is little documentation that verifies which areas of the unit have been surveyed for archaeological (prehistoric and historic) resources and what standards were used to accomplish the surveys. Resource identification should focus on a standardized pedestrian survey to locate new resources and relocate previously recorded resources. Without a solid understanding of the unit’s cultural resources and site locations, it is impossible for cultural resource managers to make fundamental decisions about how best to protect the important cultural resources in the unit.

Goal

- A comprehensive understanding of the types and locations of cultural resources within the unit and the unit’s cultural resource management requirements.

Guidelines

- CULTURE-5: Survey the unit for cultural resources. Surveys are required for those areas that have the potential to be impacted by proposed new facilities. Other priorities include areas where pot-hunters have recently been active, and

areas along the Folsom Lake shoreline that are impacted by the operation of the reservoir. Since many sites are located within the “draw-down zone” survey should take place when reservoir water levels are low. Additional detailed direction is also provided in *Appendix F – Cultural Resources Management*.

- CULTURE-6: Verify the location and content of previously recorded sites. The site location in the existing site record should be verified and the adequacy of the information contained in the site record should be reviewed. Complete new site records if the existing information is not adequate or accurate. Known, but unrecorded sites should be found and recorded. Additional detailed direction is also provided in *Appendix F – Cultural Resources Management*.
- CULTURE-7: Implement standardized recording procedures and format. Record surface artifacts and features on DPR 523 forms and site maps. See *Appendix F – Cultural Resources Management* for specific process and steps in site recordation.
- CULTURE-8: Document sites in the unit that sustain damage and/or degradation resulting from reservoir operation—including exposure, erosion, illegal grazing, and vandalism—using State Parks “ASCAR” forms. If verifiable vandalism is evident, then a qualified Cultural Resource Specialist should notify the appropriate law enforcement unit and develop and implement protective measures. Theft or vandalism of artifacts on federal land is a violation of ARPA and in these instances Reclamation staff will be notified.
- CULTURE-9: Research, locate, and record the extensive web of linear features in the unit, including historic ditches and roads and trails. Orchards, mine tailings, rock walls, and trash scatters should also be recorded. Additional detailed direction is also provided in *Appendix F – Cultural Resources Management*.
- CULTURE-10: Forward all completed site records and continuation sheets and documentation to Reclamation, the regional Information Center and other agencies as appropriate.

3). Resource Investigation and Evaluation

Resource Investigation of a more in-depth nature would follow the initial Resource Identification step. This may require more intensive formal site testing to determine the vertical and horizontal limits of the site, the integrity and depth of features and artifact concentrations, along with temporal and subsistence information about the site. A variety of field methods could be used in concert with scientific testing and dating strategies to expand knowledge about sites potentially eligible for the National or State Register of Historic Places. These may include controlled systematic surface collection, shovel scrapes, more intensive shovel testing and auguring, traditional archaeological test units and the use of remote sensing equipment. Selected diagnostic artifacts would be collected and preserved for their protection and to enable further scientific study.

Goal

- Determine integrity, significance, and eligibility of sites for placement on the State or National Registers of Historic Places.

Guidelines

CULTURE-11: Evaluate each site for its potential National Register eligibility and its ability to yield information. Evaluation should also entail the tailored use of the Evaluation Checklists detailed in *Research Design for Prehistoric, Ethnographic and Historic Cultural Resources at Folsom Reservoir, California* (Waechter and Miskell 1994). Evaluation criteria should be based on the Bulletin 15 *“Guidelines for Applying National Register Criteria for Evaluation”* (NPS 1982). State Parks will consult with Reclamation regarding eligibility determinations on Reclamation lands.

CULTURE-12: Evaluate each site in context with nearby sites for its potential to contribute to a National Register District or Cultural Resource Landscape.

4). Resource Protection and Management

Both State Parks and Reclamation are legally mandated to protect significant cultural resources within the SRA and SHP and specifically those resources which are eligible to the National or State Register of Historic Places. Cultural resources within the units may be impacted by the operation of Folsom Reservoir, the development of visitor and recreation facilities, fire management, unauthorized uses and other activities. Specific laws, regulations and processes differ depending on whether the action or activity occurs on federal or State lands within the SRA. Some impacts may be reasonably foreseen and avoided while others are unavoidable. The potential for adverse effects must be taken into account for any new

activity or land use change proposed for the unit, whether undertaken by State Parks or Reclamation. In many cases the preferred management approach is to avoid adverse effects to cultural resources. Where avoidance is not feasible, impacts will be mitigated through data collection, scientific evaluation and reporting. Any mitigation for cultural resources on Reclamation land is subject to the consultation process in 36 CFR Part 600.

The majority of the known archaeological sites in the unit were recorded over 30 years ago and few have been revisited since their initial recordation. Until these known sites can be relocated, re-recorded and evaluated, they need to be protected.

Many of the known cultural resources in the unit are located within the vulnerable “draw-down” zone of Folsom Lake. In the last two decades, dramatic population increases have combined with advances in technology to change the recreational use of Folsom Lake. The proliferation of personal watercraft (jet skis), shallow-draft powerboats, and kayaks and mountain bikes have given the public unprecedented access to the shallow-water-shoreline. The combination of increased population and ease of shoreline access contribute to ongoing impacts on the many cultural resources around Folsom Lake, particularly during low-water years. Each year, valuable archaeological information is lost because of vandalism, erosion and exposure.

Goal

- Protect cultural resources that are eligible or potentially to be placed on the State or National Register of Historic Places from adverse impacts.

Guidelines

CULTURE-13: Protect cultural resources from adverse effects until the site is recorded, evaluated and eligibility for the National or State Register of Historic Places has been determined. Until the site is properly recorded and studied with firm vertical and horizontal boundaries established, any potential adverse impact within the site boundaries could require mitigation in the form of full recordation followed by full data recovery. Additional detailed direction is also provided in *Appendix F – Cultural Resources Management*.

CULTURE-14: Prior to new facility construction or other ground disturbing activities follow federal (36 C FR 800) and State regulations and processes to identify cultural resources. Unless site-specific surveys by a qualified archaeologist have been completed which verify that cultural resources are

absent, areas with known cultural resources should be avoided. Additional detailed direction is also provided in *Appendix F – Cultural Resources Management*.

CULTURE-15: Reclamation and State Parks are required to follow the Section 106 (36 CFR 800) and PRC 5024 processes for reviewing projects and actions occurring on federal and State lands respectively. For projects and actions on federal land (whether initiated by the State Parks or Reclamation) which have the potential to adversely affect historic properties, Reclamation must consult with the State Historic Preservation Officer. Any action or project, including the construction of new facilities or improvements to existing facilities, with the potential to impact cultural resources will require review by a qualified cultural resources specialist. Generally, it is desirable to avoid impacts to cultural resources through project design or modification. If potential adverse effects to significant cultural resources are identified, the State (5024) and federal (106) processes have different requirements for consultation with SHPO. DPR and Reclamation, respectively, are responsible for implementing each of these processes, depending upon whether the project is occurring on State or federal land. This may include complete recordation of the site and a determination of eligibility for the National Register of Historic Places.

CULTURE-16: Cultural resource features such as ditches and tailings which have been determined to not be eligible for the National Register of Historic Places, after they have been fully recorded and their information potential has been exhausted, may be used interpretive purposes, trails or other compatible uses.

CULTURE-17: Prioritize cultural resources for protection and management measures and actions. Management actions should focus on the most significant cultural resources and sites, those that contain the most data potential. Significant sites that are being degraded by reservoir operation, erosion, vandalism or other disturbance should be mitigated. An appropriate mitigation strategy should be developed on a case-by-case basis. Any mitigation for cultural resources on Reclamation land is subject to the consultation process in 36 CFR Part 600.

- CULTURE-18: Research, plan, and implement protective measures for sites within the draw-down zone of the reservoir. Resource protection signage should be posted at boat launching areas and recreational staging areas. Punishment for Archaeological Resource Protection Act (ARPA) infractions should be detailed in brochures and signs.
- CULTURE-19: Develop partnerships and collaborate with site stewardship groups and Native American groups to assist in the monitoring and protection of cultural resources. Prior to implementing any site stewardship program, specific guidelines would need to be developed to ensure protection of resources and public safety.
- CULTURE-20: Prohibit metal detector use within the unit.
- CULTURE-21: Post information regarding the illegality of activities such as pot-hunting and metal detecting in prominent locations throughout the unit.
- CULTURE-22: Prohibit unrestricted off-road vehicle use below high pool on Folsom Lake. Refer to guidelines OFFROAD-1 and OFFROAD-2 for further information.
- CULTURE-23: Investigate potential locations in the unit that could qualify for Cultural Preserve status, a State designation. Any proposal for cultural preserve classification would require Reclamation approval to ensure consistency with Reclamation land use policies. This plan proposes to move forward with designation of a Cultural Preserve along a portion of the South Fork Arm of Folsom Lake within the Darrington and El Dorado Shore Management Zones. Additional detailed direction is also provided in *Appendix F – Cultural Resources Management*.
- CULTURE-24: As part of the unit Fire Management Plan, develop policies and guidelines which will serve to protect known cultural resources while also meeting the unit fire suppression and management needs. Depending upon fire size, location and longevity, consider integrating a Cultural Resource Specialist into the fire suppression planning in order to minimize damage to known cultural resources. After suppression efforts have concluded, a post-fire survey should be conducted to assess exposure of and damage to cultural resources.

5). *Agency Coordination and Compliance*

The unit is subject to a variety of State and federal cultural resources laws. The majority of land in the unit is federally owned and compliance with Federal laws is required on federal lands. These federal laws include National Historic Preservation Act (NHPA) and the implementing federal regulations (36 CFR 800), Archaeological Resource Protection Act (ARPA), the Native American Graves and Protection Repatriation Act (NAGPRA) and applicable Reclamation land use directives. Reclamation must be notified and complete the Section 106 process for any actions with the potential to affect historic properties on Reclamation lands. The State laws and regulations which apply to State-owned lands within the SRA include the California Native American Graves and Protection Repatriation Act (Cal NAGPRA), Public Resources code 5024 and 5097. For actions on State-owned lands within the SRA, or for State actions on the federally-owned lands within the SRA, compliance with CEQA is required. The development of a Programmatic Agreement between State Parks, Reclamation, and the California Office of Historic Preservation is possible under 36 CFR 800.14 and would reduce compliance-related costs, streamline the project review process, and clarify jurisdictional issues.

Goal

- Develop appropriate long-range management practices and priorities that comply with State and federal cultural resource laws in order to streamline cultural resource management within the unit.

Guidelines

CULTURE-25: Develop an agreement to clarify the responsibilities of the agencies involved with cultural resource management within the unit. This agreement will also help ensure that the cultural resources management policies of both agencies will be met. Additional detailed direction is also provided in *Appendix F – Cultural Resources Management*.

CULTURE-26: Follow the applicable cultural resource laws, regulations and processes for federal and State lands, in some instances these processes differ for State and federal lands. Where permissible, find efficiencies in survey, evaluation and other activities associated with the protection and management of cultural resources.

6). *Interpretation and Education*

The development of an interpretation and education program to inform the public on the park's cultural heritage will not only benefit members of the public, but also encourage the protection of cultural resources within the unit.

Goal

- Interpret cultural resources and provide opportunities for visitor education.

Guidelines

CULTURE-27: Research and develop information about the prehistory, ethnography, and history of the park based on existing material and information developed during the archival research, survey and site investigations for use in interpretation and education.

CULTURE-28: Coordinate interpretation and visitor education about cultural resources with interpretation and education efforts throughout the unit, including in the development of an Interpretive Plan. Include information about cultural resources in general recreation area pamphlets and maps. These materials should inform the public of the range and cultural value of resources present in the unit and that disturbing such resources is illegal.

7). *Artifact Collection and Management*

Generally it is desirable to leave cultural sites intact, to record artifacts and leave them *in situ*. However there are situations when it is necessary to collect artifacts. There are two primary reasons to collect artifacts. The first is for the purpose of further study and research to increase knowledge of the cultural resources in the unit. The second is to protect desirable diagnostic artifacts from theft and vandalism, particularly at low lake levels when artifacts are vulnerable.

Any artifacts on Reclamation lands within the SRA are federal property and subject to federal laws and regulations regarding collection, disposition, treatment, inventory, and reporting. ARPA permits are required for the collection of artifacts on federal land. In 2004 DPR obtained an ARPA permit for the archaeological test excavations, which included limited artifact collection, on Reclamation lands at Folsom Lake SRA. In the past, Reclamation has recognized the State Archaeological Collections Research Facility in West Sacramento as an approved depository for artifacts collected on federal land at Folsom Lake SRA.

Goal

- Record and leave artifacts in place, unless they need to be collected for research or resource protection. If collected, record, manage and store artifacts in a manner consistent with federal and State laws and Reclamation and State Parks policies.

Guidelines

CULTURE-29: Apply the parameters and methods for artifact collection and management defined in the renewable Archaeological Resource Protection Act (ARPA) permit issued by Reclamation to State Parks. Generally, all artifacts collected for research purposes will be sent to the State Archaeological Collections Research Facility.

CULTURE-30: Ensure that collected artifacts fit into the broad research domains outlined in Research Design for Prehistoric, Ethnographic and Historic Cultural Resources at Folsom Reservoir, California (Waechter and Miskell, 1994) and defined in the research design developed for the State Parks ARPA permit.

CULTURE-31: Reclamation will ensure that the artifact collection and management guidelines developed through the ARPA permit with State Parks are consistent with the Native American Graves Protection and Repatriation Act (NAGPRA).

CULTURE-32: Any artifacts acquired through an unplanned collection, by either visitors or staff, will be handled by the District Cultural Resource Specialist or the unit Museum Collections Manager (refer to guideline CULTURE-31) as appropriate. The governing State or federal laws and regulations will be followed in determining the future disposition, inventory, and management of the artifact. Artifacts collected on federal lands within the SRA are subject to federal laws and regulations and after accessioning, must go to a Reclamation approved repository. The unit Collections Manager or District Cultural Resource Specialist will coordinate with Reclamation's Regional Museum Property Lead as necessary. Any artifacts retained on the unit will be managed according to the *State of California Guidelines for the Curation of Archaeological Collections*.

8.) *Role of Collections*

Folsom Lake SRA currently has a collection of natural history objects, historic photographs and documents. No unit-specific Scope of Collections Statement has yet been developed for Folsom Lake SRA. Reclamation has an agency-wide Scope of Collection Statement and will be developing a Regional Scope of Collections Statement. The Folsom Powerhouse SHP also has a collection of museum objects. A Scope of Collections Statement has been developed for the Powerhouse collection. A summary of this Scope of Collections Statement is provided in the Area Specific Direction for the Folsom Powerhouse SHP. Department policies and guidelines regarding museum collections, including Chapter 2000, *Museum Collections Management* of the Department Operations Manual (DOM) and the *Museum Collections Management Handbook* will be followed. Any artifacts collected from Reclamation lands within the SRA are federal property and subject to federal laws and regulations regarding collection, disposition, treatment, inventory, and reporting.

The museum object collections at Folsom Lake SRA will have specific connection to the natural and cultural resources of the unit and provide support for the interpretive themes, educational programs, display, training and research. The collection will generally consist of: preserved natural history specimens of species native to the unit; historic photographs and maps of the unit; publications and books about the unit or developed specifically for the unit; and artifacts which are of limited research value and do not require the specialized storage and have been processed through the appropriate State or federal procedures for the collection, disposition, treatment and management of the objects.

Under no circumstances will objects be retained as part of the museum collection when the possession of an object is a violation of State or federal laws. The extent and content of the collection will be consistent with the unit capacity to appropriately and safely house and maintain the collection. Natural history specimens may be used for interpretation, education and display purposes. Historic photographs, maps and publications may be used for planning, interpretation and education purposes. Artifacts may be used for unit resource management, interpretation, training and education purposes. *See also Artifact Collection and Management above and the area-specific direction for the Folsom Powerhouse SHP.*

Goal

- Develop and maintain a museum collection for Folsom Lake SRA that protects appropriate natural and cultural objects, specimens, documents, photographs and artifacts with a direct connection to the unit for the purpose of protecting Park resources, interpretation and education, training, planning and research.

Guidelines

- CULTURAL-33: Designate a Museum Collection Manager for Folsom Lake SRA and Folsom Powerhouse SHP who will provide oversight of the collections of each unit including management, record keeping and access. Any artifacts on Reclamation lands within the SRA are federal property and subject to federal laws and regulations regarding collection, disposition, treatment, inventory, and reporting. Artifacts collected on federal lands, after accessioning, must go to a Reclamation approved repository. The unit Museum Collection Manager will coordinate with Reclamation's Regional Museum Property Lead as necessary and required.
- CULTURAL-34: Prepare a Scope of Collections Statement for the unit consistent with the direction in this Plan and consistent with Reclamation's agency-wide and Regional Scope of Collections Statements.
- CULTURAL-35: Manage and store unit collections in a secure location in a manner consistent with State Parks and Reclamation laws, policies and guidelines. The extent and content of the collection will be consistent with the facility and capability of the unit to house the collection.
- CULTURAL-36: Develop a museum collections facility to appropriately store unit collections. This facility could be part of a future visitor center developed for Folsom Lake SRA (see INTERPRET-17).

2. Unit-wide Interpretation

The unit has a wealth of natural and cultural features that lend themselves to interpretation and education. The area's complex history of human habitation spans more than 4,000 years. Almost 230 archaeological sites identified within the park relate to the area's settlement, mining, electricity, and water development. After James Marshall's discovery of gold at Coloma in 1848, Mormon Island (now beneath Folsom Lake) proved to be the next major discovery site – one that helped to further ignite the California Gold Rush. Early experimentation in the transmission of electricity led to the development of the Folsom Powerhouse. The SRA's very existence is the result of the Central Valley Project, which dammed the American River and created Folsom Lake and Lake Natoma for the purposes of flood control, water supply, power generation, and recreation.

In addition to its cultural history, the area has a rich natural history represented by nine distinctive patterns of vegetation. These communities provide habitats for a diverse mix of fauna, including several special status species, and they reflect a very specific set of physical factors relating to topography, soils, and slope aspect. The area also includes classic examples of the distinctive California foothill landscape with rugged ridgelines and canyons, river gorges, and rolling hills.

Together, these diverse characteristics create a unique physical and cultural setting in which to explore the relationships between natural and cultural ecology. Interpretation in the context of the SRA can enhance the visitor experience, while promoting understanding and appreciation of its rich history and the steps being taken to preserve and enhance the SRA.

For a more detailed description of area-specific interpretive opportunities, refer to the area specific policies in Section D of this Chapter for more detail.

Themes

PARK UNIFYING THEME: *Water from the American River has offered life and access to power.*

The unit's unifying theme focuses on the importance of water in the region, from prehistoric times through the Gold Rush, to the damming of the American River for electricity and flood control, and the Central Valley Project developed to meet the demands for water created by the region's growing population. This thematic approach will encourage an appreciation of the natural and cultural systems and resources and their interrelationships to one another and to water.

PRIMARY THEME: *Wildlife habitats play an important role in the health of the American River watershed.*

Natural resources of the unit include significant habitat communities and special status plant and animal species. Expansion of this theme will provide opportunities for visitors to gain an understanding of the unit's significant natural resources and landscape features and their importance to the health of the watershed. Interpretation will focus on the characteristics of the unit, including: the wetland habitat at Mormon Island Wetland Preserve; the vernal pool habitat at Lake Overlook and Mississippi Bar; the riparian habitat at Mississippi Bar, Willow Creek, Alder Creek, and Avery's Pond; the heron/egret rookeries on Anderson Island Preserve and on Lake Natoma. A major focus will be on the salmonid lifecycle, the Nimbus

Fish hatchery and ladder, and the interaction of the needs of anadromous fish and Folsom Dam and Reservoir operations. Landscape restoration efforts will be touched on by topics such as naturalizing disturbed landscapes, riparian habitat diversity, enhancing biodiversity, and establishing open space linkages.

PRIMARY THEME: *Native peoples depended on the American River for their way of life.*

This theme will explore the Nisenan and other early indigenous peoples' traditional use of the American River's resources. Before recorded history, native peoples had an intimate knowledge of the river's resources and understood the rhythm of the seasons and the cycles of nature. Expansion of this theme will focus attention on the ways of life of California's earliest inhabitants and how they used the resources at hand along the American River. It will enable a comparison of their use of the resources with those of later miners and settlers. Where possible, indigenous cultural sites in the unit will be interpreted.

PRIMARY THEME: *The rush for gold on the American River transformed the region, leaving a legacy that continues to impact California.*

Interpretation will explore the Gold Rush and its impacts on the American River, including changing patterns in settlement, lifestyles, transportation, and the manipulation of water to support placer mining, hydraulic mining, dredging, and population expansion. Development of the theme will focus on the social effects of the Gold Rush on the region, including its impacts on the native Nisenan communities, as well as the miners and settlers who came from throughout the world. Newcomers established towns and commercial activities that forever changed the resources along the American River.

PRIMARY THEME: *Water development on the American River powered the growth of communities and altered our society.*

The development of the water resources along the American River for mining, water supply, power generation, industry, agriculture, and flood control has changed the landscape and impacted the people of the region. Interpretation will focus on the history of power generation at Folsom Powerhouse State Historic Park, including its development by the Livermore Family and its operation by the Folsom Water Power Company. This site transmitted the first long distance hydroelectric power west of the Mississippi. The original Folsom Dam site on the Natoma Canyon will also be made part of the interpretation of the Powerhouse. Expansion of this theme will encompass the history of the Central Valley

Project on the American River and its effects on nearby communities. Interpretation will address the technology of power generation, as well as water supply for drinking, industry, and agriculture; flood control in the Sacramento Valley; and current operations and projects.

PRIMARY THEME: *Humans have impacted the natural resources of the American River Watershed.*

This theme will focus on the history and impacts of human settlement on the natural systems of the American River watershed. They include: the reduction of biodiversity, habitat fragmentation, the invasion of exotic plant and animal species, wildfire hazards, and the ongoing environmental effects of mining, including changes to the landscape, water quality and fish habitats. The dredge tailings along the shores of Lake Natoma will be included as part of this theme's expansion

Goals

Three main goals are identified for the unit's interpretive programs:

- Visitors will understand and appreciate the importance of water in the area's history from prehistoric to modern times.
- Visitors will learn about and understand the power of water and how it has been used to alter and transform the landscape.
- Visitors will understand the need for ongoing protection and enhancement of the unit's natural, cultural, and recreational resources for present and future generations for their education, inspiration and enjoyment.

Guidelines

General

INTERPRET-1: Develop an updated Interpretive Plan for the unit reflecting the unifying theme and primary themes outlined above. The Plan should articulate the strategies necessary for implementing the goals and objectives for interpretation, including: new facilities, such as visitor centers, interpretive trails and boardwalks, interpretive displays; enhancement of existing facilities and interpretive displays, such as Folsom Powerhouse State Historic Park; interpretive programming; and interpretive methods,

such as live programs, self-guided tours, brochures, maps, school programs, Environmental Living Programs, etc.

- INTERPRET-2: Ensure that interpretive and educational programs targeting K-12 age groups are consistent with California's Department of Education's frameworks and content standards.
- INTERPRET-3: Focus interpretation and educational efforts on developing a stewardship ethic and practices among park visitors, neighbors, and neighboring jurisdictions. Interpretive elements could include nuisance wildlife species management; invasive exotic plant species management; wildland/urban interface, wildfire risk and prevention; trail safety and etiquette; aquatic safety, and etiquette, etc.
- INTERPRET-4: Deliver interpretation and education through a wide range of methods, including: brochures, signs, live programs, special events, and web-based strategies that are made as accessible as possible.
- INTERPRET-5: Utilize State Parks staff, personnel, and the expertise from other agencies and organizations and volunteers in developing and implementing unit interpretive and education programs.
- INTERPRET-6: Partner with other agencies in developing major interpretive facilities and programs. Many other agencies (Sacramento Area Flood Control Agency, the U.S. Army Corps of Engineers, and Reclamation) play an important role and have a major stake in the operation of Folsom Dam and Reservoir. Some of the mission and interests of these agencies coincide with the unifying and primary interpretive themes. State Parks and Reclamation should explore the potential to utilize the expertise and resources of these agencies in providing interpretation and education for the unit.
- INTERPRET-7: Involve Native American tribes and groups when researching interpretive programs regarding Native American cultural values and public appreciation of those values. Where possible, integrate the preservation of cultural information and the protection of archaeological sites that reflect Native American heritage.

INTERPRET-8: Reflect the role of African Americans, Chinese, and other ethnic groups as pioneers in the interpretation of the area and their involvement in the Gold Rush, utilizing the knowledge of appropriate cultural authorities in the development of the interpretation of their heritage.

INTERPRET-9: Develop a recreation map of the park which displays visitor facilities and includes interpretive text on the reverse side. Interpretive text should be organized based on the themes discussed above.

Interpretive Facilities

INTERPRET-10: Interpret scenic views and cultural landscape features from key vista points within the park, including the following locations: Lake Overlook (vista point); Negro Bar (Lake Natoma Bluffs); and Peninsula (prominent ridgelines and rolling hills).

INTERPRET-11: Complete the implementation of the 1992 Folsom Powerhouse Area Development Plan, including addition of a visitor center, paved parking area for 25-30 vehicles, trail and picnic area in the natural portion of the site, and various building restoration efforts.

INTERPRET-12: Construct the Negro Bar Cultural Center to interpret the Gold Rush era mining camps and the mining experiences of miners from various ethnic, religious, and social backgrounds. Interpretive programs should include living history displays and events, Environmental Living Programs and Environmental Studies Programs for children.

INTERPRET-13: Continue to support the American River Water Education Center. The Center could be included in a new visitor center proposed in this General Plan.

INTERPRET-14: Interpret the life cycle of salmon in association with the naturalized fish ladder facilities proposed at Nimbus Shoals in conjunction with the Department of Fish and Game and Reclamation. Continue the sponsorship and partnership between these agencies and other organizations in the American River Salmon Festival.

- INTERPRET-15: Interpretation of significant habitats may include the provision of trail/boardwalk facilities in addition to interpretive displays.
- INTERPRET-16: Explore use of pontoon boat or other on-the-water means to provide interpretive programs that take advantage of the key resource of the SRA – the two reservoirs.
- INTERPRET-17: Develop a visitor center for the SRA which can provide visitor information services and serve to interpret the themes for the unit. One potential location is somewhere within the Folsom Dam management zone. If Museum Flat is not utilized as the site for the California Indian Heritage Center, this location could be an option for a small visitor center.
- INTERPRET-18: Provide a site on the eastern shore of Lake Natoma between Willow Creek and Nimbus Flat to accommodate the California Indian Heritage Center, if it is recommended as the preferred site by the task force established by Senate Bill 2063 to consider the location, design, content, and governing structure of such a facility. If selected as the preferred site for development of the new cultural center and museum, then specific resource and site constraints will need to be addressed. Refer to the area specific policies for Natoma Shore South in Section D of this Chapter for more detail.

3. Unit-wide Visitor Services

Visitor services provide the means for the public to enjoy and benefit from the many recreational opportunities and resources offered within the unit. At Folsom Lake State Recreation Area, visitor services reflect a range of recreation opportunities for the widest possible range of visitors with respect to age, race, income, education, and physical ability. Visitor services include swimming beaches, boat ramps, trails, picnic areas, campgrounds, marina, vista points, and interpretive programs, snack bars, aquatic equipment rentals and lessons, and various special events held throughout the year.

With more than 1.5 million visitors to the SRA annually, park facilities are heavily used and often reach capacity on peak season weekends. Most of these visitors—roughly 60 percent—pass through one of five major day use areas that serve as the primary gateways to the SRA.

Granite Bay, Beals Point, Folsom Point, Negro Bar, and Nimbus Flat offer a wide range of facilities and services. Aquatic activities are the most popular accounting for about 85 percent of all visits, with the remaining 15 percent of visitors participating in upland activities, including camping. Although the SRA accommodates year-round recreation, 75 percent of all visits occur during the warmer spring and summer months.

The popularity of the SRA is largely the result of its easy access and location within the fast-growing Sacramento metropolitan area. In fact, as the SRA becomes more of a “backyard” to the residential neighborhoods that continue to surround it, and the demand for high-quality outdoor recreation in natural settings intensifies, the role of the SRA will change. This change has already begun with a significant portion of visitation now coming from neighbors who access the SRA daily, or several times a week, for shorter periods of time – roughly 80 percent of visits to the unit are day visits.

This trend is likely to continue as 928,000 residents are added to the Sacramento region by 2025 and the importance of the SRA as a recreation and open space resource increases considerably. Not only will new and existing day use facilities and services be required to meet the increased demand, but also the increased expectations of visitors for clean, safe, and modern facilities that enhance the visitor experience.

In developing visitor services goals and guidelines, park managers need to evaluate not only existing use patterns, facilities and services, and recreation use trends, but also Department goals and strategies for the entire State Parks System. Other System-wide direction regarding the development of visitor services can be found in “The Seventh Generation” (2001) strategic vision for State Parks, the State Park System Plan (2002), and the Central Valley Vision (2006). Specific strategies, initiatives and actions in these plans for recreation and visitor services are summarized below.

The Seventh Generation

- Create an Urban Connection – increase relevancy to major population centers.
- Expand Recreation Opportunities – provide additional outdoor recreation opportunities to keep pace with the needs of California’s growing, diverse population and changing lifestyles.

The State Park System Plan

- There is a great latent demand for camping in developed sites in California. State Parks has a goal of adding 20,000 campsites to the System in the next 20 years. Adding 9,000 picnic sites (with an emphasis on group picnic sites) and 1,000 miles of trail to the System are also priorities.

Central Valley Vision

- Expand recreation opportunities at reservoirs and along river corridors. Expand recreation facilities for camping, day use fishing, boating and trails to accommodate larger families and groups.

The primary focus of visitor services and facilities at Folsom Lake SRA will be the improvement and further development of day use opportunities consistent with the conservation and management of the SRA's natural and cultural resources. While the SRA can help fulfill the Department's goals for adding campsite capacity to the System, the existing and future use patterns and trends, proximity to urban and suburban areas, the climate (summer heat), and land base of the SRA all lead to the conclusion that the primary niche of Folsom Lake SRA is to provide diverse, high-quality day use recreation opportunities. It is important to continue providing a wide range of recreation experiences in a variety of settings – from the diverse developed facilities at Granite Bay or Beals Point to the remote tranquility along the North or South Forks of the American River.

The following goals and guidelines are intended to guide the development and implementation of visitor services within the SRA, including aquatic recreation and upland recreation.

Goals

- Provide a resource for local and regional visitors to enjoy aquatic and upland recreation opportunities and facilities in a distinctive California foothills landscape.
- Provide a balanced range of high quality recreational opportunities and facilities that promote and enhance public enjoyment and appreciation of the SRA's natural, cultural, and scenic resources.
- Provide a range of recreational opportunities and facilities that reflect and respond to the unique growth pressures on the SRA and address continually-shifting demand for public recreation.

- Locate and design recreational facilities to ensure protection of natural and cultural resource values, as well as contributing to the SRA's identity and sense of place.

Guidelines

- VISIT-1: Provide public use facilities and associated services within the SRA as needed to facilitate public enjoyment of the natural setting.
- VISIT-2: Ensure that new and existing visitor facilities and associated services receive equal consideration between the need for recreation, resource protection, and interpretation and education.
- VISIT-3: Ensure that new and existing visitor facilities and associated services reflect the intent of the SRA land use designations with respect to resource protection, permitted uses, intensity of uses, and access.
- VISIT-4: Ensure that new and existing visitor facilities are designed to minimize dependence on regular, on-going maintenance operations and avoid activities that would be environmentally damaging to keep them operational.
- VISIT-5: Ensure that new and existing visitor facilities on Folsom Lake are located and designed to withstand potential short-term inundation during extreme flood events.
- VISIT-6: Locate larger public use facilities in areas that have convenient access and are suitable for higher intensities of use, i.e. less sensitive resource values.
- VISIT-7: Consider and evaluate services provided by neighboring jurisdictions when planning for new public use facilities and associated services to ensure that such facilities and services are complementary and reduce unnecessary duplication of services.
- VISIT-8: Continue using concessionaires to provide visitor services—e.g., marina, aquatic equipment rentals and lessons, food services, etc.—where it is most cost-effective, efficient, and appropriate to do so.

a. Aquatic Recreation

During the heat of summer, the SRA proves an irresistible draw for those looking to spend time on the water. Aquatic facilities in the park include the marina, boat launch facilities, whitewater rafting facilities, and swim beaches.

Aquatic use varies considerably between Folsom Lake and Lake Natoma. The size and shape of Folsom Lake generally allows the concentration of uses in certain areas. Sailors prefer the high winds and open waters of the lake's main body, while skiers and boaters looking for quiet areas to cruise, drift, and swim prefer the more sheltered waters of the narrow North and South forks of the American River. Aquatic activities account for about 85 percent of all recreation visits to Folsom Lake. On Lake Natoma, the quiet and sheltered waters—combined with the 5 mph speed limit for motorized watercraft—provide the perfect setting for paddling, rowing, and fishing. In fact, Lake Natoma is considered one of the best rowing locations in the world, as reflected by the facilities available at the California State University Sacramento (CSUS) Aquatic Center and the major rowing competitions hosted by the school at Nimbus Flat. Aquatic activities account for about half of all recreation visits to Lake Natoma.

The quality of aquatic activities on Folsom Lake is closely related to fluctuations in the water levels. These levels can vary greatly and directly affect the availability of boat ramps, beaches, berth sites, and other facilities that depend largely on water depth or surface area. Water surface elevations on Lake Natoma are much less affected by this variability.

Goals

- Strengthen SRA's role as a premier place for aquatic recreation in Northern California.
- Provide and enhance diverse aquatic recreation experiences in a variety of settings.
- Enhance water access and reduce congestion at key launch locations.
- Increase aquatic safety awareness.

Guidelines

VISIT-9: Maximize the capacity of existing launch facilities for both motorized and non-motorized watercraft as appropriate and informed by the adequacy of vehicle access, aquatic safety, total lake capacity, and environmental impact. Increase boat launch capacity on Folsom Lake at under-served lake levels.

- VISIT-10: Balance any maximization and increase in launch capacity with the availability of existing parking. Launch capacity will not be increased where the provision of additional parking is deemed inappropriate with the goals and objectives of the management zone.
- VISIT-11: Maintain and enhance the variety of settings and visitor experiences provided by Folsom Lake as a means of safely accommodating a range of aquatic uses and providing a positive visitor experience.
- VISIT-12: Expand the area governed by the 5 mph speed limit to the North Fork Arm of Folsom Lake in order to preserve the setting, enhance the quiet and sheltered character of the water, and reduce conflicts between motorized and non-motorized watercraft.
- VISIT-13: Manage Lake Natoma for slow speed and non-motorized water recreation. Continue the 5 mph speed limit for motorized watercraft for the entire Lake. Prohibit the use of personal water craft at Lake Natoma. Phase out the use of two-stroke engines at Lake Natoma. Utilize California Air Resources Board emissions standards in developing standards and regulations to phase out high emission two-stroke engines. Exceptions may be made for emergency response vessels and vessels necessary for other administrative purposes.
- VISIT-14: Enhance existing upland facilities as appropriate to support the goals of this General Plan for aquatic recreation.
- VISIT-15: Explore options to provide on-water access to non-boat owners, including boat rental opportunities, intra-park “water taxi” or boat tour concession concepts, and pontoon boat interpretive tours.

1). Marina Capacity

The Folsom Lake Marina at Brown’s Ravine is the only marina facility in the SRA. It includes 685 wet slips and 175 dry storage slips. Interest in slip rentals has increased significantly in recent years due to the growth in residential development nearby. Currently, there is a 5-year waiting list for a sixteen-foot or twenty-foot slip, and a 9-year wait for a twenty-four-foot slip. A preliminary survey of similar marina facilities in the region found that the demand for slips at Folsom Lake Marina is higher than at any other facility surveyed.

Marina capacity in the park could be increased by either developing a second marina facility or by expanding the existing marina. Four potential locations for a second marina in the SRA were identified based on suitable underwater topography, including New York Creek, Peninsula, Dike 5, and Buzzard Cove. However, when these locations were analyzed for their suitability from a landside perspective—including sufficient upland area for support facilities, suitable access for roads and services, compatibility with surrounding land uses, and potential impacts on park resources—it was determined that none of the potential locations was suitable (refer to Chapter II, Section C.4 for further information).

As such, the expansion of the existing marina at Brown’s Ravine is proposed in this General Plan. Various expansion alternatives were analyzed as part of the general plan process to determine the means and extent of such an expansion. The use of single and double point buoyed berths was discounted due to the likely technical difficulties associated with the ability of this approach to accommodate the extreme fluctuation in water levels that occur on Folsom Lake over the course of a year. It was determined that the extension of the existing dock system was a more appropriate means of increasing slip capacity. While increases in capacity ranging from 5 to 70 percent were considered, it was determined that an increase of between 30 and 50 percent (between 200 and 340 additional slips) could be reasonably accommodated without having to develop the southern shore of Brown’s Ravine at Mormon Island Point to provide the necessary landside facilities and without having to dredge the basin. However, further study is necessary to determine if improvements to the existing mooring system are necessary and if the existing breakwater will adequately reduce the exposure of extended docks to wind and wave energy off Folsom Lake.

In addition to the expansion of slip capacity, dredging of Brown’s Ravine could be used to extend the boating season at the marina by allowing access to Folsom Lake at lower water levels. Currently, boats at the marina are pulled from the water when levels drop below 412 feet, which in a good year does not occur until after Labor Day. It may be possible to achieve dredging and any necessary breakwater improvements associated with an expansion in slip capacity at Brown’s Ravine through the excavation and borrow needs for the stabilization and raise of Mormon Island Dam as part of the ongoing flood protection and dam safety projects.

Goal

- Increase marina capacity on Folsom Lake for the purposes of improving water access to Folsom Lake.

Guidelines

VISIT-16: Undertake detailed analysis to determine the specific improvements, facilities, and costs associated with increasing capacity at Folsom Lake Marina by 30 to 50 percent. This analysis would determine the revenue potential relative to the costs of facility development, operations, and maintenance.

VISIT-17: Consider expanding marina capacity at a location other than Brown's Ravine only if conditions or circumstances in the SRA, such as a major property acquisition, warrant such consideration. The following criteria will be applied to the consideration of a potential marina location on Folsom Lake:

- Suitable underwater topography, including magnitude and extent of dredging necessary to achieve suitable basin elevation;
- Sufficient upland area to support needed landside facilities, such as parking and access, office and concessions, restrooms and public use amenities, etc.;
- Suitable access, including distance from main roads and services availability;
- Compatibility with both management zone land use designation and surrounding land use; and
- Potential impacts on the SRA's natural and cultural resources.

VISIT-18: Consider the provision of covered berths and/or dry boat storage in the expansion of marina capacity.

2). Boat Launch Facilities

There are nine boat launch facilities offering a total of 64 launch lanes in the SRA. On Folsom Lake, the main launch facilities are located at Granite Bay, with secondary facilities at Folsom Point, Brown's Ravine, and Rattlesnake Bar. These facilities are designed for powerboat, personal watercraft, and sailboat launching, are fully hard surfaced, have demarcated lanes and turnaround areas, as well as adjacent parking areas. At Granite Bay, Folsom Point, and Brown's Ravine, boat launch and/or parking capacity is often exceeded on peak season weekends and users must be turned away. On Lake Natoma, the 5 mph speed limit for motorized watercraft means that launch facilities on the Lake are used primarily by paddlers, rowers, and fisherman. Docks at Nimbus Flat are used for hand-launching of non-motorized watercraft, such as kayaks, canoes, and rowing sculls.

Goal

- Maximized launch capacity in the SRA for the purposes of improving water access for all users and minimizing congestion within the total capacity of each Lake.

Guidelines

VISIT-19: Increase launch capacity on Folsom Lake for motorized watercraft as appropriate and informed by the adequacy of vehicle access, aquatic safety, the total capacity of the Lake, and environmental impact.

VISIT-20: Ensure that capacity at existing launch ramps is fully realized prior to the consideration of ramp expansion.

VISIT-21: Consider extending existing launch ramps on Folsom Lake to provide additional capacity at under-served lake levels – primarily between 450 and 466 feet and below 420 feet. The application of California Department of Boating and Waterways (DBW) design standards may be used to determine if additional lanes and boarding floats are possible, as appropriate.

VISIT-22: Increase opportunities for hand launching of paddling/rowing watercraft on Lake Natoma by providing paddling docks at existing day use area locations, as appropriate and within the total capacity of the Lake.

VISIT-23: Ensure that upland support facilities are adequate to meet the use levels at boat launch facilities. The capacity of upland support facilities should be balanced with that of associated boat launch facilities to minimize congestion upland and at the water's edge. If appropriate location(s) can be found, consider dry boat storage as a means of improving boating access.

3). Whitewater Rafting

Commercial and private whitewater rafting are popular activities on the South Fork of the American River, one of the highest use river in the West. Park facilities at Salmon Falls and Skunk Hollow are specifically intended to accommodate rafting activity. Between 50,000 and 60,000 commercial boaters take-out at Salmon Falls while as many as 24,000 private boaters take-out at Skunk Hollow. Both facilities receive heavy use during peak season weekends, which results in backups onto Salmon Falls Road and overflow parking on the shoulders of Salmon Falls Road for about ½-mile in each direction from the entrances. The limited land area available for possible expansion of existing take-out facilities and parking

areas and the limited right-of-way on Salmon Falls Road to provide safe overflow parking are key constraints.

Goal

- Improve water access and minimize congestion at whitewater rafting facilities in the SRA.

Guidelines

VISIT-24: Work with the U.S. Bureau of Land Management, El Dorado County, whitewater user groups and commercial rafting permit holders to prepare and implement a management plan to address congestion at whitewater facilities in the SRA. The Plan should consider strategies to manage access, parking, queuing, and take-out. Potential strategies include:

- Mandating take-out times at Salmon Falls for commercial rafts;
- Radio-dispatching commercial rafting shuttle buses and vans upon arrival at take-out area;
- Providing overflow queuing for commercial rafting shuttle buses and vans at a suitable satellite location(s);
- Re-striping parking lot and reducing vehicle parking to increase space available for commercial rafting vehicle queuing and loading;
- In consultation with El Dorado County consider improving shoulder parking along Salmon Falls Road where right-of-way width and sight-lines permit and prohibiting informal parking elsewhere;
- Expanded parking and staging areas, through acquisition of additional property and other means as appropriate; and
- Shared oversight and enforcement of the management plan among key agencies.

b. Upland Recreation

A significant portion of visitors to the SRA participate in land-based activities, such as picnicking, camping, hiking, biking, and horseback riding. Most upland recreation activities and associated facilities in the SRA occur in one of five major day use areas that serve as the

primary gateways to the SRA. Granite Bay, Beals Point, Folsom Point, Negro Bar, and Nimbus Flat offer a full range of facilities including beaches, picnic areas, barbeques, food and beach equipment concessions, restrooms and drinking water, equestrian staging areas, and trailheads.

176 campsites shared among three campgrounds in the SRA accommodate both family and group camping. These campsites typically reach capacity on peak season weekends, as is the case with State Parks campgrounds across California. The quality of visitor experience has clearly diminished at some existing camping facilities in the SRA. The public demand for camping and the capacity at the SRA must be balanced with the quality of the visitor experience provided.

The more than 90 miles of trails in the SRA are increasingly popular with a host of loyal users, including hikers and runners, equestrians, mountain bikers, and cyclists. While existing trails connect major facilities in the SRA, many areas remain inaccessible and there is not a continuous trail loop around Folsom Lake. The narrow land base and steep topography around the lakes limits opportunities to develop new trail facilities despite increased demand from all trail users.

Goals

- Strengthen the SRA's role as the primary year-round upland recreation location in the greater Sacramento region.
- Provide diverse high quality upland outdoor recreation experiences in a variety of settings and appealing to visitors of all ages and abilities.
- Enhance access and reduce congestion at major day use areas.

Guidelines

VISIT-25: Maintain and enhance the variety of settings provided in the SRA as a means of accommodating a range of upland recreation activities and providing a positive visitor experience.

VISIT-26: Upgrade and enhance existing upland recreation facilities in the SRA to improve access, respond to changing trends in recreation, and provide a visitor experience that is in keeping with the purpose of such facilities.

VISIT-27: Develop new upland recreation facilities in the SRA for the purposes of providing new recreation opportunities, addressing currently unmet demand for existing recreation activities, and incorporating interpretive and educational opportunities in the SRA. Appropriate interpretive and educational facilities may include interpretive centers, observation platforms, interpretive trails, vista points, and interpretive signage.

VISIT-28: Establish a SRA visitor center as a means of increasing visitor awareness of the recreational and interpretive opportunities in SRA, assisting visitors in planning their time in SRA, and providing a positive visitor experience. Refer to Guideline INTERPRET-13 and the area specific policies for Folsom Dam in Section D of this Chapter for more detail.

VISIT-29: Ensure the integration of the upland and aquatic recreation facilities in the SRA, as appropriate, to provide visitors with the opportunity to experience the full range of SRA's recreation activities.

1). Camping

There are 176 campsites in the SRA that accommodate tent, trailer, RV, and group campers. These sites are spread across three separate camping areas including Peninsula Campground, Beals Point Campground, and Negro Bar Group Campground. Peninsula Campground is the largest in the SRA with 104 campsites; it is also the most remote, located in the rugged setting of the Peninsula's oak-studded hills. Beals Point Campground with 69 camp and RV sites is the most developed, including showers and sanitary dump station. Negro Bar Group Campground includes 3 reservation only group campsites designed to accommodate approximately 50 people each.

Campgrounds in the SRA typically fill to capacity on peak season weekends, which is supported by the fact that SRA users cite camping with developed facilities as one of the top recreation activities they would participate in more often if good opportunities, facilities, and programs existed in the SRA. This demand needs to be balanced with the fact that the increasingly urban surroundings of the SRA have altered the character and quality of the camping experience in some of the existing facilities, and has resulted in substantial law enforcement issues.

Goals

- Provide an enhanced visitor experience for campers strongly influenced by the natural, cultural, and scenic resources of the SRA.
- Develop additional camping in appropriate portions of the SRA to provide SRA visitors a quality camping experience in a natural setting as an escape from urban surroundings.

Guidelines

VISIT-30: Ensure that family campgrounds are located and designed in such a way as to provide a quality natural recreation experience.

VISIT-31: Redistribute and redesign existing campsites in the SRA, as appropriate, to provide a high quality visitor experience that is in keeping with the General Plan goals for camping.

VISIT-32: Incorporate to the maximum extent possible opportunities for the interpretation of SRA's natural, cultural, and scenic resources.

VISIT-33: Integrate aquatic recreation facilities in the SRA, as appropriate, to provide campers with the opportunity to experience the full range of SRA's recreation activities.

VISIT-34: Explore the potential to develop a small equestrian camping facility (approximately 5-10 campsites). Potential locations for an equestrian camping facility include: Mississippi Bar, Peninsula or Rattlesnake Bar.

VISIT-35: Explore the potential to develop a small camping facility (approximately 5-10 campsites) which serves the needs of bicyclists. Potential locations include: the El Dorado Shore, Peninsula or Rattlesnake Bar.

2). *Trails*

The popularity of running in the 1970s, mountain biking in the 1980s, and in-line skating in the 1990s, have greatly increased trail use since the SRA first opened to hikers and equestrians in 1958. However, the most significant impact on trail use in the SRA has been the rapid growth in population of the Sacramento metropolitan region, which has increased 62 percent since the previous General Plan was adopted in 1979. The changing trends in

trail use, coupled with the projected rapid population growth, calls for careful management of SRA's trail facilities.

The existing SRA trail system is extensive, linking most of the SRA's facilities and accommodating a variety of users, including walkers and hikers, horseback riders, cyclists, and mountain bikers. Although there are 94 miles of existing trails within the SRA, not all trails are accessible to all users and there is not a continuous trail connection around either Folsom Lake or Lake Natoma. Currently there are 46 miles of pedestrian/equestrian trails, 36 miles of mixed use trails, 9 miles of mountain bike/pedestrian trails, and 3 miles of pedestrian-only trails. Sixteen miles of these trails are paved.

Although the demand for trail access will increase as areas around the SRA continue to urbanize, there are limited opportunities to develop new trail facilities since the SRA's narrow land base and steep topography around the lakes represent significant constraints. In addition, the increased demand for trail access comes with a growing concern about conflicts between the different kinds of trail users, particularly on multi-use trails.

The goals and guidelines for trails outlined below express an overall vision for the SRA trail system and are intended to provide broad direction for a unit-wide Trail Management Plan to be prepared subsequent to the adoption of this General Plan. The guidelines propose both physical and programmatic elements to enhance and expand the existing trail system.

Goals

- A trail system that provides a broad public benefit by accommodating diverse trail uses and abilities.
- A trail system that gives consideration to the demands of a diverse and growing user population while responding to changes in recreation demand over time.
- A trail system that gives equal consideration to the need to expand with enhancement of existing trail facilities and protection of the SRA's natural and cultural resource values.
- A trail system that promotes and enhances public enjoyment and appreciation of the SRA's natural, cultural, and scenic resources.
- A trail system and program that promotes awareness of safety and etiquette as a means of reducing conflicts and minimizing the need for monitoring and enforcement.

- A trail system that provides a loop around Folsom Lake and Lake Natoma.
- A trail system that ensures linkages with the trail systems of adjacent jurisdictions and neighborhoods and is an integral part of a regional trail system.
- A trail system that encourages cooperation and collaboration among trail providers, trail advocates, adjacent communities, and neighbors.

Guidelines

Trail System Planning and Management

VISIT-36: Prepare a Trail Master Plan for the SRA that will guide the long term planning and management of the trail system. The Trail Master plan should address the following:

- Identification of new facilities, including trail extensions, trail connections, trailheads, access points, wayfinding system, etc.;
- Identification of specific enhancements to existing facilities, including minor facility expansion, maintenance projects and programming, signage, etc.;
- Sustainable design of trails and support facilities to protect the natural, cultural, and scenic resources of the SRA while minimizing maintenance needs;
- Designation of allowable uses on each trail segment in the system, including shared-use, limited use, and Class I bike path;
- Establishment of a consistent wayfinding and sign program with most information provided at trailheads;
- Establishment of a trail patrol and enforcement program; and
- Establishment of education and awareness programs related to trail safety and etiquette.
- Identifies or provides a schedule to identify non-designated user created trails that need to be obliterated and rehabilitated.

- VISIT-37: Establish a full-time Trail Coordinator position in the Gold Fields District to oversee the planning and management of the trail system.
- VISIT-38: Coordinate trail system planning and development with the efforts of other local trail providers—such as Sacramento, Placer and El Dorado counties, City of Folsom, Bureau of Land Management, and the U.S. Forest Service—to maximize connectivity and opportunities for an integrated regional trail network.
- VISIT-39: Work with local government jurisdictions during their development review processes to ensure that proposed new development adjacent to the SRA will not prevent the development of planned trail system facilities or otherwise adversely impact or constrain public use of the trail system.
- VISIT-40: Work with local government jurisdictions during their development review processes to ensure that new development proposed adjacent the SRA contributes to the trail system through the provision of trails and connections to State Park’s trails and other regional trails.

Trail System Inventory and Database

VISIT-41: Establish the new General Plan GIS database as an important trail planning and management tool. In addition to the trail system data already included in the database, incorporate the following:

- Proposed new trail system facilities as a means of recording and tracking funding priorities;
- Trail condition and maintenance needs as a means of recording and tracking maintenance priorities;
- Proposed trail improvements by neighboring jurisdictions that impact the trail system; and
- Incident reports and complaints to identify trouble spots related to use, facilities, and maintenance.

VISIT-42: Implement periodic user surveys to assess level of trail use, type and pattern of trail use, user preferences and satisfaction, and recreational trends to assist in trail system planning and management.

Trail Classification and Designation

Within Folsom Lake SRA there are generally the following types of trails: paved bicycle trails (some with shoulders of native materials), dirt trails designated for multiple or shared-use (equestrians, bikes and pedestrians), dirt trails designated for limited use (pedestrian/equestrian or bicycle/pedestrian) and fully accessible or interpretive trails. The guidelines below provide broad direction regarding the typical or desirable location and characteristics of each type of trail.

VISIT-43: *Paved Trail*. This paved trail generally meets Caltrans' Class 1 separated bicycle trail criteria and has decomposed granite shoulders or an adjacent parallel dirt path that serves multiple users. However, not all portions of the paved bike paths within Folsom Lake SRA meet the Caltrans Class 1 trail designation. This trail serves road bicyclists as well as other trail users and hence speeds along the paved section of trail are significantly faster than other trails. Because of the potential for the faster speeds, allowing equestrian use on the shoulder immediately adjacent to the paved trail is a less than ideal situation. If the trail is intended to serve equestrians, managers should consider providing one dirt shoulder at least 4 feet wide or a parallel shared use dirt trail. Typical or desirable characteristics of this trail classification include:

- Location: Because the paved trail serves bicycle commuters, youth and fitness cyclists among other trail users, these trails best serve the public when they are near or adjacent to urban and suburban areas.
- Access/Connectivity: These trails connect to city, county and neighborhood trail systems with a high number of access points and connections to job centers, residential areas, major unit recreation facilities and other portions of the unit trail system.
- Terrain: This type of trail is suitable for gentler terrain with gradual grades (generally under 5%), minimal cross slopes and good sight lines.
- Degree of Difficulty: These trails generally are easy.
- Use Character: Moderate to high volumes of trail users. Trail speeds are variable, though these trails will have the fastest traffic from use by commuters and road cyclists.

VISIT-44: *Shared Use or Multi-Use Trail*. This unpaved trail is designed, developed, and managed for all types of users (e.g., pedestrians, bicycles, and equestrians). Multiple uses are accommodated on a single trail designed, located, and managed

to accommodate these uses. Typical or desirable characteristics of this trail classification include:

- Location: Because these trails serve a broad range of users they are best located in areas that are relatively close to population centers and are easily accessed by many types of users.
- Access/Connectivity: Moderate to high number of access points and connections to destinations and other system trails. Connections between shared use and limited use trails should be carefully considered to avoid conflicts.
- Terrain: This type of trail is generally more suitable for less severe terrain with more gradual grades, gentler cross slopes and good sight lines. The terrain is conducive to providing opportunities for different types of users to safely pass one another.
- Degree of Difficulty: This type of trail designation is generally suitable for trails that are easy to moderate.
- Use Character: Moderate volumes of trail users. Trail speeds are moderate.

VISIT-45: *Limited Use Trails*. These trails are designed, developed, and managed for one or more, but not all types of users (e.g., pedestrian/mountain biking, pedestrian/equestrian, or pedestrian only). Use is limited due to factors such as the presence of sensitive resources (e.g. boardwalks around vernal pools), unique suitability for a particular use, or desire for particular visitor experience. Use is typically accommodated on a single trail, though several types of limited use trails may share a broad trail corridor to provide access for all types of trail users in a single area. In this situation, providing parallel limited use trails, sufficient suitable terrain is required to locate the individual trails and to provide sufficient separation for a quality user experience. It should be noted that parallel limited use trails not only require more land, but also may have greater impacts on natural and cultural resources and require maintenance of more trail mileage than shared use dirt trails. There is no assurance that establishing parallel limited use trails would be effective in eliminating conflicts as unauthorized use of the trails would still be a challenge to enforce. Typical or desirable characteristics of this trail classification include:

- Location: Because these trails serve a limited range of users they generally are not located closest to population centers.
- Access/Connectivity: These trails are restricted to specific trail uses. To prevent inadvertent use by restricted uses these trails should have a limited number of connections to other system trails. If parallel limited use trails are provided, connections between the parallel trails should be limited and carefully considered to prevent conflicts.
- Terrain: Because of the various purposes for limited use trails, the type terrain suitable for these trails may be highly variable, from gentle terrain for hiking only trails with sensitive resources or steep and severe terrain for challenging trail experiences for a particular use. The terrain may not be conducive to providing opportunities for different types of users to safely pass one another.
- Degree of Difficulty: The difficulty of the trail may be highly variable depending upon the purpose of the particular limited use trail.
- Use Character: These trails serve a limited range of users and volumes of trail users are likely to be low to moderate. However, if the trail provides a unique experience with few similar opportunities in the region, use volumes may be high at times. Trail speeds are variable.

VISIT-46: *Fully Accessible or Interpretive Trail*. This trail is designed to be fully accessible to disabled users, including wheelchairs. Allowable uses on these trails are generally restricted to pedestrians, wheelchairs and other mobility assistance devices. Typical or desirable characteristics of this trail classification include:

- Location: Because a key purpose of these trails is to serve a physically challenged trail users they should be located in areas with easy access to vehicle parking.
- Access/Connectivity: To prevent confusion with trails having other designations, these trails should have limited connections to other system trails.
- Terrain: Gentle terrain is most suitable for this type of trail with minimal grades and cross slopes and the opportunity to provide an even tread surface.
- Degree of Difficulty: These trails are fully accessible and may also be suitable for users desiring an easy trail experience.

- Use Character: Trail use volumes are likely to be low to moderate. Trail speeds are slow.

VISIT-47: The development of a Trails Management Plan will include an inventory and classification of trails for the purposes of trail maintenance standards and priorities. These trail classifications are based on a variety of criteria including: types of uses, proximity to other facilities, access and connection, and user patterns.

VISIT-48: The trails within the SRA all have existing designated allowed uses. These designations of allowed use have occurred over time in various ways including adopting the existing/historical use and new trails developed for specific purposes. As part of the development of the Trails Management Plan, the existing allowed uses on the Folsom Lake SRA trails will be assessed and any proposed changes to the allowed uses will be analyzed in the Trail Management Plan and future trail planning. In making decisions regarding changes to allowed uses on specific trails, many factors will be considered, including: trail condition, trail use, terrain, safety, access and connectivity, location, trail sustainability, recreation demand, impacts to natural and cultural resources and other factors.

VISIT-49: There are many strategies that could be employed to provide equitable access to all trail users including developing or designating multi-use trails, designating alternating days of use for different trail users on a particular trail, developing additional limited use trails and other potential tools and strategies. Decisions on which particular strategy to utilize will be made on a case by case basis considering site specific conditions in the Trail Management Plan and future trail planning.

Trail Access and Connectivity

VISIT-50: Provide sufficient access to the SRA trail system to adequately serve the public and to discourage the creation of unauthorized and individual access points by adjacent neighbors. Establish new access points as appropriate and feasible, including formalizing and improving existing informal access points.

VISIT-51: Ensure that access points to the trail system accommodate the range of travel modes used by trail users to get to the SRA, including pedestrian, bicycle, equestrian, automobile, and transit.

VISIT-52: Create continuous loop trails and links between major recreation areas and facilities in the SRA as a means of enhancing the connectivity of the trail system.

VISIT-53: Expand opportunities in the trail system for people with disabilities by providing ADA compatible facilities wherever feasible.

VISIT-54: Ensure that the allowed use is clearly identified at each formal access point and on all trail literature.

VISIT-55: Prepare a map of the trail system and make it available to the general public at SRA entrances, by mail, and on the SRA website. The map should indicate the allowed uses on each trail and provide a brief description such that a visitor can identify particular trails most suited to their needs. Include other interpretive information on map as space allows. Consider combining trail map with a Folsom Lake SRA Recreation Map.

Funding

VISIT-56: Ensure that trail projects are identified as part of annual capital and operations and maintenance budgets for the SRA.

VISIT-57: Request funding for trail facility improvements when budgeting improvement projects in areas traversed by or adjacent to a trail corridor.

VISIT-58: Explore the opportunities to leverage available State funds for trail projects through various State, federal, and private matching grant programs.

VISIT-59: Develop a partnership program with local businesses or other civic groups to sponsor trail projects, including new trails, trail improvements, and trail maintenance. Such a program could leverage available funds for trail projects through financial assistance, donated materials, and volunteer labor.

VISIT-60: Work with other local trail providers—such as Sacramento, Placer and El Dorado counties, City of Folsom, Reclamation, and the Bureau of Land Management—to jointly fund and/or manage certain facilities such as trailheads and trail links that connect the trail system with outside systems and serve the local population.

VISIT-61: Consider using a portion of the fees collected from trail-related special events to help fund the maintenance of the trail system.

Trail Advocacy, Collaboration, and Stewardship

VISIT-62: Continue to coordinate and collaborate with other local, State, and federal trail providers through existing or new forums.

VISIT-63: Continue to involve trail users and other interest groups in the planning and management of the trail system by participating in existing regional trail forums. If necessary, work to establish a regional trail-users advisory committee that would meet regularly to discuss trail planning and management, including issues related to new facilities, maintenance, patrol and enforcement, and safety.

VISIT-64: Promote and support volunteer participation in trail stewardship programs, events, and activities.

VISIT-65: Develop a multi-disciplinary volunteer trail patrol (including equestrians, bicycles, and pedestrians) that models shared use trail ethic and etiquette.

Private Property Owners

VISIT-66: Involve adjacent private property owners, community groups, and neighborhood associations in trail planning and management where existing or planned trails are in close proximity to the SRA boundary.

VISIT-67: Support and encourage an ongoing dialogue among private property owners, trail user groups, and State Parks staff to prevent conflicts between trail users and adjacent property owners.

VISIT-68: Eliminate existing unauthorized access improvements connections to the trail system from adjacent private property. Prioritize addressing unauthorized access points and improvements where resource damage or use conflicts are occurring. Monitor the SRA's urban boundaries to prevent the establishment of new unauthorized access to the trail system.

c. Multi-Use Facilities

Multi-use facilities provide the opportunity for park staff, other agencies, and the community to pursue educational and social activities in a natural recreation setting. Classroom space is important for State Parks in terms of pursuing professional development and public outreach efforts. For local recreation groups, such space is valuable for conducting

safety training and addressing their specific recreation needs in the SRA. For the community in general, such space becomes an important venue for special events.

Goal

- Additional multi-use space as a means of achieving a variety of State Parks and community goals associated with the SRA.

Guidelines

MULTI-USE-1: Replace the existing activity center at Granite Bay with an expanded and improved facility and parking at the same location. The new facility should include flexible space that can accommodate a variety of training, meeting, and event uses. Park and recreation-related uses should be the primary purpose of the center.

MULTI-USE-2: Evaluate the feasibility of developing a multi-use facility at Brown's Ravine or Folsom Point with a primary purpose of water safety training. Such a facility should have water access and include: flexible classroom and event space, kitchen facilities, change facilities, aquatic equipment storage, administrative area, and observation area.

MULTI-USE-3: Evaluate the feasibility of developing a multi-use facility at Nimbus Flat. Such a facility might include: flexible classroom and event space, kitchen facilities, storage, administrative area, exhibit area and other visitor service facilities.

d. Special Events and Concessions

Special events and concessions in the SRA contribute significantly to the visitor experience. Special events bring thousands of visitors to the SRA each year, raise awareness about local recreation and culture, and expose newcomers unfamiliar with the SRA to its array of recreation opportunities. This includes State Parks and Reclamation sponsored special events, such as the American River Salmon Festival and the Juneteenth Celebration, that focus on public education and interpretation of natural and cultural resources and help fulfill the agencies' mission and strategic initiatives. State Parks provides planning and logistical support to for such events and does not charge a facility rental fee.

Other major special events in the SRA include the American River 50 equestrian ride and run; high-school, collegiate, and masters-level regional and national rowing competitions;

bass fishing tournaments; boat shows and equipment demonstrations; and various running, triathlon, paddling, and bike races. In addition, the SRA hosts a significant number of smaller special events including company picnics and parties, weddings and receptions, and fundraisers.

Concessions in the SRA provide a certain convenience and level of comfort for SRA visitors. They also provide educational opportunities. Both State Parks and Reclamation have specific regulations and policies regarding concessions. Current concessions in the SRA include the Folsom Lake Marina, snack bars, beach and aquatic equipment rentals, marine provisions, and aquatic lessons/training.

Goals

- Special events and concessions consistent with the SRA's purpose and vision and the mission of State Parks and Reclamation policies and standards.
- Special events and concessions that increase awareness, educate, and encourage participation in local recreation and culture.
- Special events and concessions that promote stewardship of SRA resources.
- Give consideration to the need to maintain access for the general public to recreation opportunities in the SRA in assessing how to meet the demand for special events..

Guidelines

EVENT-1: Ensure that special events sponsored by State Parks and Reclamation, such as the American River Salmon Festival and park clean-up days, focus primarily on promoting stewardship, education, and enhancement of SRA resources.

EVENT-2: Implement the Special Event Policy for the SRA which includes specific requirements, guidelines, constraints, and processes by which special events will be approved and administered by the District. Update this policy as appropriate and necessary.

EVENT-3: Prevent special events or concessions from unduly displacing public use of SRA resources and facilities through allocation of special event and concession opportunities as necessary. Consider limitations on the number, extent, and location of special events during peak use times.

EVENT-4: Ensure that concessions in the SRA enhance the visitor experience, are compatible with SRA resources, fit within the capacity of the management zone and are consistent with the purpose and vision of the SRA and the mission of State Parks. Use the allocation of special event and concession opportunities as a means of ensuring the capacity of management zones within the unit is not exceeded and that the desired resource conditions and visitor experience are protected.

EVENT-5: Continue to work in partnership with the California State University Sacramento (CSUS) Aquatic Center to promote and deliver water safety education and instruction and to manage CSUS-sponsored events on Lake Natoma as a means of protecting SRA resources and maintaining public access.

e. Circulation and Public Access

The location and configuration of the SRA and the encroachment of urban development make vehicular circulation and public access a key visitor and local community issue. The generally narrow, linear land base of the SRA does not accommodate a significant internal road system, which means that visitors are dependent on adjacent public roadways to access the SRA. Park access and circulation is complicated by periodic traffic congestion on these roadways associated with commuter traffic from surrounding suburban development and the limited number of crossings of the American River. Also, key holidays and major events in the SRA can result in surges in visitor traffic that can contribute to congestion on the surrounding road network.

Goals

- An integrated and efficient circulation system that facilitates multi-modal visitor access to and movement within the SRA and is consistent with Reclamation policies regarding the security of various flood control facilities in the SRA.
- Improved access at primary SRA gateways to reduce congestion and minimize neighborhood impacts.

Guidelines

General

CIRCULATE-1: Reconfigure the entrances to Beals Point and Granite Bay to improve visitor and emergency access, reduce queuing onto public streets, and minimize neighborhood impacts while maintaining current capacity. Neighborhood impacts include traffic delays, illegal parking, noise, and

pedestrian hazards. Refer to the area specific policies for Beals Point and Granite Bay in Section D of this Chapter for more detail.

- CIRCULATE-2: Use temporary electronic message boards on Douglas Boulevard and Folsom-Auburn Road to inform and direct approaching park visitors when Granite Bay and Beals Point day use areas are at capacity.
- CIRCULATE-3: Prepare public service announcements for radio that inform and direct approaching park visitors when day use areas in the SRA are at capacity. Such announcements should be coordinated with a local Traffic Info program.
- CIRCULATE-4: Ensure that new facility development in the SRA continues to separate vehicular from non-vehicular traffic as much as possible in order to enhance non-vehicular modes and reduce potential conflicts.
- CIRCULATE-5: Ensure that day use areas in the SRA provide facilities that encourage and support alternate modes of transportation to the SRA, including pedestrian, equestrian, bicycle, boat, and transit, as a means of minimizing future increases in traffic and the demand for parking.
- CIRCULATE-6: Coordinate with surrounding jurisdictions to ensure that transportation improvement projects on adjacent roadways maintain and where possible enhance access to the SRA.
- CIRCULATE-7: Coordinate with Reclamation to ensure that public access to the SRA is incorporated into the planning, design and construction of the new Folsom Lake Crossing Bridge.
- CIRCULATE-8: Eliminate unauthorized access improvements to the SRA from adjacent private property. Prioritize addressing unauthorized access points and improvements where resource damage or use conflicts are occurring.

Transit

- CIRCULATE-9: Work with the Sacramento Regional Transit District (RT), Sacramento County, the City of Rancho Cordova, and the City of Folsom to coordinate pedestrian and bicycle links between the SRA and future RT

stations to be located nearby, including: Hazel Avenue, Iron Point Station between Iron Point Road and Natoma Station Drive; Glenn Drive on Folsom Boulevard; and Historic Folsom Station between the Sutter Street off-ramp and Leidesdorff Street.

CIRCULATE-10: Coordinate with local transit agencies to establish transit service to primary SRA gateways, particularly during peak season weekends when visitation to the SRA is highest. This could include locating stops on routes that pass by primary SRA gateways.

CIRCULATE-11: Coordinate with local transit agencies, neighboring jurisdictions, and local businesses to determine the feasibility of establishing a SRA shuttle service that would link primary SRA gateways and provide connections to nearby key activity centers and transit line termini outside the SRA. This would allow visitors to park and then ride the shuttle instead of having to enter the SRA by car.

Parking

CIRCULATE-12: Ensure that sufficient parking is provided at lake levels to accommodate public access to SRA facilities and uses, within the capacity of the facilities and resources and in a manner that minimizes the use of and impacts to upland natural areas for parking. Potential strategies to minimize the use of upland area for parking include:

- Shared parking arrangements with neighboring jurisdictions and landowners;
- Providing parking facilities based on typical use patterns rather than worse case or special event scenarios; and
- Reducing or eliminating parking where underutilized.

CIRCULATE-13: Explore alternatives for accommodating special event parking conditions, including satellite parking areas, and special event shuttle service.

f. Visual Resources and Aesthetics

The SRA represents a significant visual and scenic resource within the region offering a combination of panoramic views and distinctive landscape features. Situated where the

Central Valley meets the foothills of the Sierra Nevada, the SRA includes a variety of landscapes from rugged canyons along the American River forks, to the rolling hills and upland plateaus above Folsom Lake, to the bluffs and broad river plain of Lake Natoma. Although the manmade reservoirs were created for flood control, water supply, and power generation, the resulting lakefront setting affords visitors with dramatic panoramas of the lakes, the surrounding natural landscape, and cultural resource features. Together, the length and configuration of the SRA's shoreline, coupled with the hilly topography, provide a wealth of viewing conditions and opportunities.

Goal

- Protection and enhancement of views and distinctive landscape features that contribute to the SRA's setting, character, and visitor experience.

Guidelines

General

VISUAL-1: Expand recreation and interpretation opportunities associated with the visual and scenic resources of the SRA. Opportunities include view-oriented day use facilities and interpretive programming in key locations (e.g., Lake Overlook on Lake Natoma) and enhanced interpretation of distinctive landscape features (e.g., Natoma Bluffs, dredge tailings along Lake Natoma, and the Peninsula).

Viewshed Protection

VISUAL-2: Work with local jurisdictions in the land use planning and development process to protect key views in the SRA from continued visual intrusion from surrounding development. This will include appropriate general plan land use designations, zoning to regulate such matters as building height and setbacks, ridgeline protection ordinances that help protect visual resources of the SRA, and rigorous development review and enforcement.

VISUAL-3: Coordinate the protection and enhancement of visual resources in the SRA with strategic efforts to enhance SRA holdings through land acquisition. Priority areas for protection and enhancement include undeveloped ridgelines and slopes facing the SRA to prevent visual intrusion from adjacent development. Such areas include the North and South Forks of the American Rivers and the Peninsula. Refer to the Park-wide Goals and Guidelines for Park Operations as they relate to land acquisition in the SRA.

Scenic Quality

VISUAL-4: Minimize existing elements that detract from the quality of views and scenic character of the SRA, including visual intrusion from adjacent development as well as facilities within the SRA. Strategies could include:

- Planting to screen adjacent development, such as at Lake Overlook, Blue Ravine area of Lake Natoma, North Granite Bay, Brown’s Ravine, and Folsom Point.
- Planting and landscaped islands to mitigate the visual impact of large parking areas, such as at Granite Bay beach.
- Planting to screen corporation yards within the SRA, such as at Nimbus Dam and Park Headquarters complex.
- Removing or screening temporary storage containers used by concessionaires at several locations. Well-designed permanent structures could be used to replace containers. In locations where new restrooms or other facilities are being built, storage could be integrated.
- Improving and/or relocating security fencing to improve appearance and enhance views, such as at Lake Overlook, Folsom Powerhouse, and corporation yards.
- Removing or reducing underutilized parking areas and other hard-surfaced areas as appropriate and restore with native vegetation.
- Underground overhead electrical utilities as appropriate.

Facility Design

VISUAL-5: Buildings, structures, and landscaping developed within the park unit should be sited to be sensitive to scenic views from and into the park. Site facilities should minimize the impact on views from key viewpoints (e.g., Nimbus Flat, Lake Overlook, Negro Bar, Beals Point, Granite Bay, Brown’s Ravine, and Folsom Point). Landscape design and planting should be used to visually buffer developed areas, enhance visual quality, and integrate the surrounding native landscape.

VISUAL-6: The maximum height for buildings and structures developed within the park unit generally shall be one story. Two-story structures may be permitted in

limited instances (e.g., lifeguard tower, boathouse, visitor center, multi-use facility, etc.) consistent with the protection of scenic views.

Lighting

- VISUAL-7: Night lighting should generally be restricted to developed areas of the SRA (i.e., buildings, paths, parking lots, etc.) consistent with security and safety needs.
- VISUAL-8: Lighting levels (i.e., intensity/foot-candles) should generally be kept as low as possible, consistent with public safety standards. Lighting should be hooded and focused downward to prevent the splay of ambient light to other areas. Where appropriate, consider the use of path-level or bollard-type fixtures to keep the light source close to the ground.
- VISUAL-9: Work with local jurisdictions in the land use planning and development process to protect the SRA from existing and future ambient light sources in development adjacent to the SRA. This will include zoning to regulate lighting, submittal of lighting plans, and “dark sky” ordinances that help protect the visual resources of the SRA.

4. Unit-wide Operations

Many aspects of SRA operations warrant a clear statement of policy intent to guide the day-to-day management of the unit and to ensure the continued pursuit of the unit-wide and area-specific goals over the longer term. The following goals and guidelines relate to a range of operating issues.

a. Folsom Dam/Reservoir Operations

As detailed in Section C.1 in Chapter 2, there are several projects and proposals in the planning or implementation stages that will affect the operation of Folsom Dam/Reservoir and water levels on Folsom Lake, which in turn will affect the future planning, operation, and maintenance of the SRA. These projects include both flood control and dam safety projects such as the most recent proposals to raise Folsom Dam and to construct a new auxiliary spillway. These projects will have both long term ongoing operational impacts on the SRA facilities and resources and shorter term construction related impacts.

The Army Corps of Engineers and other flood control agencies approved a plans on two related projects: 1.) enlarging the outlets of Folsom Dam (Folsom Dam Modifications) to increase the system capacity to release water downstream; and 2.) raising Folsom Dam and the earthen dikes by seven feet, increasing the height from an elevation of 480.5 feet to 487.5 feet, to provide additional storage space in the reservoir during serious flood events. These two projects, in association with the other flood protection measures, would have increased the level of flood protection for Sacramento to a 213-year flood event.

In early 2005 it became apparent that the plans to enlarge the outlets in Folsom Dam, a critical part of the package of flood protection measures, was more difficult, riskier and much more costly than previously projected. Concurrent to the proposals to increase flood protection at Folsom Dam and Reservoir, Reclamation has been investigating their needs to strengthen the existing earthen dams and dikes around the reservoir due to hydrologic, seismic and seepage concerns. In the fall of 2005, the ACOE and Reclamation began working together on plans to improve both dam safety and flood control.

A new gated auxiliary spillway around Folsom Dam is the central piece of the flood protection measures (in lieu of enlarging the outlets) in this new joint federal project. This new spillway would run from Observation Point on the south side of the left wing dam down to the river below the existing spillways and outlets. The project may also include a 3.5 foot raise of the dams and dikes. If this 3.5 foot raise is determined to be necessary to meet flood protection objectives, additional environmental analysis may be conducted for this raise. The EIR/EIS for the Folsom Dam Safety and Flood Damage Project was completed in April 2007 and the Record of Decision was issued in May 2007.

The ROD for the Folsom Dam Safety and Flood Damage Reduction Project contains mitigation measures to minimize and address impacts to recreation and other resources. State Parks and Reclamation will continue to work with the other involved agencies to address impacts to recreation as specific project plans and activities develop and occur.

Folsom Reservoir is currently operated with a normal high pool elevation of 466 feet. Most of the recreation facilities within Folsom Lake SRA are located between this normal high pool elevation of 466 feet and the current top of the Dam elevation of 480.5 feet. During extreme flood events these recreation facilities are subject to flooding. The Folsom Dam Safety and Flood Damage Project will increase the ability to release water downstream (primarily via the new spillway) and will reduce the vulnerability of these facilities getting inundated in an extreme flood event. The Folsom Dam Safety and Flood Damage Project will not alter the 466 foot normal high pool operating level of the reservoir.

Also noted in Section C.1 in Chapter 2 is that as the population of the region grows local water purveyors and others who rely on American River and Central Valley Project water will more fully utilize their water rights and allocations. Combined with the demands for cold water from Folsom Reservoir to support downstream anadromous fisheries and water quality needs in the Delta, the increasing demand on water supply from the American River and Folsom Reservoir will result in a greater frequency of lower lake levels which will have impacts on aquatic recreation. Several studies have attempted to correlate visitor use to water levels on Folsom Lake. For instance, a 1989 study estimated that the maximum potential visitor use drops by 70 percent as water levels fall from 435 feet to 400 feet. However, it is extremely difficult to predict future water levels for the purposes of recreation planning in the SRA.

Past environmental analyses completed for the Folsom Dam Modification, Mini-Raise and Re-operation projects generally predicted lower water levels during winter months when recreation use in the SRA is low. Increased future water diversions are likely to result in lower water levels during summer months when recreation use in the SRA is high. The combined impact on recreation use in the SRA could be substantial in years when Folsom Lake is lowered in winter to accommodate flood flows and subsequent precipitation and runoff are insufficient to refill the reservoir. Summer water releases for maintaining San Joaquin Delta water quality and downstream anadromous fisheries would only exacerbate this situation.

Regardless of the difficulty in determining how the SRA will be affected by various flood control and water supply projects on Folsom Lake, it is necessary to plan for the potential impacts nonetheless. With respect to water levels, planning should consider improving access to lower water levels by extending existing boat ramps and ensuring that any marina development and expansion be operable at lower than current elevations. Planning should also consider the impacts of short term inundation in the instance that an extreme flood event occurs. Such impacts on recreation facilities and resources in the SRA would likely be great and require significant clean-up and repair. Finally, planning should consider the construction-related impacts of various flood control projects on unit resources, including long-term construction activity that will require the temporary closure and/or relocation of certain recreation facilities, including day use areas, and trails.

Goals

- Pursue mitigation established in the Interim Re-operation Plan and the Water Forum Agreement and other ongoing and future flood control and water supply projects involving Folsom Dam and Reservoir in order to maximize potential benefits to recreation, natural, and cultural resources at Folsom Lake.

- Minimize adverse impacts on recreation, natural, and cultural resources from ongoing and future flood control projects.
- Consider the cumulative impacts of Folsom Dam and Reservoir operations and projects on water levels in recreation and resource planning.

Guidelines

FLOOD-1: Utilize the mitigation funding established under the Water Forum Agreement to implement various improvements to recreation facilities on Folsom Lake.

FLOOD-2: If proposed flood protection projects and measures include the potential use of additional surcharge space in Folsom Reservoir, work with the Army Corps of Engineers, the Sacramento Area Flood Control Agency and other responsible agencies on the development of a Flood Response Plan for recreation facilities on Folsom Lake. The plan would determine the measures necessary to minimize the risk and potential damage to recreation facilities from short-term inundation that could result from proposed flood protection projects. The plan should identify:

- Means for funding the post-inundation clean-up and rehabilitation of facilities and recreation areas and mitigation necessary to offset the temporary loss of such facilities;
- Criteria and process for determining the relocation and rebuilding of facilities destroyed by inundation and mitigation necessary to offset the temporary loss of such facilities;
- Identify which facilities require modification in-place (flood-proofing) to prevent the potential damage from inundation;
- Identify which facilities need to be moved in advance of potential inundation; and
- Operational means of reducing potential damage to facilities and contents from inundation, such as anchoring of picnic tables and trash receptacles and flood-secured storage for mechanical and non-mechanical equipment.

FLOOD-3: Implement the mitigation proposed by the area specific policies for the management zones potentially affected by the construction and operational

impacts of flood control projects on Folsom Lake. Refer to Section D of this Chapter for more detail.

FLOOD-4: Develop additional access to Folsom Lake for water levels below 420 feet, as appropriate.

FLOOD-5: Work with the Sacramento Area Flood Control Agency to ensure that the agency has completed the recreation-related mitigation for the SRA required in the EIR/EIS for the Interim Re-Operation Project. Such mitigation included the extension of boat launch ramps to provide access to lower water levels on Folsom Lake. When a permanent re-operation plan is developed, work with the appropriate agencies to address any impacts to recreation.

FLOOD-6: When developing new recreation facilities consider the implications of locating facilities below an elevation of 482 feet on Folsom Lake as such facilities could be inundated in an extreme flood event.

b. Employee Housing

State Parks occasionally provides housing within a park unit for employees involved in key unit operating activities, such as on-site maintenance and enforcement. This is particularly true in units that have a significant visitor services component or are large enough that travel times and distances make operating activities difficult to carry out. Housing may also be provided in remote locations where there is no housing nearby or as an employee benefit in locations where housing is unaffordable. Employee housing at Folsom Lake State Recreation Area is currently provided at Nimbus Flat, Granite Bay, and the Peninsula.

Goals

- Employee housing that supports maintenance and enforcement activities at levels determined by State Parks and Reclamation as appropriate for visitor health, safety, and enjoyment.
- Employee housing that aids in the retention of key SRA operations staff and in recruiting staff.

Guidelines

- HOUSING-1: Consider the provision of additional employee housing in the SRA only where a demonstrated operational need, such as security, maintenance or visitor services support, is identified.
- HOUSING-2: Ensure that the location of additional employee housing in the SRA is viable with respect to the infrastructure necessary to service it, such as water, sewer, electricity, and telephone. In remote locations, physical conditions may limit the provision of some services.
- HOUSING-3: Ensure that employee housing in the SRA is located, designed, and maintained in a manner that avoids impact to the environmental setting or visitor experience of the area.
- HOUSING-4: Maintain and enhance existing employee housing in the SRA as necessary to ensure the continued health and safety of its residents.
- HOUSING-5: If maintenance and upgrades of existing employee housing become cost prohibitive, consider removal of employee housing.

c. Land Acquisition

The majority of the land within the SRA is federal land managed for recreation and resource protection through an agreement with State Parks. Since the SRA was established in 1956, State Parks has continued to expand the unit through land acquisition. Land acquisition provides State Parks with the opportunity to address both Departmental and unit-specific objectives. These objectives are typically identified in various system-wide policy, management, and operations directives and in District- and unit-level documents (such as General Plans). For instance, the State Park's Central Valley Vision recommends expansion of existing state parks within the Valley, particularly: lands containing under-represented natural or cultural resources; lands with water features to support a variety of uses; lands that have the capacity for high demand recreational activities such as camping, day use and trails; and lands that link large blocks of protected habitat. The SRA has a narrow land base which does not often extend far beyond the high water mark on Folsom Lake, which highlights the importance of strategically acquiring land when the opportunity arises, particularly in natural areas threatened by development.

Goals

- Strategic acquisition of properties contiguous to the SRA from willing sellers for the purposes of protecting natural, cultural, and visual resources and of expanding recreation opportunities.
- Coordination and partnership with other public land and natural resource management agencies, land conservancies, and other organizations in property acquisitions and in planning regional open space and resource (habitat, wildlife corridors) preservation needs.

Guidelines

ACQUIRE-1: Acquire land contiguous to the SRA as appropriate for the purposes of protecting viewsheds, watersheds, significant or threatened habitat types or vegetation communities, wildlife corridors or cultural resources. Specifically this includes lands containing blue oak woodlands and savanna, riparian woodlands or seasonal wetlands and vernal pools.

ACQUIRE-2: Acquire land contiguous to the SRA as appropriate in order to enhance recreation opportunities. Specific priorities would be lands that: permit further development of aquatic recreation activities; provide trail connections and opportunities; or allow development of substantial new camping or day use opportunities and facilities.

ACQUIRE-3: Continue to explore opportunities for acquiring lands adjacent to the SRA in Placer and El Dorado counties as a means of preserving the most pristine natural landscapes within the SRA—and the most threatened by potential future development—and their contribution to a healthy foothill ecosystem, a high quality visual setting, and a positive visitor experience.

ACQUIRE-4: Priority areas for land acquisition should include: undeveloped ridgelines and slopes facing the SRA; South Fork arm area to protect cultural/natural resources and buffer the SRA from future development; North Fork arm area to protect cultural, natural, and visual resources.

d. Off-Road Vehicle Use

As water levels on Folsom Lake drop below high pool in late summer and the shoreline becomes exposed, SRA visitors often drive their vehicles off designated roadways and parking

areas to access the water. Off-road vehicle use impacts unit resources in several ways: it affects shoreline vegetation above high water as SRA visitors drive to the shoreline; it prevents the growth of vegetation below high water that can slow and reduce stormwater runoff; and it damages or destroys archaeological resources below high water that become exposed as lake levels drop. This activity also results in operational costs for State Parks since exposed shoreline areas must be patrolled and access roads below high water maintained. With the increased likelihood of lower water levels during the peak summer months due to the re-operation of Folsom Lake and Dam, and increased diversions under the Water Forum Agreement, off-road vehicle use will continue to be a resource and management issue in the SRA.

Goals

- Protection of natural and cultural resources in shoreline areas, including exposed areas located below high pool on Folsom Lake.
- Restricted vehicle access within the SRA that protects the visitor experience, reduces maintenance needs, and reduces patrol and enforcement burden.

Guidelines

OFFROAD-1: Prohibit vehicle use outside designated and delineated roads, parking areas, and routes of travel in the SRA and close down existing commonly-used access points.

OFFROAD-2: Designate and delineate low water access and parking areas in a limited number of specific locations as appropriate. Such facilities should be clearly signed to assist in proper use by SRA visitors and patrol and enforcement by park staff.

OFFROAD-3: Work with the Sacramento Area Flood Control Agency and other appropriate agencies to ensure that cultural resources at risk due to lower water levels on Folsom Lake are identified, recorded, evaluated, and protected.

OFFROAD-4: Work with the Sacramento Area Flood Control Agency and other appropriate agencies to identify additional patrol, maintenance, and other operational costs associated with the increased likelihood of lower water levels on Folsom Lake and establish a funding agreement, as appropriate.

e. Fire Management

Fire is a natural process that has shaped native plant communities within the unit, many of which are fire prone or fire dependent. The suppression of fire has altered this natural process and the composition and structure of native plant communities. The development of residential structures and sub-divisions adjacent to natural areas of the SRA has created risk from wildfire to these adjacent developments. This is particularly true in the more remote rural areas of unincorporated Placer and El Dorado counties along the North and South Forks of the American River where emergency response times are longer.

Much of the development in these wildland/urban interface areas was approved with inadequate setbacks and without fire safe building materials and requirements. Residential development continues to be approved in areas adjacent to the SRA which are comprised of native vegetation. In many instances current zoning standards and building requirements are still inadequate to fully address and mitigate the wildfire risk created by the development. As detailed in Section C.7 in Chapter 2, both State Parks and Reclamation have specific requirements and guidelines that need to be considered in fire planning and management. A recently completed Unit Prescribed Fire Management Plan addresses this aspect of fire management. Refer to the Plant Life Management policies in the Resource Management and Protection section of this Chapter for more detail.

Reclamation, in partnership with State Parks, has the authority and statutory responsibility to provide for resource protection and public safety on Reclamation lands within the Folsom Lake SRA and Project Area.

Goals

- Protect natural and cultural resources in developing and implementing fire management plans and strategies, including: native plant communities and habitat, water quality, wildlife, fisheries, sensitive and listed plant and animal species, and wetlands..
- Clearly communicate the role of fire in native plant communities, the risks and responsibilities of residents and local jurisdictions in wildland/urban interface areas, the full range of causes of wildfire risk in these areas and the positive actions that all involved entities can take in addressing the issue.
- Acknowledge the concerns and risk from wildfire of adjacent property owners while seeking solutions and strategies that protect SRA resources and values.

- Coordinate and collaborate with local jurisdictions, fire protection agencies, fire safe councils, neighborhood associations and SRA neighbors in developing wildfire management plans and strategies.
- Provide for firefighter and public safety.
- Suppress all wildfires.

Guidelines

WILDFIRE-1: Develop a Fire Management Plan for the SRA, consistent with Reclamation and State Parks policies and planning requirements. Federal policy includes the National Fire Plan, the Federal Wildland Fire Policy, the Cohesive Fuels Treatment Strategy and the 10-Year Comprehensive Strategy. State policy includes the Wildfire Management Planning Guidelines and Policy and the appropriate sections of the Department Operations Manual (DOM) including Chapter 0300. The Fire Management Plan will identify, integrate and coordinate all fire management guidance, direction and activities. The Plan will develop specific strategies including:

- Wildfire suppression
- Prescribed fire
- Non-fire fuel treatment
- Emergency stabilization and rehabilitation (ESR)
- Community Protection, Assistance, Prevention and Education.

WILDFIRE-2: Ensure all wildland fire management actions on federal lands are compliant with the 1995/2001 Federal Wildland Fire Policy Update guiding principles, which are:

- Provide for firefighter and public safety;
- Reduce fire risk and hazardous fuels that threatens life and property;

- Protect communities, watersheds, sensitive and high risk areas;
- Use fire and non-fire treatments to restore and/or sustain ecosystems;
- Work closely with the California Department of Forestry and Fire Protection (CDF);
- Meet resource goals and objectives including, watershed, wetlands, wildfire, fisheries, cultural, vegetation management and fuels;
- Use prescribed fire as the primary management tool. When prescribed fire is not a viable option, use non-fire treatments to achieve desired objectives.
- Work with communities-at-risk within the Wildland-Urban-Interface (WUI);
- Collaborate with federal, state and local partners.

WILDFIRE-3: Public and firefighter safety are the priority during fire suppression actions. Protecting natural resources, cultural resources and property are secondary priorities.

WILDFIRE-4: The Fire Management Plan will include specific strategies for post-fire emergency stabilization and restoration. As appropriate, this will include: assessing damage to natural and cultural resources and determining appropriate restoration treatments, restoring firelines to natural condition, removing debris, re-establishing natural drainage patterns, implementing erosion control measures and preventing the infestation and establishment of invasive non-native species.

WILDFIRE-5: The use of wildfire (unplanned ignitions) as a fire management strategy is not appropriate for the area due to the close proximity of development, infrastructure and housing. All wildfires will be suppressed.

WILDFIRE-6: Where feasible and appropriate, use prescribed fire to approximate fire regimes appropriate for the native vegetation and to restore and maintain native vegetation condition at appropriate succession stage, composition,

structure and pattern. Where the use of prescribed fire is determined not to be feasible, consider the use of non-fire treatments as appropriate.

- WILDFIRE-7: Burn plans will be prepared for all prescribed fires. Prescribed burns will be planned and executed by persons with the appropriate training, skills and experience in fire ecology, fire behavior and prescribed fire. Prescribed fire planning and implementation will be coordinated with the appropriate air quality and air pollution control districts.
- WILDFIRE-8: Non-fire fuel treatments and strategies will be developed through the Fire Management Plan and through coordination between Reclamation, State Parks and CDF.
- WILDFIRE-9: Ensure that any strategies and treatments developed to address wildfire risk as part of the Fire Management Plan reflect the General Plan goals and objectives for protecting natural and cultural resources in the SRA. Such treatments could include the use of shaded fuel breaks in strategic areas. Some vegetation management practices that help maintain and restore native plant communities and that control invasive exotic plant species can also provide benefits in reducing wildfire risk.
- WILDFIRE-10: Communities-at-Risk will be identified in the Fire Management Plan and community assistance strategies and activities will be articulated.
- WILDFIRE-11: Develop and implement an education program as part of the Fire Management Plan to inform local jurisdictions, SRA neighbors, and the public about wildfire management including the natural role of fire in native vegetation communities, fire safe practices in designing and building structures in interfaces areas and in landscaping.
- WILDFIRE-12: Collaborate with CDF, local fire districts, fire safety councils, neighborhood groups, and others in the development and implementation of the Fire Management Plan and its projects and programs. Insure that the financial responsibility for developing and implementing wildfire management programs and practices is appropriately borne by those benefiting from these actions.

WILDFIRE-13: Work with local jurisdictions and fire districts in the land use planning and development process to promote land use decisions that reduce wildfire risk. This will include instituting appropriate general plan land use designations as well as zoning to regulate matters such as building height and setback, fire buffer zones, fire safe building design and materials.

f. Sustainability

Resource conservation and enhancement represents a primary policy directive for future planning and management of the SRA. Implementation of sustainable design principles and criteria will supplement these efforts. Sustainable design involves siting, construction, operation, and maintenance of facilities as models of energy, water, and materials efficiency. Sustainable design will be incorporated into future park improvements and operations and reflect the following key principles and practices.

Goal

- To the degree feasible, employ sustainable design and construction practices in the development of park facilities.

Guidelines

SUSTAIN-1: *Sustainable Sites*: Minimize the negative environmental impacts associated with site enhancement, development, maintenance, and operations activities by considering the following guidelines when implementing the Plan:

- Reuse or rehabilitate previously disturbed or developed sites, and, to the degree feasible, avoid developing greenfield sites or sites that contain sensitive species, habitats, or wetlands.
- Facilitate access to public transportation in order to provide an alternative to the private automobile.
- Minimize impact during construction. Prepare and implement site sedimentation and erosion control plans. Limit heavy equipment access.
- Emphasize utilizing existing native vegetation in the planning, design and construction of new facilities. Preserve and protect existing native vegetation during construction.
- Limit the area of parking, paving, and lawns to the minimum required for support an approved activity or development.

- Design new plantings as diverse communities of species well-adapted to the site. Use primarily native species that require less maintenance and less water than exotics. Reserve exotics for accents. Avoid use of any plant that is invasive. Use plants that attract desirable wildlife.
- Employ integrated pest management (IPM) against weeds, insects and other pests, with biological controls (e.g., parasitic insects, pheromone traps, natural pesticides, and companion-planting) as the first line of defense.
- Use mulching, alternative mowing, and composting to maintain plant health. Organic mulch around plantings conserves water and maintains favorable soil temperatures.
- Use animal-proof waste and food storage systems to prevent impacts to wildlife.

SUSTAIN-2: *Safeguarding Water*: Conserve water and protect water quality by considering the following guidelines when implementing the Plan:

- Use municipal sewer systems instead of on-site septic sewer systems, to the degree practical.
- Minimize the area of impervious surface, including building footprints and paving.
- Implement measures to minimize the increase in either the rate or volume of stormwater runoff, and improve the quality of runoff.
- Use pervious surfaces in site development, and incorporate features such as vegetated filter strips and bioswales to slow and filter runoff.
- Plant indigenous vegetation and species that are suited to the local environment.
- Use reclaimed water or recycled water for uses such as landscape irrigation, fire protection, toilet flushing, wetlands recharge, and outdoor water features.
- Use water-efficient irrigation design and systems for landscaping.

- Use low-flow water fixtures within buildings.

SUSTAIN-3: *Energy and Atmosphere*: Design improvements to enhance energy efficiency and expand the use of renewable resources by considering the following guidelines when implementing the Plan:

- Illuminate the minimum area for the minimum time. Limit illumination to areas with actual night use or extreme security concerns.
- Question the "brighter is better" approach when designing park lighting. Clearly identify the actual purpose of lighting to determine minimum acceptable levels.
- Use simple timers, motion-sensors, or photocells to turn lights on and off at seasonally appropriate times.
- Use occupancy sensors within buildings to turn lights on and off.
- Use cut-off fixtures, shades, or highly focused low-voltage lamps to avoid spillover and minimize the impacts of light on nocturnal wildlife and the night sky. Linear "tube lights" and fiber-optics can be used to light the way for pedestrians without illuminating a whole area.
- Use energy-efficient lamps and ballasts, including low-voltage lighting to decrease power and energy usage.
- Use renewable energy sources for lighting and other outdoor power. Photovoltaic (PV) power is generally cost-effective, and can be used for applications such as solar path-lights, streetlights, security lights, pumps, and irrigation systems.
- Integrate PV panels into the architectural design of buildings and structures.
- Use energy efficient equipment and fixtures.
- Integrate facilities for car, transit, bicycle, boat, and pedestrian modes of transport, thus reducing dependence on private cars to access the SRA.
- Design site circulation patterns to encourage pedestrian and bicycle movement and reduce the need for automobile use once in the SRA.

SUSTAIN-4: *Materials and Resources*: Minimize the life-cycle impact of materials by considering the following guidelines when implementing the Plan:

- Reduce material use, reuse, and recycle – in that order of priority.
- Reduce material requirements through effective site layout.
- Design and site structures with careful regard to site-specific conditions in order to avoid structural, maintenance, and ecological problems.
- Specify reused materials where possible.
- Specify recycled-content materials (e.g., wood substitutes, concrete, asphalt, etc.) for site use, based on life-cycle performance requirements.
- Consider factors such as renewability (can the material be grown or naturally replenished?), sustainable production (will resources be used up too fast?), and recyclability when selecting materials. Support manufacturers whose product literature includes environmental data.
- Practice effective waste management (recycling).
- Limit paved areas to the strict minimum required for their intended purpose.
- Avoid over-designing paved areas by distinguishing the structural requirements for light-vehicular, heavy-vehicular, and pedestrian paving. For light-duty roads and paths, stabilize without pavement.

SUSTAIN-5: *Indoor environmental quality*: Enhance the health and comfort of building occupants by considering the following guidelines when implementing the Plan:

- Provide for occupant control of lighting, airflow, or operable windows.
- Maximize the use of daylight and maintain access to the outdoors.
- Use materials with low emissions.

SUSTAIN-6: Highlight the principles of sustainable design practices in park facilities, improvements, operations, and maintenance and incorporate into environmental education and interpretive programs in the SRA to demonstrate what sustainable design is and how it can be applied in a park setting. Key concepts and benefits of sustainable design worth interpreting include:

- Increased environmental benefit (conservation of natural resources and reduced waste).
- Reduced operating costs through reduced energy consumption.
- Increased operating and maintenance efficiency (more durable products, less maintenance with toxic substances, lower maintenance costs from resource and energy conservation, etc.).

g. Accessibility Guidelines

State Parks and Reclamation are committed to providing access to the SRA for all visitors. At Folsom Lake State Recreation Area, the majority of visitor service facilities and activities are in a few key recreation areas, which are generally located in the most level terrain in the SRA. Existing facilities have generally been upgraded to meet Americans with Disabilities Act (ADA) accessibility guidelines, and all new facilities and site improvements will be designed to State and Federal accessibility standards. State Parks recently completed an updated version of the “California State Parks Accessibility Guidelines” (2005) which gives guidance in providing accessibility in state park units. ADA parking is currently provided at all primary SRA gateways. In addition, ADA access to natural resource areas is provided in the Doton’s Point area of Granite Bay and at the Peninsula.

Goal

- Access to the SRA for all visitors, regardless of ability, in accordance with ADA guidelines.

Guidelines

ADA-1: Ensure that ADA-compliant access to facilities and activities in the SRA is provided to the greatest extent feasible. Evaluate the design of all proposed facilities and site improvements in SRA for compliance with ADA standards.

ADA-2: Ensure that new development in the SRA complies with certain requirements regulating construction, including:

- Title 24, CCR, Part 2, California Building Code for building construction standards.
- Title 24, CCR, California Building Code together with the Federal Americans with Disabilities Act (ADA) to cover access compliance.
- Title 24, CCR, California Building Code, Part 9 the California Fire Code.

h. Community Relations

Given the location of the SRA within three different counties and one city, and the close proximity of the many neighborhoods that abut the SRA, it is essential that State Parks maintain strong community relations to ensure a positive visitor experience with minimal adverse impacts on SRA neighbors. A number of both formal and informal partnerships already exist and provide for the continued exchange of information. These partnerships also provide SRA management and local community leaders the opportunity to meet the environmental, recreational, and social needs of the local public and SRA visitors. There are also opportunities to form new partnerships and address specific issues (such as trail connections and illegal access) or establish new traditions (such as park volunteer days or an adopt-a-trail program).

Goal

- Ongoing liaison and communication between State Parks and local, County, State, Federal agencies, community organizations and elected officials in order to maximize the potential benefits and opportunities each might bring to the other, and minimize potential conflicts.

Guidelines

COMMUNITY-1: Continue to survey SRA visitors periodically as a means of identifying trends in recreation activities and use. Based on survey analysis and trend identification, and if appropriate and economically feasible, adjust visitor services and/or operations to accommodate the trends. Work with SRA neighbors as necessary to implement such adjustments.

- COMMUNITY-2: Work with neighboring jurisdictions to provide a unified delivery of services in response public safety emergencies and utilizing the training and expertise of all personnel.
- COMMUNITY-3: Coordinate with neighboring jurisdictions on the scheduling, operation, and management of seasonal festivals and special events that may have implications for SRA facilities and operations and SRA neighbors.
- COMMUNITY-4: Work with local recreation clubs, neighboring jurisdictions, and the public to establish programs and events that promote park stewardship and increase awareness of the SRA's recreation, natural, and cultural resources.
- COMMUNITY-5: Work with local communities, groups and organizations in establishing urban outreach programs consistent with the DPR Strategic Initiatives.

5. Visitor Capacity

In both State and national parks, increases in the rates of recreation activities have resulted in a concern that use levels could cause environmental damage or reduce the satisfaction of park users. As a result, the concept of "carrying capacity" is used in recreation planning as an indication of a limit in allowable levels of use.

The Public Resources Code states that "Attendance at state park system units shall be held within limit established by carrying capacity determined in accordance with Section 5019.5" (PRC § 5001.96). While the Code does not define "carrying capacity", it is understood to mean the prescribed number and type of visitors that an area can accommodate given the desired natural and cultural resource conditions, visitor experiences and management program.

Establishing carrying capacity is a complex management decision involving multiple factors. Within a single recreation area, these factors include the many types of recreation use and settings, recreation demand, the variety of natural and cultural resources affected by visitor use, the range of management objectives for these resources, the park management capability, and the various visitor experiences sought and perceived. Visitor capacity decisions are

generally reached through sound professional judgments based on principled and reasoned analysis through a public planning process.

The approaches to carrying capacity taken by managers and researchers range from defining a single number of visitors an area can accommodate by attempting to understand the relationship between use levels and resource conditions, to monitoring-based approaches that establish desired future conditions, develop indicators and standards to monitor when conditions are being degraded, and then taking management actions to address the change in condition. Both approaches may be useful within a single recreation area.

Carrying capacity, or visitor capacity, is a tool to help sustain natural and cultural resources and the benefits of quality outdoor recreation opportunities. This tool is particularly important in natural and cultural resource based areas such as Folsom Lake SRA where recreation opportunities are highly dependent on these resources, and impairment of these resources in turn impairs the recreation experience. The potential impacts associated with overuse of Folsom Lake State Recreation Area can be reduced or avoided by implementing management actions and initiating proper mitigation measures. Visitor use limits, use regulations and enforcement, education and interpretation, monitoring and adaptive management, planning and proper design all can contribute to minimizing the potential impacts visitors may have on park values.

a. Visitor Capacity and the 1979 General Plan

The 1979 General Plan for the SRA addressed recreation capacity in several ways. On Folsom Lake, a key concept was to maintain recreation densities in balance with the functional capacity of access roads. Specifically, no increase in recreation capacity at Granite Bay, Rattlesnake Bar, or the Peninsula could occur until access issues were addressed. The Plan provided for increased boating densities on Folsom Lake over the 20-year planning horizon from 1 boat/26 water surface acres to 1 boat/16 water surface acres. This increase was intended to accommodate a projected annual increase in visitors to the SRA of 800,000. Improvements proposed to achieve the increased boating densities included an increase in total parking capacity from 2,520 vehicles to 5,300 vehicles.

At Lake Natoma, boating densities were to be kept low and not exceed the potential capacity at that time of 1 boat/4 water surface acres. This boating density was deemed acceptable given the speed limits on the water and the type of use on the lake. Parking capacity was projected to double to 1,220 vehicles and annual use projected to rise from 433,000 visitors to 1.3 million – more than 600,000 of which were to be generated by the State Indian Museum, when built.

Recreation use on both lakes was to be monitored to periodically assess the ability of SRA resources to absorb the use and to make any adjustments necessary to protect these resources. Visitor capacity in the SRA is currently expressed and defined in a variety of ways. To date, visitor capacity has primarily been defined by the facilities and parking. For instance, when parking capacity is reached at day use areas such as Granite Bay, Beals Point, and Nimbus Flat, the areas are closed to additional use. The key question for the current general planning process was whether this approach to visitor capacity is appropriate on an area-by-area basis – in other words, are existing use levels within these current capacities adversely impacting SRA resources or may capacity be increased while still achieving desired resource and experience outcomes? Table P-2 indicates the expressions of visitor capacity applied in the SRA.

Table P-2: Existing Visitor Capacity Expressions at Folsom Lake SRA

<i>Facility Type/Area</i>	<i>Capacity Expression</i>	<i>Existing Capacity</i>	<i>Notes</i>
<i>Day Use</i>	Parking Spaces		
Granite Bay Main Beach		677	Day use somewhat limited by the number of picnic tables provided. However, since day use is not entirely dependent on availability of picnic tables and use extends to turf and beach areas, parking is a better measure of capacity.
Beals Point		387	
Folsom Point		77	
Nimbus Flat		231	
Willow Creek		20	
Negro Bar		96	
Peninsula		60	
<i>Camping</i>	Campsites		Capacity is also affected by the number of people allowed per site (currently 8).
Negro Bar Group		3	
Beals Point		69	
Peninsula		104	
<i>Folsom Lake – Boating</i>	Boat Ramp Parking Spaces	1,505 spaces at elevation of 450 ft. 215 spaces at elevation of 375 ft.	Capacity varies by lake level and is affected by number of boat launch lanes and docks available.
<i>Folsom Lake – Marina</i>	Boat Slips	685	
<i>Salmon Falls – Commercial Whitewater Rafting</i>	Permits and launches permitted/day	--	Capacity (put-ins) is established by El Dorado County (the primary river manager).

Source: State Parks; Wallace, Roberts & Todd, 2005.

b. Visitor Capacity and this General Plan/Resource Management Plan

Within the general planning process, the first step to guiding future public access to and use of the SRA was to determine the location and significance of the unit's resources (refer to the *Folsom Lake State Recreation Area Draft Resource Inventory, April 2003*). The second step was to assess these resources based on their sensitivity to and compatibility with human activity. Based on this process, the four land use designations established by this General Plan—Recreation, Conservation, Preservation, and Administration—were assigned to specific areas of the SRA (refer to Section B.2 of this Chapter for more detail).

Areas in the SRA with unique or fragile natural or cultural resource values are designated for Preservation. To ensure the protection and preservation of these resources, access, management, and use of such areas is strictly controlled. Areas with high resource values, but also appropriate for recreation use, are designated Conservation. Public access is permitted but the types of uses allowed in these areas are generally more passive in character and dependent on the resources. Programs to improve resource values through increased protection and enhancements are recommended for these areas. Areas that are highly disturbed and currently under intensive use are designated Recreation. Programs to enhance and restore resource values and prevent additional disturbance are recommended for these areas.

The General Plan designations for the aquatic management zones are also informed by the Water Recreation Opportunity Spectrum (WROS). In an evaluation of Folsom Lake using WROS, it was determined to have classifications ranging from “Suburban” in the areas around Granite Bay and Browns Ravine, to “Rural Natural” in the upper portion of each arm of the Lake.

The general planning process also utilized a State Parks pilot program to assess the carrying capacity of park units using an environmental checklist approach. The checklist, very similar to checklists used in CEQA and NEPA analysis, was used to identify capacity issues to be addressed by general plan policy and programs, or subsequently by more specific management plans. This approach assisted in identifying specific problem areas where visitor use appears to be reaching the limits of providing a quality recreation experience and impacting resource conditions. The checklist was completed for each management zone, capacity issues were identified, and policies and programs to address the issues were established and incorporated into the General Plan, primarily into the specific area goals and guidelines. Not only do these policies and programs meet the requirements for mitigation

under CEQA, but also they meet the requirements of Section 5019.5 of the Public Resources Code which states that:

"Before any park or recreational area developmental plan is made, the Department shall cause to be made a land carrying capacity survey of the proposed park or recreational area, including in such survey such factors as soil, moisture, and natural cover."

1.) Determining Boating Density

For the purposes of analyzing boating capacity on Folsom Lake for this General Plan, a number of studies were consulted. These studies recommended densities of between 1 boat/40 water surface acres and 1 boat/5 water surface acres. A boating facilities development analysis for Folsom Lake completed by the California Department of Boating and Waterways in 1995 projected a boating capacity of 1 boat/5 water surface acres. Based on parking capacity and surface acres, comparable reservoirs range in boating density from 1 boat/29 water surface acres at San Luis Reservoir to 1 boat/8 water surface acres at Millerton Lake. A boating density of 1 boat/25 water surface acres is being considered at New Melones Reservoir.

Several variables are used to determine an appropriate boating density. These variables include:

- Physical lake characteristics (shoreline, topography);
- Types of boating activities (water skiing, fishing, canoeing, sailing, etc);
- Speed limits, use patterns or other regulations;
- Number and type of boat access sites and boating destinations;
- Adjacent land uses (lakeside homes); and
- Noise and other environmental impacts.

A Guidebook for WROS prepared for Reclamation provides recommendations on boating densities based on the WROS classifications – Urban, Suburban, Rural Developed, Rural Natural, Semi-Primitive, and Primitive). For the primary WROS classifications found at Folsom Lake, the recommended boating densities are as follows:

- Suburban (main body of Folsom Lake): 1 boat/10-20 water surface acres;
- Rural Developed (main body of Folsom Lake): 1 boat/20-50 water surface acres; and
- Rural Natural (North and South Fork Arms of Folsom Lake): 1 boat/50-110 water surface acres.

Currently, if all launch ramp parking spaces were occupied and the water level on Folsom Lake was optimal for maximum access by boats (about 450 feet), then 1,505 boats could be on the lake at one time, representing a boating density of 1 boat/7.4 water surface acres. In reality, launch ramp parking is often occupied by non-boating visitors, a portion of the launch ramp parking at Brown’s Ravine is used for dry boat storage, and some parking is not used by boaters since it is considered to far from the water. Table P-3 shows the number of launch ramps and associated lanes and parking available at various water levels on Folsom Lake.

Table P-3: Available Access to Folsom Lake at Various Water Levels

<i>Lake Elevation (ft.)</i>	<i>Ramps Available</i>	<i>Lanes Available</i>	<i>Parking Spaces at Ramps*</i>
466	8	24	1,205
450	9	34	1,505
425	6	22	1,335
400	3	9	690
375	2	4	215
350	0	0	0

Note: Some parking spaces at Browns Ravine are occupied by dry boat storage; elsewhere at certain water levels, not all available parking is utilized by public due to distance to water.

Source: *State Parks; Wallace, Roberts & Todd, 2005.*

2.) *Boating Capacity and Lake Levels*

State Parks believes that boating densities at the high end of the range, such as 1 boat/5 water surface acres, would result in congestion on Folsom Lake and is not a desirable capacity considering the mixture of uses on the water (sailing, water skiing, fishing), the generally shallow topography and hazards that result as water levels drop, and the fact that there is no required directional boating patterns or significant separation of uses. A capacity of 1 boat/10-20 water surface acres would seem to be a reasonable capacity level for the main body of Folsom Lake and is within the desired range projected by the 1979 General Plan. On the upper North and South Fork Arms of Folsom Lake, lower boating densities would be more appropriate—closer to 1 boat/20-30 water surface acres—in order to retain the more remote and natural character of these areas. This represents a management challenge since

motor boaters often gather to socialize in the 5 mph zone on the North Fork, and whitewater rafters congregate in the area of Salmon Falls on the South Fork in late afternoon before taking-out after a trip down river. Table P-4 shows the range of boating capacities at various water levels on Folsom Lake.

Table P-4: Boating Capacity and Lake Levels

<i>Lake Elevation (ft.)</i>	<i>Total Surface Acres</i>	<i>Boating Capacity</i> <i>(# of boats operating at one time)</i>		
		<i>1 boat/10 acres</i>	<i>1 boat/15 acres</i>	<i>1 boat/20 acres</i>
466	11,152	1,115	743	576
450	10,207	1,021	681	511
425	8,533	853	569	427
400	6,602	660	440	330
375	4,779	478	319	239
350	2,992	299	200	150

Source: State Parks; Wallace, Roberts & Todd, 2005.

3.) Current Visitor Capacity Concerns in the Park

The visitor capacity analysis completed as part of the general planning process identified several areas of concern, including: Granite Bay day use and beach area; Beals Point day use area; Nimbus Flat day use area; and boating capacity on Folsom Lake.

With respect to the day use areas, both State Parks and Reclamation believe that, given existing access, the visitor capacity provided is near or at the limit of capacity but that the desired resource conditions and visitor experience are being maintained. The entrance road conditions during peak season weekends at Beals Point and Granite Bay represent a critical limiting factor. The development of additional facilities to increase use at either area is not advised unless access conditions change. The current level of parking provided in each area also seems appropriate for the facilities served. Allowing overflow parking at Granite Bay is not advised, except in the case of special events or other circumstances where additional management controls are in place, as doing so would exceed the capacity of existing recreation facilities here.

With the exception of Folsom Lake Marina, this General Plan does not propose the expansion of boating facilities on either Folsom Lake or Lake Natoma. The General Plan does propose the reconfiguration of existing boat launch ramps as a means of maximizing launch capacity and reducing congestion during peak times, and the extension of boat ramps to water levels below 420 feet on Folsom Lake to accommodate the increased instances of low water levels during summer months as a result of various flood control operations. Any

additional capacity resulting from these various improvements will not exceed the boating density range proposed in this General Plan for Folsom Lake – 1 boat/10-20 water surface acres.

The sustainability of resources and high quality visitor experiences can be assured if overuse is prevented. One of the most effective and direct means of protecting resources and visitor experience is to limit and configure the physical capacity of facilities, for instance the number of campsites or parking spaces, to the carrying capacity (whether quantified or determined through sound professional judgment) of the management zone or area. This is readily done for area with developed facilities. Currently when parking lots fill at peak use periods in day use areas with entrance stations, these areas are closed until capacity frees up. Managing special events and concessions is another effective means of controlling the level of use within the unit and achieving desired resource and visitor experience conditions. However, because the unit has many unrestricted access points for trails, implementing use limits to prevent overuse for trail use and other activities for which there is often unrestricted access is more difficult. Establishing numeric use limits, such as number of persons at one time in a given area or an overall attendance level, is possible but problematic at best.

Goal

- Ensure that the types and level of use within the SRA are managed so that visitor use does not to exceed what an area can appropriately accommodate given the desired natural and cultural resource conditions, visitor experience, and management program.

Guidelines

CAPACITY-1: Use the management zones established in this General Plan as the guide for allowing and managing appropriate types and levels of public use of SRA resources.

CAPACITY-2: Monitor and periodically assess resource conditions in each management zone to ensure the maintenance of acceptable resource and visitor experience conditions. Design and implement appropriate actions as necessary to avoid or minimize achieve desired conditions and to avoid unacceptable impacts..

CAPACITY-3: Utilize the design, size, siting, configuration and modification (including reducing facility capacity if required) of facilities as a primary means to limit visitor use to the carrying capacity of each management zone or area

and to prevent overuse, unacceptable damage to resources and to achieve desired conditions for resources and visitor experience.

CAPACITY-4: Where applicable, manage special event permits and concession contracts to prevent visitor use levels from exceeding the capacity and desired conditions of management zones.

D. SPECIFIC AREA GOALS AND GUIDELINES

Management zones are designed around geographically and/or operationally related areas within the Park. As noted in Section B of this Chapter, these zones generally represent areas of the SRA that share common physical and use characteristics and should be managed as identifiable components or subareas. The planning and management of these zones must adhere to the appropriate Park-wide Management Goals and Guidelines in Section C above, in addition to the following more specific guidelines.

There are thirty-four management zones established by the General Plan – twenty-two on Folsom Lake and twelve on Lake Natoma. The goals and guidelines for each management zone are organized by lake with the zones on Lake Natoma presented first.

1. Nimbus Flat/Shoals

Statement of Management Intent

This zone represents the gateway to the southern end of Lake Natoma and a staging area for regional and national rowing competitions and related special events hosted by the California State University Sacramento (CSUS) Aquatic Center. It also provides pedestrian access to the American River below Nimbus Dam. The portion of the river immediately below the dam is commonly referred to as Nimbus Shoals and is popular with local fishermen. The management intent for this zone is to maintain and enhance the recreation resources of this area and to ensure continued access to Nimbus Flat for SRA users during special events. Facilities and improvements in this area will continue to focus on high quality day use opportunities—picnicking, swimming, paddling, rowing, windsurfing, sailing, fishing, and trail use—while enhancing opportunities for interpretation, education, and the appreciation of scenic vistas.

Nimbus Flat/Shoals Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Recreation – High	119	0	119

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Access

- NIMBUSFLAT-1: Ensure that special events do not exclude use by the general public during peak use times. Manage the number and size of special events permitted to minimize impacts on general public. During large special events, consider reserving a portion of the existing parking to ensure the continued access for SRA visitors not attending such events. This would likely require the expansion of the existing off-site parking and shuttle program across all special events.
- NIMBUSFLAT-2: Improve the entrance to Nimbus Flat to improve traffic flow. This may include the redesign and relocation of the entrance kiosk and adding lanes.
- NIMBUSFLAT-3: Limit and control vehicle access to Nimbus Shoals—the gravel bar and riparian areas below Nimbus Dam—by delineating a parking area and providing pedestrian access to the water.
- NIMBUSFLAT-4: Provide for the hand launching of paddling/rowing watercraft on the American River at Nimbus Shoals if the new fish diversion structure for the Nimbus Hatchery permits.
- NIMBUSFLAT-5: If opportunities arise, explore the potential to provide a dedicated bridge for trail users across the American River below Nimbus Dam. Such a bridge would improve access between the bike paths on the north and south sides of Lake Natoma.

Resource Management

- NIMBUSFLAT-6: Support the development of a fish passage channel across Nimbus Shoals that would allow fish to pass between the American River and the Nimbus Hatchery in a manner most beneficial to the fishery resource. The construction of the fish passage, and removal of the

existing in-stream diversion structure, is a project of the Reclamation and the California Department of Fish and Game.

- NIMBUSFLAT-7: Work with the California State University Sacramento (CSUS) Aquatic Center to manage water quality in the area of Nimbus Flat, including regular monitoring to ensure public health and safety.
- NIMBUSFLAT-8: Control resident waterfowl populations at Nimbus Flat. Work with the California Department of Fish and Game and the U.S. Fish and Wildlife Service to control populations. Strategies may include eliminating food sources (education and enforcement to prevent people from feeding waterfowl), slowing reproduction (addling eggs), changing site conditions (proximity of turf and water), disturbance tactics and removal of birds. Concentrated waterfowl may be a contributor to diminished water quality.
- NIMBUSFLAT-9: Manage oak woodlands to protect special status plant species within the management zone. Refer to Guideline WOODLAND-2 for further information.
- NIMBUSFLAT-10: Consider alternative vegetation management strategies for areas in the management zone where existing constraints preclude safe implementation of prescribed burning. Refer to Guideline WOODLAND-7 for further information.
- NIMBUSFLAT-11: Protect and manage grassland and ruderal areas of the management zone that are known or potential habitat for the following special status species: burrowing owl, and loggerhead shrike. Refer to guidelines GRASSLAND-2 and GRASSLAND 4 for further information.
- NIMBUSFLAT-12: Protect bats in ruderal, barren and other natural areas. Use passive means to exclude bats from inhabiting developed facilities. Refer to Guideline RUDERAL-3.

Interpretation and Education

- NIMBUSFLAT-13: Work with the California Department of Fish and Game to interpret the proposed naturalized fish passage channel across Nimbus Shoals, in conjunction with interpretation at the Nimbus Fish Hatchery and in keeping with the relevant primary interpretive themes established in the General Plan. Key interpretive elements could include the lifecycle of salmon and steelhead and the efforts to protect these special status species. Refer to Guideline NIMBUSDAM-3.
- NIMBUSFLAT-14: Develop a program to interpret various aspects of the area in keeping with the relevant primary interpretive themes established in the General Plan. Key aspects could include: Lake Natoma as a flood control, water supply, and power generation resource; landscape features and scenic resources of the American River Bluffs (currently designated a National Natural Landmark); and the role of Lake Natoma and the California State University Sacramento (CSUS) Aquatic Center as a world class rowing and paddling facility.

Recreation

- NIMBUSFLAT-15: Support the creation of water features that are conducive to whitewater recreation in conjunction with the removal of the existing in-stream fish diversion structure in the American River and development of a naturalized fish passage channel across Nimbus Shoals. Refer to Guideline NIMBUSFLAT-6 for further information.
- NIMBUSFLAT-16: Evaluate the feasibility of developing a modest multi-use facility at Nimbus Flat in the area of the existing residences if and when these residences are no longer viable for employee housing. Such a facility might include: flexible classroom and event space, kitchen facilities, storage, administrative area, exhibit area and other visitor service and interpretive facilities.

Scenic

- NIMBUSFLAT-17: Provide additional landscaping along the road to Nimbus Flat between the entrance at Hazel Avenue and the gatehouse in order to screen the Caltrans park-and-ride lot, Highway 50, South Folsom Canal, and California State University Sacramento (CSUS) Aquatic Center parking area from view. Additional landscaping will improve

the gateway experience for visitors by softening the industrial appearance of this entrance to the Park.

NIMBUSFLAT-18: Screen all non-recreation support facilities, such as maintenance buildings and workshops, storage yards, staff housing, and utility systems, in order to enhance the high-quality appearance of existing day use areas. Locally native drought-resistant species should be used.

2. Nimbus Dam

Statement of Management Intent

This management zone includes Nimbus Dam, the waters of the American River below the dam within the SRA limit, and the upland area below the Hazel Avenue Bridge within the SRA limit. Nimbus Dam has been determined to be eligible for the National Register of Historic Places. Reclamation has proposed the Dam for listing on the Register as part of a Central Valley Project multiple property listing. The Nimbus Fish Hatchery, which is owned and funded by Reclamation and operated by the California Department of Fish and Game, is also located in this zone. The hatchery raises rainbow and Steelhead trout and kokanee and Chinook salmon for more than 250 lakes and streams in northern and central California. It also includes a visitor center. The management intent is to maintain the primary role of the zone in flood control, water supply, power generation and hatchery operations. Enhanced visitor services are not specifically identified in the General Plan.

Nimbus Dam Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Administration	81	15	96

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Access

NIMBUSDAM-1: Examine the potential for using Reclamation land west of Hazel Avenue across from the entrances to Nimbus Flat and the California State University Sacramento (CSUS) Aquatic Center for overflow parking during special events and other peak times.

NIMBUSDAM-2: Promote the construction of a multi-use trail bridge or separated path across the American River below Nimbus Dam as part of the Hazel Avenue widening project. Refer to Guideline NIMBUSFLAT-5.

Interpretation and Education

NIMBUSDAM-3: Work with the California Department of Fish and Game to coordinate existing interpretive and education efforts at the Nimbus Fish Hatchery with interpretation of the proposed naturalized fish passage channel across Nimbus Shoals. Refer to Policy NIMBUSFLAT-9.

Resource Management

NIMBUSDAM-4: Support the protection and restoration of native anadromous fisheries below Nimbus Dam including special status species such as Central Valley steelhead and Chinook salmon. Refer to Guideline FISHERY-1 for further information.

NIMBUSDAM-5: Manage oak woodlands to protect special status plant species within the management zone. Refer to Guideline WOODLAND-2 for further information.

NIMBUSDAM-6: Consider alternative vegetation management strategies for areas in the management zone where existing constraints preclude safe implementation of prescribed burning. Refer to Guideline WOODLAND-7 for further information.

NIMBUSDAM-7: Protect and manage ruderal areas of the management zone that are known or potential habitat for burrowing owl. Refer to Guideline RUDERAL-1 for further information.

NIMBUSDAM-8: Protect bats in ruderal, barren and other natural areas. Use passive means to exclude bats from inhabiting developed facilities. Refer to guideline RUDERAL-3 for further information.

3. Lake Overlook

Statement of Management Intent

Located between Nimbus Dam and Mississippi Bar at the southern end of Lake Natoma, this zone is relatively unknown to all but local users – this despite the fact that its steep oak-studded ridges and canyons are such a visually dominant part of landscape here. Lake Overlook offers arguably the SRA’s most dramatic and high quality panorama across Lake Natoma and the Sierra Foothills to the north and the Sacramento Valley and Mt. Diablo to the south. A paved parking area is the only facility currently provided. Comprehensive site planning and design are needed to enhance the recreation and interpretive opportunities of the area and take advantage of the extraordinary visual setting.

Lake Overlook Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Low Intensity Recreation/Conservation	53	0	53

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Access

- OVERLOOK-1: Work with the County of Sacramento to ensure that the widening of Hazel Avenue improves vehicle access into and out of the SRA.
- OVERLOOK-2: Ensure that realignment of the driveway associated with the widening of Hazel Avenue includes a continuous sidewalk and a Class II bike lane to improve access and safety for pedestrians and cyclists entering the SRA from Hazel Avenue.
- OVERLOOK-3: Work with the County of Sacramento to ensure that the widening of Hazel Avenue enhances pedestrian and bicycle access to Lake Overlook, Lake Natoma paved trails, and the American River Bike Trail.

Recreation

- OVERLOOK-4: Develop and implement a site plan for Lake Overlook that includes a vista point/viewing area, and a small picnic area with shade ramadas, parking, trailhead information signs, and possibly vault toilets. Landscaping for the new facilities should rely on existing native

vegetation and be sited and designed to protect and capitalize on the panoramic views. Parking, toilets and other highly visible facilities should be located to maximize and protect the views and aesthetics of the Overlook site. The facility should provide formal access to the dirt trail that runs down the bluff to the Lake Natoma Bike Path, and the Middle Ridge and West Lake Natoma dirt trails through Mississippi Bar. Designation of this trail will be determined by the Trail Master Plan proposed in Guideline VISIT-34.

Scenic

OVERLOOK-5: As part of the site design for Lake Overlook:

- Provide additional landscaping along the SRA’s northern boundary abutting the residential development in order to enhance the appearance of this area and to minimize the visual intrusion of urban development. Locally native drought-resistant plant species should be used;
- Replace the existing guard rail along the entrance road and at the eastern end of the paved parking area with a more visually pleasing alternative; and
- Relocate and replace the security fencing along the southern edge of the paved parking area. Locate security fencing slightly down the slope from the hilltop to provide unobstructed views.

OVERLOOK-6: Minimize the visual impact of the corporation yard located at the foot of Lake Overlook on the northern end of Nimbus Dam. Views from Lake Overlook, Lake Natoma Bike Path, and Nimbus Flat should be used to guide the type and extent of landscaping necessary. Locally native drought-resistant plant species should be used.

Resource Management

OVERLOOK-7: Protect and manage the vernal pool habitat in the management zone. Refer to guidelines VERNAL-1 through VERNAL-9 for further information.

OVERLOOK-8: Close and rehabilitate the user-created trails that run down the south side of the bluff from the paved parking area to the Lake Natoma Bike

Path and Nimbus Shoals. Restore the hillside areas affected by historic trail activity. Develop sustainable pedestrian trail access to the Lake Natoma Bike Path and Nimbus Shoals that includes reasonable grades and minimizes erosion.

- OVERLOOK-9: Examine the environmental, economic, and aesthetic advantages of reducing the size of the existing paved parking when completing the site-specific planning for the point/viewing platform and picnic area. More porous surface treatments could replace the use of asphalt where possible and bioswales could be used to reduce and treat stormwater runoff from hard surface areas.
- OVERLOOK-10: Manage oak woodlands to protect special status plant species within the management zone. Refer to Guideline WOODLAND-2 for further information.
- OVERLOOK-11: Manage invasive exotic weed species in the oak woodland, savanna, grassland, ruderal, and riparian areas of the management zone in accordance with the guidelines in Appendix B. Refer to the Plant Life Management guidelines in Section C of this Chapter and to Appendix D for further information.
- OVERLOOK-12: Consider alternative vegetation management strategies for areas in the management zone where existing constraints preclude safe implementation of prescribed burning. Refer to Guideline WOODLAND-7 for further information.
- OVERLOOK-13: Protect and manage grassland and ruderal areas of the management zone that are known or potential habitat for the following special status species: California horned lizard, burrowing owl, and loggerhead shrike. Refer to guidelines GRASSLAND-1 through GRASSLAND 4 for further information.
- OVERLOOK-14: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone. Refer to guidelines RIPARIAN-5 through RIPARIAN-7 for further information.

OVERLOOK-15: Protect riparian areas of the management zone that are known or potential habitat for special status aquatic amphibian and reptile species, such as the Western pond turtle, California red-legged frog, and Foothill yellow-legged frog. Refer to Guideline RIPARIAN-8 for further information.

OVERLOOK-16: Avoid impacts to yellow-breasted chat and yellow warbler nesting in riparian areas where park improvements or Himalayan blackberry management activities are proposed. Refer to guidelines RIPARIAN-15 and RIPARIAN-16 for further information.

Interpretation and Education

OVERLOOK-17: Develop a program to interpret various aspects of the area in keeping with the relevant primary interpretive themes established in the General Plan. Key elements could include: scenic resources, including distance and direction to key landmarks; geology and landscape features, including the American River Bluffs which are currently designated a National Natural Landmark; Lake Natoma as a flood control, water supply, and power generation resource; and vernal pool habitat and special status species protection.

4. Mississippi Bar

Statement of Management Intent

Mississippi Bar is a large flat river terrace along the western shore of the Lake Natoma between Lake Overlook and Negro Bar. The area includes a rich variety of the habitat types, including interior live oak woodland, blue oak woodland and savanna, grassland, and riparian woodland. However, the majority of Mississippi Bar has also been previously disturbed by activities associated with early gold exploration and more recent aggregate mining. The primary physical features that dominate this landscape include dredge tailings—piles of cobblestones several stories high—and several lagoons and ponds that were created in an attempt to restore the area when mining activity ceased. Some of these lagoons and ponds are accessible by canoe or kayak from Lake Natoma. The limited recreation facilities that do exist at Mississippi Bar include an equestrian stable and riding concession (Shadow Glen Stables), the Sunset/Main avenues trailhead staging area (Snowberry Creek Assembly Area), the Lake Natoma bike path, the Lake Natoma equestrian/pedestrian trail, and the Middle Ridge and Snowberry equestrian/pedestrian trails. The area is also criss-crossed by a number of informal equestrian riding trails from users of the stable concession.

In the past Mississippi Bar has been considered by the U.S. Army Corps of Engineers and other agencies as a potential borrow site for proposed Folsom Dam Mini-Raise Project (refer to Chapter II, Section C.1 for further information). The current plans to provide additional flood protection at Folsom Dam/Reservoir do not include utilizing Mississippi Bar as a borrow site. If in the future it is again determined that Mississippi Bar is a potential borrow site to support flood protection projects, State Parks and Reclamation will work to ensure that impacts on existing natural, cultural, and recreation resources are minimal and that the area is restored in a manner that is consistent with the vision and direction provided for the area in this Plan.

The management intent for this zone is to maintain and enhance the natural, cultural, and recreation resources of the area and expand opportunities for interpretation and education. Facilities and improvements in this area will focus on low-impact day use opportunities—picnicking, paddling, fishing, and trail use—and interpretation and education. Mississippi Bar has tremendous potential for ecological enhancement by recreating a system of riparian wetlands that emulates historical riverine floodplain systems.

Mississippi Bar Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Low Intensity Recreation/Conservation	750	0	750

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Flood Protection Projects

MISSISSIPPI-1: If future flood protection or dam safety projects consider utilization of Mississippi Bar as a borrow location, ensure that important natural, cultural, and recreation resources are protected and restoration of the borrow area is consistent with the vision and direction in this Plan.

Resource Management

MISSISSIPPI-2: Develop a plan to restore riparian and floodplain habitat in the portions of Mississippi Bar which remain un-rehabilitated from past aggregate mining activity. Restoration should focus on those areas which have not recovered from past mining activities. The federal portion of the area has remained largely undisturbed since historic gold mining operations ended in the early 1900s and includes significant cultural and natural resources.

However, the State portion of the area remains impacted by more recent aggregate mining operations and was not restored when those operations ceased. Restoration would focus on re-contouring the land to re-establish more natural drainage patterns, restoring native riparian vegetation and developing additional ponds, seasonal wetlands and backwater channels as appropriate. Habitat restoration will need to be planned in concert with other goals for the areas, including: developing new recreation facilities; and the preservation and interpretation examples of historic dredge mining as described elsewhere in this section. The plan should provide for the following:

- Designs related to the structural and vegetative patterns of similar natural floodplain systems in the region;
- Re-establishing natural drainage patterns to the extent feasible;
- Analysis and predictive modeling of fluvial geomorphology and hydrology of Mississippi Bar and Lake Natoma;
- Excavation of additional backwater channels and oxbow ponds;
- Re-establishment of a range of elevations keyed to the range of water stages in Lake Natoma; and
- Re-establishment of a mosaic of riparian and wetland habitat types similar to those that naturally develop in riverine floodplain systems of bars and terraces, backwater channels, and oxbows.

MISSISSIPPI-3: Research whether Teichert has met all reclamation requirements for past mining activities under the State Mining and Reclamation Act of 1975, Public Resources Code 2710 and other applicable laws. Ensure any further reclamation actions are consistent with the direction in this General Plan.

MISSISSIPPI-4: Complete the identification and evaluation of cultural resources at Mississippi Bar including the extensive dredge tailings. Identify and preserve dredge tailing and other mining features that exemplify the changes in technology utilized in historic gold mining at Mississippi Bar.

- MISSISSIPPI-5: Protect and manage vernal pool (Snipes Pershing pools) and riparian habitat in the management zone. Refer to guidelines VERNAL-1 through VERNAL-11 and RIPARIAN-1 for further information.
- MISSISSIPPI-6: Manage oak woodlands to protect special status plant species within the management zone. Refer to Guideline WOODLAND-2 for further information.
- MISSISSIPPI-7: Manage invasive exotic weed species in the oak woodland, savanna, grassland, ruderal, riparian, and marsh/pond areas of the management zone in accordance with the guidelines in Appendix B. Refer to the Plant Life Management guidelines in Section C of this Chapter and to Appendix D for further information.
- MISSISSIPPI-8: Consider alternative vegetation management strategies for areas in the management zone where existing constraints preclude safe implementation of prescribed burning. Refer to Guideline WOODLAND-7 for further information.
- MISSISSIPPI-9: Protect and manage grassland and ruderal areas of the management zone that are known or potential habitat for the following special status species: burrowing owl and loggerhead shrike. Refer to guidelines GRASSLAND-1 through GRASSLAND 4 for further information.
- MISSISSIPPI-10: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone. Refer to guidelines RIPARIAN-5 through RIPARIAN-7 for further information.
- MISSISSIPPI-11: Protect and restore riparian areas of the management zone that are known or potential habitat for special status aquatic amphibian and reptile species, such as the Western pond turtle, California red-legged frog, and Foothill yellow-legged frog. Refer to guidelines RIPARIAN-8 through RIPARIAN-11 for further information.
- MISSISSIPPI-12: Protect wading bird roosting areas and rookeries in the management zone. Refer to guidelines RIPARIAN-12 through RIPARIAN-14 for further information.

MISSISSIPPI-13: Avoid impacts to yellow-breasted chat and yellow warbler nesting in riparian areas where park improvements or Himalayan blackberry management activities are proposed. Refer to guidelines RIPARIAN-15 and RIPARIAN-16 for further information.

MISSISSIPPI-14: Eliminate off-trail access to shoreline areas, as appropriate, for the purposes of natural resource protection and visitor safety. Some shoreline areas are comprised of cliffs, rocky outcrops, or trees overhanging the water that are popular with young people for jumping and rope swinging. This activity can result in vegetation damage and erosion, tree damage, and disruption of roosting activity at the nearby heron rookery. Methods of eliminating off-trail access to shoreline areas could include:

- Blocking and rehabilitating existing commonly-used points of access along trails;
- Closing areas to public use that are particularly sensitive to environmental damage and/or impact and signing these areas as closed. This could include seasonal closures during the nesting season;
- Identification of sensitive shoreline areas on trail maps, trailhead and boat launch information displays and other interpretive means;
- Increased patrols and enforcement of regulations prohibiting rope swings and jumping/diving from rocks; and
- Consistently remove rope swings as they appear. This may involve seasonally retaining a tree climbing service for this purpose.
- Removing selected trees if necessary to protect other important resources.

MISSISSIPPI-15: Protect and manage freshwater marsh areas of the management zone that are known or potential habitat for special status bird species, such as the Tri-colored blackbird. Refer to guidelines MARSH/POND-4 and MARSH/POND-5 for further information.

- MISSISSIPPI-16: Continue water quality sampling efforts within the management zone. Refer to Guideline WATER-5 for further information.
- MISSISSIPPI-17: Continue to support the investigation of mercury levels in water, sediment, and biota being conducted by the U.S. Geological Survey and the University of California, Davis. Refer to Policy WATER-7 for further information.
- MISSISSIPPI-18: Protect potential habitat areas for western pond turtle. Survey for pond turtles using appropriate and recognized methods. Use interpretive signing and other means to educate the public about this species. Refer to Guidelines RIPARIAN-10 & 11.

Interpretation and Education

- MISSISSIPPI-19: Interpret the cultural resources of Mississippi Bar including the historic gold mining dredge tailings.
- MISSISSIPPI-20: Develop public education and interpretive programs related to the restoration and ecosystem enhancement at Mississippi Bar. If the area is selected as a borrow site for the Folsom Dam Mini-Raise Project, then these programs should educate SRA neighbors and visitors on this undertaking of regional and perhaps State-wide significance and demonstrate how long-term ecological damage can be restored in conjunction with a needed flood control project.
- MISSISSIPPI-21: Provide interpretive nature trails and displays to interpret various aspects of the area in keeping with the relevant primary interpretive themes established in the General Plan. Key aspects could include: restoration and ecosystem enhancement at Mississippi Bar; geology and landscape features, including the Natoma Bluffs and the re-established floodplain; vernal pool habitat and special status species protection and management; Valley Elderberry Longhorn Beetle (VELB) habitat protection and management; riparian habitat and special status species protection and management; and heron and egret roosting area and rookery protection and management.

Recreation

- MISSISSIPPI-22: Develop a picnic area with shade ramadas, toilets, drinking water, and limited vehicle parking. Landscaping should focus on retaining any existing native plant species and on planting new native species. This facility should be sited to capitalize on natural landscape features, such as the paddling lagoons, and views. The precise location and configuration will be determined through site-specific planning.
- MISSISSIPPI-23: Expand the existing system of paddling channels and lagoons as part of the area's restoration. Refer to Guideline MISSISSIPPI-6 for further information.
- MISSISSIPPI-24: Provide opportunities for flycasting and other compatible water-based activities in the expanded system of paddling channels and lagoons.
- MISSISSIPPI-25: Work with the concessionaire to improve the equestrian stable and riding facility as necessary in order to reduce the impact of operations here on area resources to improve the services provided to the public and enhance the visual quality of the facility. Ensure that the facility manure management program prevents water quality impacts from run-off. Implement standards, requirements, and restrictions on animal feed and manure management as necessary to prevent the introduction and spread of invasive exotic weeds within the SRA.
- MISSISSIPPI-26: Provide the opportunity for a concession operation at Mississippi Bar for the purpose of horse rentals, trail rides and horse boarding. If the concessionaire decides to vacate the concession and a replacement is not found, this area may be used for improved access, parking, trailhead and staging or other day use facilities consistent with the other direction provided for the area.
- MISSISSIPPI-27: Evaluate and consider improvements to the stable facilities as part of developing a long term concession contract for the concession operation. These improved facilities may include a limited number of equestrian camping sites at Mississippi Bar.
- MISSISSIPPI-28: Upgrade the Snipe-Pershing trail as necessary to improve user safety.

MISSISSIPPI-29: Explore improvements to existing trails, trailhead and staging area facilities and the development of new trail facilities in the area. Improvements to existing facilities may include: hitching rails, water troughs, restrooms and potable water.

Access

MISSISSIPPI-30: Provide limited vehicle access and small parking area(s) within Mississippi Bar. Limit the impact of vehicle access and parking to previously disturbed portions of the area if feasible.

5. Negro Bar

Statement of Management Intent

This management zone provides a transition along the western shore of Lake Natoma from the more natural, undeveloped Mississippi Bar to the more developed and urban park-like Negro Bar. The zone includes the Negro Bar day-use area—the primary gateway to the northern end of Lake Natoma—as well as the Lake Natoma Bluffs that rise 300 feet above the shoreline. The management intent for this zone is to maintain and enhance recreation resources while exploring opportunities to restore certain areas to a more natural condition. Facilities and improvements in this area will continue to focus on high quality day use opportunities—picnicking, swimming, paddling, fishing, and trail use—while expanding opportunities for interpretation and education.

Negro Bar Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Recreation – Medium	143	0	143

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Recreation

NEGROBAR-1: Relocate the group campground to another location within the SRA, as appropriate, and convert the vacated area for group picnic use. Beal’s Point is the proposed location to re-locate the group camping. Reuse of the remaining recreation amenities associated with the relocated campground, such as flush toilets, picnic tables, and barbecues, should be maximized as appropriate. Site-specific planning will be used to determine the precise location and configuration of the new group

picnic area. Refer to the camping policies of this Chapter (VISIT-28 through VISIT-32) for further information.

NEGROBAR-2: Provide a low dock at the existing boat ramp for hand launching of paddling/rowing watercraft. Consider other improvements to this boat launching are including restrooms, the potential for boat storage, and improved parking closer to the Lake. Such a facility will provide safe and convenient water access for paddlers and rowers to this end of Lake Natoma.

Interpretation and Education

NEGROBAR-3: Provide improvements to the equestrian staging area. Potential improvements include hitching rails, water troughs, potable water, picnic tables and other improvements.

NEGROBAR-4: Develop the Negro Bar Cultural Center in consultation with the Sacramento African American Cultural and Historical Society. The facility, which may include a small amphitheater, will be located in the area of the “cottage”. The precise location and configuration of the new facility will be determined through site-specific planning. Refer to Guideline INTERPRET-12 for further information.

NEGROBAR-5: Interpret the history of Gold Rush era mining camps—including the experiences of miners from various ethnic, religious, and social backgrounds—in keeping with the relevant primary interpretive themes established in the General Plan. Refer to Guideline INTERPRET-8 for further information.

NEGROBAR-6: Provide displays to interpret various aspects of the area in keeping with the relevant primary interpretive themes established in the General Plan and unit-wide Interpretive Plan (refer to Guideline INTERPRET-1 for further information). Key aspects could include: geology and landscape features, including the Lake Natoma (Orangevale) Bluffs; the bridges of Folsom (Historic Truss Bridge, Rainbow Bridge, and Lake Natoma Crossing); and restoration projects at Negro Bar.

NEGROBAR-7: Reduce and reconfigure the underutilized paved parking area above the boat ramp and adjacent to the group campground. Consider redesign and use of a portion of the area for new day use and/or interpretive facilities. Areas not to be used for new day use facilities will be restored to more natural conditions using locally native and appropriate plant species.

NEGROBAR-8: Redesign the upland area along the shoreline at Rainbow Rocks which currently contains a small paved parking area no longer used for vehicle parking. Improve pedestrian pathways along the shoreline and connection with the Historic Truss Bridge. Provide access to the Lake for trail users as appropriate. Areas not used for new day use facilities should be restored to natural conditions using locally native and appropriate plant species. Naturalization of the shoreline here will enhance the unique character of this scenic location and the visitor experience.

Resource Management

NEGROBAR-9: Protect and manage vernal pool and riparian habitat in the management zone. Refer to guidelines VERNAL-1 through VERNAL-11 and RIPARIAN-1 for further information.

NEGROBAR-10: Manage oak woodlands to protect special status plant species within the management zone. Refer to guideline WOODLAND-2 for further information.

NEGROBAR-11: Consider alternative vegetation management strategies for areas in the management zone where existing constraints preclude safe implementation of prescribed burning. Refer to Guideline WOODLAND-7 for further information.

NEGROBAR-12: Manage invasive exotic weed species in the vernal pool and riparian areas of the management zone in accordance with the guidelines in Appendix B. Refer to the Plant Life Management guidelines in Section C of this Chapter and to Appendix D for further information.

NEGROBAR-13: Protect and manage grassland and ruderal areas of the management zone that are known or potential habitat for the following special status species: California horned lizard, burrowing owl, and loggerhead shrike. Refer to guidelines GRASSLAND-1, GRASSLAND-2, and GRASSLAND-4 for further information.

NEGROBAR-14: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone. Refer to guidelines RIPARIAN-5 through RIPARIAN-7 for further information.

NEGROBAR-15: Protect riparian areas of the management zone that are known or potential habitat for special status aquatic amphibian and reptile species, such as the Western pond turtle, California red-legged frog, and Foothill yellow-legged frog. Refer to Guideline RIPARIAN-8 for further information.

NEGROBAR-16: Protect wading bird roosting areas and rookeries in the management zone. Refer to guidelines RIPARIAN-12 through RIPARIAN-14 for further information.

NEGROBAR-17: Avoid impacts to yellow-breasted chat and yellow warbler nesting in riparian areas where park improvements or Himalayan blackberry management activities are proposed. Refer to guidelines RIPARIAN-15 and RIPARIAN-16 for further information.

NEGROBAR-18: Control nuisance wildlife species within the management zone in close consultation with Reclamation, California Department of Fish and Game, and U.S. Fish and Wildlife Service. Refer to the guidelines in Appendix C for more information.

NEGROBAR-19: Continue water quality sampling efforts within the management zone. Refer to Guideline WATER-5 for further information.

Scenic

NEGROBAR-20: Remove or screen the temporary storage container used by the concessionaire at the beach. Consider providing a well-designed

permanent storage structure or integrating storage into a future building should the existing comfort stations be replaced.

Operations

NEGROBAR-21: Study additional methods for protecting SRA users on the Lake Natoma bike path from rockfalls along Natoma Bluffs.

6. Natoma Canyon

Statement of Management Intent

The Natoma Canyon management zone links Folsom Lake and Lake Natoma and extends from Folsom Dam downstream along the American River Canyon to the Rainbow Bridge in Folsom. While the eastern boundary of the zone abuts the Folsom State Prison lands and includes little more than the steep walls of the canyon, the western boundary extends to include a broader upland area. The Lake Natoma Bike Path, a paved trail that connects the lakes, and parallel dirt trails are the only recreation facilities in the zone. An old olive grove exists in the broad upland area and remnants of the original Folsom Dam are visible in the gorge. The old Powerhouse Canal also remains and extends from the original dam site downstream to the Folsom Powerhouse.

Currently, significant portions of this management zone are not included within the official State Parks boundary for Folsom Lake SRA or Folsom Powerhouse SHP, even though these lands are in Reclamation ownership and are managed as part of the SRA. State Parks and Reclamation will coordinate to include the lands not officially considered part of the SRA or SHP within the SRA or SHP boundary.

The management intent for this zone is to maintain and enhance the natural scenic character of the area, improve trail connectivity, and expand opportunities for interpretation and education.

Natoma Canyon Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Low Intensity Recreation/Conservation	263	0	263

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Operations

NATOMACAN-1: Designate Reclamation lands in the area not currently within the official SRA boundary, as appropriate from a public use and resource and recreation management perspective, as part of Folsom Lake SRA or Folsom Powerhouse SHP.

Recreation

NATOMACAN-2: Work with the City of Folsom and the Department of Corrections to identify the preferred alignment for a new trail corridor that would extend from the Powerhouse Loop trail within the SRA east across Folsom State Prison lands to East Natoma Street. The corridor, which could extend to Dike 7 in the SRA on Folsom Lake, would provide the only trail connection between the lakes on the east-side of the American River.

NATOMACAN-3: Develop off-street segments of the trail corridor proposed in Guideline NATOMACAN-1 above as a Class I bike path. If completed in conjunction with the gap closure between Lake Natoma Inn and the Historic Truss Bridge proposed in Guideline POWERHOUSE-4, cyclists could eventually ride on paved bike lanes and paths from El Dorado Hills to Discovery Park in Downtown Sacramento along the American River Bike Trail.

Interpretation and Education

NATOMACAN-4: Develop a program to interpret various aspects of the area in keeping with the relevant primary interpretive themes established in the General Plan. Key aspects could include: original Folsom Dam site and role in power generation (refer to Guideline INTERPRET-9 for further information); geology and landscape features, including the American River Canyon; and the historic aspects of the olive grove.

NATOMACAN-5: Consider the restoration and interpretation of the old olive grove as a cultural resource in the SRA. State Parks could restore and operate the grove as an historic and interpretive feature. This could be a concession opportunity. A small picnic area could be developed with access from Folsom-Auburn Road and the Lake Natoma Bike Path.

Resource Management

- NATOMACAN-6: Work with neighboring homeowners' associations and the City of Folsom on strategies to address wildfire risk created by the close proximity of residential development to this area. Consider shaded fuel breaks or other fuel modification options only if unit resources and interests are protected.
- NATOMACAN-7: Manage oak woodlands to protect special status plant species within the management zone. Refer to guideline WOODLAND-2 for further information.
- NATOMACAN-8: Consider alternative vegetation management strategies for areas in the management zone where existing constraints preclude safe implementation of prescribed burning. Refer to Guideline WOODLAND-7 for further information.
- NATOMACAN-9: Protect and manage grassland and ruderal areas of the management zone that are known or potential habitat for the following special status species: burrowing owl and loggerhead shrike. Refer to guidelines GRASSLAND-2 through GRASSLAND 4 for further information.
- NATOMACAN-10: Manage invasive exotic weed species in the oak woodland, savanna, grassland, and ruderal areas of the management zone in accordance with the guidelines in Appendix B. Refer to the Plant Life Management guidelines in Section C of this Chapter and to Appendix D for further information.
- NATOMACAN-11: Protect bats in ruderal, barren and other natural areas. Use passive means to exclude bats from inhabiting developed facilities. Refer to Guideline RUDERAL-3 for further information.
- NATOMACAN-12: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone. Refer to guidelines RIPARIAN-5 through RIPARIAN-7 for further information.

NATOMACAN-13: Protect riparian areas of the management zone that are known or potential habitat for special status aquatic amphibian and reptile species, such as the Western pond turtle, California red-legged frog, and Foothill yellow-legged frog. Refer to guidelines RIPARIAN-8 for further information.

NATOMACAN-14: Protect wading bird roosting areas and rookeries in the management zone. Refer to guidelines RIPARIAN-12 through RIPARIAN-14 for further information.

NATOMACAN-15: Avoid impacts to yellow-breasted chat and yellow warbler nesting in riparian areas where park improvements or Himalayan blackberry management activities are proposed. Refer to guidelines RIPARIAN-15 and RIPARIAN-16 for further information.

7. Folsom Powerhouse State Historic Park (SHP)

Statement of Management Intent

Located on the eastern shore of Lake Natoma in Downtown Folsom, this management zone includes the Folsom Powerhouse State Historic Park (SHP). The State Historic Park is a separate unit in the State Parks system for which long term planning and management is addressed in this General Plan. Folsom Powerhouse is an important historic resource. Not only is it listed on the National Register of Historic Places, but also it is listed as a California Historical Landmark, National Historic Landmark, National Historic Civil Engineering Landmark, and National Historic Mechanical Engineering Landmark.

The “period of significance” of the Powerhouse is from 1895 to 1900 when it was the first commercial power-generating facility west of the Mississippi and for which it achieved importance as an historic site. The “historic period” of the Powerhouse is from 1895 to 1952 and defines the limit of historic activities on the site. The interpretive period for the Folsom Powerhouse SHP is from pre-history (bedrock mortars on site) to 1952 (when the Powerhouse terminated operation) with an emphasis on the pioneering aspects of 1895 power plant in the production and transmission of electricity. For the purposes of reconstruction and restoration, the Folsom Powerhouse period has been identified as 1920 to 1952 with an emphasis on the 1920s era.

Significant improvements are already planned for this day use facility, including seismic upgrades, improvements to the parking area with room for buses, and a new visitor center to be located at the Powerhouse entrance. These improvements were proposed in the 1992 Folsom Powerhouse Area Development Plan. The management intent for this zone is to preserve, protect, and interpret the Powerhouse site and grounds. This Plan provides direction to enhance the opportunities for interpretation and education, improve access, and improve the aesthetic quality of this historic area.

Folsom Powerhouse Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Preservation	35	0	35

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Operations

POWERHOUSE-1: Work with the Department of General Services and the Department of Corrections to include eastern portions of the historic canal not currently within the SHP or SRA boundaries as part of the SHP. This could include acquisition, easement or agreement to gain access to these lands, and management responsibility for additional portions of the canal, headgates, hydraulic rams, and granite bulkhead near Robbers Ravine. Work with the Department of Corrections to provide public access to the original Folsom Dam site, any necessary stabilization of the structure, and recordation of the structure and associated features.

Resource Management

POWERHOUSE-2: Protect and preserve the historic features of the Folsom Powerhouse, including the main powerhouse building, turbines and generators, lower powerhouse, forebay and canal, office and shop, pumphouse, and other historic features.

POWERHOUSE-3: Protect the historic core of the SHP, the zone of primary historic significance and generally the area within and between the historic features. Modern features in this area will be kept to a minimum and primarily only for health and safety purposes. Visitor service

and interpretive facilities should primarily be located outside of the historic core.

- POWERHOUSE-4: Restore the historic features of the Powerhouse to a state that will insure their continued preservation. Existing historic features shall not be removed, demolished, or substantially altered to “re-capture” some aspect of the period of significance.
- POWERHOUSE-5: Implement security measures to protect historic features from vandalism. Measures could include improved perimeter fencing, additional patrols, detection and alarm systems, and additional lighting that is consistent with preservation of the historic features.
- POWERHOUSE-6: Protect bats in ruderal, barren and other natural areas. Use passive means to exclude bats from inhabiting developed facilities. Refer to Guideline RUDERAL-3.
- POWERHOUSE-7: Protect and manage riparian habitat within the management zone. Refer to Guideline RIPARIAN-1 for further information.
- POWERHOUSE-8: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone. Refer to guidelines RIPARIAN-5 through RIPARIAN-7 for further information.
- POWERHOUSE-9: Protect riparian areas of the management zone that are known or potential habitat for special status aquatic amphibian and reptile species, such as the Western pond turtle, California red-legged frog, and Foothill yellow-legged frog. Refer to guidelines RIPARIAN-8 for further information.
- POWERHOUSE-10: Avoid impacts to yellow-breasted chat and yellow warbler nesting in riparian areas where park improvements or Himalayan blackberry management activities are proposed. Refer to guidelines RIPARIAN-15 and RIPARIAN-16 for further information.

Interpretation and Education

- POWERHOUSE-11: Complete an Interpretation Plan for Folsom Powerhouse SHP that is separate from the unit-wide Interpretation Plan. Interpretive themes for the Powerhouse SHP can be found in the unit-wide direction in this Plan, the Folsom Powerhouse Development Plan (1992), and the classification documents for the Folsom Powerhouse SHP (1994).
- POWERHOUSE-12: Complete the implementation of the 1992 Folsom Powerhouse Area Development Plan, including addition of a visitor center, improved parking area for 25-30 vehicles, trails, picnic sites in the natural portion of the site, and various building restoration efforts.
- POWERHOUSE-13: Integrate the interpretation of the original Folsom Dam site and its role in power generation. Interpretive displays may be provided on future trail improvements in the management zone.
- POWERHOUSE-14: Develop, protect, and maintain a museum collection of objects, machinery, tools, furniture, documents, photographs, and artifacts that will help protect SRA resources, support interpretative programs and displays regarding the interpretive themes and period of the SRA, and for study and research. A Scope of Collections Statement has been prepared for the Powerhouse collection that further defines the contents, purpose and management of this collection.

Recreation

- POWERHOUSE-15: Work with the City of Folsom and others to complete a Class 1 Trail from the Lake Natoma Crossing Bridge (Folsom Boulevard) to the Historic Truss Bridge. The preferred alignment will avoid the historic core of the Powerhouse SHP. This new section of trail would complete the paved bike trail loop around Lake Natoma, and in conjunction with the new trail extending from the Powerhouse Loop east across Folsom State Prison lands to East Natoma Street (refer to guidelines NATOMACAN-2 and NATOMACAN-3) would eventually result in paved bike lanes and paths from El Dorado Hills to Discovery Park in Downtown Sacramento along the American River Bike Trail.

POWERHOUSE-16: Improve vehicle access and signing into the Folsom Powerhouse SHP parking lot. Work with City of Folsom and local community organizations in developing an entrance sign for the SHP that is compatible with State Parks policy, the Powerhouse historic resources, and the design concerns for historic Downtown Folsom.

Scenic

POWERHOUSE-17: Maintain the landscape of the historic core similar to the appearance in photographs from the historic period. This may require the removal and control of vegetation to restore the historic landscape. Most of the mature trees will be retained in the historic core. In the natural area beyond the historic core the emphasis will be on maintaining native species. Complete various improvements designed to restore the historic landscape and improve the aesthetic quality of the Powerhouse area. Improvements could include:

- Replace existing modern chain-link security fencing along Riley Street with a historic period-compatible alternative. Ideally, the alternative selected will also enhance security of the site.
- Work with Pacific Gas & Electric Company and the City of Folsom to relocate or underground any existing modern overhead electrical utility line that runs through the historic core and was installed outside the historic period.
- Provide additional native landscaping between Riley Street and the parking area to screen the street from the parking area.

8. Natoma Shore North

Statement of Management Intent

The Natoma Shore North management zone stretches along the eastern shore of Lake Natoma from the Powerhouse south to Willow Creek. The Lake Natoma paved bike path and dirt multi-use trail, and the trailhead accessing them at Parkshore, are the only existing facilities in the zone. The shoreline areas of the zone include heavy riparian vegetation while the upland areas consist largely of interior live oak woodland. The management intent for this zone is to maintain its role as a natural and scenic link for trail users between the northern and southern ends of Lake Natoma.

Natoma Shore North Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Conservation	263	0	263

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Access

- NATSHORE/N-1: Work with the Sacramento Regional Transit District (RT) and the City of Folsom to coordinate pedestrian and bicycle links between the SRA and the RT light rail station located along Folsom Boulevard.
- NATSHORE/N-2: Improve trail connection and access with the City of Folsom trails and pedestrian access from the City of Folsom Historic District. Provide a connection for the paved bike trail from where the paved trail currently ends at the Folsom Boulevard Bridge and the Folsom Powerhouse parking lot.
- NATSHORE/N-3: Improve access to Lake Natoma from the City of Folsom Historic District where appropriate and feasible. Evaluate the feasibility and suitability of providing a small dock for hand launching and landing of small boats at this location. Consider concession opportunities as one potential means to provide access to the water at this location.
- NATSHORE/N-4: When there is a change in land use of the City-owned Corporation yard property adjacent to the SRA, coordinate with the City of Folsom, interested members of the community and others in planning and creating appropriate public access and trail connections from the Corporation yard property to the SRA.

Resource Management

- NATSHORE/N-5: Eliminate off-trail access to shoreline areas, as appropriate, for the purposes of natural resource protection and visitor safety. Some shoreline areas are comprised of cliffs, rocky outcrops, or trees overhanging the water that are popular with young people for jumping and rope swinging. This activity can result in vegetation

damage and erosion, tree damage, and disruption of roosting activity at the nearby heron rookery. Methods of eliminating off-trail access to shoreline areas could include:

- Blocking and rehabilitating existing commonly-used points of access along trails;
- Closing areas to public use that are particularly sensitive to environmental damage and/or impact and signing these areas as closed. This could include seasonal closures during the nesting season;
- Identification of sensitive shoreline areas on trail maps, trailhead and boat launch information displays and other interpretive means;
- Increased patrols and enforcement of regulations prohibiting rope swings and jumping/diving from rocks; and
- Consistently remove rope swings as they appear. This may involve seasonally retaining a tree climbing service for this purpose.

NATSHORE/N-6: Manage oak woodlands to protect special status plant species within the management zone. Refer to guideline WOODLAND-2 for further information.

NATSHORE/N-7: Manage invasive exotic weed species in the oak woodland, savanna, grassland, and riparian areas of the management zone in accordance with the guidelines in Appendix B. Refer to the Plant Life Management guidelines in Section C of this Chapter and to Appendix D for further information.

NATSHORE/N-8: Consider alternative vegetation management strategies for areas in the management zone where existing constraints preclude safe implementation of prescribed burning. Refer to Guideline WOODLAND-7 for further information.

NATSHORE/N-9: Protect and manage grassland and ruderal areas of the management zone that are known or potential habitat for the following special

status species: burrowing owl and loggerhead shrike. Refer to Guideline GRASSLAND-2 and GRASSLAND 4 for further information.

NATSHORE/N-10: Protect and manage riparian habitat within the management zone. Refer to Guideline RIPARIAN-1 for further information.

NATSHORE/N-11: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone. Refer to guidelines RIPARIAN-5 through RIPARIAN-7 for further information.

NATSHORE/N-12: Protect riparian areas of the management zone that are known or potential habitat for special status aquatic amphibian and reptile species, such as the Western pond turtle, California red-legged frog, and Foothill yellow-legged frog. Refer guideline RIPARIAN-8 for further information.

NATSHORE/N-13: Protect wading bird roosting areas and rookeries in the management zone. Refer to guidelines RIPARIAN-12 through RIPARIAN-14 for further information.

NATSHORE/N-14: Avoid impacts to yellow-breasted chat and yellow warbler nesting in riparian areas where park improvements or Himalayan blackberry management activities are proposed. Refer to guidelines RIPARIAN-15 and RIPARIAN-16 for further information.

9. Natoma Shore South

Statement of Management Intent

Also located along the eastern shore of Lake Natoma, the Natoma Shore South management zone lies between the Natoma Shore North and Nimbus Flat zones. This management zone contains important natural resources, including blue oak woodland and grassland. A small area of riparian habitat is concentrated around Willow Creek. Recreation facilities in this management zone are minimal and include the Willow Creek day use area (small picnic area, toilets, and informal boat ramp) and Lake Natoma paved bike path and dirt multi-use trail. Consistent with the previous General Plan for the SRA, this Plan provides for the potential use of the 28-acre Museum Flat area as a site for the California Indian Heritage Center

(CIHC). The management intent for this zone is to maintain its role as a natural and scenic link for trail users between the northern and southern ends of Lake Natoma, enhancing the recreation resources of the area, and providing the potential for an interpretive facility of statewide importance.

Natoma Shore South Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Recreation-Medium	127	0	127

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Interpretation and Education

NATSHORE/S-1: If Lake Natoma is selected as the site for the California Indian Heritage Center (CIHC), consider locating this facility at the Museum Flat area of the management zone if the conditions below can be met. The previous General Plan (1979) for the SRA set aside this area as a potential site for a State Indian Museum. In 1991 a study on the proposal was completed, and a year later a detailed feasibility study was completed. A decision was never reached. In August 2002, Senate Bill 2063 established the California Indian Cultural Center and Museum under State Parks and a task force to recommend a location, design, content, and governing structure. In 2005 the task force recommended a location along the Lower American River as the preferred site. However, plans for a site along the Lower American River did not work out, and the task force decided to focus planning for the Center at a site in West Sacramento near the confluence of the Sacramento and American Rivers. The task force is working with the City of West Sacramento regarding the land for the site and planning for the Center continues at the West Sacramento site. If plans for the site in West Sacramento do not work out, it is possible that the Lake Natoma site may be reconsidered. The CIHC is anticipated to include: a 60,000 square foot center building; 3 acres of parking with an entrance from Folsom Boulevard; village site with examples of traditional dwellings and other structures; native plant garden; campfire/ceremonial meeting area; playing field for traditional games and events; and access to Lake Natoma for

demonstrations. If the site is selected, the CIHC may be accommodated on the Museum Flat site provided:

- The facility will be sized, sited, and constructed to minimize impacts to natural resources while providing basic facility needs;
- The visual impact of structures from Lake Natoma will be minimized by limiting building heights and locating structures away from bluffs;
- Structures will be located so as to avoid and minimize impacts on areas of blue oak woodland; and
- The Lake Natoma Bike Path route (a least one branch of the existing paved bike path) through the area will be retained and screened from Museum facilities to the extent possible. Connections to Iron Point Road and Natoma Station will be maintained.

NATSHORE/S-2: If the CHIC is not developed at this location, this site may be considered as a potential location for a small visitor center for the SRA, a site for interpretive programs or facilities, or a small multi-use facility. Such a facility may include a limited number of picnic sites and/or house appropriate types of concession activities such as bicycle rentals. Any future use would be sized and located to avoid or minimize impacts to the blue oak woodlands, seasonal wetlands and cultural resources in the area. The viewshed of Lake Natoma will be protected by limiting building heights and size and locating structures away from bluffs. Any new use or facility would need to be designed and located to avoid conflicts with the paved trail which passes through the area.

NATSHORE/S-3: Develop a program to interpret the heron/egret rookery in the area of Willow Creek and the blue oak woodland and grassland habitats, in keeping with the relevant primary interpretive themes established in the General Plan.

Resource Management

- NATSHORE/S-4: Eliminate off-trail access to shoreline areas, as appropriate, for the purposes of natural resource protection and visitor safety. Some shoreline areas are comprised of cliffs, rocky outcrops, or trees overhanging the water that are popular with young people for jumping and rope swinging. This activity can result in vegetation damage and erosion, tree damage, and disruption of roosting activity at the nearby heron rookery. Methods of eliminating off-trail access to shoreline areas could include:
- Blocking and rehabilitating existing commonly-used points of access along trails;
 - Closing areas to public use that are particularly sensitive to environmental damage and/or impact and signing these areas as closed. This could include seasonal closures during the nesting season;
 - Identification of sensitive shoreline areas on trail maps, trailhead and boat launch information displays and other interpretive means;
 - Increased patrols and enforcement of regulations prohibiting rope swings and jumping/diving from rocks; and
 - Consistently remove rope swings as they appear. This may involve seasonally retaining a tree climbing service for this purpose. Removing selected trees if necessary to protect other important resources.
 - Improve barrier fencing and signing in the vicinity of cliff areas to prevent cliff jumping.
- NATSHORE/S-5: Protect and manage vernal pool and riparian habitat in the management zone. Refer to guidelines VERNAL-1 through VERNAL-11 and RIPARIAN-1 for further information.
- NATSHORE/S-6: Manage invasive exotic weed species in the oak woodland, savanna, grassland, riparian, and marsh/pond areas of the management zone in accordance with the guidelines in Appendix B. Refer to the Plant Life

Management guidelines in Section C of this Chapter and to Appendix D for further information.

- NATSHORE/S-7: Manage oak woodlands to protect special status plant species within the management zone. Refer to guideline WOODLAND-2 for further information
- NATSHORE/S-8: Consider alternative vegetation management strategies for areas in the management zone where existing constraints preclude safe implementation of prescribed burning. Refer to Guideline WOODLAND-7 for further information.
- NATSHORE/S-9: Protect and manage grassland and ruderal areas of the management zone that are known or potential habitat for the following special status species: California horned lizard, burrowing owl and loggerhead shrike. Refer to guidelines GRASSLAND-1 through GRASSLAND 4 for further information.
- NATSHORE/S-10: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone. Refer to guidelines RIPARIAN-5 through RIPARIAN-7 for further information.
- NATSHORE/S-11: Protect and restore riparian areas of the management zone that are known or potential habitat for special status aquatic amphibian and reptile species, such as the Western pond turtle, California red-legged frog, and Foothill yellow-legged frog. Refer to guidelines RIPARIAN-8 through RIPARIAN-11 for further information.
- NATSHORE/S-12: Protect wading bird roosting areas and rookeries in the management zone. Refer to guidelines RIPARIAN-12 through RIPARIAN-14 for further information.
- NATSHORE/S-13: Avoid impacts to yellow-breasted chat and yellow warbler nesting in riparian areas where park improvements or Himalayan blackberry management activities are proposed. Refer to guidelines RIPARIAN-15 and RIPARIAN-16 for further information.

- NATSHORE/S-14: Protect and manage freshwater marsh areas of the management zone that are known or potential habitat for special status bird species, such as the Tri-colored blackbird. Refer to guidelines MARSH/POND-4 and MARSH/POND-5 for further information.
- NATSHORE/S-15: As appropriate, partner with fishing clubs and organizations to enhance recreational fisheries in the management zone. Refer to Guideline FISHERY-4 for further information.
- NATSHORE/S-16: Control nuisance wildlife species within the management zone in close consultation with Reclamation, California Department of Fish and Game, and U.S. Fish and Wildlife Service. Refer to the guidelines in Appendix C for more information.
- NATSHORE/S-17: Continue to support the investigation of mercury and methylmercury levels in water, sediment, fish and other biota conducted by the U.S. Geological Survey and the University of California, Davis. Continue to coordinate with Sacramento County Office of Environmental Health Hazard Assessment and the California Environmental Protection Agency regarding appropriate advisories for Lake Natoma. Refer to policy WATER-5 for further information.

Recreation

- NATSHORE/S-18: Upgrade and enhance the Willow Creek day use area to improve the overall function and appearance of the facility. Site-specific planning will be used to determine the precise nature and configuration of the upgrades. Upgrades could include:
- Picnic area improvements utilizing native vegetation (no turf);
 - Parking area improvements; and
 - Improved small boat water access, including small ramp and boat dock.

Access

- NATSHORE/S-19: Work with the Sacramento Regional Transit District (RT) and the City of Folsom to coordinate pedestrian and bicycle links between the

SRA and future the LRT station on Folsom Boulevard between Iron Point Road and Natoma Station Drive.

Scenic

NATSHORE/S-20: Remove or screen the temporary storage container used by the concessionaire at Willow Creek. Consider providing a well-designed permanent storage structure or integrating storage into a future building should the existing toilets be replaced.

10. Alder Creek/Pond

Statement of Management Intent

This management zone represents an ownership “island” in that it is not contiguous with any other zone in the SRA. This zone, which is separated from the SRA by Highway 50 just south of where it crosses Folsom Boulevard, is surrounded on its other three sides by the Folsom Automall. This zone is natural in character, without facilities. Alder Pond is a persistent trouble spot for water hyacinth, algae, and water quality due to urban stormwater runoff with high nutrient input from car washing operations at the nearby automall. In addition, fish captured at the mouth of the once heavily-mined Alder Creek were found to have relatively high levels of mercury, which is the residue from the processing gold-bearing ore. Humans who consume these fish are vulnerable to bioaccumulating methyl-mercury at levels potentially harmful to health. The management intent for this zone is to restore Alder Creek and Pond as a healthy natural riparian ecosystem while reducing water quality concerns for both wildlife and humans.

Alder Creek/Pond Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Low Intensity Recreation/Conservation	17	0	17

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Resource Management

ALDERCREEK-1: Work with the U.S. Army Corps of Engineers, the City of Folsom, adjacent property owners, and other agencies and organizations on restoration projects and activities at Alder Creek Pond. Restoration will focus on native plant and wildlife values of the creek and pond, improving water quality, removal of invasive exotic species and

assessing potential improvement of water exchange with Lake Natoma to benefit natural resources. Refer to Guideline MARSH/POND-1 for further information.

- ALDERCREEK-2: Manage invasive exotic weed species, particularly water hyacinth and other aquatic weeds, in the oak woodland, savanna, grassland, riparian and pond areas of the management zone in accordance with the guidelines in Appendix B. Establish a monitoring and removal program for water hyacinth in Alder Creek and Pond. The monitoring program should be annual and include other aquatic weeds, such as elodea and Eurasian milfoil.. Utilize volunteers and involve other agencies and organizations as appropriate.
- ALDERCREEK-3: Consider alternative vegetation management strategies for areas in the management zone where existing constraints preclude safe implementation of prescribed burning. Refer to Guideline WOODLAND-7 for further information.
- ALDERCREEK-4: Protect and manage riparian habitat within the management zone. Refer to Guideline RIPARIAN-1 for further information.
- ALDERCREEK-5: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone. Refer to guidelines RIPARIAN-5 through RIPARIAN-7 for further information.
- ALDERCREEK-6: Protect and restore riparian areas of the management zone that are known or potential habitat for special status aquatic amphibian and reptile species, such as the Western pond turtle, California red-legged frog, and Foothill yellow-legged frog. Refer to guidelines RIPARIAN-8 through RIPARIAN-11 for further information.
- ALDERCREEK-7: Protect wading bird roosting areas and rookeries in the management zone. Refer to guidelines RIPARIAN-12 through RIPARIAN-14 for further information.
- ALDERCREEK-8: Avoid impacts to yellow-breasted chat and yellow warbler nesting in riparian areas where park improvements or Himalayan blackberry

management activities are proposed. Refer to guidelines RIPARIAN-15 and RIPARIAN-16 for further information.

ALDERCREEK-9: Protect and manage freshwater marsh areas of the management zone that are known or potential habitat for special status bird species, such as the Tri-colored blackbird. Refer to guidelines MARSH/POND-4 and MARSH/POND-5 for further information.

ALDERCREEK-10: Partner with fishing clubs and organizations, as appropriate, to enhance recreational fisheries in the management zone. Refer to Guideline FISHERY-4 for further information.

ALDERCREEK-11: Continue water quality sampling efforts within the management zone. Refer to Guideline WATER-5 for further information.

ALDERCREEK-12: Continue to support the investigation of mercury levels in water, sediment, and biota being conducted by the U.S. Geological Survey and the University of California, Davis. Refer to Policy WATER-7 for further information.

Interpretation and Education

ALDERCREEK-13: Develop a program along the nearby Lake Natoma Paved Bike Path that interprets the restoration of Alder Creek and Pond, in keeping with the relevant primary interpretive themes established in the General Plan. Refer to Guideline MARSH/POND-1 for further information.

11. Lower Lake Natoma (AQ)

Statement of Management Intent

This aquatic management zone represents the lower third of the Lake Natoma from Willow Creek south to Nimbus Dam. Lake Natoma is essentially a wide spot in the American River with quiet, sheltered waters in a highly scenic setting. This—combined with the 5 mph speed limit for motorized watercraft—provides the perfect setting for paddling, rowing, and fishing. In fact, Lake Natoma is considered one of the best rowing locations in the world, due in large part to the facilities available at the California State University Sacramento (CSUS) Aquatic Center and the major rowing competitions hosted by CSUS at Nimbus

Flat. Since Lake Natoma is a regulating reservoir, water levels only vary between 4 and 7 feet. The management intent for this zone is to maintain and enhance the area as a premier rowing and paddling destination while providing a serene and scenic setting.

Lower Lake Natoma Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Recreation – Medium	0	234	234

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Resource Management

- NATOMA/LOW-1: Manage Lake Natoma for slow speed and non-motorized water recreation. Continue the 5 mph speed limit for motorized watercraft for the entire Lake. Prohibit the use of personal water craft at Lake Natoma. Phase out the use of two-stroke engines at Lake Natoma. Utilize California Air Resources Board emissions standards for in developing phase out of high emission two-stroke engines.

- NATOMA/LOW-2: Allow for exceptions to the limit on two-stroke engines —until cleaner alternatives can be implemented as necessary for administrative purposes

- NATOMA/LOW-3: Support California Department of Fish and Game programs to provide recreational fishing opportunities in the management zone. Refer to guideline FISHERY-3 for further information.

- NATOMA/LOW-4: Continue and expand water quality sampling efforts within the management zone. Refer to Guideline WATER-5 for further information.

- NATOMA/LOW-5: Continue to support the investigation of mercury levels in water, sediment, and biota being conducted by the U.S. Geological Survey and the University of California, Davis. Refer to Policy WATER-7 for further information.

Recreation

NATOMA/LOW-6: Enhance water access from the lake to the lagoons of Mississippi Bar for small non-motorized watercraft. Develop a water trail loop through the area. If borrow operations occur at Mississippi Bar, coordinate this enhanced water access with the restoration of the area following borrow operations. Refer to Guideline MISSISSIPPI-20 for further information.

12. Upper Lake Natoma (AQ)

Statement of Management Intent

This aquatic management zone represents the upper two thirds of the Lake Natoma from Willow Creek north to the Rainbow Bridge. As with the lower zone, this zone offers a sheltered and scenic location for paddling, rowing, and fishing. However, this portion of the lake is significantly less busy than the waters nearer the California State University Sacramento (CSUS) Aquatic Center to the south. The management intent for this zone is to maintain and enhance the area as a paddling and rowing destination while increasing non-motorized watercraft access in a serene and scenic setting.

Upper Lake Natoma Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Low Intensity Recreation/Conservation	0	256	256

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Resource Management

NATOMA/UP-1: Manage Lake Natoma for slow speed and non-motorized water recreation. Continue the 5 mph speed limit for motorized watercraft for the entire Lake. Prohibit the use of personal water craft at Lake Natoma. Phase out the use of two-stroke engines at Lake Natoma. Utilize California Air Resources Board emissions standards for in developing phase out of high emission two-stroke engines.

NATOMA/UP-2: Allow for exceptions to the limit on two-stroke engines—until cleaner alternatives can be implemented as necessary for administrative purposes.

- NATOMA/UP-3: Manage invasive exotic aquatic weed species in the management zone in accordance with the guidelines in Appendix B. Refer to the Plant Life Management guidelines in Section C of this Chapter and to Appendix D for further information.
- NATOMA/UP-4: Support California Department of Fish and Game programs to provide recreational fishing opportunities in the management zone. Refer to guideline FISHERY-3 for further information.
- NATOMA/UP-5: Continue and expand water quality sampling efforts within the management zone. Refer to Guideline WATER-5 for further information.
- NATOMA/UP-6: Continue to support the investigation of mercury levels in water, sediment, and biota being conducted by the U.S. Geological Survey and the University of California, Davis. Refer to Policy WATER-7 for further information.

Recreation

- NATOMA/UP-7: Continue to explore opportunities for increasing water access for non-motorized watercraft in this zone. Refer to guidelines NEGROBAR-2 and NATSHORE/S-11 for further information related to water access at Negro Bar and Willow Creek day use areas.

13. Folsom Dam

Statement of Management Intent

Folsom Dam and many of the SRA's support facilities are located in this management zone. This includes the Gold Fields District and Folsom Sector Offices of State Parks, the Central California Area Office of Reclamation, the American River Water Education Center (ARWEC), and various associated facilities including maintenance and storage buildings and corporation yards for both agencies. Ongoing or proposed flood control projects for Folsom Dam may significantly affect operational and recreational activities in this management zone during their construction. Folsom Dam has been determined to be eligible for the National Register of Historic Places. Reclamation has proposed the Dam for listing on the Register as part of a Central Valley Project multiple property listing. The management intent is to

maintain the primary role of the zone in flood control, water supply, power generation, and park support.

Folsom Dam Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Administration	257	0	257

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Operations

FOLSOMDAM-1: Ensure the Gold Fields District Office and the Folsom Sector Office, particularly the visibility and accessibility of the public contact and information, are not compromised by the new Folsom Dam Bridge. Ensure ARWEC remains visible, accessible in order to fulfill the public education mission of the ARWEC. Refer to Guideline INTERPRET-17 regarding the American River Water Education Center.

FOLSOMDAM-2: State Parks and Reclamation will coordinate on issues of security and access to the zone insofar as it relates to visitor experience and SRA operations. Public access must be maintained to State Parks offices and front desk operations and to ARWEC.

FOLSOMDAM – 3 As feasible and as opportunities allow, explore replacing or upgrading the existing State Parks District and Sector administrative offices and associated facilities.

Interpretation and Education

FOLSOMDAM-4: Consider this management zone as one option for a new park visitor center which would provide visitor information services, interpretation and education. Refer to guidelines INTERPRET-13 and INTERPRET-17 for further information.

Recreation

FOLSOMDAM-5: Work with the U.S. Army Corps of Engineers and the City of Folsom to ensure that the new Folsom Dam Bridge accommodates bicycle and pedestrian traffic in both directions and provides

connections to existing segments of the SRA trail system on both sides of the river.

FOLSOMDAM-6: During Dam Safety and Flood Damage Reduction construction activities , as indicated in the ROD, ensure that travel to and through the zone on existing segments of the SRA trail system is maintained, including identification and implementation of alternate routes, posting of trail closures and alternative access points, and design and implementation of re-established trail segments once construction is complete.

Resource Management

FOLSOMDAM-7: Manage oak woodlands to protect special status plant species within the management zone. Refer to guideline WOODLAND-2 for further information.

FOLSOMDAM-8: Consider alternative vegetation management strategies for areas in the management zone where existing constraints preclude safe implementation of prescribed burning. Refer to Guideline WOODLAND-7 for further information.

FOLSOMDAM-9: Protect and manage grassland and ruderal areas of the management zone that are known or potential habitat for the following special status species: California horned lizard, burrowing owl and loggerhead shrike. Refer to guidelines GRASSLAND-1 through GRASSLAND 4 for further information.

FOLSOMDAM-10: Protect bats in ruderal, barren and other natural areas. Use passive means to exclude bats from inhabiting developed facilities. Refer to Guideline RUDERAL-3 for further information.

FOLSOMDAM-11: Protect and manage riparian habitat within the management zone. Refer to Guideline RIPARIAN-1 for further information.

FOLSOMDAM-12: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone. Refer to guidelines RIPARIAN-5 through RIPARIAN-7 for further information.

FOLSOMDAM-13: Avoid impacts to yellow-breasted chat and yellow warbler nesting in riparian areas where park improvements or Himalayan blackberry management activities are proposed. Refer to guidelines RIPARIAN-15 and RIPARIAN-16 for further information.

14. Beals Point

Statement of Management Intent

This 140-acre area is a primary SRA gateway second only to Granite Bay in terms of annual park visits. Day use facilities include a 1,000-foot long swim beach; a concessions facility with snack bar, beach equipment rentals, and restrooms; a large grassy area along the lake with picnic tables, barbecues, and restroom facilities; and paved parking for about 390 vehicles. This parking area generally fills by midday during peak season weekends causing traffic to backup onto Auburn-Folsom Road and surrounding neighborhood streets. Beals Point Campground is also located in this area and includes 49 single campsites, 20 RV sites, a sanitary dump station, two restrooms, and showers. The management intent for this zone is to maintain and enhance both day-use and overnight recreation resources while exploring opportunities to reduce congestion. Facilities and improvements in this area will emphasize high quality day use opportunities – picnicking, swimming and beach use, and trail use.

Beals Point Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Recreation – High	139	0	139

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Recreation

BEALSPOINT-1: Convert a portion of the existing family campground to group camping and relocate the family camping capacity to another location within the SRA (most likely the Peninsula). Reconfigure existing facilities as needed to best serve this change in camping use. Site-specific planning will be used to determine the precise re-configuration of the existing campground, new group campsites, and any associated facilities.

BEALSPOINT-2: During Dam Safety and Flood Damage Reduction construction activities, as indicated in the ROD for this project, ensure that travel to and through the zone on existing segments of the SRA trail system

is maintained, including identification and implementation of alternate routes, posting of trail closures and alternative access points, and design and implementation of re-established trail segments once construction is complete.

Access

BEALSPOINT-3: Reconfigure the vehicle entrance as a means of improving visitor and emergency access, reducing congestion, and minimizing neighborhood impacts while maintaining current capacity. Neighborhood impacts include backups onto Auburn-Folsom Road, traffic delays, illegal parking, noise, and pedestrian hazards. Improvements may include:

- Additional entry lanes, exit lanes and stacking area, including separate entry lanes for day-users and campers;
- New entrance station/kiosk;
- Vehicle turnaround; and
- Entrance gates close to Folsom-Auburn Road to restrict access when the parking area reaches capacity.

BEALSPOINT-4: As opportunities arise, make improvements to and enhance Beal's Point day use facilities within the desired visitor capacity and operational constraints.

Resource Management

BEALSPOINT-5: Manage oak woodlands to protect special status plant species within the management zone. Refer to guideline WOODLAND-2 for further information.

BEALSPOINT-6: Manage invasive exotic weed species in the oak woodland, savanna, and grassland areas of the management zone in accordance with the guidelines in Appendix B. Refer to the Plant Life Management guidelines in Section C of this Chapter and to Appendix D for further information.

- BEALSPPOINT-7: Consider alternative vegetation management strategies for areas in the management zone where existing constraints preclude safe implementation of prescribed burning. Refer to Guideline WOODLAND-7 for further information.
- BEALSPPOINT-8: Protect and manage grassland and ruderal areas of the management zone that are known or potential habitat for the following special status species: burrowing owl and loggerhead shrike. Refer to Guideline GRASSLAND-2 and GRASSLAND 4 for further information.
- BEALSPPOINT-9: Protect bats in ruderal, barren and other natural areas. Use passive means to exclude bats from inhabiting developed facilities. Refer to Guideline RUDERAL-3 for further information.
- BEALSPPOINT-10: Control nuisance wildlife species, particularly ground squirrels, within the management zone in close consultation with the California Department of Fish and Game and the U.S. Fish and Wildlife Service. Refer to the guidelines in Appendix C for more information.
- BEALSPPOINT-11: Continue water quality sampling efforts within the management zone. Refer to Guideline WATER-5 for further information.

Operations

- BEALSPPOINT-12: Provide a State Parks boat dock at Beals Point or at Granite Bay.

15. Mooney Ridge

Statement of Management Intent

This management zone is a narrow band along the western shore of Folsom Lake from Beals Point to Granite Bay. A dirt service road from Granite Bay to Dike 4 serves as a multi-use trail through this management zone and this route is shared by the Pioneer Express Trail. The trail is the only facility in the zone. Public access to the trail exists at Cavitt School and Lakeshore Drive. Private stables adjacent to the SRA unit utilize the trails in this area. The management intent for this zone is to maintain its role as a scenic link for trail users between the heavily used Beals Point and Granite Bay day use areas.

Mooney Ridge Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Low Intensity Recreation/Conservation	168	0	168

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Recreation

MOONEY-1: During Dam Safety and Flood Damage Reduction construction activities, as indicated in the ROD for this project, ensure that travel to and through the zone on existing segments of the SRA trail system is maintained, including identification and implementation of alternate routes, posting of trail closures and alternative access points, and design and implementation of re-established trail segments once construction is complete.

MOONEY-2: Work with adjacent property owners and Placer County to ensure legal, reliable, and equitable access to the SRA trail system. This effort will assist in enhancing connections to the Placer County trail system.

Resource Management

MOONEY-3: Manage oak woodlands to protect special status plant species within the management zone. Refer to guideline WOODLAND-2 for further information.

MOONEY-4: Consider alternative vegetation management strategies for areas in the management zone where existing constraints preclude safe implementation of prescribed burning. Refer to Guideline WOODLAND-7 for further information.

MOONEY-5: Protect and manage grassland and ruderal areas of the management zone that are known or potential habitat for the following special status species: burrowing owl and loggerhead shrike. Refer to guidelines GRASSLAND-2 and GRASSLAND 4 for further information.

MOONEY-6: As appropriate and feasible, enhance the utility of lake shoreline wildlife corridors within the management zone by improving vegetative cover. Refer to Guideline SHORELINE-1 for further information.

16. Granite Bay South

Statement of Management Intent

With more than half a million visitors in the 2000 season alone, Granite Bay is the busiest gateway to the SRA and includes the widest range of developed facilities. The main beach area includes a 1,200-foot long swim beach; a snack bar with beach equipment concession and restrooms; a grassy picnic area with picnic tables, barbeques; and a paved parking for about 680 vehicles. The main launch area includes 42 boat launch lanes accessible at varying lake levels with roughly 1,100 vehicle/trailer parking spaces. The zone also includes a modest multi-use activity center available for public reservation. As with Beals Point, capacity is a concern during peak season weekends when the day use and launch ramp parking areas often fill by midday. Since Douglas Boulevard represents the only entrance to Granite Bay, significant backups occur along Douglas Boulevard and onto Auburn-Folsom Road.

The management intent for this zone is to maintain and enhance day-use recreation resources while exploring opportunities to reduce congestion. Facilities and improvements in this area will emphasize high quality day use opportunities—picnicking, swimming and beach use, and trail use—and an enhanced visitor experience.

Granite Bay South Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Recreation – High	227	0	227

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Recreation

GRANBAY/SO-1: Redesign and reconfigure the entire boat launch complex to improve launch capacity at very high (above 450 feet) and low (below 420 feet) water levels, reduce congestion during peak times, and better serve the full range of boating uses. Reconfiguration may include extending existing ramps to lower lake elevations, the addition of launch lanes, or the addition of floating boarding docks. Managers need to carefully assess total lake visitor capacity before including any additional parking with these improvements. The intent of this direction is to improve boat launch efficiency at all lake levels. Refer to Guideline VISIT-20 for further information. To achieve the goals above, short-term specific improvements could include:

- Increased launch capacity at the Stage 4 ramp;
- Increased launch capacity at low water, including at the Stage 1 ramp; and
- Increased launch capacity at the 5 Percent ramp.

GRANBAY/SO-2: Replace the existing lifeguard tower structure at main beach with a new building with adequate space for classrooms and equipment storage.

GRANBAY/SO-3: Replace the existing activity center with an expanded and improved facility at the same location. Improve and expand parking the area for the center as needed and appropriate to the size of the new facility. Refer to Guideline MULTI-1 for further information.

GRANBAY/SO-4: During Dam Safety and Flood Damage Reduction construction activities, as indicated in the ROD for this project, ensure that travel to and through the zone on existing segments of the SRA trail system is maintained, including identification and implementation of alternate routes, posting of trail closures and alternative access points, and design and implementation of re-established trail segments once construction is complete.

Access

GRANBAY/SO-5: Reconfigure and redesign the vehicle entrance as a means of improving visitor and emergency access, reducing congestion, and minimizing neighborhood impacts while maintaining current capacity. Neighborhood impacts include backups along Douglas Boulevard to Auburn-Folsom Road, traffic delays, illegal parking, noise, and pedestrian hazards. Improvements may include:

- Additional entry lanes and stacking area;
- Relocated gatehouse and office;
- Vehicle turnaround; and

- Emergency vehicle bypass.

Operations

- GRANBAY/SO-6: Provide a dry boat storage facility for the on-site storage of concessionaire and State Parks watercraft only. Such a facility would consist of an approximately 0.25-acre fenced outdoor storage yard with a capacity of between 15 and 20 boats.
- GRANBAY/SO-7: Provide a State Parks boat dock at Granite Bay or at Beals Point.

Scenic

- GRANBAY/SO-8: Reconfigure and landscape the main beach parking area as a means of improving aesthetics, providing shade, and calming traffic. Locally native drought-resistant plant species should be used. The goal of this guideline is not to increase parking capacity. The current parking area is appropriately sized for the day use facilities provided here. Unless additional facilities are provided, parking capacity should not be increased.
- GRANBAY/SO-9: Remove or screen any temporary storage containers used by concessionaire at the main beach. Consider permanent storage options as needed and appropriate.

Resource Management

- GRANBAY/S-10: Manage oak woodlands to protect special status plant species within the management zone. Refer to guideline WOODLAND-2 for further information.
- GRANBAY/S-11: Consider alternative vegetation management strategies for areas in the management zone where existing constraints preclude safe implementation of prescribed burning. Refer to Guideline WOODLAND-7 for further information.
- GRANBAY/S-12: Protect and manage grassland and ruderal areas of the management zone that are known or potential habitat for the following special status species: burrowing owl and loggerhead shrike. Refer to guidelines GRASSLAND-2 and GRASSLAND 4 for further information.

- GRANBAY/S-13: Protect bats in ruderal, barren and other natural areas. Use passive means to exclude bats from inhabiting developed facilities. Refer to Guideline RUDERAL-3 for further information.
- GRANBAY/S-14: As appropriate and feasible, enhance the utility of lake shoreline wildlife corridors within the management zone by improving vegetative cover. Refer to Guideline SHORELINE-1 for further information.
- GRANBAY/S-15: Control nuisance wildlife species within the management zone in close consultation with the California Department of Fish and Game and U.S. Fish and Wildlife Service. Refer to the guidelines in Appendix C for more information.
- GRANBAY/S-16: Continue water quality sampling efforts within the management zone. Refer to Guideline WATER-5 for further information.

17. Granite Bay North

Statement of Management Intent

This sprawling 420-acre area of interior live oak spreads north from the main beach to Los Lagos. It includes an informal beach area at Oak Point, an equestrian staging area, Dotons Point, and Beeks Bight. The area is relatively remote since it has no external vehicular access but is popular for horseback riding, hiking, and fishing. It also has a more informal feel with small picnic and parking areas sprinkled here and there. The Pioneer Express pedestrian/equestrian trail passes through the zone and a scenic pedestrian-only ADA trail extends from a trailhead and parking area at Beeks Bight to the end of Doton’s Point. Other trails criss-cross the area. The management intent for this zone is to maintain its role as a less developed day-use recreation area with fewer facilities, retention and reliance on native vegetation for landscaping, and providing an easily-accessible natural setting for SRA visitors. The General Plan also provides expanded opportunities for interpretation and education and resource management.

Granite Bay North Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Conservation	419	0	419

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Recreation

- GRANBAY/NO-1: Establish a small trailhead, including parking and trail information sign, at the informal Twin Rocks Road/Boulder Road access when appropriate and feasible.
- GRANBAY/NO-2: Designate and upgrade as necessary trails on newly acquired Hoffman property in the northwest portion of the zone. Trail designation will be determined by the Trail Master Plan proposed in Guideline VISIT-34.
- GRANBAY/NO-3: Make improvements and upgrades to the existing equestrian staging area which is old and worn. Potential improvements include: improved parking area, new hitching rails, water troughs, new picnic sites and tables.

Resource Management

- GRANBAY/NO-4: Prohibit vehicle use outside designated roadways and provide designated low water access and parking areas in specific locations as appropriate to protect natural and cultural resources in the area. Refer to the Park-wide Goals and Guidelines for Park Operations as they relate to off-road vehicle use in the SRA. As appropriate and feasible, enhance the utility of lake shoreline wildlife corridors within the management zone by improving vegetative cover. Refer to Guideline SHORELINE-1 for further information.
- GRANBAY/NO-5: Protect and manage the seasonal wetland, vernal pool, and riparian habitat in the Doton's Point area of the management zone. Refer to guidelines VERNAL-1 through VERNAL-11 and RIPARIAN-1 for further information.
- GRANBAY/NO-6: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone. Refer to guidelines RIPARIAN-5 through RIPARIAN-7 for further information.
- GRANBAY/NO-7: Protect riparian areas of the management zone that are known or potential habitat for special status aquatic amphibian and reptile

species, such as the Western pond turtle, California red-legged frog, and Foothill yellow-legged frog. Refer to Guideline RIPARIAN-8 for further information.

- GRANBAY/NO-8: Protect wading bird roosting areas and rookeries in the management zone. Refer to guidelines RIPARIAN-12 through RIPARIAN-14 for further information.
- GRANBAY/NO-9: Avoid impacts to yellow-breasted chat and yellow warbler nesting in riparian areas where park improvements or Himalayan blackberry management activities are proposed. Refer to guidelines RIPARIAN-15 and RIPARIAN-16 for further information.
- GRANBAY/NO-10: Manage oak woodlands to protect special status plant species within the management zone. Refer to guideline WOODLAND-2 for further information.
- GRANBAY/NO-11: Protect and manage chaparral areas of the management zone that are known or potential habitat for California horned lizard. Protect and manage ruderal areas of the management zone that are known or potential habitat for burrowing owl. Refer to guidelines CHAPARRAL-8 through CHAPARRAL-9 and RUDERAL-1 for further information.
- GRANBAY/NO-12: Manage invasive exotic weed species in the chaparral, oak woodland, savanna, and grassland areas of the management zone in accordance with the guidelines in Appendix B. Refer to the Plant Life Management guidelines in Section C of this Chapter and to Appendix D for further information.
- GRANBAY/NO-13: Consider alternative vegetation management strategies for areas in the management zone where existing constraints preclude safe implementation of prescribed burning. Refer to Guideline WOODLAND-7 for further information.

- GRANBAY/NO-14: Protect bats in ruderal, barren and other natural areas. Use passive means to exclude bats from inhabiting developed facilities. Refer to Guideline RUDERAL-3 for further information.
- GRANBAY/NO-15: Control nuisance wildlife species within the management zone in close consultation with the California Department of Fish and Game and U.S. Fish and Wildlife Service. Refer to the guidelines in Appendix C for more information.
- GRANBAY/NO-16: Continue water quality sampling efforts within the management zone. Refer to Guideline WATER-5 for further information.

Interpretation and Education

- GRANBAY/NO-17: Develop a program to interpret various aspects of the area in keeping with the relevant primary interpretive themes established in the General Plan. Key aspects could include: scenic resources, including distance and direction to key landmarks at Doton's Point; and significant natural habitat features, such as interior live oak woodland, seasonal wetlands, and Valley Elderberry Longhorn Beetle habitat.

Scenic

- GRANBAY/NO-18: Provide additional landscaping along the SRA boundary at the equestrian staging area in Beeks Bight in order to enhance the appearance of this area and to minimize the visual intrusion of urban development. Locally native drought-resistant plant species should be used.

18. Placer Shore

Statement of Management Intent

This management zone stretches along the western shore of Folsom Lake from Doton's Point at Granite Bay north to Rattlesnake Bar. The Pioneer Express pedestrian/equestrian trail is the only facility in the zone and vegetation consists largely of interior live oak woodland. Informal access to this area at the end of Horseshoe Bar Road is a source of inappropriate and illegal activities, and other motorized encroachments onto SRA lands

occur in this zone. The management intent for this zone is to maintain its role as a natural and scenic link for trail users between Granite Bay and Rattlesnake Bar.

Placer Shore Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Low Intensity Recreation/Conservation	351	0	351

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Recreation

PLACERSHORE-1: Provide adequate access to the Pioneer Express Trail and other trails within this zone, including the following options:

- Working with Placer County to explore the potential for providing a small trailhead, including parking and trail information sign, at the unofficial Los Lagos/Auburn-Folsom Road access point; and
- Establishing a small trailhead, including parking and trail information sign, at the end of Horseshoe Bar Road if State Parks acquires the property. Consider visitor use demand and sector ability to operate and maintain facility. In the interim, take steps to reduce illegal activities at this site.

Resource Management

PLACERSHORE-2: Work with Placer County Sheriff, adjacent property owners and communities groups to reduce illegal activities and motorized encroachments in this zone.

PLACERSHORE-3: Manage oak woodlands to protect special status plant species within the management zone. Refer to guideline WOODLAND-2 for further information.

PLACERSHORE-4: Protect and manage chaparral, grassland, and ruderal areas of the management zone that are known or potential habitat for the following special status species: California horned lizard, burrowing owl and loggerhead shrike. Refer to guidelines CHAPARRAL-8

through CHAPARRAL-9, GRASSLAND-2 and GRASSLAND 4 for further information.

- PLACERSHORE-5: Restore fire to its role as a natural ecological process within oak woodland, savanna and grassland habitat in the management zone. Refer to guidelines WOODLAND-3 and WOODLAND-7 for further information.
- PLACERSHORE-6: Manage invasive exotic weed species in oak woodland, savanna, and grassland areas of the management zone in accordance with the guidelines in Appendix B. Refer to the Plant Life Management guidelines in Section C of this Chapter and to Appendix D for further information.
- PLACERSHORE-7: Protect and manage riparian habitat within the management zone. Refer to Guideline RIPARIAN-1 for further information.
- PLACERSHORE-8: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone. Refer to guidelines RIPARIAN-5 through RIPARIAN-7 for further information.
- PLACERSHORE-9: Protect riparian areas of the management zone that are known or potential habitat for special status aquatic amphibian and reptile species, such as the Western pond turtle, California red-legged frog, and Foothill yellow-legged frog. Refer to Guideline RIPARIAN-8 for further information.
- PLACERSHORE-10: Protect wading bird roosting areas and rookeries in the management zone. Refer to guidelines RIPARIAN-12 through RIPARIAN-14 for further information.
- PLACERSHORE-11: Avoid impacts to yellow-breasted chat and yellow warbler nesting in riparian areas where park improvements or Himalayan blackberry management activities are proposed. Refer to guidelines RIPARIAN-15 and RIPARIAN-16 for further information.

19. Rattlesnake Bar

Statement of Management Intent

Rattlesnake Bar represents the northernmost water and trail access point within the SRA. The 292-acre area of oak woodland, along with small portions of grassland and savanna, is a popular place for launching boating trips up the North Fork and swimming in the gentle shoreline areas. The zone also includes Avery's Pond, a 2- to 3-acre riparian man-made historic pond that supports catfish, sunfish, and bass. The management intent for this zone is to enhance the recreation and natural resources here by providing high quality facilities that will expand opportunities for interpretation, education, and resource management. This zone has historic resources that need to be protected and where appropriate interpreted.

Rattlesnake Bar Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Recreation - Medium	292	0	292

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Recreation

RATBAR-1: Develop picnic facilities, including a group picnic area, with shade ramadas and toilets. The picnic area should be designed and sited to capitalize on views of the water. Retention of existing native vegetation and use of locally-native drought-resistant plant species should be used in all landscaping (no turf). The precise location and configuration will be determined through site-specific planning.

RATBAR-2: Explore the potential of extending the boat ramp further into Folsom Lake to improve low water access.

RATBAR-3: Make improvements to existing equestrian staging area and trailhead facilities. Improvements may include hitching rails, water troughs, restroom and picnic sites and tables.

Resource Management

RATBAR-4: Prohibit vehicle use outside designated roadways to protect natural and cultural resources in the area. Provide designated low water access and parking areas in specific locations if appropriate and feasible. Refer to the

Park-wide Goals and Guidelines for Park Operations as they relate to off-road vehicle use in the SRA. As appropriate and feasible, enhance the utility of lake shoreline wildlife corridors within the management zone by improving vegetative cover. Refer to Guideline SHORELINE-1 for further information.

- RATBAR-5: Manage oak woodlands to protect special status plant species within the management zone. Refer to guideline WOODLAND-2 for further information.
- RATBAR-6: Manage invasive exotic weed species in the chaparral and marsh/pond areas of the management zone in accordance with the guidelines in Appendix B. Refer to the Plant Life Management guidelines in Section C of this Chapter and to Appendix D for further information.
- RATBAR-7: Restore fire to its role as a natural ecological process within oak woodland, savanna and grassland habitat in the management zone, in conjunction with the *2003 Draft Prescribed Fire Management Plan*. Refer to guidelines WOODLAND-3 and WOODLAND-7 for further information.
- RATBAR-8: Protect and manage grassland and ruderal areas of the management zone that are known or potential habitat for the following special status species: burrowing owl and loggerhead shrike. Refer to Guideline GRASSLAND-2 and GRASSLAND 4 for further information.
- RATBAR-9: Protect and manage riparian habitat within the management zone. Refer to Guideline RIPARIAN-1 for further information.
- RATBAR-10: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone. Refer to guidelines RIPARIAN-5 through RIPARIAN-7 for further information.
- RATBAR-11: Protect riparian areas of the management zone that are known or potential habitat for special status aquatic amphibian and reptile species, such as the Western pond turtle, California red-legged frog, and Foothill yellow-legged frog. Refer to Guideline RIPARIAN-8 for further information.

- RATBAR-12: Protect wading bird roosting areas and rookeries in the management zone. Refer to guidelines RIPARIAN-12 through RIPARIAN-14 for further information.
- RATBAR-13: Avoid impacts to yellow-breasted chat and yellow warbler nesting in riparian areas where park improvements or Himalayan blackberry management activities are proposed. Refer to guidelines RIPARIAN-15 and RIPARIAN-16 for further information.
- RATBAR-14: Protect and manage freshwater marsh areas of the management zone that are known or potential habitat for special status bird species, such as the Tri-colored blackbird. Refer to guidelines MARSH/POND-4 and MARSH/POND-5 for further information.
- RATBAR-15: Protect and restore the historic features in this management zone, including Avery's Pond and the associated canals. Interpret these historic features where appropriate.
- RATBAR-16: Manage Avery's Pond to protect significant historic features and to provide aquatic habitat for native species. Interpret natural and cultural resources as appropriate. Refer to Guideline MARSH/POND-7 for further information.
- RATBAR-17: Control nuisance wildlife species within the management zone in close consultation with the California Department of Fish and Game and U.S. Fish and Wildlife Service. Refer to the guidelines in Appendix C for more information.

Interpretation and Education

- RATBAR-18: Provide or improve an interpretive nature trail to Avery's Pond that includes displays related to the history and ecology of the pond area in keeping with the relevant primary interpretive themes established in the General Plan. Key interpretive elements could include: special status wildlife species, such as the Western pond turtle; riparian habitat management and protection; and historic mining and settlement in the area.

20. North Fork Shore

Statement of Management Intent

The second-largest upland management zone on Folsom Lake by area, this zone includes both the western and eastern shorelines of the North Fork of the American River. Along the western shore, the zone stretches north to the limit where it meets Auburn State Recreation Area. Along the eastern shore, the zone stretches south from the SRA limit to the Peninsula area. The upper reach of the zone is characterized by steep canyon walls as the North Fork narrows into the foothills. This combined with only a narrow band of land ownership by State Parks results in little room for recreation facilities of any kind. The Pioneer Express pedestrian/equestrian trail, which travels 21 miles along the western shoreline between Beals Point and the City of Auburn, is the only recreation facility in the zone. Vegetation represents a mix of interior live oak woodland and blue oak woodland and savanna. The management intent for this zone is to maintain and enhance its role as a natural and scenic link for trail users between the SRA and Auburn SRA.

North Fork Shore Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Low Intensity Recreation/Conservation	942	0	942

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Recreation

NORTHFORK-1: Determine the feasibility of providing a trail bridge across the North Fork to connect the Pioneer Express pedestrian/equestrian trail on Placer County side of the American River with the proposed North Fork trail on the El Dorado County side of the river. Develop the trail bridge if feasible. Refer to Guideline NORTHFORK-3 below for further details. Work with Placer and El Dorado counties to ensure trail connections are maximized.

NORTHFORK-2: Accommodate a trail bridge across the North Fork to serve as a crossing for the Auburn to Cool Trail—which primarily is located within adjacent Auburn SRA—if site specific planning determines this is feasible. This trail bridge is being studied to compensate for the loss of the current crossing when the river is restored to its historic

channel as part of the Placer County Water Agency Pump Station Project. The bridge would only be located within Folsom Lake SRA if this is deemed more appropriate and feasible than a crossing further north within the Auburn SRA.

NORTHFORK-3: Establish a new trail corridor along the east side of the North Fork. Initially this trail would extend from the Peninsula area to the North Fork Trail bridge proposed in Guideline NORTHFORK-1 above, and could ultimately extend further north to the Knickerbocker Flat area or the potential Auburn-Cool Trail Bridge. Trail designation will be determined by the Trail Master Plan proposed in Guideline VISIT-34.

Resource Management

NORTHFORK-4: Restore fire to its role as a natural ecological process within chaparral, oak woodland, savanna, and grassland habitat in the management zone, in conjunction with the *2003 Draft Prescribed Fire Management Plan*. Consider fire management and fuel conditions where improvements are proposed within the SRA and on adjacent land. Refer to guidelines CHAPARRAL-1 through CHAPARRAL-4, WOODLAND-3 and WOODLAND-7 for further information.

NORTHFORK-5: Manage chaparral and oak woodlands to protect special status plant species within the management zone. Refer to guidelines CHAPARRAL-5 through CHAPARRAL-7 and WOODLAND-2 for further information.

NORTHFORK-6: Manage invasive exotic weed species in the oak woodland, savanna, grassland, and ruderal areas of the management zone in accordance with the guidelines in Appendix B. Refer to the Plant Life Management guidelines in Section C of this Chapter and to Appendix D for further information.

NORTHFORK-7: Protect and manage grassland and ruderal areas of the management zone that are known or potential habitat for the following special status species: California horned lizard, burrowing owl and loggerhead shrike. Refer to guidelines GRASSLAND-1 through GRASSLAND 4 for further information.

- NORTHFORK-8: Protect and manage riparian habitat within the management zone. Refer to Guideline RIPARIAN-1 for further information.
- NORTHFORK-9: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone. Refer to guidelines RIPARIAN-5 through RIPARIAN-7 for further information.
- NORTHFORK-10: Protect riparian areas of the management zone that are known or potential habitat for special status aquatic amphibian and reptile species, such as the Western pond turtle, California red-legged frog, and Foothill yellow-legged frog. Refer to Guideline RIPARIAN-8 for further information.
- NORTHFORK-11: Protect wading bird roosting areas and rookeries in the management zone. Refer to guidelines RIPARIAN-12 through RIPARIAN-14 for further information.
- NORTHFORK-12: Avoid impacts to yellow-breasted chat and yellow warbler nesting in riparian areas where park improvements or Himalayan blackberry management activities are proposed. Refer to guidelines RIPARIAN-15 and RIPARIAN-16 for further information.

Operations

- NORTHFORK-13: Work with El Dorado County and neighboring landowners to acquire any land or easements needed to complete the North Fork trail corridor proposed in Guideline NORTHFORK-3 above. This may be necessary in cases where a suitable alignment cannot reasonably be accommodated within the existing SRA limit due to physical constraints, i.e. steep slopes and inadequate land area. Refer to the Park-wide Goals and Guidelines for Park Operations as they relate to land acquisition in the SRA.

21. Anderson Island

Statement of Management Intent

The smallest management zone in the SRA, Anderson Island is located on the North Fork of the American River midway between Doton's Point and Rattlesnake Bar. The island, which

is a rookery/roosting area for Great blue herons and Great egrets, is one of two areas within the SRA classified as a Natural Preserve in recognition of its significant and sensitive resource values. The management intent for this zone is to maintain and enhance its role as an important nesting and roosting site for herons, egrets and other wading birds. The Statement of Purpose developed for Anderson Island Natural Preserve in 1975 indicates that no overnight activities are to be permitted on the Island and day use activities may be accommodated to the extent that there are no impacts to the natural values, particularly the rookery.

Anderson Island Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Preservation	13	0	13

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Resource Management

ANDERSON-1: Protect the rookery. Manage human use to minimize the disturbance to the rookery and prevent the displacement of the egrets and herons and abandonment of the rookery due to human use. Prohibit overnight use of the Island. Close the area to public day use during the nesting season and consider an exclusion zone around Anderson Island for watercraft during the nesting season. Use buoys and signs around the island as a means of communicating this area closure. Refer to Guideline RIPARIAN-21 for further information.

ANDERSON-2: Prepare and implement a project burn plan for the management zone in accordance with the 2003 Unit-wide Prescribed Burn Plan. Refer to Guideline CHAPARRAL-1 for further information.

ANDERSON-3: Manage oak woodlands to protect special status plant species within the management zone. Refer to guideline WOODLAND-2 for further information.

ANDERSON-4: Manage invasive exotic weed species in the oak woodland, savanna, and grassland areas of the management zone in accordance with the guidelines in Appendix B. Refer to the Plant Life Management guidelines in Section C of this Chapter and to Appendix D for further information.

ANDERSON-5: Consider alternative vegetation management strategies for areas in the management zone where existing constraints preclude safe implementation of prescribed burning. Refer to Guideline WOODLAND-7 for further information.

Interpretation and Education

ANDERSON-6: Interpret the rookery as an important natural resource that needs protection. Signage and information at nearby access points and guided interpretive programs are potential strategies. Key interpretive aspects could include: Natural Preserve designation; ongoing management and protection; and heron and egret species lifecycle. Refer to guidelines RIPARIAN-22 and INTERPRET-15 for further information.

22. Peninsula

Statement of Management Intent

This Peninsula management zone, the largest upland zone in the SRA, represents the primary upland holding within the SRA. The area’s live and blue oak studded hills and high ridgelines—the highest in the SRA—are punctuated only by large areas of annual grassland and chaparral. Vehicle access to area is provided by Rattlesnake Bar Road which connects to Highway 49 at Pilot Hill about 9 miles away. Facilities in this zone include the Peninsula Campground with 104 single sites, five restrooms (no showers), two boat ramps, an ADA trail, and a small amphitheater for group use. The area also includes temporary seasonal housing for four Park employees, a permanent park ranger residence, a trailer pad for employee housing and a small maintenance yard. The management intent for this zone is to maintain the natural and scenic character of the area while enhancing overnight and day-use recreation resources. Expanded opportunities for interpretation, education, and resource management will also be pursued. Facilities and improvements in this area will focus on overnight visitors.

Peninsula Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Low Intensity Recreation/Conservation	1,465	0	1,465

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Recreation

- PENINSULA-1: Expand the Peninsula Campground by approximately 50 to 100 sites as a means of accommodating any camping capacity lost as a result of the converting a portion of Beals Point Campground to group camping and providing additional camping opportunities within the SRA. Consider condition of Rattlesnake Bar Road in determining specific campground expansion. Refer to Guideline BEALSPOINT-1 for further information.
- PENINSULA-2: Provide shower facilities at Peninsula campground to enhance visitor comfort. The current lack of such facilities at the campground is often highlighted by campers here as a significant shortcoming.
- PENINSULA-3: Ensure that improvements at Peninsula Campground, including additional sites and shower facilities, are adequately serviced by an effective onsite wastewater treatment system. It is possible that serpentine soils present in the Peninsula area would not permit the expansion of the existing leach field system.
- PENINSULA-4: Develop trailhead facilities, including parking and trail information sign. As trail use in the area grows and new trails developed, include additional trailhead and equestrian staging facilities as needed including, restrooms, hitching rails, water troughs and picnic tables. This trailhead would mark the beginning of the proposed trail corridor from the Peninsula area north along the North Fork of the American River and could also serve as a more formal access to the Darrington Trail and other trails in the area. Refer to guidelines NORTHFORK-1 through 3 for further information.
- PENINSULA-5: Convert portions of the abandoned roadways in the area for trail use as appropriate. The identification of appropriate trail segments, and their designation, will be determined by the Trail Master Plan proposed in Guideline VISIT-34.

Resource Management

- PENINSULA-6: Design and implement management strategies and actions to protect the cultural resources within the zone. Actions could include increased boat patrol, posted orders and signage closing areas to public use during low water conditions, and information at access points on the illegality of collecting artifacts and the penalties for doing so.
- PENINSULA-7: Where feasible, avoid trail alignments that pass through areas of chamise chaparral habitat. Such alignments could threaten potential habitat for special status plant and animal species and human use can be a factor in wildland fire danger. Refer to policies CHAPARRAL-2 and CHAPARRAL-4 for further information.
- PENINSULA-8: Restore fire to its role as a natural ecological process within chaparral, oak woodland, savanna, and grassland habitat in the management zone, in conjunction with the *2003 Draft Prescribed Fire Management Plan*. Consider fire management and fuel conditions where improvements are proposed within the SRA and on adjacent land. Refer to guidelines CHAPARRAL-1 through CHAPARRAL-4, WOODLAND-3 and WOODLAND-7 for further information.
- PENINSULA-9: Manage chaparral and oak woodlands to protect special status plant species within the management zone. Refer to guidelines CHAPARRAL-5 through CHAPARRAL-7 and WOODLAND-1 through WOODLAND-2 for further information.
- PENINSULA-10: Protect and manage chaparral, grassland, and ruderal areas of the management zone that are known or potential habitat for the following special status species: California horned lizard, burrowing owl and loggerhead shrike. Refer to guidelines CHAPARRAL-8 through CHAPARRAL-9 and GRASSLAND-1 through GRASSLAND 4 for further information.
- PENINSULA-11: Manage invasive exotic weed species in the chaparral, oak woodland, savanna, grassland, and ruderal areas of the management zone in accordance with the guidelines in Appendix B. Refer to the Plant Life Management guidelines in Section C of this Chapter and to Appendix D for further information.

- PENINSULA-12: Protect and manage riparian habitat within the management zone. Refer to Guideline RIPARIAN-1 for further information.
- PENINSULA-13: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone. Refer to guidelines RIPARIAN-5 through RIPARIAN-7 for further information.
- PENINSULA-14: Protect riparian areas of the management zone that are known or potential habitat for special status aquatic amphibian and reptile species, such as the Western pond turtle, California red-legged frog, and Foothill yellow-legged frog. Refer to Guideline RIPARIAN-8 for further information.
- PENINSULA-15: Protect wading bird roosting areas and rookeries in the management zone. Refer to guidelines RIPARIAN-12 through RIPARIAN-14 for further information.
- PENINSULA-16: Avoid impacts to yellow-breasted chat and yellow warbler nesting in riparian areas where park improvements or Himalayan blackberry management activities are proposed. Refer to guidelines RIPARIAN-15 and RIPARIAN-16 for further information.
- PENINSULA-17: Control nuisance wildlife species within the management zone in close consultation with the California Department of Fish and Game and U.S. Fish and Wildlife Service. Refer to the guidelines in Appendix C for more information.

Interpretation and Education

- PENINSULA-18: Develop a program to interpret various aspects of the area in keeping with the relevant primary interpretive themes established in the General Plan. Key aspects could include: scenic resources, including distance and direction to key landmarks at Peninsula Point; geologic resources, including the presence of serpentine soils and associated habitat; and significant natural habitat features, such as interior live oak woodland, blue oak woodland and savanna, and chamise chaparral.

23. Darrington

Statement of Management Intent

The Darrington zone extends along the northern shoreline of the South Fork of the American River from the Peninsula to Salmon Falls. The zone is characterized by steep canyon walls as the South Fork narrows into the foothills, particularly at the outfalls of Hancock and Indian Springs creeks. It also includes a complex variety of habitat types, including chamise chaparral, interior live oak woodland, blue oak woodland, grassland, and riparian. The zone is also rich in cultural resources. The Darrington pedestrian/mountain bike trail, which travels 9 miles along the South Fork between Peninsula Campground and Salmon Falls Bridge, is the only recreation facility in the zone. The management intent for this zone is to maintain and enhance its role as a natural and scenic link for trail users between Salmon Falls and the Peninsula and to protect the important cultural resources located within this zone.

Darrington Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Low Intensity Recreation/Conservation	337	0	337

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Classification

DARRINGTON-1: Propose portions of the South Fork shoreline which contain important archaeological and historic resources and sites for classification as a Cultural Preserve. This designation would enhance the ability to effectively protect and manage the cultural resources and provide opportunities for interpretation and education. The classification of this sub-unit will require a separate classification and naming document that will be reviewed and considered by the State Park and Recreation Commission.

Resource Management

DARRINGTON-2: Design and implement management strategies and actions to protect the cultural resources within the zone. Actions could include increased boat patrol, posted orders and signage closing areas to public use during low water conditions, and information at access

points on the illegality of collecting artifacts and the penalties for doing so.

- DARRINGTON-3: Restore fire to its role as a natural ecological process within chaparral, oak woodland, savanna, and grassland habitat in the management zone, in conjunction with *the 2003 Draft Prescribed Fire Management Plan*. Consider fire management and fuel conditions where improvements are proposed within the SRA and on adjacent land. Refer to guidelines CHAPARRAL-1 through CHAPARRAL-4, WOODLAND-3 and WOODLAND-7 for further information.
- DARRINGTON-4: Manage chaparral and oak woodlands to protect special status plant species within the management zone. Refer to guidelines CHAPARRAL-5 through CHAPARRAL-7 and WOODLAND-1 through WOODLAND-2 for further information.
- DARRINGTON-5: Protect and manage chaparral, grassland, and ruderal areas of the management zone that are known or potential habitat for the following special status species: California horned lizard, burrowing owl and loggerhead shrike. Refer to guidelines CHAPARRAL-8 through CHAPARRAL-9 and GRASSLAND-1 through GRASSLAND 4 for further information.
- DARRINGTON-6: Manage invasive exotic weed species in the chaparral, oak woodland, savanna, and grassland areas of the management zone in accordance with the guidelines in Appendix B. Refer to the Plant Life Management guidelines in Section C of this Chapter and to Appendix D for further information.
- DARRINGTON-7: Protect and manage riparian habitat within the management zone. Refer to Guideline RIPARIAN-1 for further information.
- DARRINGTON-8: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone. Refer to guidelines RIPARIAN-5 through RIPARIAN-7 for further information.

DARRINGTON-9: Protect riparian areas of the management zone that are known or potential habitat for special status aquatic amphibian and reptile species, such as the Western pond turtle, California red-legged frog, and Foothill yellow-legged frog. Refer to guidelines RIPARIAN-8 for further information.

DARRINGTON-10: Protect wading bird roosting areas and rookeries in the management zone. Refer to guidelines RIPARIAN-12 through RIPARIAN-14 for further information.

DARRINGTON-11: Avoid impacts to yellow-breasted chat and yellow warbler nesting in riparian areas where park improvements or Himalayan blackberry management activities are proposed. Refer to guidelines RIPARIAN-15 and RIPARIAN-16 for further information.

Recreation

DARRINGTON-12: Improve the Darrington pedestrian/mountain bike trail as necessary to provide appropriate user safety and minimize erosion problems. Specific improvements and affected trail segments will be determined by the Trail Master Plan proposed in Guideline VISIT-36.

Interpretation and Education

DARRINGTON-13: Provide signs and displays at access points to interpret various aspects of the area in keeping with the relevant primary interpretive themes established in the General Plan. Key aspects could include: geologic resources, including the presence of serpentine soils and supported habitat; significant natural habitat features, such as interior live oak woodland, blue oak woodland and savanna, and chamise chaparral; and significant archaeological resources and management.

24. Skunk Hollow/Salmon Falls

Statement of Management Intent

The Skunk Hollow/Salmon Falls management zone includes the final 1.5-mile segment of the 21-mile whitewater run of the South Fork of the American River between Chili Bar Dam and Salmon Falls Road. This stretch of the American River is one of the most heavily used rivers in the West. Between 50,000 and 60,000 commercial boaters take-out at Salmon Falls,

while as many as 24,000 general public boaters take-out at Skunk Hollow. Park facilities in this zone include two raft take-out areas, 4 vault toilets, and paved parking for roughly 80 vehicles. Both facilities receive heavy use during peak season weekends resulting in backups onto Salmon Falls Road and overflow parking on the shoulders of Salmon Falls Road. The limited existing public land area here would make any expansion of existing facilities and parking areas difficult. Acquisition of additional public land in this area would provide the opportunity to better serve trail and river users. This area also contains important historic resources. The management intent for this zone is to maintain and enhance day-use recreation resources while exploring opportunities to reduce congestion and protecting the important cultural resources within the zone

Skunk Hollow/Salmon Falls Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Recreation – Medium	389	0	389

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Recreation

SKUNK/SALMON-1: Work with the U.S. Bureau of Land Management, American River Conservancy, and others to provide connection between the proposed BLM trail along the South Fork and Folsom Lake SRA trails. Trail designation will be determined by the Trail Master Plan proposed in Guideline VISIT-36.

SKUNK/SALMON-2: Develop a management plan and/or strategies to manage access, parking, queuing, and raft take-out at Skunk Hollow and Salmon Falls during peak use periods. Coordinate with El Dorado County, BLM, outfitters and user groups as appropriate to develop and implement this plan. Refer to Guideline VISIT-24 for further information.

Resource Management

SKUNK/SALMON-3: Restore fire to its proper role as an ecological process in the management zone, particularly in chaparral areas, in conjunction with the *2003 Draft Prescribed Fire Management Plan*. Prescribed fire can improve habitat conditions, control exotic species, provide more natural plant community structure and remove

excessive fuel loads. Refer to guidelines CHAPARRAL-1 through CHAPARRAL-3 for further information.

- SKUNK/SALMON-4: Manage chaparral and oak woodlands to protect special status plant species within the management zone. Refer to guidelines CHAPARRAL-5 through CHAPARRAL-7 and WOODLAND-1 through WOODLAND-2 for further information..
- SKUNK/SALMON-5: Protect and manage chaparral, grassland, and ruderal areas of the management zone that are known or potential habitat for the following special status species: California horned lizard and burrowing owl. Refer to guidelines CHAPARRAL-8 through CHAPARRAL-9 and GRASSLAND-1 through GRASSLAND-3 for further information.
- SKUNK/SALMON-6: Manage invasive exotic weed species in the chaparral, oak woodland, savanna, and grassland areas of the management zone in accordance with the guidelines in Appendix B. Refer to the Plant Life Management guidelines in Section C of this Chapter and to Appendix D for further information.
- SKUNK/SALMON-7: Protect bats in ruderal, barren and other natural areas. Use passive means to exclude bats from inhabiting developed facilities. Refer to Guideline RUDERAL-3 for further information.
- SKUNK/SALMON-8: Protect and manage riparian habitat within the management zone. Refer to Guideline RIPARIAN-1 for further information.
- SKUNK/SALMON-9: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone. Refer to guidelines RIPARIAN-5 through RIPARIAN-7 for further information.
- SKUNK/SALMON-10: Protect riparian areas of the management zone that are known or potential habitat for special status aquatic amphibian and reptile species, such as the Western pond turtle, California red-legged frog, and Foothill yellow-legged frog. Refer to guidelines RIPARIAN-8 for further information.

SKUNK/SALMON-11: Protect wading bird roosting areas and rookeries in the management zone. Refer to guidelines RIPARIAN-12 through RIPARIAN-14 for further information.

SKUNK/SALMON-12: Avoid impacts to yellow-breasted chat and yellow warbler nesting in riparian areas where park improvements or Himalayan blackberry management activities are proposed. Refer to guidelines RIPARIAN-15 and RIPARIAN-16 for further information.

25. El Dorado Shore

Statement of Management Intent

The El Dorado Shore zone extends roughly 14 miles along the southern shoreline of the South Fork of the American River from Salmon Falls to Brown's Ravine. As with the Darrington zone on the opposite side of the river, this zone includes a range of habitat types, including chamise chaparral, interior live oak woodland, blue oak woodland, and grassland. The zone has one of the lowest elevation natural stands of Ponderosa pines in the State and also contains an experimental stand of pines planted by the U. S. Forest Service Genetics Laboratory in Camino. There are important historic and pre-historic cultural resources in the zone. Steep terrain occurs along the shoreline, particularly in the area of Salmon Falls, Iron Mountain, and New York Creek. Rural residential development continues to be constructed along Salmon Falls Road adjacent to the SRA and is visible from many unit locations.

Day use facilities in this zone include a large pull-out just off Salmon Falls Road—commonly referred to as Falcon Crest—that is used as informal parking area and equestrian staging area. Old Salmon Falls (Jack's Shack) is a small trailhead and parking area that provides access to the Brown's Ravine trail, a pedestrian/equestrian trail that links Old Salmon Falls to Brown's Ravine 12 miles south. An informal trail extends from Old Salmon Falls one mile north and connects to the Sweetwater Creek multi-use trail. The Sweetwater Creek trail extends 2 miles further north to Salmon Falls. The zone also contains the remnants of an old private campground (Monte Vista) that has long been abandoned and overgrown. The El Dorado Irrigation District (EID) raw water pump station and associated facilities, operating under a license agreement with Reclamation, is also located in this management zone. The management intent for this zone is to maintain the natural and scenic character of the area and protecting the important cultural resources while enhancing trail use and access.

El Dorado Shore Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Low Intensity Recreation/Conservation	835	0	835

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Recreation

- ELDOSHORE-1: Designate and upgrade as necessary the informal trail between Old Salmon Falls and Sweetwater Creek. Closure of this one-mile trail gap would allow uninterrupted travel from Brown's Ravine in the south to Salmon Falls in the north, a distance of about 15 miles. Trail designation and the nature of the improvements will be determined by the Trail Master Plan proposed in Guideline VISIT-34.
- ELDOSHORE-2: Formalize trailhead parking at Sweetwater Creek, including providing a small parking area and trail information sign, when appropriate and feasible. Provide a trail bridge or crossing of Sweetwater Creek as necessary and feasible. Currently, a wide shoulder and gate, just off Salmon Falls Road, serves as an informal parking area and access point to the Sweetwater trail.
- ELDOSHORE-3: Formalize the trailhead, including parking and trail information sign, at the Falcon Crest area. The trailhead should be large enough to permit equestrian staging and provide access to trails that pass through the area.
- ELDOSHORE-4: Consider development of small picnic facility in this area, either in association with the improvements to the Falcon Crest trailhead and staging area, at the Old Salmon Falls location or in the vicinity of the former Monte Vista campground site.

Resource Management

- ELDOSHORE-5: Propose portions of the South Fork shoreline which contain important archaeological and historic resources and sites for classification as a Cultural Preserve. This designation would enhance the ability to effectively protect and manage the cultural resources

and provide opportunities for interpretation and education. The classification of this sub-unit will require a separate classification and naming document that will be reviewed and considered by the State Park and Recreation Commission.

- ELDOSHORE-6: Design and implement management strategies and actions to protect the cultural resources within the zone. Actions could include increased boat patrol, posted orders and signage closing areas to public use during low water conditions and information at access points on the illegality of collecting artifacts and the penalties.
- ELDOSHORE-7: Restore fire to its role as a natural ecological process within chaparral, oak woodland, savanna, and grassland habitat in the management zone, in conjunction with the *2003 Draft Prescribed Fire Management Plan*. Consider fire management and fuel conditions where improvements are proposed within the SRA and on adjacent land. Refer to guidelines CHAPARRAL-1 through CHAPARRAL-4, WOODLAND-3 and WOODLAND-7 for further information.
- ELDOSHORE-8: Manage chaparral and oak woodlands to protect special status plant species within the management zone. Refer to guidelines CHAPARRAL-5 through CHAPARRAL-7 and WOODLAND-1 through WOODLAND-2 for further information.
- ELDOSHORE-9: Protect and manage chaparral, grassland, and ruderal areas of the management zone that are known or potential habitat for the following special status species: California horned lizard, burrowing owl and loggerhead shrike. Refer to guidelines CHAPARRAL-8 through CHAPARRAL-9 and GRASSLAND-1 through GRASSLAND 4 for further information.
- ELDOSHORE-10: Manage invasive exotic weed species in the oak woodland, savanna, and grassland areas of the management zone in accordance with the guidelines in Appendix B. Refer to the Plant Life Management guidelines in Section C of this Chapter and to Appendix D for further information.

- ELDOSHORE-11: Protect bats in ruderal, barren and other natural areas. Use passive means to exclude bats from inhabiting developed facilities. Refer to Guideline RUDERAL-3.
- ELDOSHORE-12: Protect and manage riparian habitat within the management zone. Refer to Guideline RIPARIAN-1 for further information.
- ELDOSHORE-13: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone. Refer to guidelines RIPARIAN-5 through RIPARIAN-7 for further information.
- ELDOSHORE-14: Protect riparian areas of the management zone that are known or potential habitat for special status aquatic amphibian and reptile species, such as the Western pond turtle, California red-legged frog, and Foothill yellow-legged frog. Refer to guidelines RIPARIAN-8 for further information.
- ELDOSHORE-15: Protect wading bird roosting areas and rookeries in the management zone. Refer to guidelines RIPARIAN-12 through RIPARIAN-14 for further information.
- ELDOSHORE-16: Avoid impacts to yellow-breasted chat and yellow warbler nesting in riparian areas where park improvements or Himalayan blackberry management activities are proposed. Refer to guidelines RIPARIAN-15 and RIPARIAN-16 for further information.
- ELDOSHORE-17: As appropriate and feasible, enhance the utility of lake shoreline wildlife corridors within the management zone by improving vegetative cover. Refer to Guideline SHORELINE-1 for further information.

Operations

- ELDOSHORE-18: Work with El Dorado County to ensure that existing and proposed residential development along the SRA boundary avoids or minimizes impacts to SRA resources, including: stormwater runoff; encroachment and illegal access to the SRA; increases in wildfire danger through the design, location, and construction of structures adjacent to the SRA. The goal is to achieve:

- No net increase in stormwater runoff onto SRA lands;
- Appropriate buffers and setbacks for adjacent property owners to provide necessary vegetation clearance on private lands;
- Fire safe building materials; and
- Prevent the creation of exclusive access to the SRA from adjacent private property.

Efforts to pursue this goal could include development application review, adoption of best management practices (BMPs) for stormwater runoff, and monitoring and enforcement.

ELDOSHORE-19: Work with neighboring homeowners’ associations, the California Department of Forestry, and the El Dorado Hills Fire Department to develop shaded fuel breaks or other strategies to address wildfire risk created by the close proximity of residential development to this area.

ELDOSHORE-20: Work cooperatively with the El Dorado Irrigation District to accommodate the needs of their water supply facility, as appropriate, while protecting the resources and public uses and facilities of the SRA.

Scenic

ELDOSHORE-21: Work with El Dorado County to protect key views and minimize the visual intrusion of existing and proposed development surrounding the recreation areas of this management zone. This includes minimizing the impact of lighting on nocturnal wildlife and the night sky. Refer to Guideline VISUAL-2 for further information.

ELDOSHORE-22: Where appropriate, provide additional landscaping along the SRA boundary and in other locations to minimize the visual intrusion of existing and proposed development that continues to occur along Salmon Falls Road. Locally native drought-resistant plant species should be used and should reflect the dominant habitat present in each particular location. Refer to Guideline VISUAL-4 for further information.

26. Brown's Ravine

Statement of Management Intent

Brown's Ravine is home to Folsom Lake Marina, the only marina facility in the SRA. This concession-operated facility includes 685 wet slips, 175 dry storage spaces, 2 launch ramps with a total of 7 lanes, marine provisions, fuel station, restrooms, and paved parking for 725 vehicles. Interest in slip rentals here has boomed in recent years due to the growth in residential development nearby. In addition, launching here on peak season weekends becomes difficult due to crowding.

Currently there is a 5-year waiting list for sixteen- and twenty-foot slips and a 9-year wait for twenty-four-foot slips. As part of the General Plan process, it was determined that demand exists for additional marina capacity in the SRA – in fact, the demand for slips at Folsom Lake Marina is higher than at any other facility surveyed in the region. Based on this determination, several potential locations for a second marina were analyzed based on suitable basin elevation, including New York Creek, Peninsula, Dike 5, and Buzzard Cove. Despite the suitability of these locations from an engineering perspective, it was determined that most had significant shortcomings with respect to access, upland area available for development, compatibility with surrounding land use, natural and cultural resource impacts, and land ownership.

Various alternatives for expanding capacity at the existing marina were then considered. These alternatives, which included single and double point buoy berthing and simple dock extension, would increase slip capacity by anywhere from 5 to 70 percent without dredging Brown's Ravine (refer to Chapter II, Section C.4 for further information). The General Plan calls for a 30-50 percent increase in marina capacity and supporting landside facilities to be accommodated at the existing facility.

The management intent for this zone is to enhance and expand existing aquatic recreation resources to reduce congestion and improve access to Folsom Lake. Facilities and improvements in this area will continue to emphasize high quality day-use aquatic recreation opportunities and an enhanced visitor experience.

Brown's Ravine Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Recreation – High	91	0	91

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Recreation

- BROWNS-1: Increase slip capacity at Folsom Lake Marina by between 30 and 50 percent—or between 200 and 340 slips—by extending the existing dock system. This increase in capacity would likely require the following improvements:
- Extension of the existing docks;
 - Upgrading of the mooring system to ensure safe clearance between the outer ends of the docks. Mooring systems that automatically adjust to fluctuating water levels could be implemented; and
 - Possible improvements to the breakwater system to reduce the exposure of the expanded docks to wind and wave energy from Folsom Lake. Dredging of Brown’s Ravine may not be required to accommodate this expansion, although dredging could be pursued as a means of extending the boating season at the marina by allowing access to Folsom Lake at lower water levels.
- BROWNS-2: Conduct further detailed study and analysis to identify the specific improvements needed to increase slip capacity at the marina and the extent of such an increase. For instance, an evaluation of wind and wave climatology is needed to determine whether improving the breakwater system or providing a stronger dock system—or some combination of the two—is appropriate.
- BROWNS-3: Provide landside facilities as necessary to accommodate the increased slip capacity within existing developed marina and day use areas. Such facilities could include expanded restrooms, concessions, and parking. Existing dry boat storage—a fenced area that can hold 175 boats—could be eliminated, moved, or reconfigured as a means of increasing the parking capacity necessary to accommodate increased slip capacity. The precise location and configuration of any facility will be determined through site-specific planning. The intent of this guideline is to accomplish marina expansion while avoiding the need to develop landside facilities on the southern shore of Brown’s Ravine at Mormon Island Point.

- BROWNS-4: Consider phasing the increase in slip capacity at the marina in order to accurately assess demand, identify needed landside facilities, refine circulation and parking during peak periods, and familiarize current and new marina users.
- BROWNS-5: Consider reconfiguration of the marina and Hobie Cove boat ramps as a means of maximizing launch capacity and reducing congestion during peak times. Reconfiguration may result in additional launch lanes or the simple addition of boarding floats. In any case, the capacity of launch ramps must be fully realized prior to the consideration of ramp expansion.

Note: While maximizing launch capacity could put more boats in the water, this capacity cannot be fully utilized without adequate nearby parking. Launch capacity will not be increased where the provision of additional parking is deemed inappropriate with the goals and objectives of the management zone. Refer to Guideline VISIT-10 for further information.

- BROWNS-6: Reconfigure the marina parking area to provide a designated queue lane and suitable turnaround area at the main boat ramp to maximize launch capacity and reduce congestion during peak times. This effort should be coordinated with the provision of any landside facilities deemed necessary to accommodate the increase in slip capacity proposed here. Refer to Guideline BROWNS-3 for further information.
- BROWNS-7: Pursue development of a multi-use facility at Brown's Ravine or at Folsom Point whose primary function would be for water safety training. Such a facility could be used by State Parks, local recreation groups, and the community in general. Refer to Guideline MULTI-3 for further information.
- BROWNS-8: Prepare a development plan for Brown's Ravine that coordinates the various recreation policies and facility improvements and establishes a prioritized approach to future development.

Operations

- BROWNS-9: Upgrade the stormwater system at the Folsom Lake Marina to accommodate increased flow volumes resulting from surrounding development. This upgrade would prevent overflows across the marina

entrance road and parking area that currently occurs during storm events and reduce siltation of the marina basin. Refer to Guideline WATER-6 for further information.

BROWNS-10: Work with El Dorado County to assess possible best management practices (BMPs) for stormwater management both in the upstream watershed and on SRA lands to reduce the amount of sediment entering Brown's Ravine. It is estimated that the high sediment load flowing through Brown's Ravine due to upstream development has added approximately 1.5 feet of sediment to the marina basin.

Resource Management

BROWNS-11: Manage oak woodlands to protect special status plant species within the management zone. Refer to guideline WOODLAND-2 for further information.

BROWNS-12: Consider alternative vegetation management strategies for areas in the management zone where existing constraints preclude safe implementation of prescribed burning. Refer to Guideline WOODLAND-7 for further information.

BROWNS-13: Protect and manage grassland and ruderal areas of the management zone that are known or potential habitat for the following special status species: California horned lizard and burrowing owl. Refer to guidelines GRASSLAND-1 and GRASSLAND-2 for further information.

BROWNS-14: Protect bats in ruderal, barren and other natural areas. Use passive means to exclude bats from inhabiting developed facilities. Refer to Guideline RUDERAL-3.

BROWNS-15: Protect and manage riparian habitat within the management zone. Refer to Guideline RIPARIAN-1 for further information.

BROWNS-16: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone. Refer to guidelines RIPARIAN-5 through RIPARIAN-7 for further information.

- BROWNS-17: Avoid impacts to yellow-breasted chat and yellow warbler nesting in riparian areas where park improvements or Himalayan blackberry management activities are proposed. Refer to guidelines RIPARIAN-15 and RIPARIAN-16 for further information.
- BROWNS-18: As appropriate and feasible, enhance the utility of lake shoreline wildlife corridors within the management zone by improving vegetative cover. Refer to Guideline SHORELINE-1 for further information.
- BROWNS-19: Control nuisance wildlife species within the management zone in close consultation with the California Department of Fish and Game and U.S. Fish and Wildlife Service. Refer to the guidelines in Appendix C for more information.
- BROWNS-20: Continue and expand water quality sampling efforts within the management zone. Refer to guidelines WATER-4 and WATER-5 for further information.

27. Mormon Island Cove

Statement of Management Intent

This 276-acre area of interior live oak and blue oak woodlands extends south from Brown's Ravine to Mormon Island Dam. The area is primarily natural with the only facilities being a segment of the Folsom Point/Brown's Ravine dirt multi-use trail and a small trailhead located near Mormon Island Dam. As part of the ongoing and proposed flood protection and dam safety projects, significant work will likely be completed on Mormon Island Dam. Hundreds of thousands if not more than a million cubic yards of material will likely be added to the structure to strengthen and possibly raise the dam. The toe of the dam may be extended almost to Green Valley Road. Despite this activity, the management intent for this zone is to maintain and enhance its role as a natural and scenic link for trail users between Brown's Ravine to the north and Folsom Point to the south.

Mormon Island Cove Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Low Intensity Recreation/Conservation	276	0	276

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Recreation

- MORMONCOVE-1: Make improvements to the trailhead as use and demand increase, including restrooms, paved parking and picnic tables. As feasible, relocate the existing trailhead facility at Mormon Island Dam closer to Green Valley Road and intersection with Sophia Parkway to increase visibility, reduce the risk of vandalism, and ease patrol of the area.
- MORMONCOVE-2: Develop a Class I bike path from the trailhead at Mormon Island Dam to Dike 7. This path would utilize the existing Folsom Point/Brown's Ravine multi-use trail/service road across Mormon Island Dam to Folsom Point and extend across Dike 8 to a proposed trailhead at Dike 7. If completed in conjunction with other new trail corridors proposed in the General Plan, then cyclists could eventually ride on paved bike lanes and paths from El Dorado Hills to Discovery Park in Downtown Sacramento along the American River Bike Trail. Consider extending this paved bike path from Mormon Island Cove to Browns Ravine. Refer to guidelines NATOMACAN-1, NATOMACAN-2, POWERHOUSE-4 and POWERHOUSE-5 for further information.
- MORMONCOVE-3: During Dam Safety and Flood Damage Reduction construction activities, as indicated in the ROD for this project, ensure that travel to and through the zone on existing segments of the SRA trail system is maintained, including identification and implementation of alternate routes, posting of trail closures and alternative access points, and design and implementation of re-established trail segments once construction is complete.

Resource Management

MORMONCOVE-4: Manage oak woodlands to protect special status plant species within the management zone. Refer to guideline WOODLAND-2 for further information.

MORMONCOVE-5: Restore fire to its proper role as an ecological process in the management zone in conjunction with the 2003 Draft Prescribed Fire Management Plan. Prescribed fire can improve habitat conditions, control exotic species, provide more natural plant community structure and remove excessive fuel loads.

MORMONCOVE-6: Manage invasive exotic weed species in the oak woodland, savanna, and grassland areas of the management zone in accordance with the guidelines in Appendix B. Refer to the Plant Life Management guidelines in Section C of this Chapter and to Appendix D for further information.

MORMONCOVE-7: Protect and manage chaparral, grassland, and ruderal areas of the management zone that are known or potential habitat for the following special status species: California horned lizard, burrowing owl and loggerhead shrike. Refer to guidelines CHAPARRAL-8 through CHAPARRAL-9 and GRASSLAND-1 through GRASSLAND 4 for further information.

MORMONCOVE-8: Protect bats in ruderal, barren and other natural areas. Use passive means to exclude bats from inhabiting developed facilities. Refer to Guideline RUDERAL-3.

MORMONCOVE-9: Protect and manage riparian habitat within the management zone. Refer to Guideline RIPARIAN-1 for further information.

MORMONCOVE-10: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone. Refer to guidelines RIPARIAN-5 through RIPARIAN-7 for further information.

MORMONCOVE-11: Protect wading bird roosting areas and rookeries in the management zone. Refer to guidelines RIPARIAN-12 through RIPARIAN-14 for further information.

MORMONCOVE-12: Avoid impacts to yellow-breasted chat and yellow warbler nesting in riparian areas where park improvements or Himalayan blackberry management activities are proposed. Refer to guidelines RIPARIAN-15 and RIPARIAN-16 for further information.

Interpretation and Education

MORMONCOVE-13: Consider interpretation of the mining history of Mormon Island (“Mormon Diggins”) within the management zone in a manner that helps visitors understand the origin of the place name and the historic mining that occurred in the area without disclosing the location of cultural sites.

28. Mormon Island Preserve

Statement of Management Intent

Mormon Island Wetlands Natural Preserve is one of two areas within the SRA classified as a Natural Preserve in recognition of its significant and sensitive resource values – the other being Anderson Island. The preserve, which is located adjacent to Mormon Island Dam east of Green Valley Road—is a major wetland habitat area that includes several areas of vernal pools. The wetland habitat was created when the area was used as a borrow site for the construction of Folsom Dam; however, the majority of the vernal pools appear to be native based on their size and location in the landscape. Although a small gated parking area is located just off Green Valley Road, the only built facility in the zone includes a short boardwalk through the wetland. The management intent for this zone is to maintain and enhance its role as an important wetland preserve within the SRA and expand opportunities for interpretation and education.

Mormon Island Preserve Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Preservation	113	0	113

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Interpretation and Education

- MORMONPRES-1: Develop a Class I bike path or other trails around perimeter of Mormon Island Wetlands Natural Preserve to direct interpretive visitor use to the perimeter of the area while limiting and controlling access to the core of the area. Refer to Guideline VERNAL-3 for further information. The trail should connect to the trailhead at Mormon Island Dam, the Class I bike path to Dike 7 proposed in Guideline MORMONCOVE-2, and the City of Folsom Humbug Creek trail. Interpretive displays should also be provided at intervals around the loop as proposed in Guideline MORMONPRES-3 below.
- MORMONPRES-2: If determined consistent with the Preserve status, develop a small trailhead at the Preserve, in a location that will impact the resources least, including parking and trail information, to improve interpretive access and the visitor experience. Interpretive displays would also be provided as proposed in Guideline MORMONPRES-3 below.
- MORMONPRES-3: Provide displays to interpret various aspects of the area in keeping with the relevant primary interpretive themes established in the General Plan. Key aspects could include: significant natural habitat features, such as riparian woodland, wetland, and vernal pool; and special status species protection. These displays should be distributed along the perimeter trail, at the Preserve trailhead, and along the upgraded boardwalk proposed in Guideline MORMONPRES-4 below. Refer to Guideline VERNAL-8 for further information.
- MORMONPRES-4: As appropriate, upgrade the existing boardwalk trail in the Preserve to enhance interpretation and education opportunities of this resource. If further analysis determines the boardwalk is inappropriate for the Preserve, remove the existing remnants of the boardwalk and restore any impacted areas as needed. Refer to Guideline VERNAL-8 for further information.

Resource Management

- MORMONPRES-5: Ensure that the alignment of the Class I bike path proposed in Policy MORMONPRES-1 above also serves to define the zone of protection for the wetland and vernal pools in the Preserve and discourages human intrusion into sensitive habitat areas.
- MORMONPRES-6: Restore fire to its role as a natural ecological process within oak woodland, savanna and grassland habitat in the management zone, in conjunction with *the 2003 Draft Prescribed Fire Management Plan*. Refer to guidelines WOODLAND-3 and WOODLAND-7 for further information.
- MORMONPRES-7: Manage invasive exotic weed species in the oak woodland, savanna, grassland, and riparian areas of the management zone in accordance with the guidelines in Appendix B. Refer to the Plant Life Management guidelines in Section C of this Chapter and to Appendix D for further information.
- MORMONPRES-8: Protect and manage grassland areas of the management zone that are known or potential habitat for the following special status species: California horned lizard, burrowing owl, and loggerhead shrike. Refer to guidelines GRASSLAND-1 through GRASSLAND-4 for further information.
- MORMONPRES-9: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone. Refer to guidelines RIPARIAN-5 through RIPARIAN-7 for further information.
- MORMONPRES-10: Protect and restore riparian areas of the management zone that are known or potential habitat for special status aquatic amphibian and reptile species, such as the Western pond turtle, California red-legged frog, and Foothill yellow-legged frog. Refer to guidelines RIPARIAN-8 through RIPARIAN-11 for further information.
- MORMONPRES-11: Protect wading bird roosting areas and rookeries in the management zone. Refer to guidelines RIPARIAN-12 through RIPARIAN-14 for further information.

MORMONPRES-12: Avoid impacts to yellow-breasted chat and yellow warbler nesting in riparian areas where park improvements or Himalayan blackberry management activities are proposed. Refer to guidelines RIPARIAN-15 and RIPARIAN-16 for further information.

MORMONPRES-13: Protect and manage freshwater marsh areas of the management zone that are known or potential habitat for special status bird species, such as the Tri-colored blackbird. Refer to guidelines MARSH/POND-4 and MARSH/POND-5 for further information.

29. Folsom Point

Statement of Management Intent

This 290-acre area extends along the eastern shoreline of Folsom Lake from Mormon Island Cove to Observation Point at the eastern end of Folsom Dam. The zone includes the Folsom Point day use area, the third busiest in the SRA in terms of annual visits. Day use facilities here include a shaded picnic area with picnic tables, barbeques, two vault toilets, and parking for 77 vehicles. Boat launch facilities are the largest on the eastern side of Folsom Lake and include 4 launch lanes, flush toilets, and paved parking for about 130 vehicles. The popularity of these facilities for special aquatic events, such as bass fishing tournaments, means that Folsom Point will often reach capacity quickly during peak season weekends.

The zone also includes Observation Point, located at the eastern end of Folsom Dam. In the past, Observation Point was a popular place for meeting and fishing and swimming; however, the area has been closed to public access since September 11, 2001, due to security concerns associated with Folsom Dam. Observation Point will be used as a staging area for ongoing flood protection and dam safety projects and is located in the area of the future auxiliary spillway to be constructed as part of the Folsom Dam Safety and Flood Damage Reduction Project. Hence the future use for Observation Point for recreation purposes is no longer an option. The management intent for this zone is to maintain and enhance recreation resources. Facilities and improvements in this area will emphasize high quality day use opportunities – picnicking, boating, trail use, and community outreach.

Folsom Point Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Recreation – High	293	0	139

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Recreation

FOLSOMPOINT-1: Upgrade and enhance the Folsom Point day use area to improve the overall function and appearance of the facility. Site-specific planning will be used to determine the precise nature and configuration of the upgrades. Upgrades could include:

- Picnic area improvements, including development of group picnic areas, utilizing native vegetation (no turf);
- Flush toilets and drinking water;
- Parking area improvements (restrict vehicles to paved surfaces); and
- Entrance road improvements (consider improvements to the Folsom Point entrance to ensure adequate vehicle access and circulation).

FOLSOMPOINT-2: Explore the feasibility to develop a beach area along the eastern side of Folsom Point, between the Point and Mormon Island Dam.

FOLSOMPOINT-3: Reconfigure the boat ramp as a means of maximizing launch capacity and reducing congestion during peak times. Reconfiguration may result in additional launch lanes or the simple addition of boarding floats. Refer to Guideline VISIT-20 for further information. Explore the potential of extending the existing ramp to lower lake levels..

Note: *While maximizing launch capacity could put more boats in the water, this capacity cannot be fully utilized without adequate nearby parking. Launch capacity will not be increased where the provision of additional parking is deemed inappropriate with the goals and*

objectives of the management zone. Refer to Guideline VISIT-10 for further information.

- FOLSOMPOINT-4: Pursue the development of a multi-use facility at Folsom Point or at Brown's Ravine whose primary function would be to accommodate water safety training. Such a facility could be used by State Parks, local recreation groups, and the community in general. Refer to Guideline MULTI-3 for further information.
- FOLSOMPOINT-5: Provide trail access at Dike 7, which may include a small trailhead with parking and trail information sign. This trail access/trailhead would mark the terminus of the Class I bike path from the trailhead at Mormon Island Dam proposed in Guideline MORMONCOVE-2. This path would require the establishment of a new trail corridor between Dike 7 and Folsom Point, after which the path would follow the existing Folsom Point/Brown's Ravine alignment.
- FOLSOMPOINT-6: Work with the City of Folsom to connect the Class I bike path at Dike 7 to the City's plans for Class 1 or Class 2 bike path along East Natoma Street. If completed in conjunction with other new trail corridors proposed in the General Plan, then cyclists would eventually be able to ride on continuous paved bike lanes and paths from El Dorado Hills to Discovery Park in Downtown Sacramento along the American River Bike Trail. Refer to guidelines NATOMACAN-1, NATOMACAN-2, POWERHOUSE-4, POWERHOUSE-5, MORMONCOVE-2, and FOLSOMPOINT-5 for further information.
- FOLSOMPOINT-7: During Dam Safety and Flood Damage Reduction construction activities, as indicated in the ROD for this project, ensure that travel to and through the zone on existing segments of the SRA trail system is maintained, including identification and implementation of alternate routes, posting of trail closures and alternative access points, and design and implementation of re-established trail segments once construction is complete.

FOLSOMPOINT-8: Work with the U.S. Army Corps of Engineers, the City of Folsom, and bicycle and trail interest groups and organizations to ensure that the new Folsom Dam Bridge accommodates bicycle and pedestrian traffic in both directions and provides connections to existing segments of the SRA trail system on both sides of the river.

Interpretation and Education

FOLSOMPOINT-9: Develop a program to interpret various aspects of the area in keeping with the relevant primary interpretive themes established in the General Plan. Key aspects could include: scenic resources, including distance and direction to key landmarks; geology and landscape features, including the Peninsula area; Folsom Lake as a flood control, water supply, and power generation resource; and the ongoing flood protection projects.

FOLSOMPOINT-10: Depending upon the final configuration of the Dike 7 area following the construction of the new auxiliary spillway, consider this area as a potential location for a new visitor center or multi-use facility.

Resource Management

FOLSOMPOINT-11: Manage oak woodlands to protect special status plant species within the management zone. Refer to guideline WOODLAND-2 for further information.

FOLSOMPOINT-12: Restore fire to its role as a natural ecological process within oak woodland, savanna and grassland habitat in the management zone, in conjunction with the *2003 Draft Prescribed Fire Management Plan*. Refer to guidelines WOODLAND-3 and WOODLAND-7 for further information.

FOLSOMPOINT-13: Protect and manage grassland and ruderal areas of the management zone that are known or potential habitat for the California horned lizard, a special status species. Refer to Guideline GRASSLAND-1 for further information.

FOLSOMPOINT-14: Protect bats in ruderal, barren and other natural areas. Use passive means to exclude bats from inhabiting developed facilities. Refer to Guideline RUDERAL-3 for further information.

FOLSOMPOINT-15: As appropriate and feasible, enhance the utility of lake shoreline wildlife corridors within the management zone by improving vegetative cover. Refer to Guideline SHORELINE-1 for further information.

FOLSOMPOINT-16: Control nuisance wildlife species within the management zone in close consultation with the California Department of Fish and Game and U.S. Fish and Wildlife Service. Refer to the guidelines in Appendix C for more information.

30. Folsom Lake (AQ)

Statement of Management Intent

This aquatic management zone is the largest zone in the SRA and includes the main body of Folsom Lake. The open waters and high winds of this zone are ideal for sailing, windsurfing, and speed boating. Since skiers, swimmers, and fishermen prefer the more sheltered waters of the narrow North and South forks of the American River, there is generally good separation between these competing uses on the lake. Congestion does occur, however, at key launch locations such as Granite Bay, Brown's Ravine, and Folsom Point during peak season weekends. Obviously, this congestion has a direct impact on the quality of aquatic activities and on the visitor experience in the management zone.

Currently, if all launch ramp parking spaces were occupied and the water level on Folsom Lake was optimal for maximum access by boats, then there is the potential for 1,505 boats to be on the lake at one time, representing a boating density of 1 boat/7.4 water surface acres. However, it is unlikely that such conditions would ever occur. State Parks believes that a boating density any higher than this potential maximum is undesirable considering the mixture of uses on the water, the generally shallow underwater, and the fact that there is formal separation of uses on the water. It has been determined that a capacity of 1 boat/10-20 water surface acres is appropriate for the main body of Folsom Lake. Refer to Section C.5 of this Chapter for more detail.

With the exception of Folsom Lake Marina, the expansion of boating facilities on Folsom Lake is not proposed. The reconfiguration of existing boat launch ramps as a means of maximizing launch capacity and reducing congestion during peak times is proposed, as is the extension of boat ramps to water levels below 420 feet.

The quality of aquatic activities on the lake is also closely tied to the annual fluctuation in water surface elevations, which directly affect the availability of boat ramps, beaches, berth sites, and other facilities that depend on water depth or surface area. These elevations typically range from between 466 feet in early summer to 400 feet in early winter. The management intent for this zone is to maintain and enhance the area as a premier aquatic recreation destination providing a diverse range of recreation experiences while properly managing congestion (idle speed zones) and minimizing the potential for user conflicts.

Folsom Lake Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Recreation – High	0	8,098	8,098

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Operations

FOLSOMLAKE-1: Provide sufficient patrol, enforcement, and management presence in key congestion areas during peak season weekends in order to minimize the potential for user conflicts, and increase awareness of aquatic safety and etiquette. Key congestion areas include primary launch areas and the forks of the American River. This effort will become increasingly important as boat ramps on the lake are reconfigured as proposed to maximize launch efficiency and reduce landside congestion (refer to policies GRBSOUTH-1, BROWNS-5, and FOLSOMPOINT-2) and marina capacity is increased (refer to Guideline BROWNS-1).

FOLSOMLAKE-2: Continue to monitor, record, and report boating incidents and accidents on Folsom Lake in order to identify possible user trends, adjust use levels, patrols, and enforcement programs as needed, and increase awareness of aquatic safety and etiquette.

FOLSOMLAKE-3: Conduct aquatic visitor surveys on Folsom Lake periodically to monitor visitor use and satisfaction with both landside facilities and experience on the water. The focus of the survey program should be on determining the real and perceived level of congestion on the shore and on the water, as well as identifying a “level of comfort” with visitors with respect to aquatic safety. The survey should identify use areas to help indicate high use/congested areas that may pose a safety risk.

FOLSOMLAKE-4: Continue to work with the California State University Sacramento (CSUS) Aquatic Center and other local aquatic recreation associations in support of increased aquatic safety on Folsom Lake and the SRA in general. Such efforts include support for safety-oriented aquatic events, the development of a multi-purpose facility on Folsom Lake with a focus on water safety training. Signage could be posted along launch ramp staging lines to educate users and improve safety.

FOLSOMLAKE-5: Monitor boat noise levels periodically during heavy use periods to document current conditions, determine the need for adopted standards, and permit accurate assessments of potential noise effects from future boat-related development. Mitigation of potential noise effects could include the restriction of certain aquatic activities in certain areas.

FOLSOMLAKE-6: Monitor boat launch count levels with tabulation of average and peak day usage during periods of high use and low lake levels. This information can be correlated with user survey reports and accident counts to further refine the appropriate carrying capacity for the lake.

Resource Management

FOLSOMLAKE-7: Support California Department of Fisheries and Game programs to provide recreational fishing opportunities in the management zone. Refer to Guideline FISHERY-3 for further information.

FOLSOMLAKE-8: Protect water quality in the management zone by avoiding adverse impacts to streambank and bed morphology, floodplain features, and

riparian vegetation. Refer to guidelines WATER-1 and WATER-2 for further information.

FOLSOMLAKE-9: Continue and expand water quality sampling efforts within the management zone. Refer to guidelines WATER-4 and WATER-5 for further information.

31. Middle North Fork (AQ)

Statement of Management Intent

This aquatic management zone extends up the North Fork from just north of the Peninsula area to Mormon Ravine. These more sheltered waters are popular for water skiing, jet skiing, fishing, and cruising. The proximity to the main launch ramps at Granite Bay mean that this area remains active throughout the day, although the more natural setting upstream begins to provide a sense of escape. The management intent for this zone is to maintain its role as a zone of transition between the open waters of Folsom Lake and the more sheltered waters of the upper North Fork. This transition will be reflected both in the type and intensity of aquatic activity as well as the character and setting provided by the shoreline.

Middle North Fork Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Recreation – Medium	0	1,344	1,344

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Operations

NORTHFORK/MID-1: Provide sufficient patrol, enforcement, and management presence in this transition area to minimize the potential for user conflicts and increase awareness of aquatic safety and etiquette. Monitoring of aquatic activity here is particularly important since the area supports significant motorized and non-motorized use in the close confines of the North Fork.

NORTHFORK/MID-2: Monitor aquatic activity in the area of Anderson Island Nature Preserve for the purposes of determining the need to establish an exclusion zone around the island during the nesting season. Refer to Guideline ANDERSON-1 for further information.

- NORTHFORK/MID-3: Monitor boat noise levels during heavy use periods to document current conditions, determine the need for adopted standards, and permit accurate assessments of potential noise effects from future boat-related development. Mitigation of potential noise effects could include the restriction of certain aquatic activities in certain areas.
- NORTHFORK/MID-4: Correlate incident counts and locations with user surveys and lake use counts to evaluate and refine the appropriate carrying capacity at varying lake levels.

Resource Management

- NORTHFORK/MID-5: Support California Department of Fisheries and Game programs to provide recreational fishing opportunities in the management zone. Support efforts to study trout natural reproduction success in the management zone to identify enhancement measures that could boost the population of this naturally reproducing fish species. Refer to Guideline FISHERY-3 and FISHERY-5 for further information.
- NORTHFORK/MID-6: Protect water quality in the management zone by avoiding adverse impacts to streambank and bed morphology, floodplain features, and riparian vegetation. Refer to guidelines WATER-1 and WATER-2 for further information.
- NORTHFORK/MID-7: Continue and expand water quality sampling efforts within the management zone. Refer to guidelines WATER-4 and WATER-5 for further information.

32. Upper North Fork (AQ)

Statement of Management Intent

This aquatic management zone extends up the North Fork from Mormon Ravine to the SRA limit at Auburn State Recreation Area. The American River narrows significantly here and the steep canyon walls, sheltered waters, and natural setting contribute to a sense of escape and serenity. The 5 mph limit on motorized watercraft also makes it an ideal location

for paddling, swimming, and fishing. The management intent for this zone is to maintain and enhance its role as a zone of serenity and nature appreciation.

Upper North Fork Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Low Intensity Recreation/Conservation	0	188	188

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Operations

NORTHFORK/UP-1: Extend the 5 mph zone south to Rattlesnake Bar from its current location just above Mormon Ravine. Extending the zone will reduce the effects of noise and wakes on non-motorized users from motorized watercraft traveling at high speeds in the confines of the canyon.

NORTHFORK/UP-2: Continue to patrol and enforce the 5 mph zone in order to provide a management presence, reduce the potential for user conflicts, and increase awareness of aquatic safety and etiquette.

NORTHFORK/UP-3: Monitor temporary moorage counts and correlate with user surveys to maintain the intent of this zone as a serene place for nature appreciation.

Resource Management

NORTHFORK/UP-4: Support California Department of Fisheries and Game programs to provide recreational fishing opportunities in the management zone. Support efforts to study trout natural reproduction success in the management zone to identify enhancement measures that could boost the population of this naturally reproducing fish species. Refer to Guideline FISHERY-3 and FISHERY-5 for further information.

NORTHFORK/UP-5: Protect water quality in the management zone by avoiding adverse impacts to streambank and bed morphology, floodplain features, and riparian vegetation. Refer to guidelines WATER-1 and WATER-2 for further information.

NORTHFORK/UP-6: Continue and expand water quality sampling efforts within the management zone. Refer to guidelines WATER-4 and WATER-5 for further information.

33. Middle South Fork (AQ)

Statement of Management Intent

This aquatic management zone extends from the mouth of the South Fork at Folsom Lake to Old Salmon Falls. As on the North Fork, these waters are more sheltered and are popular for water skiing, jet skiing, fishing, and cruising. Although the setting here becomes progressively more natural as one moves upstream, it remains an active area due to its proximity to Brown’s Ravine. The management intent for this zone is to maintain its role as a zone of transition between the open waters of Folsom Lake and the more sheltered waters of the upper South Fork. This transition will be reflected both in the type and intensity of aquatic activity as well as the character and setting provided by the shoreline.

Middle South Fork Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Recreation – Medium	0	828	828

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Operations

SOUTHFORK/MID-1: Provide sufficient patrol, enforcement, and management presence in this transition area in order to minimize the potential for user conflicts and increase awareness of aquatic safety and etiquette. Monitoring of aquatic activity here is particularly important since the area supports significant motorized and non-motorized use in the close confines of the South Fork.

SOUTHFORK/MID-2: Monitor boat noise levels during heavy use periods to document current conditions, determine the need for adopted standards, and permit accurate assessments of potential noise effects from future boat-related development. Mitigation of potential noise effects could include the restriction of certain aquatic activities in certain areas.

SOUTHFORK/MID-3: Correlate incident counts and locations with user surveys and lake use counts to evaluate and refine the appropriate carrying capacity at varying lake levels.

Resource Management

SOUTHFORK/MID-4: Support California Department of Fisheries and Game programs to provide recreational fishing opportunities in the management zone. Support efforts to study trout natural reproduction success in the management zone to identify enhancement measures that could boost the population of this naturally reproducing fish species. Refer to Guideline FISHERY-3 and FISHERY-5 for further information.

SOUTHFORK/MID-5: Protect water quality in the management zone by avoiding adverse impacts to streambank and bed morphology, floodplain features, and riparian vegetation. Refer to guidelines WATER-1 and WATER-2 for further information.

SOUTHFORK/MID-6: Continue and expand water quality sampling efforts within the management zone. Refer to guidelines WATER-4 and WATER-5 for further information.

34. Upper South Fork (AQ)

Statement of Management Intent

This aquatic management zone extends up the South Fork from Old Salmon Falls to the SRA limit upstream from Salmon Falls Bridge. As in the Upper North Fork management zone, this zone provides a natural setting that contributes to a sense of escape and serenity. The entire zone is under a 5 mph limit on motorized watercraft which makes paddling, swimming, and fishing popular activities here. Also popular is whitewater rafting. The stretch of the American River between Chili Bar Dam and Salmon Falls Road is one of the highest use river in the West. While only a short 1.5-mile stretch of this corridor is within this management zone, this is where more than 75,000 rafters will take-out at Skunk Hollow/ Salmon Falls. The management intent for this zone is to maintain and enhance its role as a zone of serenity and nature appreciation.

Upper South Fork Management Zone: Land Use Summary

<i>Land Use Designation</i>	<i>Upland Area</i>	<i>Aquatic Area</i>	<i>Total Area</i>
Low Intensity Recreation/Conservation	0	393	393

Source: State Parks; Wallace Roberts & Todd, 2005.

Guidelines

Operations

- SOUTHFORK/UP-1: Continue to patrol and enforce the 5 mph zone in order to provide a management presence, reduce the potential for user conflicts, and increase awareness of aquatic safety and etiquette.
- SOUTHFORK/UP-2: Consider measures to reduce congestion on the water at rafting takeout areas. Refer to Guideline VISIT-22 for further information.
- SOUTHFORK/UP-3: Monitor temporary moorage counts and correlate with user surveys to maintain the intent of this zone as a serene place for nature appreciation.

Resource Management

- SOUTHFORK/UP-4: Support California Department of Fisheries and Game programs to provide recreational fishing opportunities in the management zone. Support efforts to study trout natural reproduction success in the management zone to identify enhancement measures that could boost the population of this naturally reproducing fish species. Refer to guidelines FISHERY-3 and FISHERY-5 for further information.
- SOUTHFORK/UP-5: Protect water quality in the management zone by avoiding adverse impacts to streambank and bed morphology, floodplain features, and riparian vegetation. Refer to guidelines WATER-1 and WATER-2 for further information.
- SOUTHFORK/UP-6: Continue and expand water quality sampling efforts within the management zone. Refer to guidelines WATER-4 and WATER-5 for further information.

E. IMPLEMENTATION AND MONITORING

Following the approval of the General Plan for the Folsom Lake State Recreation Area, Gold Fields District staff will prepare an implementation work program and schedule. The work program will prioritize the various natural and cultural resource plans and programs, specific facility plans, agency and stakeholder coordination efforts, monitoring programs, and other proposals included in the General Plan for implementation. Not only will the work program provide the District with a checklist for implementation, but also it will provide a means for monitoring the long-term success of the General Plan.

A number of factors affect the prioritization, planning, and implementation of the guidelines and actions identified in this Plan. Over time, the availability of staff resources in the District will rise and fall. Existing funding programs will disappear only to be replaced by something similar. The nature of recreation activities in the SRA will change putting pressure on different facilities and resources. Environmental legislation will change as will the importance of protection one habitat type or species over another. In other words, what is important today may not necessarily be important in the future. For this reason, the implementation work program and schedule should remain flexible and reflect the needs of the SRA at any particular time, while remaining consistent with the approved General Plan/Resource Management Plan.

The monitoring work program and schedule for the unit should be coordinated with State Parks and Reclamation monitoring programs already in place, particularly at the unit level. For instance, many General Plan proposals may be incorporated into the Inventory, Monitoring and Assessment Program (IMAP), which will allow the District to allocate natural resource protection monies and track the success of the proposals in protecting and managing unit resources. General Plan proposals funded through IMAP would then be incorporated into CAMP – the State Parks database system for planning, budgeting, tracking, and reporting on annual natural resource maintenance activities. State Parks uses CAMP to determine annual funding allocations for each District, track actual amounts spent on natural resource maintenance, and determines natural resource maintenance funding needs for developing the annual budgets for the Department.

Appendix E outlines the preliminary priorities and agency involvement in the implementation of the various key General Plan proposals. Appendix E is intended to be illustrative guide of the District's priorities at this time. The implementation work program and schedule to be prepared by the District upon adoption of the General Plan will provide more detailed information.

FOLSOM

General Plan/Resource Management Plan



APPENDICES

APPENDIX A: Land Use Designation Descriptions – Upland Management Zones

Folsom Lake State Recreation Area and Folsom Powerhouse State Historic Park
General Plan/Resource Management Plan

<i>Upland Management Zones</i>					
	<i>Recreation – High Intensity</i>	<i>Recreation – Medium Intensity</i>	<i>Low Intensity Recreation/Conservation</i>	<i>Preservation</i>	<i>Administration</i>
<i>Primary Goal</i>	<ul style="list-style-type: none"> Provide for outdoor recreation activities in a fully developed and structured setting on lands suitable for high-intensity use and easy vehicle access. 	<ul style="list-style-type: none"> Provide for outdoor recreation activities in a mostly-developed and structured setting on lands suitable for medium-intensity use and easy vehicle access. 	<ul style="list-style-type: none"> Provide for outdoor recreation activities in diverse and mostly-natural settings on lands suitable for low-intensity use and limited vehicle access. 	<ul style="list-style-type: none"> Provide for the preservation and protection of sensitive or unique natural and/or cultural resources and interpretive activities with limited-access. 	<ul style="list-style-type: none"> Provide for the operation and maintenance of the Unit and of Folsom Lake and Lake Natoma for the purposes of flood control, water supply, and power generation, with restricted access.
<i>Visitor Experience</i>	<ul style="list-style-type: none"> Highest levels of visitor use in the Unit Access to the full range of recreation/interpretive facilities and activities Fair exposure to the natural and cultural resources of the Unit while remaining in close proximity to vehicles, visitor structures, and visitor services Fairly high levels of ambient noise and frequent contact with other visitors expected Good access to park staff and concessionaires 	<ul style="list-style-type: none"> Moderate levels of visitor use Access to a range of recreation/interpretive facilities and activities Moderate exposure to the natural and cultural resources of the Unit while remaining in close proximity to vehicles, visitor structures, and visitor services Moderate levels of ambient noise and frequent contact with other visitors expected Fairly good access to park staff and concessionaires 	<ul style="list-style-type: none"> Moderate to low levels of visitor use Access to limited recreation/interpretive facilities and activities located mostly in transition areas Good exposure to the natural and cultural resources of the Unit and transition from developed recreation areas to semi-primitive and primitive areas Generally limited proximity to vehicles, visitor structures, and visitor services Generally low levels of ambient noise near recreation areas to natural quiet in more remote locations Limited to infrequent contact with other visitors expected Limited and infrequent access to park staff 	<ul style="list-style-type: none"> Moderate to low levels of visitor use depending upon location and access Limited interpretive facilities and activities depending upon location and access Good exposure to the natural and cultural resources of the Unit in generally semi-primitive and primitive areas Generally limited proximity to vehicles, visitor structures, and visitor services Generally low levels of ambient noise near recreation areas to natural quiet in more remote locations Generally limited to infrequent contact with other visitors expected depending upon facilities and access provided Generally limited and infrequent access to park staff depending upon facilities and access provided 	<ul style="list-style-type: none"> Limited visitor use depending upon location and access Limited recreation/interpretive facilities and activities depending upon location and access Fair exposure to the natural and cultural resources of the Unit while remaining in close proximity to vehicles, visitor structures, and visitor services Moderate levels of ambient noise and frequent contact with other visitors and park staff depending upon facilities and access provided
<i>Appropriate Visitor Activities</i>	<ul style="list-style-type: none"> Activities include motorized/non-motorized boat launching, swimming, sunbathing, picnicking, family/group camping, hiking, bicycling, mountain biking, horseback riding, interpretive/ educational programs Activities may include large-scale special events such as sporting competitions and tournaments, sporting exhibits/displays, live theater/music, and cultural/holiday celebrations 	<ul style="list-style-type: none"> Activities include motorized/non-motorized boat launching, swimming, sunbathing, picnicking, family/group camping, hiking, bicycling, mountain biking, horseback riding, interpretive/ educational programs Activities may include smaller-scale special events such as sporting competitions and tournaments, sporting exhibits/displays, live theater/music, and cultural/holiday celebrations 	<ul style="list-style-type: none"> Generally challenge- and adventure-based activities include non-motorized boat launching, primitive camping, hiking, mountain biking, horseback riding, nature observation and contemplation, photography, sketching, writing, and minimal interpretive/educational programs Activities may include self-guided/guided tours 	<ul style="list-style-type: none"> Activities include nature observation and contemplation, photography, sketching, writing, and interpretive/educational programs Activities may include self-guided/guided tours Staging and orientation for interpretive/ educational programs may occur offsite to protect natural and cultural resources 	<ul style="list-style-type: none"> Activities include those related to Unit operation and maintenance, and the operation and maintenance of facilities related to flood control, water supply, and power generation Activities may include self-guided/guided tours related to interpretive/educational programs

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Folsom Lake State Recreation Area and Folsom Powerhouse State Historic Park
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<i>Upland Management Zones</i>					
	<i>Recreation – High Intensity</i>	<i>Recreation – Medium Intensity</i>	<i>Low Intensity Recreation/Conservation</i>	<i>Preservation</i>	<i>Administration</i>
<i>Appropriate Visitor Facilities</i>	<ul style="list-style-type: none"> Facilities include visitor centers, museums, marinas, boat launch ramps, hand launch docks, swimming beaches, picnic areas, playgrounds, amphitheaters, flush toilets/showers, concession operations, developed campgrounds, paved/dirt trails, trailheads, interpretive trails/displays, internal roads, and parking areas Boardwalks, overlooks, pedestrian paths and fencing as needed to protect resources and provide accessibility 	<ul style="list-style-type: none"> Facilities include boat launch ramps, hand launch docks, picnic areas, playgrounds, flush toilets/showers, developed campgrounds, paved/dirt trails, trailheads, interpretive trails/displays, internal roads, and parking areas Boardwalks, overlooks, pedestrian paths and fencing as needed to protect resources and provide accessibility 	<ul style="list-style-type: none"> Facilities include smaller and less developed boat launch facilities, primitive picnic areas which utilize native vegetation, flush/vault toilets, camping (including group), paved/dirt trails, trailheads, interpretive trails/displays, smaller and less developed parking/staging areas Boardwalks, overlooks, pedestrian paths and fencing as needed to protect resources and provide accessibility 	<ul style="list-style-type: none"> Facilities include interpretive trails/displays, including boardwalks, overlooks, pedestrian paths and fencing as needed to protect resources and provide accessibility Supporting facilities located adjacent to the management zone may include dirt parking/ staging areas, vault toilets, and access trails 	<ul style="list-style-type: none"> Facilities related to park operations, including administration offices, maintenance areas, staff housing, and utility infrastructure Facilities related to operation of Folsom Lake and Lake Natoma for the purposes of flood control, water supply, and power generation, including dams, hydro-electric generating equipment, maintenance areas, utility infrastructure, and administration offices
<i>Visitor Access</i>	<ul style="list-style-type: none"> Primary visitor gateway with full access, primarily by motor vehicle, but also public transit, bicycle, pedestrian, equestrian, and aquatic Majority of facilities provide ADA access 	<ul style="list-style-type: none"> Secondary visitor gateway with full access, primarily by motor vehicle, but also public transit, bicycle, pedestrian, equestrian, and aquatic Majority of facilities provide ADA access 	<ul style="list-style-type: none"> Primary access modes are pedestrian, bicycle, equestrian, and aquatic with minimal provision for vehicle access Facilities may provide ADA access depending on potential natural/cultural resource impacts and economic feasibility Minimal way finding skills and physical exertion may be required to access these areas Access may be restricted as needed to protect resources 	<ul style="list-style-type: none"> Primary access modes are pedestrian, bicycle, equestrian, and aquatic with generally no provision for vehicle access Possible ADA access depending on potential natural/cultural resource impacts and economic feasibility Access may be limited to staff accompaniment or restricted as needed to protect resources 	<ul style="list-style-type: none"> Access generally restricted to staff and related personnel associated with park operations and the operation of Folsom Lake and Lake Natoma for the purposes of flood control, water supply, and power generation

APPENDIX A: Land Use Designation Descriptions – Upland Management Zones

Folsom Lake State Recreation Area and Folsom Powerhouse State Historic Park
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<i>Upland Management Zones</i>					
	<i>Recreation – High Intensity</i>	<i>Recreation – Medium Intensity</i>	<i>Low Intensity Recreation/Conservation</i>	<i>Preservation</i>	<i>Administration</i>
<i>Resource Management</i>	<ul style="list-style-type: none"> • Modification and management of non-sensitive natural and cultural resources as necessary to support high-intensity visitor use with natural features retained as necessary to reflect park-like setting • Protect, enhance, and restore sensitive natural resources as necessary • Protect and maintain sensitive cultural resources as necessary, including adaptive reuse of historic structures • Eliminate/manage plant and animal invasive exotic species as necessary • Prevent possible additional disturbance to resources through education, management guidelines, regulation enforcement, protective barriers, and sustainable design • Visitor use generally takes precedence over natural processes 	<ul style="list-style-type: none"> • Modification and management of non-sensitive natural and cultural resources as necessary to support medium-intensity visitor use with natural features retained as necessary to reflect park-like setting • Protect, enhance, and restore sensitive natural resources as necessary • Protect and maintain sensitive cultural resources as necessary, including adaptive reuse of historic structures • Eliminate/manage plant and animal invasive exotic species as necessary • Prevent possible additional disturbance to resources through education, management guidelines, regulation enforcement, protective barriers, and sustainable design • Visitor use generally takes precedence over natural processes 	<ul style="list-style-type: none"> • Slight modification and management of non-sensitive natural and cultural resources as necessary to support moderate to low-intensity visitor use with natural features retained as necessary to reflect mostly-natural setting • Protect, enhance, and restore sensitive natural resources as necessary • Protect and maintain sensitive cultural resources as necessary. Adaptive reuse of historic structures may be considered • Eliminate/manage plant and animal invasive exotic species as necessary • Minimize/prevent habitat fragmentation by visitor use • Prevent possible additional disturbance to resources through education, management guidelines, regulation enforcement, limited access, and sustainable design • Natural processes take precedence over visitor use 	<ul style="list-style-type: none"> • Minimal modification and management of non-sensitive natural and cultural resources as necessary to support low-intensity visitor use with natural features retained as necessary to reflect natural setting • Protect, enhance, and restore sensitive natural resources as necessary • Protect and maintain sensitive cultural resources as necessary. Adaptive reuse of historic structures may be considered • Eliminate/manage plant and animal invasive exotic species as necessary • Habitat manipulation only as necessary to preserve species or associations representing the basis for this designation • Prevent habitat fragmentation by visitor use • Prevent possible additional disturbance to resources through education, management guidelines, regulation enforcement, limited access, and sustainable design • Natural processes take precedence over visitor use 	<ul style="list-style-type: none"> • Modification and management of non-sensitive natural and cultural resources as necessary to support park operations and operation of Folsom Lake and Lake Natoma for the purposes of flood control, water supply, and power generation • Protect, enhance, and restore sensitive natural resources as necessary • Protect and maintain sensitive cultural resources as necessary, including adaptive reuse of historic structures • Eliminate/manage plant and animal invasive exotic species as necessary • Prevent possible additional disturbance to resources through management guidelines, regulation enforcement, protective barriers, and sustainable design • Operation and maintenance use generally takes precedence over natural processes

APPENDIX A: LAND USE DESIGNATION DESCRIPTIONS – AQUATIC MANAGEMENT ZONES

Folsom Lake State Recreation Area and Folsom Powerhouse State Historic Park
General Plan/Resource Management Plan

<i>Aquatic Management Zones</i>			
	<i>Recreation – High Intensity</i>	<i>Recreation – Medium Intensity</i>	<i>Low Intensity Recreation/Conservation</i>
<i>Primary Goal</i>	<ul style="list-style-type: none"> Provide for recreation activities in a mostly-developed setting on waters suitable for high-intensity use and very good access. 	<ul style="list-style-type: none"> Provide for recreation activities in a moderately-developed setting on waters suitable for medium to low intensity use and good access. 	<ul style="list-style-type: none"> Provide for recreation activities in a largely undeveloped setting on waters suitable for low-intensity use and fair access.
<i>Visitor Experience</i>	<ul style="list-style-type: none"> Highest levels of visitor use in the Unit Access to the full range of recreation facilities and activities Fair exposure to the natural resources of the Unit while remaining in close proximity to launch points, visitor structures, and visitor services High levels of ambient noise and frequent contact with other visitors expected Good access to park staff and concessionaires 	<ul style="list-style-type: none"> Moderate to low levels of visitor use Access to a range of recreation facilities and activities Moderate exposure to the natural resources of the Unit while remaining in close proximity to launch points, visitor structures, and visitor services Moderate levels of ambient noise and frequent contact with other visitors expected Fairly good access to park staff and concessionaires 	<ul style="list-style-type: none"> Low levels of visitor use Access to limited recreation facilities and activities located mostly in transition areas Good exposure to the natural resources of the Unit and transition from developed recreation areas to semi-primitive and primitive areas Generally limited launch points, visitor structures, and visitor services Generally low levels of ambient noise near recreation areas to natural quiet in more remote locations Limited to infrequent contact with other visitors expected Limited and infrequent access to park staff
<i>Appropriate Visitor Activities</i>	<ul style="list-style-type: none"> Activities include jet boating, water skiing, jet skiing, windsurfing, sailing, fishing, canoeing, kayaking, and swimming Activities may include large-scale special events such as sporting competitions and tournaments, including sailing regattas, fishing tournaments, and in-water boat shows and exhibits Activities may include boating lessons and safety training 	<ul style="list-style-type: none"> Activities include jet boating, water skiing, and jet skiing where motorized craft are permitted, windsurfing, fishing, canoeing, kayaking, rowing, and swimming Activities may include smaller-scale special events such as sporting competitions and tournaments, including rowing competitions, fishing tournaments, and in-water boat shows and exhibits Activities may include primitive camping (boat-in) Activities may include boating lessons and safety training 	<ul style="list-style-type: none"> Activities include fishing, canoeing, kayaking, rowing, rafting, and swimming Activities may include primitive camping (boat-in) Activities may include self-guided/guided tours Activities may include boating lessons and safety training
<i>Appropriate Visitor Facilities</i>	<ul style="list-style-type: none"> Facilities include marinas, training facilities, boat storage, boat launch ramps, hand launch docks, swimming beaches, floating toilets, marked watercourses, and concession services (boat-in/launch) 	<ul style="list-style-type: none"> Facilities include training facilities, boat storage, boat launch ramps, hand launch docks, swimming beaches, floating toilets, marked watercourses, concession services (launch), and primitive campsites (boat-in) 	<ul style="list-style-type: none"> Facilities include primitive/hand-launch boat ramps, floating toilets, and primitive campsites (boat-in)

APPENDIX A: LAND USE DESIGNATION DESCRIPTIONS – AQUATIC MANAGEMENT ZONES

Folsom Lake State Recreation Area and Folsom Powerhouse State Historic Park
General Plan/Resource Management Plan

<i>Aquatic Management Zones</i>			
	<i>Recreation – High Intensity</i>	<i>Recreation – Medium Intensity</i>	<i>Low Intensity Recreation/Conservation</i>
<i>Visitor Access</i>	<ul style="list-style-type: none"> • Primary visitor gateway with full water access for boaters (motorized and non-motorized watercraft) and non-boaters • Majority of facilities provide ADA access 	<ul style="list-style-type: none"> • Secondary visitor gateway with full water access for boaters (motorized and non-motorized watercraft) and non-boaters • Majority of facilities provide ADA access 	<ul style="list-style-type: none"> • Limited water access for <i>boaters</i> (non-motorized watercraft) and non-boaters with most visitors generally pursuing challenge- and adventure-based activities originating in another water zone • Facilities may provide ADA access depending on potential natural/cultural resource impacts and economic feasibility • Minimal way finding skills and physical exertion may be required to access these areas • Access may be restricted as needed to protect resources
<i>Resource Management</i>	<ul style="list-style-type: none"> • Modification and management of non-sensitive natural and cultural resources as necessary to support high-intensity visitor use • Protect, enhance, and restore sensitive natural resources as necessary • Protect and maintain sensitive cultural resources as necessary • Eliminate/manage aquatic plant and animal invasive exotic species as necessary • Prevent possible additional disturbance to resources through education, management guidelines, regulation enforcement, protective markers, and sustainable design • Visitor use generally takes precedence over natural processes 	<ul style="list-style-type: none"> • Slight modification and management of non-sensitive natural and cultural resources as necessary to support moderate to low-intensity visitor use • Protect, enhance, and restore sensitive natural resources as necessary • Protect and maintain sensitive cultural resources as necessary • Eliminate/manage aquatic plant and animal invasive exotic species as necessary • Minimize/prevent habitat fragmentation by visitor use • Prevent possible additional disturbance to resources through education, management guidelines, regulation enforcement, limited access, and sustainable design • Natural processes generally take precedence over visitor use 	<ul style="list-style-type: none"> • Minimal modification and management of non-sensitive natural and cultural resources as necessary to support low-intensity visitor use • Protect, enhance, and restore sensitive natural resources as necessary • Protect and maintain sensitive cultural resources as necessary • Eliminate/manage aquatic plant and animal invasive exotic species as necessary • Prevent habitat fragmentation by visitor use • Prevent possible additional disturbance to resources through education, management guidelines, regulation enforcement, limited access, and sustainable design • Natural processes take precedence over visitor use

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APPENDIX B

Invasive Exotic Plant Species Management Guidelines for Folsom Lake State Recreation Area (SRA)

Management Priorities

The practicability of managing invasive plants within the Folsom Lake SRA varies by species, depending on factors such as species invasiveness, extent of infestation, and the State's ability to influence the process of reintroduction (vector control). Given these variables, a management priority rating system was developed and applied to a list of invasive plant species that are known to occur in the park, unless stated otherwise. The rating system is based on each species' degree of invasiveness, the ecological damage it causes, its current distribution in the SRA and control feasibility. The details of the rating system are provided in Table B-1, which begins on page B-10. Based on the results of the rating system, species were assigned to one of four management priorities as described below.

Priority One. Species in this priority classification have a high degree of invasiveness, can cause significant habitat degradation, and several appear to be limited in extent (one or a few infestations that could feasibly be controlled or eradicated). It is important to eradicate or control infestations of these species as soon as possible to avoid further spread and to prevent further adverse effects on natural resources. Successful control or eradication is highly likely if management actions begin in the near future. However, eradication does not ensure that re-infestations will not occur. Several of these species are found on properties adjacent to the park. Their seed will be a constant source of infestation. Public education should be incorporated into eradication efforts for these and any other invasive plants. Long-term monitoring for the presence of these weed species in the park will be required. Priority One species are the following:

Parrot feather	<i>(Myriophyllum aquaticum)</i>
Broom Sp.	<i>(Cytisus sp., Genista sp., Spartium junceum)</i>
Pampas grass	<i>(Cortaderia selloana)</i>
Tree of heaven	<i>(Ailanthus altissima)</i>
Water hyacinth	<i>(Eichhornia crassipes)</i>
Yellowflag iris	<i>(Iris Pseudacorus)</i>
Klamathweed	<i>(Hypericum perforatum)</i>
Black locust	<i>(Robinia pseudoacacia)</i>

Russian thistle	<i>(Salsola sp.)</i>
Tree tobacco	<i>(Nicotiana glauca)</i>
Giant Reed/arundo	<i>(Arundo donax)</i>
Hydrilla	<i>(Hydrilla verticillata)</i>
Perennial pepperweed	<i>(Lepidium latifolium)</i>
Scarlet wisteria/red sesbania	<i>(Sesbania punicea)</i>

Priority Two. Species in this priority classification have a low to moderate degree of invasiveness in the park due to the dry climate of the Central Valley (though may be more invasive in other habitats, such as the coastline of California) and or other factors. Populations of these species should be monitored and eradicated when feasible, but eradication priority should be given to species listed under Priority One first.

Cotoneaster	<i>(Cotoneaster sp.)</i>
English Ivy	<i>(Hedera helix)</i>
Firethorn/ Pyracantha	<i>(Pyracantha sp.)</i>
Privet	<i>(Ligustrum sp)</i>
Salt cedar/tamarisk	<i>(Tamarix sp.)</i>
Oleander	<i>(Nerium sp.)</i>
Common fig	<i>(Ficus carica)</i>
Chinese tallow	<i>(Sapium sebiferum)</i>
Woolly mullein	<i>(Verbascum Thapsus)</i>
Vinca	<i>(Vinca major)</i>

Priority Three. Most of the species in this priority classification are highly invasive and have infested large areas, causing significant habitat degradation in the SRA. Due to the extent of infestation, eradication or control of these species is probably not feasible in the foreseeable future. Rather, management should consist of two elements: (1) near-term (3-5 years) implementation of control or eradication efforts in specific areas (size of areas varies by species and extent of infestation) where other park priorities may warrant such an effort; and (2) long-term (10-20 years or more) land management strategies to reduce the overall presence of the species and to prevent the spread of the species into new areas.

Priority Three species are the following:

Bull thistle	<i>(Cirsium vulgare)</i>
Medusahead	<i>(Taeniatherum caput-medusae)</i>
Himalayan blackberry	<i>(Rubus discolor)</i>

Yellow starthistle	<i>(Centaurea solstitialis)</i>
Italian thistle	<i>(Carduus pycnocephalus)</i>
Barbed Goat Grass	<i>(Aegilops triuncialis)</i>
Fennel	<i>(Foeniculum vulgare)</i>
Black mustard	<i>(Brassica nigra)</i>
Poison Hemlock	<i>(Conium maculatum)</i>
Rush skeletonweed	<i>(Chondrilla juncea)</i>

Priority Four. Species in this priority classification are not currently known to occur in the Folsom Lake SRA, however there is a strong likelihood for colonization to occur due to the presence of these weeds in close proximity to the park. Such colonization could result in a rapid spread and significant habitat degradation. Priority Four species should be immediately eradicated if observed in the SRA. Priority Four species are the following:

Brazilian waterweed	<i>(Egeria sp.)</i>
Pondweed	<i>(Potamogeton spp.)</i>

Treatment Approaches

The following management prescriptions are based on various approaches in current literature, particularly Bossard et al. (2000). These treatments are not intended as definitive park actions, nor are they exhaustive, but they may provide a basis for future development of specific plans by park resource management experts. In particular, the document does not recommend or prescribe the use of any specific herbicide. Plans for usage of herbicides, their application rates and techniques must be prepared in the form of an herbicide recommendation by a licensed pest control advisor certified by the State of California. All weed management activities in the Unit should also be performed in accordance with the Bureau of Reclamation's CCAO Operations and Maintenance Plan (BOR 2002).

Aquatic Weeds: Water hyacinth, parrot's feather, Brazilian waterweed, hydrilla, curly-leaf pondweed. The on-going management of water hyacinth in the Lake Natoma vicinity has proven to effectively control this aquatic weed in the locations where it is known to occur (Alder Creek, Willow Creek, and Mississippi Bar). Management has entailed manual removal combined with introduction of a biological control agent (*Neochetina weevil*). A vigilant annual monitoring program for water hyacinth, as well as other aquatic weeds should

also be conducted with priority given to streams and backwaters in and around Lake Natoma. This program could be conducted by trained volunteers.

Thistle Species. In late winter through early summer, treat plants in the seeding, rosette, or pre-bud stage with an appropriate post-emergent herbicide. Pre-emergents may also be used prior to the germination of seedlings. The precise date when thistle plants will be in the appropriate growth stage for treatment will be determined by species and local climatic conditions and will vary from year to year. The treatment crew must include at least one person able to identify thistle and to distinguish it from native thistles that grow in the same area. Identification is needed for the following growth stages: seedling, rosette, pre-bud, flowering and setting seed. Four to six weeks after initial treatment, check the condition of treated plants and retreat any live plants and newly emerged rosettes with herbicide. Repeat treatments on an annual basis at the appropriate time until no plants have been observed for two consecutive years. Hand pulling is an effective way to control small infestations of thistles. Hand pulling is most effective when the plant has bolted yet not gone to seed and there is some moisture still left in the soil, allowing for removal of the entire root of the plant.

Control of Large Infestations of yellow star-thistle (park-wide management). There are three major options for gradually reducing, or at least limiting the further spread of yellow starthistle on a park-wide basis, as follows:

- ***Burning.*** Where grasslands have become heavily invaded by yellow starthistle (as depicted on the vegetation maps), the burn plan should aim to control starthistle for fuel reduction and habitat enhancement. Under this approach, repeated burns would be used to gradually reduce the starthistle seedbank. Timing is critical for such burns to be effective. Typical burns must be conducted during the early summer (June-July) after native species have dispersed their seeds, but prior to maturation of starthistle seedheads. However, given the dearth of native species in many of the Unit's grasslands, the primary determining factor as to when burns should be conducted will be the status of starthistle seedhead maturation.
- ***Bio-control.*** The U.S. Department of Agriculture has approved the use of several insect species (weevils and flies) that are the natural enemies of yellow starthistle. The California Department of Food and Agriculture (CDFA) may be willing to release one or more of the insects into the Unit if it is determined (as is likely) that the

population of yellow starthistle is large enough to sustain the insects at a level where they can be effective. The use of biological controls may be the most cost effective and safe means of controlling starthistle. The insects are all host specific to yellow starthistle and do not require significant investments in infrastructure or personnel. However, the insects may not be effective in significantly reducing yellow starthistle populations, except over an extended period of many years (Bossard *et. al.* 2000).

Chinese tallow; scarlet wisteria tree; tree of heaven. These tree species may be removed by hand or with weed wrenches when they are immature. Control of these trees when they have reached maturity is done most easily and effectively with an herbicide treatment. Note, cutting of tree of heaven without immediate application of herbicide to the cut stump will cause extensive resprouting.

Cotoneaster, pyracantha and privet. The most appropriate control method will depend on the size of individual plants. In the case of seedlings, hand pulling is effective if conducted after a rain when the entire seedling and root system can be pulled. For larger seedlings and small saplings, pulling the plants with weed wrenches¹ may be effective, provided that the work is conducted under very wet soil conditions. For mature shrubs, cutting or girdling, immediately followed by applications of systemic herbicides, is recommended. Following all treatment approaches, it is essential that there be follow-up monitoring for one or more growing seasons.

English ivy. Hand cut the vines using pruning shears, pulling the upper portions from the trees and pulling-up the lower portions from the ground. If the cut upper portions cannot be easily removed, they can be left to die in place. The process will likely need to be repeated within the control area for several years thereafter. Herbicide will be required for eradication of this plant without excessive ground disturbance.

Broom species. Broom has a seed that can survive in the soil for several decades. Any control efforts should focus on eliminating any future seed set. Treatment options for this species are numerous. Repeated treatments for several years will likely be needed because of the potentially large seedbank. One option for small infestations is to pull the entire plant,

¹ Weed wrenches are hand tools that have been specifically designed to use leverage to uproot shrubs and small trees. They have proven to be particularly effective in the management of numerous noxious weed species in California.

including roots, by hand pulling or using a weed wrench. For larger infestations, an herbicide treatment is usually more cost effective. The time of year for the treatment will vary depending on the herbicide(s) used and the type of herbicide treatment. Prescribed burning can also be used to stimulate seed germination of the seedbank. Follow-up with an herbicide or manual or mechanical treatment will be necessary.

Arundo (giant reed). Treat infestations as soon as they are discovered. Hand-pull plants less than 6 feet tall, removing the entire plant including the rhizome. Removal of all roots may also be facilitated using hand tools such as pick-axes or mattocks. All plant material, including the roots should be bagged and removed from the site or moved well away from water or roads/trails where plant fragments can be carried off and establish new infestations. Even fragments a few inches in length can be viable for half a year and produce new plants when they come into contact with adequate soil and water. Larger plants may be cut, followed by immediate treatment of the cut stem with an appropriate herbicide. Spraying of large infestations with an appropriate herbicide during the period from late August to November is effective. For all treated areas, diligent monitoring is a must, meaning that each treatment site shall be visited several times a year to catch any new populations or resprouts.

Himalayan blackberry. Identify key locations along riparian corridors (*e.g.*, outlier populations, places where human or wildlife access should be facilitated). In these locations, Himalayan berry can be physically removed by cutting the branches as far back as possible. This should be followed by herbicide applications and replanting of the infested areas with rapidly growing native riparian shrub species.

The yellow-breasted chat, a California Species of Special Concern (see Natural Resources – Animal Life – page AL-39), is known to frequent riparian areas with dense stands of Himalayan blackberry. Therefore, surveys for this species during the nesting season (early May- mid-July) would need to be conducted within any area proposed for Himalayan blackberry management. No management work should be conducted until the nesting season is completed, all young have fledged and the nests have been abandoned.

Klamathweed. For limited infestations such as may occur at the Snipes-Pershing Preserve, manually uproot plants, removing entire plant including tap root and rhizomes. This technique is most effective when there is moisture in the ground and the entire root can be removed. If plants are too large to effectively remove roots, an herbicide treatment may be

effective. Revisit the site for at least three consecutive years to re-treat new sprouts as needed. Larger infestations have been successfully treated in California with adult klamathweed beetles, an effective bio-control agent, approved by the USDA and CDFA for use against this weed species.

Medusahead. Properly timed applications of a combination of prescribed fire and herbicide may effectively reduce, or at least limit the further spread of medusahead. Prescribed fire treatments should be conducted in the late spring or early summer after seeds have set but before they have scattered. An herbicide only treatment affect may also be effective for small patches.

Oleander.¹ Cut the trees to the bases and immediately treat the freshly cut stumps with an appropriate herbicide.

Pampas grass. Pull or hand grub seedlings. To manually remove large clumps of mature plants, cut them with a chainsaw or weedeater down to the crowns. Cut and bag any inflorescences prior to plant removal in order to prevent seed dispersal. Remove the entire crown and top section of roots to prevent re-sprouting. Herbicides are also an effective treatment method, particularly in late summer and fall. Follow-up treatments will be necessary to control resprouts, misses, and new seedlings.

Perennial pepperweed. Around May or early June, spray foliage of all plants (seedlings and adults) with an appropriate herbicide. If there is a high potential to adversely affect adjacent native plant species, use a wick applicator instead. In July, check the condition of sprayed plants and respray any that have resprouted or appear to still be alive. In July or early August, cut the flower stalks (if any), bag, remove from the site and dispose of stalks using a method that precludes seed dispersal and germination, for example, burning or disposal in a landfill. During May-June of the following years, check the condition of all plants and respray any that have resprouted, using the method described above. Continue treatment until no live plants have been observed for two consecutive years. Do not attempt to pull out or cut this plant. Doing so does not effectively kill the plant and resprouting will occur.

¹ Oleander is included here not because of its ecological harm but because of its potential public safety problems in or near picnic or camping areas.

Rush skeletonweed. For limited infestations such as may occur at the Snipes-Pershing Preserve, treat newly emerged plants with an appropriate herbicide while soil is still moist (April is best in year with average rainfall). After herbicide treatment is completed, attach colored flagging to the old flower stalk or plant base so that plants can be quickly relocated for retreatment. The treatment crew should include at least one person able to identify rush skeletonweed in all growth stages: seedling, rosette, and plants with flowers and seed heads. Six to eight weeks after initial treatment, treat rosettes sprouting from base of plant or from rootstocks and any new plants. The leaves of these resprouts will be smaller and more succulent than normal leaves. Repeat herbicide treatments each year until no plants have been observed for two consecutive years.

Salt cedar. Remove infestations as soon as discovered by cutting all trees near the ground and immediately treating the cut stumps with an appropriate herbicide. Small trees (stems less than 4 inches in diameter) may be killed without cutting, using a basal bark herbicide treatment. In subsequent years, conduct follow-up hand pulling of seedlings until no seedlings are observed for at least two consecutive years.

Woolly mullein. For limited infestations such as may occur at the Snipes-Pershing Preserve, remove plants in the rosette stage (leaves only), typically in July or August. Plants should be hand-pulled, or the root should be cut beneath the lowest leaf base using a hoe, pulaski or similar equipment. Rosettes can be left on-site in an upside-down position (to prevent re-rooting). For plants in the flowering or seed-producing stage, remove the flowers and seed capsules with clippers. Cut the root beneath the lowest leaf base, turn rosettes upside down (to prevent re-rooting) and leave on-site. Plant clippings should be bagged, removed from the site, and disposed of using a method that precludes seed dispersal and germination, for example, burning or landfill disposal. Repeat treatment actions on an annual basis until no plants have been observed for two years in a row.

Coordinating Efforts with Adjacent Landowners

Invasive plants inevitably do and will continue to cross property boundaries, making eradication difficult or impossible without coordinated efforts with adjacent landowners. Each proposed eradication project should be considered in its regional, local, and community context. Projects that expand on the efforts of adjacent landowners should be given priority. Public education should be incorporated, to the extent feasible, into each

invasive plant removal effort in the park. Volunteer and community work days should be utilized where feasible to remove invasive plant populations to help build an understanding of the issue and the work involved in addressing the problem.

Follow-up Treatments, Revegetation and Monitoring

A key to successful long-term management of invasive exotic plants is a commitment to follow-up treatments and monitoring. Park resource management personnel should plan to annually visit management locations, as well as other similar locations around the park, to monitor the status of existing infestations and to detect and record with GPS receivers the locations of any additional spread. Visits should be timed to optimally detect each plant species based on phenology. Monitoring results should be input into an exotic plant data layer in GIS.

Treatment of noxious weeds is often an exercise in futility if not followed-up by an effort to restore native vegetation in the treatment areas. This is particularly true where treatments involve manual or mechanical removal techniques that disturb the soils. In order to mitigate disturbance to the soil surface after manual removal of weeds, it may be necessary to re-compact the disturbed soils and cover with weed-free mulch. Weed control fabric or polyethylene sheet plastic may also be used to avoid new infestations and re-introductions. Where soil disturbance has been extensive, a native seed mix should be applied following re-compaction of the soil surface. In riparian or oak woodland areas, a native tree and shrub replanting program may need to be conducted following weed treatments.

Table B-1. Summary of Management Priority Evaluation for Noxious Weed Species – Folsom Lake SRA

Evaluation System

Ecological Threat: **High** = Weed species is known to displace native plant populations and/or significantly diminish habitat functions. **Moderate** = Weed species has the potential to displace native plant populations and/or significantly diminish habitat functions. **Low** = Weed species is unlikely to displace native plant populations and/or significantly diminish habitat functions.

Degree of Invasiveness: **High** = Weed species has the ability to rapidly colonize and spread within native habitats. **Moderate** = Weed species has the ability to rapidly colonize and spread, however usually requires at least a moderate amount of prior habitat disturbance. **Low** = Weed species not known to rapidly colonize and spread within native habitats.

Control Feasibility: **Feasible** = Control can be achieved using relatively simple techniques over a short period of treatment (1-3 years). **Difficult** = Control can often be achieved but requires complex or precise techniques that may take a long period of treatments and re-treatments (3-10 years or longer). **Very Difficult** = Control unlikely to be achieved except in limited situations. Complex or precise techniques required that may take a long period of treatments and re-treatments (3-10 years or longer).

Current Distribution in Folsom Lake SRA Vicinity: **Very Limited** = Known to occur in a single location in the park. **Limited** = Known to occur in a few locations or extensively in a single location in the park. **Widespread** = known to occur in numerous locations throughout the park. **Unknown** = Not known to occur in the park but presence of this weed species in the region suggest that it could occur in the park.

Potential for Successful Management in the SRA: **High** = Treatment likely to result in successful eradication of this weed species from the park. **Moderate** = Species too widespread for successful eradication but treatment likely to achieve control. **Low** = Species too widespread for successful control but eradication from small areas within the park may be achieved if deemed desirable.

Cal-IPC Ranking = California Invasive Plant Council ranking under *Exotic Pest Plants of Greatest Ecological Concern in California* (February 2006), as follows:

High = These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.

Moderate = These species have substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.

Limited = These species are invasive but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

Evaluated but not Listed = Sufficient information necessary to assign a rating was lacking or the available information indicates that the species does not have significant impacts at the present time.

Summary of Management Priority Evaluation for Noxious Weed Species – Folsom Lake SRA

Species Name	Ecological Threat (Cal-IPC Ranking)	Degree of Invasiveness	Control Feasibility	Current Distribution in Folsom Lake SRA Vicinity	Potential for Successful Management in the SRA
Management Priority One:					
Klamathweed <i>Hypericum perforatum</i>	Moderate. Invades in grassland, savanna habitats and seasonal wetlands; replaces native species. (Cal-IPC: Moderate)	High. Reproduces both vegetatively and from seed; grows new stems from taproots and rhizomes; capable of producing viable seed with or without pollination	Feasible. Manual/mechanical techniques and herbicide application are effective for small infestations. Large populations can be controlled with biocontrol agents.	Widespread. Grows in several locations in the park from Peninsula to Snipes-Pershing. Found in low to moderate density.	High. The low numbers of this plant in the park make control feasible.
Pampas grass <i>Cortaderia selloana</i>	High. Displaces native vegetation along stream banks, riparian areas and shorelines. Increases fire risk due to the dense vegetative masses it forms. (Cal-IPC: High)	High. Highly invasive from both seed and root runners. Root pieces displaced from the parent plant can also produce new plants if adequate moisture is available.	Feasible. Can be controlled through manual or mechanical removal and/or use of herbicides.	Widespread. Grows in disturbed areas around Lake Natoma and along the bike path downstream of Folsom Dam. Other populations have been found on the north fork arm of the American River above Avery's Pond.	High. Though populations on adjacent private/public lands will make eradication difficult, control is very feasible.
Parrot feather; Eurasian milfoil <i>Myriophyllum aquaticum</i>	High. Forms dense water-choking mats in freshwater lakes, ponds and slow moving channels. (Cal-IPC: High)	Moderate. Not known to produce viable seed in California. Spread is from root sprouting from fragmented stems. Distributed to new locations by water flow, boats, water fowl, and by dumping of aquarium water.	Difficult. Once established, labor-intensive mechanical removal is required. Limited control may also be attained with herbicides approved for use in aquatic systems.	Limited. Found in the Mississippi Bar ponds and may occur in other ponds and backwaters of Lake Natoma.	Moderate. Spread to other aquatic locations in the park could be prevented through mechanical removal. Priority should be given to those ponds and backwaters that have surface water connections to Lake Natoma.

Summary of Management Priority Evaluation for Noxious Weed Species – Folsom Lake SRA

Species Name	Ecological Threat (Cal-IPC Ranking)	Degree of Invasiveness	Control Feasibility	Current Distribution in Folsom Lake SRA Vicinity	Potential for Successful Management in the SRA
Russian thistle; tumbleweed <i>Salsola tragus</i>	Moderate. Readily colonizes disturbed areas, but can also invade grasslands and seasonal wetlands. Can pose a serious wildfire hazard. Plant is a common allergen to people. (Cal-IPC: Limited)	Moderate. Reproduces prolifically by seed. Is noted for the tendency of its mature individuals to break free from the soil and be blown about.	Difficult. Most effective approach is herbicide applications to immature plants. Once established, herbicide use is less effective. For small infestations, mowing of young plants would probably be effective.	Limited. Known to occur in the Snipes-Pershing Preserve and likely in other areas of Lake Natoma/Folsom Lake.	Moderate. Potential spread of this weed within the park may be controlled if dealt with in the near future.
Scotch Broom <i>Cytisus scoparius</i>	High. Will invade various terrestrial habitat types forming dense monotypic stands, if not controlled. Inhibits regeneration of native vegetation and significantly increases wildfire risk. (Cal-IPC: High)	High. Large populations can result from only one plant due to prolific seed production and long distance seed dispersal.	Difficult. Can be controlled using one or more techniques: manual and mechanical removal; herbicides, and prescribed fire	Limited. Thought to occur within a few locations of the park, though distinction among broom species has been problematic.	Moderate. Spread of this weed within the park could be controlled, though the long lived seeds and any adjacent populations just outside of park boundaries will make eradication difficult.

Summary of Management Priority Evaluation for Noxious Weed Species – Folsom Lake SRA

Species Name	Ecological Threat (Cal-IPC Ranking)	Degree of Invasiveness	Control Feasibility	Current Distribution in Folsom Lake SRA Vicinity	Potential for Successful Management in the SRA
<p>Tree of heaven</p> <p><i>Atlanthus altissima</i></p>	<p>High. Readily invades riparian zones as well as drier environments (cobblestone surrounding Lake Natoma. Reduces habitat diversity. (Cal-IPC: Moderate)</p>	<p>High. Prolific root sprouter with new plants up to 50 feet away from nearest shoot. Seeds are light and wind dispersed. Often spread by water, birds and on vehicle tires. Produces allelopathic chemical that allows it to out-compete native species.</p>	<p>Difficult. Control can be achieved through manual/mechanical removal and herbicide treatments. Repeated removal or treatment of seedlings required over several seasons.</p>	<p>Widespread. Grows all around Lake Natoma. Several hundred plants are also found at Peninsula, adjacent to the entrance kiosk. The plant has been observed at Granite Bay and Beal's Point Access as well.</p>	<p>Moderate. Further spread of this weed in the park could be controlled if known infestations are dealt with soon. Control is foreseeable though eradication is unlikely due to extent of plant on adjacent properties, particularly in the city of Folsom.</p>
<p>Water hyacinth</p> <p><i>Eichhornia crassipes</i></p>	<p>High. Forms dense floating mats that choke freshwater lakes, ponds and slow moving channels. Decaying vegetation reduces dissolved oxygen in water and promotes eutrophication. (Cal-IPC: High)</p>	<p>High. Spreads rapidly by breaking apart into pieces, each of which develops into a separate plant. Also reproduces sexually by producing self-pollinating flowers. Released seeds can remain viable in the bottom sediments for several years.</p>	<p>Difficult. Herbicides may be effective but require careful planning and permitting. Mechanical removal requires long-term (5-10 years) labor commitment. Release of bio-control insects may provide effective long-term control. Repeated manual removal can provide effective control.</p>	<p>Limited. Historically at the mouths of Alder and Willow Creeks, and in Mississippi Bar ponds. May have been eradicated in the ponds through chemical spraying. On-going manual eradication efforts at Alder and Willow Creeks for the past 6 years are achieving success. Biocontrol weevils were released into the Willow Creek area in the summer of 2002.</p>	<p>Moderate. Continuation of ongoing control efforts may effectively eradicate this aquatic weed from the park, but landowners upstream will need to implement consistent control efforts in order to do so.</p>

Summary of Management Priority Evaluation for Noxious Weed Species – Folsom Lake SRA

Species Name	Ecological Threat (Cal-IPC Ranking)	Degree of Invasiveness	Control Feasibility	Current Distribution in Folsom Lake SRA Vicinity	Potential for Successful Management in the SRA
French broom <i>Genista monspessulana</i>	High. Will invade various terrestrial habitats forming dense monotypic stands; inhibits regeneration of native vegetation; significantly increases wildfire risk; reduces wildlife habitat value by displacing native forage species and reducing arthropod populations. (Cal-IPC: High)	High. Can establish from only one plant due to prolific seed production and long distance seed dispersal. Dispersal can also be accomplished by seeds floating in rainwater and by mud lodged in crevices of boots, machinery, and vehicles.	Difficult. Can be controlled using one or more techniques: manual and mechanical removal, herbicides, and prescribed burning.	Limited. Thought to occur at Mountain Oak Court. Access in various densities.	Moderate. Long lived seedbank will make eradication difficult. Control is feasible. Other limitations may be access to site and populations on adjacent lands.
Giant reed <i>Arundo donax</i>	High. Rapidly invades riparian habitats, reducing food supply, insect populations and habitat accessibility for wildlife. Reduces aquatic habitat value for fish and amphibians by reducing streamside shade. (Cal-IPC: High)	High. Reproduces vegetatively either by extension of underground rhizomes or from drifting plant fragments that later produce roots.	Difficult. Manual or mechanical removal of the entire plant combined with herbicide applications can effectively control infestations. Herbicide application alone is also an option and will minimize potential for spread.	Limited. Observed at Avery's Pond in small numbers, on the north fork above Avery's Pond and downstream of Folsom dam. There is a high potential for it to colonize areas in and near perennial streams and ponds, particularly in the Lake Natoma area.	Moderate. Sources outside of the park boundary will make eradication difficult but control is achievable with diligent monitoring.

Summary of Management Priority Evaluation for Noxious Weed Species – Folsom Lake SRA

Species Name	Ecological Threat (Cal-IPC Ranking)	Degree of Invasiveness	Control Feasibility	Current Distribution in Folsom Lake SRA Vicinity	Potential for Successful Management in the SRA
Hydrilla <i>Hydrilla verticillata</i>	High. Forms dense mats in lakes, marshes, ponds, and streams, diminishing native aquatic plants, decreasing habitat for fish and wildlife and increasing sedimentation. Decaying vegetation diminishes dissolved oxygen. (Cal-IPC: High)	High. Spreads from reproduction of fragmented stems and tubers that root in sediments. Propagules can be distributed to new locations by sticking to boats, fishing equipment, and wildlife.	Feasible. Infestations must be reported to the CDEA which will coordinate quarantine and eradication efforts. Control efforts include manual removal of entire plants, dredging of bottom sediments, use of herbicides and/or bio-control agents (sterile carp), as authorized by CDFG.	Unknown. Not observed in the park, but there is a high potential for it to colonize both Lake Natoma and Folsom Lakes as well as perennial streams and ponds.	High. If observed, a rapid response could prevent infestation.
Perennial pepperweed <i>Lepidium latifolium</i>	High. Extremely invasive in seasonal wetlands, vernal pools, and marshes. Dense stands diminish habitat value for associated floral and faunal species. (Cal-IPC: High)	High. Tolerant of saline and alkaline soils. Spreads by either seed production or reproduction of underground stem fragments. Short-distance spread of seed is by water or wind-borne seed. Long-distance spread is by contaminated rice straw and possibly waterfowl.	Difficult. Mechanical hand-pulling or disking is unsuccessful because plant regenerates from remnant rootstock. Herbicide use is successful if treatments are properly timed and selectively applied.	Limited. Observed in low numbers at Mormon Island Preserve and the north side of Lake Natoma close to Nimbus Dam.	Moderate. Given the limited control strategies and the prolific seedbank that probably exists, eradication will be difficult.

Summary of Management Priority Evaluation for Noxious Weed Species – Folsom Lake SRA

Species Name	Ecological Threat (Cal-IPC Ranking)	Degree of Invasiveness	Control Feasibility	Current Distribution in Folsom Lake SRA Vicinity	Potential for Successful Management in the SRA
Scarlet wisteria tree <i>Sesbania punicea</i>	High. This plant has the potential to invade riparian areas and lakeshores, forming a monoculture, devoid of valuable native riparian habitat. (Cal-IPC: High)	High. Produces abundant, buoyant seed pods that may be dispersed long-distance by water.	Feasible. Control can probably be achieved through manual removal and herbicide treatments.	Very Limited. Found in small numbers in main drainage of Snipes-Pershing.	High. Rapid response can prevent further infestation. Diligent monitoring will be necessary to maintain control /eradication.
Spanish broom <i>Spartium junceum</i>	High. Will colonize a variety of habitats displacing native vegetation and contributing to fuel loads. (Cal-IPC: High)	High. Abundant seeds are produced that are spread by water, animals, and people.	Feasible. Control can probably be achieved via manual, mechanical and chemical treatments.	Limited. One population exists at Negro Bar Access and more is thought to occur in the park, possibly at Mooney Ridge.	Moderate. Rapid response could prevent further spread. Infestations on adjacent lands could make eradication difficult without consistent coordinate removal efforts.
Yellow flag Iris <i>Iris pseudacorus</i>	Moderate. Displaces native vegetation in natural wetland and riparian areas. Is toxic if eaten in quantities by wildlife or livestock. (Cal-IPC: Limited)	High. Can reproduce vegetatively and by seed.	Feasible. Control can probably be achieved via manual or mechanical treatments.	Limited. Occurs in dense stands around the shore of Avery's Pond and at Negro Bar near Natoma Crossing. Like pampas grass, it has escaped from gardens.	Moderate. Infestation can probably be significantly reduced but would require repeated removal efforts over 5-10 years.

Summary of Management Priority Evaluation for Noxious Weed Species – Folsom Lake SRA

Species Name	Ecological Threat (Cal-IPC Ranking)	Degree of Invasiveness	Control Feasibility	Current Distribution in Folsom Lake SRA Vicinity	Potential for Successful Management in the SRA
Black Locust <i>Robinia pseudoacacia</i>	Moderate. Tall tree (100 feet) that shades habitat and displaces native vegetation. Early successional species that grows best on clear-cuts, abandoned pastures, or roadways. (Cal-IPC: Limited)	Moderate. Can reproduce from seeds but mostly produces by suckers or sprouting from roots. This species has been in California for many years but has not spread significantly.	Feasible. Control can probably be achieved through manual removal and herbicide treatments.	Unknown	Unknown. Potential for success may be high if infestations are localized and limited. However, repeated removal efforts would be required over several years.
Tree Tobacco <i>Nicotiana glauca</i>	Moderate. First planted as a landscape ornamental, Tree Tobacco has escaped and can now be found widespread along roadsides, disturbed sites, waste areas, riparian areas, and recently burned sites. This species displaces native plants. (Cal-IPC: Moderate)	Moderate. Prolific seed producer with seed set approaching 100% in manually self-pollinated flowers. Seeds are produced in large quantities in capsules. The seeds are minute and can be carried long distances either by falling on bypassing animals or by moving in watersheds. Trees grow rapidly and produce viable seed within a couple of years.	Feasible. Control can be achieved with foliar or basal bark treatment with herbicides. Mechanical treatment probably not feasible.	Unknown	Unknown. Potential for success may be high if infestations are localized and limited. Infestation can probably be significantly reduced but would probably require extensive and repeated treatments.

Summary of Management Priority Evaluation for Noxious Weed Species – Folsom Lake SRA

Species Name	Ecological Threat (Cal-IPC Ranking)	Degree of Invasiveness	Control Feasibility	Current Distribution in Folsom Lake SRA Vicinity	Potential for Successful Management in the SRA
Management Priority Two:					
Cotoneaster <i>Cotoneaster</i> spp.	Medium. Aggressive invader of riparian and oak woodland in coastal California. Not nearly as aggressive in FLSRA. Displaces native tree and shrub species. (Cal-IPC: Moderate)	High. Seeds are readily dispersed by birds; seeds are long-lived. Invasiveness seems to be greatly diminished in drier climate of the Valley.	Feasible. Requires cutting and treatment of stumps with herbicide within a limited timeframe (after fruits have set but before they mature). Repeated follow-up removal of coppices required.	Very Limited. Known to occur in the Mississippi Bar vicinity and possibly near Lake Natoma Inn.	High. The spread of this weed within the park can be controlled/eradicated in its current stage of infestation.
English ivy <i>Hedera helix</i>	High. Rapidly covers and displaces native riparian vegetation along stream corridors, reducing overall habitat value and access to streams for some wildlife species. (Cal-IPC: High)	High. Seeds are readily dispersed by birds; will also expand rapidly via vegetative growth and by root pieces dispersed downstream.	Very Difficult. Once well-established along a stream corridor, difficult to control without extensive labor and herbicide use. Best management approach is to control early infestations.	Limited. Distribution appears to be limited. There is one known location – in the Granite Bay subdivision.	Moderate. The spread of this weed within the park may be controlled in its current stage of infestation. Eradication will be difficult if populations on adjacent lands are not controlled.
Firethorn <i>Pyracantha angustifolia</i>	Moderate. Forms locally dense stands in riparian, woodland and chaparral habitats. (Cal-IPC: Limited)	Moderate. Produces prolific berries that are dispersed by birds and will readily germinate along the edges of wooded areas and in disturbance zones.	Feasible. Can be controlled by manual removal or herbicides.	Limited. Known occurrences found in the Alder Creek, Negro Bar and Mississippi Bar areas.	Moderate. Firethorn is found in the yards of adjacent landowners, providing a constant seed source. Control is possible, eradication is unlikely.

Summary of Management Priority Evaluation for Noxious Weed Species – Folsom Lake SRA

Species Name	Ecological Threat (Cal-IPC Ranking)	Degree of Invasiveness	Control Feasibility	Current Distribution in Folsom Lake SRA Vicinity	Potential for Successful Management in the SRA
<p>Oleander <i>Nerium oleander</i></p>	<p>Low. Although found in riparian areas, does not appear to displace native species. Highly toxic to people, particularly if used as firewood. Is a host plant for the glassy-winged sharpshooter. (Cal-IPC: Eval, No List)</p>	<p>Low. Not considered highly invasive in California, mainly a local escapee from landscape settings.</p>	<p>Feasible. Can be controlled by manual/mechanical removal or herbicides.</p>	<p>Limited. Grows in the Negro Bar vicinity. Has been planted by non-park personnel at Folsom Point picnic and kiosk area and has been observed invading drainages near houses.</p>	<p>High. Could be readily removed where warranted such as any setting in which the public could potentially try to use it as firewood or as food stakes for campfires or barbecues.</p>
<p>Privet <i>Ligustrum vulgare</i></p>	<p>Moderate. Unknown effects on natural systems, however known to invade riparian areas.</p>	<p>Moderate. Produces abundant fruit that are eaten and spread by birds; seeds remain viable and produce multitudes of seedlings.</p>	<p>Feasible. Can be controlled through manual or mechanical removal and/or herbicide treatments.</p>	<p>Widespread. Grows in the Granite Bay area of the park and in the Lake Natoma vicinity.</p>	<p>Moderate. Privet is found in the yards of adjacent landowners, providing a constant seed source. Control is possible, eradication is unlikely.</p>
<p>Woolly mullein <i>Verbascum thapsus</i></p>	<p>High. Perennial herb that invades disturbed sites, but can also invade grasslands, savanna, seasonal wetlands, and chaparral sagebrush scrub. (Cal-IPC: Limited)</p>	<p>High. Individual plants are capable of producing 100,000 to 240,000 seeds, which can remain viable in the soil for 35 to 100 years.</p>	<p>Feasible. Control can be achieved by various methods, including manual removal and herbicides.</p>	<p>Limited. Known occurrence in the Snipes-Pershing Preserve, on the north side of Lake Natoma. Additional occurrences suspected on the southern side as well.</p>	<p>High. The potential spread of this weed within the park may be controlled.</p>

Summary of Management Priority Evaluation for Noxious Weed Species – Folsom Lake SRA

Species Name	Ecological Threat (Cal-IPC Ranking)	Degree of Invasiveness	Control Feasibility	Current Distribution in Folsom Lake SRA Vicinity	Potential for Successful Management in the SRA
<p>Chinese tallow <i>Sapium sebiferum</i></p>	<p>Moderate. Not currently a serious problem in the park; has the potential to invade wetlands, riparian areas, and lakeshores. (Cal-IPC: Moderate)</p>	<p>High. Most likely to spread downstream from existing seed sources. Grows rapidly, produces abundant viable seed, and can reproduce from cuttings; seeds spread by birds, and may also float for great distances.</p>	<p>Feasible. Control can probably be achieved through manual removal and herbicide treatments.</p>	<p>Unknown. Only observation to date is in the main drainage at Snipes Pershing.</p>	<p>High. Rapid response can easily provide control in the known drainage. Eradication may be difficult given populations found on adjacent lands outside of the park.</p>
<p>Salt cedar <i>Tamarix parviflora</i></p>	<p>High. Colonizes stream banks, lake shores, pond margins and other moist locations. Changes the dynamics of stream geomorphology, reduces riparian habitat value and increases fire risk. (Cal-IPC: High)</p>	<p>High. Spreads by both vegetative root sprouting and by prodigious production of long-distance dispersed seeds; seeds are dispersed by both wind and water.</p>	<p>Difficult. Mechanical or manual removal unsuccessful unless followed by herbicide treatment and seedling removal for several years. Control feasibility increases if early infestations are treated before infestations mature.</p>	<p>Very limited. One small population thought to exist at Negro Bar Access.</p>	<p>High. This plant can be controlled or eradicated at its current stage of infestation.</p>

Summary of Management Priority Evaluation for Noxious Weed Species – Folsom Lake SRA

Species Name	Ecological Threat (Cal-IPC Ranking)	Degree of Invasiveness	Control Feasibility	Current Distribution in Folsom Lake SRA Vicinity	Potential for Successful Management in the SRA
<p>Common fig <i>Ficus carica</i></p>	<p>Moderate. Forms dense stands within native riparian forests and woodlands. Common fig is sometimes the only woody species found in these dense stands. (Cal-IPC: Moderate)</p>	<p>Moderate. Capable of producing abundant fruit and seed two or three times per year. The plants also spread vegetatively via root sprouts and via broken branches that make contact with the soil and form roots. These broken branches may be carried great distances in flood waters, washing up in a new location where they may establish a new population.</p>	<p>Feasible. Control can be achieved through manual removal and herbicide treatments.</p>	<p>Unknown</p>	<p>Unknown. Potential for success may be high if infestations are localized and limited.</p>
<p>Vinca <i>Vinca major</i></p>	<p>Moderate. Once established, vinca forms a dense carpet where it excludes native herbs and out-competes native vegetation. Areas infested with vinca can have root masses that extend several feet into the ground. Thrives in disturbed areas typical of riparian corridors. (Cal-IPC: Moderate)</p>	<p>Moderate. Spreads by sprouting from fragmented stems. These broken stem fragments are able to float on water to begin new vinca colonies.</p>	<p>Feasible. Control can be achieved through manual removal and herbicide treatments.</p>	<p>Limited. Periwinkle was observed growing near homes in Granite Bay and near Negro Bar.</p>	<p>Moderate. The spread of this weed within the park may be controlled in its current stage of infestation. However, eradication will be difficult due to the probability of populations on adjacent lands are not controlled.</p>

Summary of Management Priority Evaluation for Noxious Weed Species – Folsom Lake SRA					
Species Name	Ecological Threat (Cal-IPC Ranking)	Degree of Invasiveness	Control Feasibility	Current Distribution in Folsom Lake SRA Vicinity	Potential for Successful Management in the SRA
Management Priority Three:					
Rush skeletonweed <i>Chondrilla juncea</i>	High. Invades grasslands, although usually limited disturbed areas. Depletes soil of nutrients and moisture. Reduces forage for wildlife. (Cal-IPC: Moderate)	Moderate. Reproduces by cloning from roots or from seed apomixis (seeds produced without pollination). One plant can produce 15,000 to 20,000 seeds in a season.	Difficult. May be controlled with properly timed applications of herbicides. Manual/mechanical techniques may be in option in Spring.	Widespread. Found in grasslands, disturbed areas around Folsom Lake and Lake Natoma.	Low. The extent of this species in the park and outside of park boundaries as well as the limited control options will make eradication unlikely.
Bull thistle <i>Cirsium vulgare</i>	Moderate. Invades a variety of habitats. Displaces native species and reduces forage for native grazers. Spines also interfere with grazing and movement by native animals. (Cal-IPC: Moderate)	High. Produces abundant, airborne seeds that can disperse up to 90 feet under low wind conditions.	Very Difficult. Control with chemicals, mowing and/or cutting is feasible for small infestations (tens of acres) but less practical once established over a large area. Requires properly-timed and repeated treatments prior to seed set for several years.	Widespread. Ubiquitous throughout the park, occurring in virtually all upland habitats.	Low. Due to widespread distribution, significant reduction of this weed species in the park is not feasible. However, localized eradication within small areas (i.e. tens of acres) may be feasible where other management goals warrant such an effort.

Summary of Management Priority Evaluation for Noxious Weed Species – Folsom Lake SRA

Species Name	Ecological Threat (Cal-IPC Ranking)	Degree of Invasiveness	Control Feasibility	Current Distribution in Folsom Lake SRA Vicinity	Potential for Successful Management in the SRA
<p>Himalayan blackberry <i>Rubus discolor</i></p>	<p>High. Extremely invasive in riparian habitat; displaces native vegetation; dense stands prevent access to water for some wildlife species. Despite its negative attribute, its berry serves as a food plant for small mammals and avifauna that frequent riparian areas. (Cal-IPC: High)</p>	<p>High. Thrives on low fertility soils and a wide range of soils. Long-lived berry seeds are dispersed after passing through the digestive system of animals. Reproduces from cane tips that contact the ground and also from root pieces.</p>	<p>Difficult. Control over limited areas (< 1 acre of dense growth) can be achieved using mechanical/manual means followed by herbicide treatment and re-treatments of new sprouts for several years. Control of large infestations becomes less practical without a major commitment of labor and resources.</p>	<p>Widespread. Ubiquitous in the park, occurring in riparian zones, pond edges, moist ravines, and along the edges of Lake Natoma and Mississippi Bar.</p>	<p>Low. Due to widespread distribution, significant reduction of this weed species in the park is not feasible. However, localized eradication within small areas (i.e. tens of acres) may be feasible where other management goals warrant such an effort.</p>
<p>Italian thistle <i>Carduus pycnocephalus</i></p>	<p>High. Invades disturbed or heavily grazed grasslands, oak woodland, savannah and chaparral. Becomes locally dominant, displacing native species, and reducing forage for native grazers. Spines interfere with grazing by native animals. (Cal-IPC: Moderate)</p>	<p>High. Seeds of this species are spread primarily by wind, although they may also be spread by animals, seed-contaminated soils, and hay.</p>	<p>Difficult. Control using manual or mechanical removal techniques are feasible for small infestations but becomes less practical once established over a large area. Herbicides may be effective for larger populations. Requires properly-timed and repeated treatments prior to seed set each year.</p>	<p>Widespread. Ubiquitous throughout the park, occurring in virtually all upland habitat types, particularly at Peninsula.</p>	<p>Low. Due to widespread distribution, significant reduction of this weed species in the park is not feasible. However, localized eradication within small areas (i.e. tens of acres) may be feasible where other management goals warrant such an effort.</p>

Summary of Management Priority Evaluation for Noxious Weed Species – Folsom Lake SRA					
Species Name	Ecological Threat (Cal-IPC Ranking)	Degree of Invasiveness	Control Feasibility	Current Distribution in Folsom Lake SRA Vicinity	Potential for Successful Management in the SRA
Medusahead <i>Taeniatherum caput-medusae</i>	High. Rapidly spreads in many ecosystems, particularly grasslands and savanna. Out-competes native grass and forb species. Forms dense stands that cause an elevated fire danger. Mature plants have high silica content, making them unpalatable to native grazing animals. (Cal-IPC: High)	High. Rapidly spread by wind, on the coats of grazing animals, and on machinery, tires and clothing.	Difficult. Properly-timed prescribed burning may be effective.	Widespread. Ubiquitous throughout park grasslands and oak savanna.	Low. Due to widespread distribution, significant reduction of this weed species in the park is probably not feasible. However, localized eradication within small areas (i.e. tens of acres) may be feasible where other management goals warrant such an effort.

Summary of Management Priority Evaluation for Noxious Weed Species – Folsom Lake SRA

Species Name	Ecological Threat (Cal-IPC Ranking)	Degree of Invasiveness	Control Feasibility	Current Distribution in Folsom Lake SRA Vicinity	Potential for Successful Management in the SRA
<p>Yellow star-thistle <i>Centaurea solstitialis</i></p>	<p>High. Displaces native flora and fauna in annual grasslands, oak woodland and savanna habitats. Plant spines are injurious to animals and people. Depletes soil moisture reserves. (Cal-IPC: High)</p>	<p>High. Readily dispersed by human activities and animals.</p>	<p>Difficult. Once established over a large area, it is difficult to control. Requires many years (3-5 years or more) of effort involving multiple techniques including, burning, herbicides, and manual removal. Best approach for gradually reducing large infestations is biological control using USDA-approved insect releases.</p>	<p>Widespread. This weed is ubiquitous throughout the park, occurring in virtually all upland habitats. Dense infestations occur in open grasslands throughout the park except at Peninsula where its presence in most grasslands is still relatively low.</p>	<p>Low. Due to widespread distribution and difficulty to control, significant reduction of this weed species in the park is not feasible. However, localized eradication within small areas (i.e. tens of acres) may be feasible where other management goals warrant such an effort. Applications of properly timed, repeated prescribed burns may reduce the presence of this weed in the Peninsula area in conjunction with routine herbicide applications. Release of bio-control insects may be the best means for reducing the presence of this weed park-wide.</p>

Summary of Management Priority Evaluation for Noxious Weed Species – Folsom Lake SRA

Species Name	Ecological Threat (Cal-IPC Ranking)	Degree of Invasiveness	Control Feasibility	Current Distribution in Folsom Lake SRA Vicinity	Potential for Successful Management in the SRA
<p>Barbed Goat Grass <i>Aegilops triuncialis</i></p>	<p>Moderate. Often found in disturbed roadside environments, but has been observed to be in other sites, including ponds and open grassy areas, particularly with some moisture. This species changes fire frequency and utilizes high amounts of soil moisture. It can form near monotypic stands and populations of 50% cover and greater are common. Awns can be harmful to wildlife. (Cal-IPC: High)</p>	<p>High. Can rapidly take over a grassland area. Over the past 10 years it appears to be rapidly expanding range in California. Seeds can be distributed on the fur and feathers of animals.</p>	<p>Very Difficult. Properly-timed mowing or grazing regimes may help reduce or at least manage seed production and ultimately manage infestations in grasslands.</p>	<p>Unknown.</p>	<p>Unknown.</p>
<p>Fennel <i>Foeniculum vulgare</i></p>	<p>Low. Typically inhabits roadsides and other disturbed areas. Usually found in areas that are so disturbed as to be of low ecological quality. Once firmly established, it excludes almost all other vegetation. (Cal-IPC: High)</p>	<p>Moderate. Can reproduce from both crown and seeds. Seeds germinate at almost any time of the year and seed production per plant is in the tens of thousands during its first year of growth and hundreds of thousands during its second year of growth.</p>	<p>Very Difficult. Requires a long-term effort using mechanical and chemical treatment and reducing disturbed soils conditions.</p>	<p>Unknown.</p>	<p>Unknown.</p>

Summary of Management Priority Evaluation for Noxious Weed Species – Folsom Lake SRA

Species Name	Ecological Threat (Cal-IPC Ranking)	Degree of Invasiveness	Control Feasibility	Current Distribution in Folsom Lake SRA Vicinity	Potential for Successful Management in the SRA
<p>Black Mustard <i>Brassica nigra</i></p>	<p>Moderate. Occurs in habitat openings caused by natural disturbances such as roads, agricultural fields, and urban development. This species has invaded shrublands, grasslands, and riparian areas. Can produce large amounts of biomass. (Cal-IPC: Moderate)</p>	<p>Moderate. Produces a large number of fruits year-round that often weigh the plant down.</p>	<p>Difficult. Properly timed mowing or grazing and/or repeated applications of herbicides should reduce the presence of this species.</p>	<p>Unknown.</p>	<p>Unknown.</p>
<p>Poison Hemlock <i>Conium maculatum</i></p>	<p>Low. Requires disturbance for colonizing an area. Following disturbance, can become common in shady areas, particularly riparian woodlands and open flood plains of rivers and streams. Can form very dense stands and crowd out other vegetation. Suppresses light. (Cal-IPC: Moderate)</p>	<p>Moderate. Spreads rapidly in newly disturbed sites. Most seed fall to base of parent plant. Some long distance movement in water when plants are growing near streams.</p>	<p>Feasible. Manual and/or mechanical and chemical treatment methods for 3 -5 years can effectively reduce the presence of this species.</p>	<p>Unknown.</p>	<p>Unknown.</p>

Summary of Management Priority Evaluation for Noxious Weed Species – Folsom Lake SRA					
Species Name	Ecological Threat (Cal-IPC Ranking)	Degree of Invasiveness	Control Feasibility	Current Distribution in Folsom Lake SRA Vicinity	Potential for Successful Management in the SRA
Management Priority Four:					
Brazilian waterweed <i>Egeria densa</i>	High. Forms dense weed beds in lakes, ponds and slow-moving waters, diminishing native aquatic plants and increasing sedimentation. (Cal-IPC: High)	High. Spread is by root sprouting from fragmented stems that float on water and can be distributed to new locations by water flow, boats, animals, water fowl, and dumping aquarium wastes.	Difficult. Mechanical removal can promote its spread by creating thousands of stem fragments. Herbicides are effective but must be applied at very specific application standards. Most effective approach is the use of bio-control agent (sterile carp), as authorized by CDFG.	Unknown. Has not been observed in the park but likely to occur in ponds and backwater areas of Mississippi Bar as well as in the perennial tributaries of Lake Natoma.	Moderate. If observed, a rapid response using chemicals could prevent it from spreading.
Curly-leaf Pondweed <i>Potamogeton crispus</i>	High. Forms dense weed beds in lakes, ponds and slow-moving waters, diminishing native aquatic plants; decaying vegetation reduces dissolved oxygen. (Cal-IPC: Moderate)	High. Spreads rapidly via reproduction of fragmented stems; also has viable seeds that float.	Difficult. (see Brazilian waterweed)	Unknown. Not observed in the park, but is likely to colonize aquatic habitats due to its presence in other regional water bodies.	High. If observed, a rapid response could prevent infestation.

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APPENDIX C

Native and Non-native Animal Control Guidelines for Folsom Lake State Recreation Area (SRA)

Pests and Nuisance Species

Control or removal of animal pests or nuisance species may be undertaken to reduce a threat to natural and/or cultural resources, public health or safety, park facilities or private property. Only limited removal of native species is normally justified. Alteration of facilities or visitor behavior, warning signs or other strategies may be preferable to control or eradication of animals. In the park, native species which can become a pest or nuisance include ground squirrels, yellow jackets, geese, raccoons and black bears. The level of management required for each of these species varies, depending on the degree of threat and the ecological value of the species. Management approaches are summarized below:

Animal Control - Native Species

Control and management of native wildlife species will only be undertaken when: unnaturally high population concentrations threaten native communities; to protect a special status species as part of a recovery plan; to protect human health and safety; to protect specific cultural resources; to protect property where it is not possible to change the pattern of human activities.

California ground squirrel (*Spermophilus beechyii*). This species can become a nuisance in situations where it has opportunities to readily establish burrows in close proximity to human activities such as picnic and campgrounds. In these situations, ground squirrels actively move among people seeking food remnants and handouts. Squirrels that are used to being fed become aggressive and will readily approach people, increasing the potential for people to be bitten or scratched. Squirrels in campgrounds will chew through tents, backpacks and styrafoam coolers to get to food. Ground squirrels can harbor bubonic plague which can be transmitted to humans by fleas carried on the squirrels.

Ground squirrels can also damage facilities, including wing dams and dikes, paved bike paths and concrete pads. Unnaturally high concentrations of ground squirrels in picnic areas and campgrounds can undermine and damage oak trees.

Ground squirrels are an important prey species for many of the park's predator species and its burrows provide important habitat for amphibian, reptile, bird and mammal species in the park. Therefore, management efforts should be limited to problem areas in the immediate vicinity of areas with a high level of human usage. These include campgrounds and picnic areas at Beals Point, and picnic areas at Granite Bay and Brown's Ravine.

Given the proximity to human use and activities many control methods used in agricultural situations are not appropriate. Currently park managers are utilizing pesticide bait stations designed to limit impacts to non-target species during the late fall or early winter when portions of picnic and campground areas can be closed to public use during the treatment. Risk to gray squirrels can be reduced by not pre-baiting outside the bait stations and by keeping bait stations at least 25 feet away from the base of foothill pines. Other design features help prevent impacts to mice and kangaroo rats. Park managers will update control methods as new information and strategies are developed regarding effective treatment of this pest in areas of human use.

It is not desirable nor feasible to eradicate ground squirrels in public use areas. The goal is to control unnaturally high concentrations of ground squirrels in these high public use areas.

- *Burrow Destruction.* In addition to eradicating squirrels in problem areas, it is important for park personnel to destroy vacated burrows because ground squirrels will reinhabit them. Old burrows should be destroyed by collapsing them with hand tools. Filling in the burrows with soil may not prevent re-invasion because ground squirrels will readily re-excavate and use the filled-in burrows. Prior to any such burrow destruction, all burrows should be inspected for the potential presence of burrowing owls, a special status species, following the guidelines discussed in policies GRASSLAND-2 and GRASSLAND-3 of the General Plan.
- *Signage.* Warning signs should be posted around picnic and campground areas, where warranted, advising visitors of the dangers of feeding ground squirrels.

Yellow Jackets (*Vespula sp.*). Yellow jackets attempt to forage among the food stuffs of day visitors in picnic areas and campgrounds. They constitute a hazard to picnickers because at times their numbers can be quite large and they will readily sting during their foraging activities and to defend their nests. When scavenging, wasps will crawl into empty soda cans

and bottles which can cause stings on the lips, or inside the mouth or throat. For most visitors, wasp stings produce a short-term, painful sensation but for persons who are allergic to bee and wasp stings, the reaction can be life-threatening.

Most social wasps such as yellow jackets provide a beneficial service by eliminating large numbers of other insect pests through predation. Therefore they should be controlled only in the immediate vicinity of picnic areas and campgrounds.

Park staff currently utilize “over the counter” wasp traps to control this species in high public use areas. The University of California-Davis Integrated Pest Management Program recommends the trapping of wasp queens.

- *Trapping of Wasp Queens.* This following trapping program is excerpted from the control methodology recommended by the UCD Integrated Pest Management Program:

“Trapping wasps is an ongoing effort that needs to be initiated in spring and continued into summer and fall, especially when the yellowjacket population was large the previous year. In spring there is a 30- to 45-day period when new queens first emerge before they build nests. Trapping queens during this period has the potential to provide an overall reduction in the yellowjacket population for the season, and a study is currently underway to test this theory in some California Mosquito and Vector Control districts. The more traps put out in spring on an area-wide basis to trap queens, the greater the likelihood of reducing nests later in the summer. Usually one trap per acre is adequate in spring for depletion trapping of queens; in fall, more traps may be necessary to trap scavenging wasps, depending on the size of the population. There are two types of wasp traps: lure and water traps.”

Lure traps, such as those commonly available at commercial outlets, can be effective queen traps if used during the late winter and early spring. In the summer and fall they may assist in reducing localized foraging wasps, but they will effectively reduce large populations. For lure traps to remain effective, they need to have this attractant bait changed frequently (every 2 months in the spring; at least once a month in the summer).

- *Elimination of Nests.* Population reductions may be achieved in association with the ground squirrel burrow removal program discussed above. The most common yellow jacket species in California is a ground nester that will commonly use rodent burrow, such as those created by ground squirrels.

Canada geese (*Branta canadensis*) and other Waterfowl. At Nimbus Flat, and to a lesser extent at other picnic grounds with turf areas in the park adjacent to water, Canada geese (*Branta canadensis*) as well as domesticated ducks and geese congregate to rest and browse. Many of these birds are resident Canada geese that do not migrate and nest in the area. The resident population of Canada Geese at Nimbus Flat has grown over the past decade. There are now approximately 300 resident geese that use the area. The growth of the population and the behavior of resident geese has been exacerbated by park visitors who feed these animals.

Most of the subspecies of Canada geese migrate to the arctic and sub-arctic to nest during the summer season. However, some geese do not migrate and nest in the lower 48 States and are identified as resident Canada geese. Resident Canada geese are considered a separate subspecies and are not known to interbreed with the various migratory sub-species. For a variety of reasons, resident Canada geese populations have increased dramatically in the past several decades. Resident Canada geese, particularly those in landscaped urban and suburban areas, have an abundance of preferred habitat (open grassy areas near water) with few predators and are accustomed to human presence. Human feeding of the geese exacerbates this problem.

The unnaturally high concentrations of geese and other waterfowl in public use areas can render turf areas unusable due to the amount of droppings which are a human health concern. There is also a concern that the feces from concentrations of waterfowl can degrade water quality, causing elevated fecal coliform levels, excessive algae growth, and eutrophication. Reclamation water quality monitoring has noted heightened levels of fecal coliform levels during certain periods. Further analysis has not yet been conducted to determine the cause of these heightened levels of fecal coliform. Additionally, domesticated geese and waterfowl that become accustomed to feeding by humans can behave aggressively and chase or bite park visitors.

In order to reduce these problems, signs have been posted at Nimbus Flat warning visitors to not feed waterfowl and advising of the water contamination caused by these animals. This strategy has not been effective in reducing the human feeding of waterfowl. Larger signs are likely needed along with additional education and enforcement actions, including issuing citations. State Parks may also consider obtaining a permit from the USFWS to control waterfowl populations in these locations. Canada geese are protected under the federal Migratory Bird Treaty Act and require a permit to conduct such activity. In conducting control strategies on resident geese populations there is a concern with impacting migratory Canada geese populations that will interact and overlap with resident populations during the fall winter and spring months. Population control strategies include harassment through the use of trained dogs, habitat modification (altering the turf areas), nest and egg destruction and trapping or culling adults.

Other Nuisance Wildlife. Raccoons (*Procyon lotor*) and skunks (*Mephitis mephitis*) become accustomed to the presence of people and can carry rabies. They are a potential problem at all the park's picnic and campgrounds. Black bears (*Ursus americanus*), which will raid campgrounds and can seriously injure campers, are a potential problem at the Peninsula campground. Management efforts should be directed toward reducing attractants to these species through public education and modification of camp and picnic ground facilities. The National Park Service, U.S. Forest Service and California State Parks have dealt with this issue for many years at numerous other facilities around the state and have developed well-tested techniques for reducing human encounters with bears, raccoons and other nuisance mammals. These techniques do not need to be repeated in detail here. However, in general, they include such techniques as posting of warning signs around campgrounds, informational brochures, use of bear-proof food storage lockers, bear-proof trash containers, regular campground policing and issuance of citations by park rangers. All of these techniques should be considered at the park.

Animal Control – Non-Native Species

The presence of non-native species is inconsistent with the Department's mission to maintain native species and natural systems. Because it may not be feasible to eliminate all non-native species or all individuals, the decision to control these species should consider the current or potential impact on native species and habitats, the threat to human health and safety and the feasibility of control or eradication.

At this time, the exotic animal species of primary concern at Folsom Lake SRA are wild turkey, bullfrog, red-eared slider and domestic cat. These species have the potential to cause adverse changes to the structure and composition of native biotic communities in the park. A fourth species, wild pig, is not currently known to be present in the park, however it has the potential to migrate into the park and cause substantial harm should it become established.

Wild Turkeys (*Meleagris gallopavo*). The wild turkey is not native to California and was introduced outside the park as a game species by the California Department of Fish and Game (CDFG). Turkeys have spread from release sites to State Park property where they are protected from hunting, resulting in park units functioning as refuges for this exotic game species. DPR does not support the introduction of non-native species onto State Park System property. This species may cause ecological harm if their populations become so large that they may out-compete native species by diminishing available resources. As opportunistic omnivores, wild turkeys eat a wide variety of plants, seeds fruits, nuts, and insects which may deprive native animals of these same resources in some areas. A management plan should be developed for wild turkeys in the park. This will require baseline surveys on the size and distribution of the existing population. Park managers should contact the California Department of Fish and Game to coordinate development of such a management plan.

Bullfrog (*Rana catesbeiana*). This species is a highly successful competitor with and predator of native species in aquatic habitats. It has been a factor in the decline of California red-legged frog, a federally-listed threatened species, and may also cause significant harm to populations of other species of native amphibians, fish and aquatic invertebrates. Because bullfrogs are present in aquatic habitats throughout Folsom Lake SRA, it would be unrealistic and probably fruitless to attempt to control their population on a unit-wide basis. However, focused management of bullfrogs at specific locations such as Avery's Pond, Mormon Island Wetlands Natural Preserve and the ponds at Missisppi Bar may benefit native aquatic habitats.

Park managers may want to assess the feasibility and benefits of eradicating or controlling bullfrog populations at selected locations in the SRA. Criteria for evaluating implementing such a program include the benefit to native species and habitat and the feasibility of successful eradication. This bullfrog eradication evaluation could be conducted in conjunction with an analysis of the desirability and feasibility of restoring or re-introducing native frog species (red-legged or yellow-legged) or Western pond turtle. However, DPR has

specific criteria for re-introduction of native species including whether the population can be self-perpetuating, natural re-establishment is unlikely and re-introduction is likely to be successful, a full analysis of ecosystem effects has been conducted, the genetic integrity of the source population proposed for re-introduction, a restoration plan that includes long-term monitoring has been developed.

Domestic Cat (*Felis catus*). This common pet species can cause considerable harm to native bird and small mammal populations through its predatory behavior, and they compete with small native predators and feral cats can transmit diseases to pets. In Folsom Lake SRA, domestic cats belonging to residents in nearby subdivisions are likely to roam within oak woodlands, grasslands and riparian habitats that border the subdivisions. Feral populations of cats are also likely to be found in these areas. There are locations in the Park, particularly around Lake Natoma, where people regularly leave food on park property for feral cats. Feral cats are non-native species and DPR policy does not permit feeding or maintaining feral cat colonies on DPR property, including programs such as the trap, neuter, and release of feral cats. Park managers can help reduce the impact of these animals through a public education program conducted with homeowners associations, civic groups and local schools. Homeowners need to be made aware of the considerable harm that free-roaming cats do and the fact that indoor cats live longer, healthier lives than free-roaming cats. Park managers also need to work with the local Humane Society and county animal control agencies in developing a program to capture and remove feral cats from the Park.

Red-Eared Slider Turtle (*Trachemys scripta elegans*). These non-native turtles are the most common pet turtle and are released onto park property by owners who no longer want the pets. The exotic sliders compete with native Western pond turtles for food and basking spots and can introduce diseases to the native turtles. Sliders grow to be larger and tend to be more aggressive than native Western pond turtles. Sliders have been seen in Lake Natoma and are likely to be more abundant than the native Western pond turtle in the Park. Park managers should consider a program to educate visitors and the public about the adverse effects of releasing non-native turtles and other exotic species onto Park property and develop a program to capture and remove non-native red-eared sliders from the Park.

Florida Water Snake (*Nerodia fasciata pictiventris*) or Southern Water Snake (*Nerodia fasciata*). This non-native snake has been sighted and captured in the lower portion of Willow Creek and at the mouth of the Creek at Lake Natoma. They have been found further

upstream in the Willow/Humbug Creek watershed beyond the Folsom lake SRA boundary. The full extent of habitat or population of this snake has not been assessed in the SRA. It is presumed that the source of these exotic snakes is from the pet trade. The California Department of Fish and Game has proposed regulations to make it illegal to import, transport or possess the entire genus *Nerodia* (none of which are native to CA) without a permit in California. The snakes are live bearers and can produce up to 50 young. They prey on crayfish, salamanders, frogs and fish. There is concern that this exotic snake could pose a threat (disease, competition) to the federally listed native giant garter snake which occupies habitat downstream of Lake Natoma in the Sacramento Valley.

Wild Pig (*Sus scrofa*). This animal is not known to currently occur in Folsom Lake SRA. However, it has been known to occur in El Dorado and Placer Counties and has the potential to become established in the park. Once established, wild pigs can cause significant harm to native landscapes and wildlife populations. For example their feeding upon oak mast crop can lead to a decline in oak woodland regeneration and in the native species (e.g., deer, squirrels, bear) that also feed on acorns. Their grubbing behavior can seriously damage native vegetation and the nests of ground-nesting birds.

The most effective way to avoid the problems caused by wild pigs is to prevent their establishment from ever happening. Park managers should annually survey the park for evidence of wild pigs. Surveyors should look for the tell-tail signs of wild pig grubbing damage within random locations in oak woodland and savanna habitat. The surveys should concentrate in the areas that are most likely to be the points of entry for migrating wild pigs (*i.e.*, Peninsula, South Fork, North Fork areas).

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APPENDIX D: Management Guidelines for Specific Plant Communities by Management Zone

Folsom Lake State Recreation Area and Folsom Powerhouse State Historic Park
General Plan/Resource Management Plan

<i>Management Zones</i>	
<p><i>Management Guidelines</i></p> <ul style="list-style-type: none"> - Conduct surveys for burrow sites in areas where improvements are proposed. Avoid burrow areas to the extent possible. Implement passive relocation protocols, if necessary. - Attempt to re-establish burrowing owl colonies by relocation efforts and establishments of artificial burrows. <p><i>Loggerhead Shrike in Grasslands</i></p> <ul style="list-style-type: none"> - Conduct surveys during the nesting season in areas where improvements are proposed. Avoid nesting sites until after the young have fled. <p>Ruderal, Barren, and Developed Area Management</p> <p><i>Burrowing Owl in Ruderal, Barren and Developed Areas</i></p> <ul style="list-style-type: none"> - Conduct CDFG-protocol surveys for burrow sites in areas where improvements are proposed. Avoid burrow areas to the extent possible. Implement passive relocation protocols, if necessary. 	<p>1. Nimbus Dam</p> <p>2. Nimbus Flat/Shoals</p> <p>3. Lake Overlook</p> <p>4. Mississippi Bar</p> <p>5. Negro Bar</p> <p>6. Natoma Canyon</p> <p>7. Folsom Powerhouse</p> <p>8. Natoma Shore - North</p> <p>9. Natoma Shore - South</p> <p>10. Alder Creek/Pond</p> <p>11. Lower Lake Natoma</p> <p>12. Upper Lake Natoma</p> <p>13. Beals Point</p> <p>14. Mooney Ridge</p> <p>15. Granite Bay South</p> <p>16. Granite Bay North</p> <p>17. Placer Shore South</p> <p>18. Rattlesnake Bar</p> <p>19. North Fork Shore</p> <p>20. Anderson Island</p> <p>21. Middle North Fork Shore</p> <p>22. Peninsula</p> <p>23. Darrington</p> <p>24. Skunk Hollow/Salmon Falls</p> <p>25. El Dorado Shore South</p> <p>26. Brown's Ravine</p> <p>27. Mormon Island Cove</p> <p>28. Mormon Island Preserve</p> <p>29. Folsom Point</p> <p>30. Folsom Dam</p> <p>31. Folsom Lake</p> <p>32. Middle North Fork</p> <p>33. Upper North Fork</p> <p>34. Middle South Fork</p> <p>35. Upper South Fork</p>
	<p>Vernal Pool Protection and Management</p> <p><i>Vernal Pool Habitat Protection</i></p> <ul style="list-style-type: none"> - Conduct surveys to detect roosting locations in areas where improvements are proposed. Avoid roosting sites at least until the young have matured enough to fly.

APPENDIX E: General Plan Implementation and Monitoring

Folsom Lake State Recreation Area and Folsom Powerhouse State Historic Park

General Plan/Resource Management Plan [Note: Implementation and Monitoring Program to be completed after Plan adoption.]

<i>Proposed Action</i>	<i>Responsible Agency/Group</i>	<i>Priority (High: 0-5 yrs. Med: 0-10 yrs. Low: 10+ yrs.)</i>	<i>Estimated Timeframe</i>
Resource Management			
PLANTS-2: Develop and implement vegetation management plans.		High	
PLANTS-3: Implement a prescribed fire program.		High	
PLANTS-6: Develop and implement invasive exotic plant management plan.		High	
WILDLIFE-4: Develop and implement strategies for heron/egret rookeries and roosting sites.		High	
WILDLIFE-8: Develop and implement nuisance wildlife species plan.		High	
HYDRO-1: Develop and implement a water quality protection program.		High	
CHAPARRAL-1: Prepare project burn plans for each burn unit upon approval of unit-wide plan.		High	
CHAPARRAL-4: Develop a seasonal access restriction plan for chaparral habitat areas during periods of high fire danger.		High	
WOODLAND-5: Use grazing instead of prescribed fires to control invasive exotic plant species where existing constraints preclude safe burning.		High	
VERNAL-2: Establish zones of protection around vernal pool habitat areas.		High	
VERNAL-8: Provide small boardwalks in Lake Overlook and Mormon Island Wetland Preserve locations for vernal pool habitat interpretation.		High	
MARSH/POND-1: Assign a representative to participate in Corps process of planning the restoration of Alder Pond.		High	
UPLAND-1: Develop a nuisance wildlife management plan in close consultation with Fish and Game.		High	
WATER-1: Develop a central water quality data sharing program.		High	
WATER-3: Expand bacteriological monitoring at swim beaches to ensure that they meet State standards for bacteria.		High	
WATER-4: Develop a Memorandum of Understanding with Office of Emergency Service or adjacent jurisdictions to ensure State Parks is notified of any sewage spill in the park.		High	
WATER-5: Establish a rapid response team in the event of a sewage spill in the park.		High	

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Folsom Lake State Recreation Area and Folsom Powerhouse State Historic Park

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<i>Proposed Action</i>	<i>Responsible Agency/Group</i>	<i>Priority (High: 0-5 yrs. Med: 0-10 yrs. Low: 10+ yrs.)</i>	<i>Estimated Timeframe</i>
NIMBUSFLAT-7: Work with Bureau and the CSUS Aquatic Center to manage water quality in area of Nimbus Flat.		High	
POWERHOUSE-7: Locate and protect bat roost sites in the management zone from human disturbance.		High	
ALDERCREEK-1: Work with Corps, Alder Creek Coalition, and other agencies to determine future of Alder Creek and Pond.		High	
ALDERCREEK-2: Establish monitoring and removal program for water hyacinth in Alder Creek and Pond.		High	
GRANBAY/NO-3: Prohibit vehicle use outside designated roadways and provide designated low water access and parking areas in specific locations.		High	
GRANBAY/NO-4: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone.		High	
RATBAR-3: Prohibit vehicle use outside designated roadways and provide designated low water access and parking areas in specific locations.		High	
ANDERSON-1: Consider establishing exclusion zone around Anderson Island for watercraft during the nesting season.		High	
PLANTS-5: Explore re-introduction of rare and endangered plant species.		Med.	
PLANTS-7: Implement aquatic weed management program.		Med.	
WILDLIFE-3: Protect and restore important under-protected and sensitive habitat resources.		Med.	
WILDLIFE-5: Conduct field surveys in Conservation and Preservation areas for special status animal species.		Med.	
CHAPARRAL-6: Conduct special status plant surveys in chaparral habitat areas.		Med.	
WOODLAND-1: Conduct special status plant surveys in oak woodland habitat areas.		Med.	
WOODLAND-7: Use biological controls as a cost effective and safe means of controlling starthistle.		Med.	
VERNAL-4: Conduct annual sheep grazing or mowing to promote high quality vernal pools.		Med.	
VERNAL-6: Conduct special status plant and animal surveys in vernal pool habitat areas.		Med.	

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Folsom Lake State Recreation Area and Folsom Powerhouse State Historic Park

General Plan/Resource Management Plan [Note: Implementation and Monitoring Program to be completed after Plan adoption.]

<i>Proposed Action</i>	<i>Responsible Agency/Group</i>	<i>Priority (High: 0-5 yrs. Med: 0-10 yrs. Low: 10+ yrs.)</i>	<i>Estimated Timeframe</i>
RIPARIAN-9: Enact a park-wide management protocol for valley elderberry longhorn beetle (VELB) habitat.		Med.	
RIPARIAN-16: Protect active or potential rookery locations from disturbance during the nesting season.		Med.	
RIPARIAN-17: Develop a public stewardship program to protect rookery sites during the nesting seasons.		Med.	
OVERLOOK-11: Protect and manage vernal pool habitat in the management zone.		Med.	
OVERLOOK-12: Close and block access to all informal trails running down bluff to Lake Natoma Bike Path and Nimbus Shoals.		Med.	
MISSISSIPPI-9: Protect and manage vernal pool habitat in Snipes-Pershing Ravine area.		Med.	
NEGROBAR-6: Consider reducing or removing the paved parking area above boat ramp.		Med.	
NEGROBAR-7: Restore upland area along shoreline at Rainbow Rocks to more natural conditions.		Med.	
NATSHORE/N-2: Eliminate off-trail access to shoreline areas for the purposes of natural resource protection and visitor safety.		Med.	
NATSHORE/S-10: Protect and manage heron/egret roosting area and rookery in the management zone.		Med.	
NATSHORE/S-11: Protect and manage vernal pool habitat in the management zone.		Med.	
FOLSOMDAM-7: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone.		Med.	
BEALSPPOINT-5: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone.		Med.	
MOONEY-3: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone.		Med.	
GRANBAY/NO-5: Protect and manage seasonal wetland and vernal pool habitat in Doton's Point area of the management zone.		Med.	
PLACERSHORE-3: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone.		Med.	

APPENDIX E: General Plan Implementation and Monitoring

Folsom Lake State Recreation Area and Folsom Powerhouse State Historic Park

General Plan/Resource Management Plan [*Note: Implementation and Monitoring Program to be completed after Plan adoption.*]

<i>Proposed Action</i>	<i>Responsible Agency/Group</i>	<i>Priority (High: 0-5 yrs. Med: 0-10 yrs. Low: 10+ yrs.)</i>	<i>Estimated Timeframe</i>
RATBAR-5: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone.		Med.	
NORTHFORK-4: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone.		Med.	
PENINSULA-7: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone.		Med.	
PENINSULA-8: Re-establish natural fire cycle in chaparral areas of the management zone to improve habitat conditions.		Med.	
PENINSULA-10: Protect and manage chaparral areas of the management zone that are known or potential habitat for California horned lizard.		Med.	
DARRINGTON-4: Re-establish natural fire cycle in chaparral areas of the management zone.		Med.	
DARRINGTON-6: Protect and manage chaparral areas of the management zone that are known or potential habitat for the California horned lizard.		Med.	
DARRINGTON-7: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone.		Med.	
SKUNK/SALMON-3: Re-establish natural fire cycle in chaparral areas of the management zone.		Med.	
SKUNK/SALMON-5: Protect and manage chaparral areas of the management zone that are known or potential habitat for the California horned lizard.		Med.	
ELDOSHORE-5: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone.		Med.	
ELDOSHORE-6: Re-establish natural fire cycle in chaparral areas of the management zone.		Med.	
ELDOSHORE-8: Protect and manage chaparral areas of the management zone that are known or potential habitat for the California horned lizard.		Med.	
MORMONCOVE-3: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone.		Med.	

APPENDIX E: General Plan Implementation and Monitoring

Folsom Lake State Recreation Area and Folsom Powerhouse State Historic Park

General Plan/Resource Management Plan [Note: Implementation and Monitoring Program to be completed after Plan adoption.]

<i>Proposed Action</i>	<i>Responsible Agency/Group</i>	<i>Priority (High: 0-5 yrs. Med: 0-10 yrs. Low: 10+ yrs.)</i>	<i>Estimated Timeframe</i>
MORMONPRES-5: Protect and manage vernal pool habitat in the management zone.		Med.	
MORMONPRES-7: Protect and manage the Preserve as a known or potential habitat for special status bird species, such as the Tri-colored blackbird.		Med.	
FOLSOMPOINT-10: Protect and manage areas of Valley Elderberry Longhorn Beetle (VELB) habitat in the management zone.		Med.	
WILDLIFE-7: Manage lake corridor zones for wildlife movement.		Low	
GRASSLAND-3: Re-establish burrowing owl colonies in suitable grassland habitat areas.		Low	
RIPARIAN-10: Enhance selected reaches of streams and lake shorelines for VELB habitat.		Low	
MARSH/POND-6: Deepen and manage Avery's Pond as one of three possible options relative to fisheries.		Low	
MARSH/POND-7: Collect monthly water quality data for the pond to properly evaluate restoration options.		Low	
NATOMA/LOW-1: Phase out use of gas engines in this portion of Lake Natoma.		Low	
NATOMA/LOW-2: Limit motorized use in this portion of Lake Natoma to electric trolling motors for public use.		Low	
NATOMA/UP-1: Phase out use of gas engines in this portion of Lake Natoma.		Low	
NATOMA/UP-2: Limit motorized use in this portion of Lake Natoma to electric trolling motors for public use;		Low	
RATBAR-4: Manage and enhance Avery's Pond as a warm water fishery.		Low	
Interpretation and Education			
INTERPRET-15: Interpret significant habitats and features in the park.		High	
INTERPRET-18: Interpret scenic views and landscape features at Lake Overlook, Negro Bar, Peninsula, and Observation Point.		High	
INTERPRET-19: Develop an updated Interpretive Plan for the park.		High	
INTERPRET-25: Develop a recreation map of the park displaying visitor facilities and interpretive features.		High	

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NIMBUSFLAT-8: Work with Bureau and Fish and Game to interpret proposed naturalized fish passage channel across Nimbus Shoals.		High	
NEGROBAR-3: Develop Negro Bar Cultural Center in consultation with Sacramento African American Cultural and Historical Society.		High	
POWERHOUSE-1: Complete implementation of 1992 Folsom Powerhouse Area Development Plan.		High	
NATSHORE/S-5: Reserve Museum Flat area of management zone as potential site for California Indian Cultural Center and Museum.		High	
RATBAR-6: Provide interpretive nature trail to Avery's Pond including displays related to various aspects of the area and pond.		High	
INTERPRET-17: Interpret landscape restoration efforts at Mississippi Bar and Negro Bar.		Med.	
MISSISSIPPI-16: Develop public education and interpretive programs related to restoration and ecosystem enhancement at Mississippi Bar.		Med.	
MISSISSIPPI-17: Provide interpretive nature trails and displays to interpret various aspects of area.		Med.	
FOLSOMDAM-3: Consider inclusion of a park visitor center as part of the consolidated administrative complex should existing facilities need to be relocated to accommodate western landing of proposed bridge across the American River.		Med.	
NATOMACAN-6: Consider restoration of old olive grove as a natural and cultural resource in the park.		Low	
Recreation			
VISIT-23: Work with Bureau of Land Management and El Dorado County to prepare and implement a whitewater facilities management plan.		High	
VISIT-30: Redistribute and redesign campsites in the park.		High	
VISIT-34: Prepare a Trail Master Plan for the park.		High	
VISIT-35: Establish a Trail Coordinator position in the Gold Fields District.		High	
VISIT-52: Prepare a map of trail system and make available to general public at park entrances.		High	

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VISIT-56: Develop a partnership program with local businesses or civic groups to sponsor trail projects.		High	
NIMBUSFLAT-10: Support creation of whitewater recreation water features in conjunction with removal of existing in-stream fish diversion structure in the American River and development of a naturalized fish passage channel across Nimbus Shoals.		High	
NIMBUSFLAT-3: Permit hand launching of paddling/rowing watercraft on the American River at Nimbus Shoals.		High	
MISSISSIPPI-23: Upgrade Snipe-Pershing pedestrian/equestrian trail as necessary to improve user safety.		High	
NEGROBAR-1: Relocate group campground to another location within park and convert vacated area for group picnic use.		High	
NEGROBAR-2: Provide a paddling dock at existing boat ramp for hand launching of paddling/rowing watercraft.		High	
NATOMACAN-1: Work with City of Folsom and Department of Corrections to identify preferred alignment for a new trail corridor extending from Powerhouse Loop trail east across Folsom State Prison lands to East Natoma Street.		High	
POWERHOUSE-4: Work with City of Folsom and owners of Lake Natoma Inn to identify preferred alignment for a new trail corridor extending from Lake Natoma Crossing to Historic Truss bridge.		High	
BEALSPPOINT-1: Relocate existing family campground to another location within park and convert vacated area for group camping use.		High	
BEALSPPOINT-2: Convert existing campfire center into a pavilion to support group camping experience.		High	
GRANBAY/SO-2: Replace existing lifeguard tower at main beach with a new building with adequate space classrooms and equipment storage.		High	
GRANBAY/SO-3: Replace existing activity center with an expanded and improved facility at same location.		High	
GRANBAY/NO-1: Establish a small trailhead at informal Twin Rocks Road/Boulder Road access.		High	
GRANBAY/NO-2: Designate and upgrade trails on newly acquired Hoffman property.		High	

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PLACERSHORE-1: Work with Placer County to explore potential for providing a small trailhead, including parking and trail information sign, at informal Los Lagos/Auburn-Folsom Road access.		High	
PLACERSHORE-2: Work with Placer County to establish a small trailhead at informal access at end of Horseshoe Bar Road.		High	
PENINSULA-1: Expand Peninsula Campground by 50 sites to accommodate capacity lost resulting from conversion of Beals Point Campground to group camping.		High	
PENINSULA-2: Provide shower facilities at Peninsula campground to enhance visitor comfort.		High	
PENINSULA-4: Provide small trailhead at Peninsula Campground.		High	
DARRINGTON-8: Upgrade Darrington pedestrian/mountain bike trail to improve user safety.		High	
SKUNK/SALMON-1: Establish new trail corridor from Skunk Hollow to potential U.S. Bureau of Land Management trail along western shoreline.		High	
ELDOSHORE-1: Designate and upgrade informal trail between Old Salmon Falls and Sweetwater Creek.		High	
ELDOSHORE-2: Provide a small trailhead at Sweetwater Creek area of Salmon Falls Road.		High	
ELDOSHORE-3: Provide a trailhead at Falcon Crest area of Old Salmon Falls.		High	
BROWNS-1: Increase slip capacity at Folsom Lake Marina by roughly 40 percent—or between 260 and 290 slips—by extending existing dock system.		High	
BROWNS-5: Eliminate dry boat storage at marina to increase parking capacity necessary to accommodate increased slip capacity.		High	
BROWNS-9: Prepare management plan for Brown’s Ravine management zone to coordinate various planning efforts and establish a unified approach to future development.		High	
MORMONCOVE-1: Relocate existing trailhead facility at Mormon Island Dam closer to Green Valley Road and intersection with Sophia Parkway.		High	
MORMONPRES-1: Develop Class I bike path around perimeter of Mormon Island Wetland Preserve to direct interpretive visitor use to area perimeter while preserving area core.		High	

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MORMONPRES-2: Upgrade existing trailhead at Preserve to improve interpretive access and visitor experience.		High	
MORMONPRES-4: Upgrade existing boardwalk trail in Preserve to enhance interpretation and education opportunities.		High	
FOLSOMPOINT-5: Work with City of Folsom to connect Class I bike path at Dike 7 to City's on-street bike lanes along East Natoma Street.		High	
VISIT-27: Establish a park visitor center to increase visitor awareness of recreational and interpretive opportunities.		Med.	
VISIT-40: Implement periodic trail user surveys to assist in trail system planning and management.		Med.	
VISIT-47: Increase access to park trail system by establishing new access points and formalizing previously informal access points.		Med.	
VISIT-64: Eliminate existing unauthorized access points and connections to park trail system.		Med.	
OVERLOOK-4: Develop a vista point/viewing platform.		Med.	
OVERLOOK-5: Develop a small picnic area with shade ramadas.		Med.	
OVERLOOK-6: Provide a trailhead including parking and trail information sign.		Med.	
MISSISSIPPI-18: Develop a picnic area with shade ramadas, flush toilets, and drinking water.		Med.	
MISSISSIPPI-19: Expand the existing system of paddling channels and lagoons as part of the area's restoration.		Med.	
MISSISSIPPI-20: Provide opportunities for flycasting in expanded system of paddling channels and lagoons.		Med.	
NATSHORE/S-13: Upgrade and enhance the Willow Creek day use area to improve overall function and appearance of the facility.		Med.	
GRANBAY/SO-1: Consider reconfiguration of boat ramps as a means of maximizing launch capacity and reducing congestion during peak times.		Med.	

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RATBAR-1: Develop picnic facilities, including a group picnic area, with shade ramadas and vault toilets.		Med.	
RATBAR-2: Explore potential of extending boat ramp further into Folsom Lake to improve low water access.		Med.	
NORTHFORK-1: Provide a trail bridge across North Fork to connect Pioneer Express pedestrian/equestrian trail on Placer County side of American River with proposed North Fork trail on El Dorado County side of river.		Med.	
NORTHFORK-2: Provide a trail bridge across North Fork to connect Pioneer Express pedestrian/equestrian trail on Placer County side of American River with Cool trail on El Dorado County side of river.		Med.	
NORTHFORK-3: Establish a new trail corridor from Peninsula area to proposed North Fork trail bridge.		Med.	
PENINSULA-5: Convert portions of abandoned roadways in area for trail use.		Med.	
SKUNK/SALMON-2: Prepare management plan including strategies to manage access, parking, queuing, and raft take-out at Skunk Hollow and Salmon Falls.		Med.	
BROWNS-6: Consider reconfiguration of marina and Hobie Cove boat ramps to maximize launch capacity and reduce congestion during peak times.		Med.	
BROWNS-7: Reconfigure marina parking area to provide designated queue lane and suitable turnaround area at main boat ramp.		Med.	
BROWNS-8: Consider development of multi-use facility for the primary purpose of water safety training.		Med.	
MORMONCOVE-2: Develop Class I bike path from trailhead at Mormon Island Dam to Dike 7.		Med.	
FOLSOMPOINT-1: Upgrade and enhance Folsom Point day use area to improve overall function and appearance of facility.		Med.	
FOLSOMPOINT-2: Reconfigure boat ramp to maximize launch capacity and reduce congestion during peak times.		Med.	

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FOLSOMPOINT-3: Consider development of a multi-use facility for the primary purpose of water safety training.		Med.	
FOLSOMPOINT-4: Provide a small trailhead at Dike 7.		Med.	
MISSISSIPPI-22: Improve the Shadow Glen equestrian facility to reduce operation impacts and enhance aesthetic quality.		Low	
FOLSOMPOINT-7: Develop multi-use facility at Observation Point for the primary purpose of public use and amenity.		Low	
Operations			
EVENT-3: Prepare a special event policy for the park.		High	
FLOOD-1: Pursue established mitigation funding under the Water Forum Agreement.		High	
FLOOD-2: Work with SAFCA to develop a Flood Response Plan for recreation facilities on Folsom Lake.		High	
ADA-1: Ensure that ADA access to facilities and activities in the park is provided to the greatest extent possible.		High	
CAPACITY-1: Establish a visitor capacity management program to monitor carrying capacity of each management zone and establish appropriate use limits for protection of park resources.		High	
MISSISSIPPI-2: Encourage Corps to excavate for borrow material on State-owned portion of Mississippi Bar instead of on federally-owned portion as proposed.		High	
MISSISSIPPI-6: Work with Corps to identify and acquire lands adjacent to park with blue oak woodland as a means of replacing loss of any similar habitat areas.		High	
MISSISSIPPI-8: Coordinate preparation of a Mississippi Bar Restoration Plan with Corps, SAFCA, and the Bureau.		High	
NEGROBAR-10: Study additional methods for protecting park users on Lake Natoma bike path from rockfalls along Natoma Bluffs.		High	

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NATSHORE/S-1: Work with Corps to identify most appropriate location in the management zone for borrow material storage and transfer.		High	
BEALSPPOINT-6: Provide a State Parks boat dock here or at Granite Bay.		High	
GRANBAY/SO-6: Provide dry boat storage facility for on-site storage of concessionaire and State Parks watercraft.		High	
GRANBAY/SO-7: Provide a State Parks boat dock here or at Beals Point.		High	
PENINSULA-13: Control access to area during periods of high fire danger.		High	
DARRINGTON-1: Assess eligibility of archaeological resources and sites along South Fork shoreline for classification as a Cultural Preserve.		High	
DARRINGTON-10: Control access to area during periods of high fire danger.		High	
SKUNK/SALMON-6: Control access to area during periods of high fire danger.		High	
ELDOSHORE-11: Control access to Sweetwater Creek trail area during periods of high fire danger.		High	
FOLSOMLAKE-5: Monitor boat noise levels during heavy use periods to document current conditions, determine need for adopted standards, and permit accurate assessments of potential noise effects from future boat-related development.		High	
NORTHFORK/MID-2: Monitor aquatic activity in area of Anderson Island Nature Preserve to determine need to establish an exclusion zone around island during nesting season.		High	
NORTHFORK/UP-1: Extend 5 mph zone south to Rattlesnake Bar from its current location just above Mormon Ravine.		High	
ACQUIRE-1: Acquire land for the purposes of protecting viewsheds, watersheds, significant or threatened habitat types or vegetation communities, and cultural resources.		Med.	
MISSISSIPPI-4: Work with Corps to ensure that area is completely restored consistent with the General Plan once excavation activities are complete.		Med.	
NATSHORE/N-1: Work with Sacramento Regional Transit District (RT) and City of Folsom to coordinate pedestrian and bicycle links between park and future LRT station.		Med.	

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FOLSOMDAM-1: Consider consolidating Gold Fields District office of State Parks, Mid-Pacific Region Office of the Bureau, and American River Water Education Center into one administrative complex if existing facilities need to be relocated to accommodate western landing of proposed bridge across the American River.		Med.	
BROWNS-10: Upgrade stormwater system at Folsom Lake Marina to accommodate increased flow volumes resulting from surrounding development.		Med.	
FOLSOMLAKE-1: Increase patrol and enforcement in key congestion areas during peak season weekends to provide a management presence, reduce potential for user conflicts, and increase awareness of aquatic safety and etiquette.		Med.	
FOLSOMLAKE-3: Conduct aquatic visitor surveys on Folsom Lake at regular intervals to monitor visitor use and satisfaction with both landside facilities and experience on the water.		Med.	
NORTHFORK/MID-1: Increase patrol and enforcement to provide a management presence, reduce potential for user conflicts, and increase awareness of aquatic safety and etiquette.		Med.	
NORTHFORK/MID-3: Monitor boat noise levels during heavy use periods to document current conditions, determine need for adopted standards, and permit accurate assessments of potential noise effects from future boat-related development.		Med.	
SOUTHFORK/MID-1: Increase patrol and enforcement in area to provide a management presence, reduce potential for user conflicts, and increase awareness of aquatic safety and etiquette.		Med.	
SOUTHFORK/MID-2: Monitor boat noise levels during heavy use periods to document current conditions, determine need for adopted standards, and permit accurate assessments of potential noise effects from future boat-related development.		Med.	
Access			
CIRCULATE-2: Use temporary electronic message boards on Douglas Boulevard and Folsom-Auburn Road for use when Granite Bay and Beals Point day use areas are at capacity.		High	
CIRCULATE-3: Prepare public service announcements for radio for use when day use areas in the park are at capacity.		High	

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CIRCULATE-10: Coordinate with local transit agencies to establish direct transit service to primary park gateways.		High	
CIRCULATE-11: Coordinate with local transit agencies, neighboring jurisdictions, and local businesses the feasibility of establishing a park shuttle service.		High	
CIRCULATE-14: Explore parking strategies and opportunities to minimize upland area used for parking.		High	
CIRCULATE-15: Explore alternatives for accommodating special event parking conditions.		High	
NIMBUSFLAT-2: Prohibit vehicle access to Nimbus Shoals. Block commonly-used access points and delineate pedestrian and boat access to water.		High	
NATSHORE/S-15: Work with Sacramento Regional Transit District (RT) and City of Folsom to coordinate pedestrian and bicycle links between park and future LRT station.		High	
CIRCULATE-8: Eliminate informal, illegal access to the park from private property.		Med.	
CIRCULATE-12: Explore options for accommodating water-based transit service on Folsom Lake such as water taxi or ferry service.		Med.	
MISSISSIPPI-24: Provide limited vehicle access and a small parking area in previously disturbed portion of area in vicinity of Sunset and Main avenues.		Med.	
BEALSPPOINT-4: Reconfigure and redesign vehicle entrance to improve visitor and emergency access, reduce congestion, and minimize neighborhood impacts.		Med.	
GRANBAY/SO-5: Reconfigure and redesign vehicle entrance to improve visitor and emergency access, reduce congestion, and minimize neighborhood impacts.		Med.	
Scenic			
VISUAL-2: Work with local jurisdictions to protect key park views from visual intrusion from surrounding development.		High	
VISUAL-4: Minimize existing elements that detract from visual quality and scenic character of the park.		High	

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VISUAL-9: Work with local jurisdictions to protect the park from adjacent existing and future ambient light sources.		High	
NEGROBAR-8: Remove or screen temporary storage container used by concessionaire at beach.		High	
POWERHOUSE-6: Complete various improvements to enhance overall aesthetic quality of Powerhouse area.		High	
NATSHORE/S-16: Remove or screen temporary storage container used by concessionaire at Willow Creek.		High	
GRANBAY/SO-9: Remove or screen temporary storage container used by boating concessionaire at main beach.		High	
EVENT-3: Prepare a special event policy for the park.		High	
VISUAL-1: Expand recreation and interpretation opportunities associated with visual and scenic resources of the park.		Med.	
NIMBUSFLAT-11: Provide additional landscaping along driveway to Nimbus Flat between entrance at Hazel Avenue and gatehouse.		Med.	
OVERLOOK-7: Provide additional landscaping along the park's northern boundary abutting residential development.		Med.	
OVERLOOK-8: Replace existing guard rail along entrance road and parking area with aesthetically pleasing alternative.		Med.	
OVERLOOK-9: Work with Bureau to relocate and replace security fencing along southern edge of parking area.		Med.	
OVERLOOK-10: Work with Bureau to screen its corporation yard located at foot of Lake Overlook.		Med.	
GRANBAY/SO-8: Reconfigure and landscape main beach parking area.		Med.	
GRANBAY/NO-6: Provide additional landscaping along park boundary at equestrian staging area in Beeks Bight to minimize visual intrusion of urban development.		Med.	

Source: State Parks; Wallace Roberts & Todd, 2006.

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APPENDIX F

Cultural Resources Management

Cultural Resources Management Guidelines

Appendix F provides additional detail for the cultural resources management guidelines provided in Chapter 3 of this Plan. This additional specific detailed information is referenced by the guideline number to which it pertains.

CULTURE-1 – Archival Research

- Archival research should also include a review of antiquated USGS topographic maps, Government Land Office survey notes and maps and Mexican Land Grant maps and records. Relevant insurance information and maps (e.g. Sanborn maps) should also be checked. In addition to DPR sources, these records and maps could be located at the Sacramento State University, University of California at Davis, the Bancroft Library at University of California at Berkeley, California State Archives, California State Library, Sacramento County Museum and Archives and at the Huntington Library in San Marino.
- Conduct a cultural resource record search at the NCIC every five years and disseminate the results to Reclamation and DPR.
- Conduct oral histories with long-time residents and informants as part of the archival research.
- An historical background of the American River watershed should be investigated and written. A special attempt should be made to find and collect records that pertain the American River watershed which predate the Gold Rush and Statehood. As part of the archival research and historical background, a comprehensive bibliography should be developed and included.

CULTURE-5: Survey

For archaeological survey, the entire survey process should be documented in an Archaeological Survey Report (DPR 649). All survey locations and methodology should be recorded and mapped on topographic maps (or the GIS equivalent). Transect intervals should be described and the location graphically depicted on a topographic map. If pedestrian coverage was not possible in a certain location, the reason for the lack of coverage should be documented (e.g. impenetrable brush, sensitive plant or wildlife area, dangerous conditions). If parts of the survey include areas below high pool, records should document the water levels at the time the survey took place. If the survey is related to a proposed action or project, the survey must also be documented in an inventory report which contains the information Reclamation needs to conduct Section 106 consultation.

CULTURE-6: Site Verification

- Known sites should be relocated. If a DPR 523 site record is old but contains all of the required documentation, a short narrative indicating its adequacy should be written on a Continuation Sheet (DPR 523 L) and attached to the site record. If known sites are inundated or could not be found, that information should be documented on a dated Continuation Sheet (DPR 523L) and attached to the site record.

CULTURE-6&7: Site Verification and Recordation

- Define sites by type— prehistoric, historic or multi-component.
- Establish a datum and site boundaries for each site. Manually and electronically document the UTM coordinates of the site datum and site boundaries. All electronic data should be entered into a GIS database universally accessible to all land managers.
- If feasible, UTM coordinates of surface artifacts and features could be electronically recorded. Preliminary assessments about site integrity and research potential should be documented on the site record. Proximal sites, whether thought to be related or not, should be referred to in the site record by trinomial or field designation. Develop a comprehensive site location map that can be integrated into a GIS database.

- Single component sites that could possibly be eligible for a programmatic treatment (e.g. CARIDAP) should be identified.
- Develop detailed Site Sketch Maps (DPR 523 K) that include the location of the datum, surface artifacts and features, site boundary, legend and orientation. All Site Sketch Maps should be drawn to scale. The scale size should be written on the Site Sketch Map and illustrated by a bar scale.
- The site should be thoroughly photo-documented. At a minimum, the site datum, artifacts, features, site overview all should be photographed. Any site disturbance (impacts from development, vandalism, erosion) should be photographically documented and described in the site record and on an ASCAR form. Any vandalism or looting which occurs on federal property will be reported to Reclamation as a possible ARPA violation.
- Each artifact and feature should be recorded on its appropriate DPR 523 form. For example, a bedrock mortar should be recorded on the overall Site Record forms 523A and 523 C. Additionally, it ought to be recorded and drawn on a Milling Station Record form DPR 523 F. The location of the bedrock mortar should be on the Site Sketch Map. Diagnostic artifacts should be recorded on the Artifact Record form DPR 523H and, if possible, on the sketch map.
- A Site Location Map (DPR 523J) should identify the site location on a USGS topographic quadrangle map. The shape and size of the site should be in proportion with the scale of the topographic quadrangle map.
- Insure that sensitive cultural resource data is protected from inadvertent disclosure to the public. Appropriate firewalls and other measures need to be implemented to protect cultural resource GIS data. Personnel with access to this data need to be made aware of it's sensitive nature and the need to limit disclosure.

CULTURE-9: Recording Linear Features

- Linear features should be recorded on DPR site record forms 523 A, 523 B, 523 E and 523 J. Using historic ditches as an example, the location of ditch specific features like ditch-switches, rock reinforced sections, elevational drops, flumed areas, holding ponds and the location of ditch tenders cabins should all be mapped, electronically located by GPS, and documented on the proper forms.

CULTURE-13&14: Cultural Resource Protection and Management

- Prehistoric Resources. Using the data from the Cultural Resource Table developed as part of the Resource Inventory for this General Plan process, the known site location data needs to be plotted on USGS topographic maps or the GIS equivalents. All cultural resources sites should be avoided until these sites are fully recorded and evaluated. Prehistoric sites listed as “village,” “house floor,” house pit,” “midden,” “burial,” “cremation,” “flake scatter,” or those containing “beads” have the potential to be of particular sensitivity.
- Historic Resources. Using data from the Cultural Resource Table, developed as part of the Resource Inventory for this General Plan process, the known historic site location data needs to be plotted on USGS topographic maps or the GIS equivalents. All cultural resources sites should be avoided until these sites are fully recorded and evaluated. However, any sites listed as “foundations,” “cellars,” “stampmills,” “cabins,” “wells,” “town sites,” “grave depressions,” “mines,” “holding ponds,” or “bridges,” have the potential to be of particular sensitivity.
- Linear Features. Linear features, orchards, tailings, rock walls and trash scatters should be also preserved. Special attention should be given to diagnostic artifacts and features. Historic ditches and roads, which are currently being used as recreational trails and facilities, should be recorded. Breaches in linear features should be sanctioned at specific intervals- the location of which would be determined on a case-by-case basis. All breaches should be perpendicular to the linear feature. Buffer zones should be determined on a case-by-case basis and the features protected from damage. In general, tailings should be preserved and protected. The method of mining that created the tailings should be determined.

- Orchards. Orchards are historic features and should be recorded and researched. Many orchards contain heritage strains or varieties of trees that are no longer available. Since they have survived without care, these trees offer a unique opportunity to analyze and propagate hardy, often pest resistant strains that could increase our knowledge about biodiversity.
- Trash Scatter. If projects are proposed which have the potential to impact trash scatter sites, the site should be avoided, with an appropriate buffer to ensure no impacts occur. The trash scatter should be preserved until it can be analyzed and evaluated. Trash scatters should be analyzed by content with a vision towards potential temporal and cultural associations. Trash scatters are always associated with habitation, industry or transportation routes. All associated sites should be found and documented.
- Bedrock Mortars. Using the data from the Cultural Resource Table developed as part of the Resource Inventory for this General Plan process, all sites that are listed as bedrock mortars (BRMs) should be re-found. Attempts should be made to identify the associated living area. In all likelihood, the living areas would be closer to the ancestral American River that farther away. If reservoir water levels do not permit investigation, that information should be recorded on a Continuation Sheet and added to the site record. If possible, these locations should be investigated when water levels are propitiously low. If they are not investigated at low water, that information should also be recorded on a Continuation Sheet and attached to the existing site record. Depending on the project, site buffer zones should be established on a case-by-case basis and protected from damage.

CULTURE-23: Reclamation/DPR Agreement

The agreement should:

- Describe the process by which compliance with all applicable State and federal cultural resource laws may be achieved in as efficient a manner as possible. For projects on State land, DPR is required to meet CEQA and PRC 5024 compliance requirements. For projects on federal land, Reclamation is required to comply with the National Historic Preservation Act and specifically the Section 106 process, ARPA, NAGPRA and NEPA. Specific information is required for each of these separate compliance processes. To the

extent that efficiencies can be found in the gathering and evaluation of information which will serve both processes, Reclamation and DPR should seek to realize these efficiencies.

- Describe the process which ensures Reclamation staff can comply with Reclamation Cultural Resource Policy, Directives and Standards including LDN P01, LND 02-02, LND 07-01, DM 411, and Museum Property Policy and Directives and Standards, once finalized.
- Develop a 5-year ARPA permit with the DPR District Archaeologist to conduct specific archaeological activities, for which an ARPA permit is required, within specific constraints and criteria to be defined in the permit. These activities would be those types of actions necessary for a professional archaeologist to perform in ongoing protection and management of archaeological resources at Folsom Lake SRA. Such activities may include may include collections of artifacts only when necessary to protect resources and under specific limits specific in the permit, shovel testing and other minimally ground disturbing activities necessary for cultural resources protection and management. Reporting requirements would be defined in the agreement. This permit would be reviewed and renewed, as appropriate, at the end of the 5-year period.
- Provide State Parks and Reclamation with a mutually agreed upon collection policy. See ARPA Permit above.
- Develop mitigation measures that are appropriate to the significance of the resource. This should incorporate the level of effect and a cost/benefit analysis.
- Describe how Reclamation will review State Parks' performance of archaeological projects and resource management within the park. It is recommended that the Agreement establish a periodic review process which requires meeting between Reclamation and State Parks no less than every two years.
- Identify methods and opportunities for consultation with Native American groups, historical and community organizations, and the public regarding cultural resources.

- Clarify the appropriate steps for the treatment of human remains, including any differences if the remains are found on State or federal lands. The requirements for State lands are found in Cal NAGPRA, California Health and Safety Code 7050.5, California PRC Section 5097. The requirements and process for Reclamation lands are specified in Reclamation Directives and Standards LND 07-01 (Inadvertent Discovery of Human Remains on Reclamation Lands), NAGPRA, and 43 CFR Part 10.
- Discuss how disputes will be resolved.
- Provide a procedure for amendment or termination of the agreement.
- Indicate where and under what conditions archaeological collections will be stored.
- Include a procedure for handling unanticipated discoveries.

Cultural Resource Laws and Regulations

Cultural resources are considered part of the environment and the effects or impacts to cultural resources must be analyzed and disclosed as part of an environmental review prepared to comply with either the National Environmental Policy Act (NEPA) or the California Environmental Quality Act (CEQA). NEPA is required for actions taking place on federal lands and CEQA is required for projects taken by State and local governments or for projects occurring on State lands. These laws are discussed elsewhere in this document. Below are federal and State laws specific to cultural resources.

Federal Cultural Resources Law and Regulations

National Historic Preservation Act of 1966, as Amended.

The National Historic Preservation Act (NHPA) of 1966, as amended in 1992, established the federal government's policy on the protection and preservation of significant cultural resources. The Section 106 process of the NHPA follows a series of steps that are designed to identify interested parties, determine the area of potential effects (APE), conduct cultural resource inventories, evaluate the significance of identified properties within the APE, and

assess adverse effects on historic properties. In the event that historic properties occur within the APE, the Section 106 process is generally completed with the signing of an agreement document to resolve adverse effects. Historic Properties are those cultural resources that are either listed or eligible for listing on the National register of Historic Places (National Register). The NHPA requires that federal agencies give the Advisory Council on Historic Preservation an opportunity to comment on the effects of an undertaking on historic properties. The steps in the process are described in the 36 CFR Part 800 regulations that implement the NHPA.

Native American tribes are participants in the section 106 process. The regulations require federal agencies to consult with federally recognized tribes to determine if sites of religious or cultural significance are present within the APE for a specific action. Non-federally recognized tribes may also have concerns and Reclamation involves such tribes as interested members of the public pursuant to 36 CFR Part 800.2(d).

The National Register recognizes historic properties that are significant at local, state, and national levels. The criteria for inclusion in the National Register are found at 36 CFR Part 60.4. In order for a cultural resource to be determined to be a historic property it must retain integrity and meet at least one significance criteria. A property must be:

- A. associated with events that have made a significant contribution to the broad patterns of our history; or
- B. associated with the lives of persons significant in our past; or
- C. embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. yield, or may be likely to yield, information important in prehistory or history.

Archaeological Resources Protection Act.

The Archaeological Resources Protection Act of 1979 (ARPA) regulates access to archaeological resources – defined as the material remains of past human activities which are over 100 years old – on federal lands and/or tribal lands administered by the federal government. ARPA restricts excavation or removal of archaeological resources on federal and/or tribal lands to individuals and groups with permits from the relevant federal land management agency. It also forbids the sale, purchase, exchange, transport, or receipt of any materials obtained in violation of ARPA. ARPA can be used by federal land-managing agencies to prosecute individuals suspected of illegal removal of archaeological items from public lands. Criminal and civil penalties are possible under ARPA.

Native American Graves Protection and Repatriation Act.

The Native American Graves Protection and Repatriation Act of 1989 (NAGPRA) provides that the ownership or control of Native American human remains and associated funerary objects excavated or discovered on Federal or tribal lands after November 16, 1990 belongs to the lineal descendants of the Native American buried or, if lineal descendants cannot be identified, ownership belongs to the tribe which has “...the closest affiliation with such remains or objects and which, upon notice, states a claim for such remains or objects.” (25 USC 3002 §3 (a)). When such remains are discovered on Federal or tribal property, NAGPRA mandates consultation between the agency that manages the property and the tribe which is associated with the remains. NAGPRA applies to Native American remains within the Unit that are found on federal land. Reclamation Directives and Standards LND07-01 describes the process for complying with NAGPRA for the discovery of NAGPRA item found on Reclamation land.

American Indian Religious Freedom Act.

The American Indian Religious Freedom Act states that Native Americans have the freedom to practice their traditional religions, “. . . including but not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonials and traditional rites” (42 CFR 21 (I) § 1996). Under AIRFA, the lead agency on a proposed federal or federally-assisted undertaking should consult with area tribes about whether the undertaking will affect the access to religious practices.

Archaeological and Historic Preservation Act of 1974 (Moss-Bennett).

The Archaeological and Historical Preservation Act of 1974 (AHPA), also known as the Archaeological Data Preservation Act of 1974 (ADPA), directs federal agencies to report to the Secretary of the Interior undertakings which may cause the loss of “significant scientific, prehistorical, historical, or archaeological data;” it permits agencies to recover this data themselves or request that data recovery be conducted by the Department of the Interior; and it authorizes agencies to transfer up to one percent of the total cost of a project to the Department of the Interior to fund data recovery, although a waiver of this one percent cap can be obtained.

Historic Sites Act of 1935.

The Historic Sites Act of 1935 declared that it was a national policy “. . . to preserve for public use historic sites, buildings, and objects of national significance for the inspiration and benefit of the people of the United States” (16 U.S.C. 461). It gives specific powers and duties related to cultural resources to the Secretary of the Department of the Interior and the National Park Service.

Antiquities Act of 1906.

The Antiquities Act provides for fining and imprisonment of individuals who “appropriate, excavate, injure, or destroy any historic or prehistoric ruin or monument, or any object of antiquity, situated on lands owned or controlled by the Government of the United States,” without a permit issued by the agency with jurisdiction over the property in question. The act also authorizes the President to create national monuments and permits the issuance of permits for scientific and educational excavation of archaeological sites. Other laws have superseded many of the provisions of the Antiquities Act and it is currently primarily used to designate national monuments.

California Cultural Resources Law and Regulations

California Native American Graves Protection and Repatriation Act (2001)

This law ensures that all California Native American human remains and cultural items are treated with due respect and dignity. The act also provides the mechanism for disclosure and return of human remains and cultural items held by publicly funded agencies and museums in California. Likewise, the act outlines the mechanism with which California Native American tribes not recognized by the federal government may file claims to human remains and cultural items held in agencies or museums.

California Public Resources Code, Sections 5020-5029.5

This series of codes changes the name of the California Historic Landmarks Committee, which had been created in 1939, to the State Historic Resources Commission. In addition, the Commission defines the criteria for commission membership and commission duties; establishes policies and guidelines for the development of a yearly statewide historical resources list and historical resources plan; and develops methodology and criteria for determining the significance of archaeological sites. PRC section 5024.5 states “No state agency shall alter the original or significant historical features or fabric, or transfer, relocate, or demolish historical resources on the master list maintained pursuant to subdivision (d) of Section 5024 without, early in the planning processes, first giving notice and a summary of the proposed action to the officer who shall have 30 days after receipt of the notice and summary for review and comment.” If potential adverse effects are not properly considered, “the officer shall report to the Office of Planning and Research for mediation in instances of state agency refusal to propose, to consider, or to adopt prudent and feasible alternatives to eliminate or mitigate adverse effects on historical resources on the master list as specified in subdivision (f) of Section 5024.” Implicit in this code is that any identified historic or prehistoric resource is potentially eligible for the national and state registers even if it has not been evaluated for significance.

California Public Resources Code, Section 5097.9

Procedures are detailed under California Public Resources Code (PRC) Section 5097.9 for actions taken whenever Native American remains are discovered. No public agency, and no private party using or occupying public property, or operating on public property, under a public license, permit, grant, lease, or contract made on or after July 1, 1977, shall in any manner whatsoever interfere with the free expression or exercise of Native American religion as provided in the United States Constitution and the California Constitution; nor shall any such agency or party cause severe or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine located on public property, except on a clear and convincing showing that the public interest and necessity so require. The commission, pursuant to Sections 5097.94 and 5097.97 shall enforce the provisions of this chapter.

California Health and Safety Code, Section 7050.5

Every person who knowingly mutilates, disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor, except as provided in Section 5097.99 of the Public

Resources Code. In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

Appendix G: Acknowledgements

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