

## APPENDIX A

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### Issues and Opportunities Report

# RECLAMATION

*Managing Water in the West*

**Contra Loma Reservoir and Recreation Area  
Resource Management Plan Project**

## **Issues and Opportunities Report**

**California, Mid-Pacific Region**



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Resource Management Plan Project**

# **Issues and Opportunities Report**

**California, Mid-Pacific Region**

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# Contents

	Page
<b>Introduction.....</b>	<b>1</b>
<b>Summary of Topics and Issues Identified Through Scoping and Public Workshops .....</b>	<b>2</b>
Topics Identified During Public Outreach.....	3
Issues Raised During Public Outreach.....	5
Recreational Facilities and Opportunities at Contra Loma Regional Park.....	5
Swim lagoon .....	5
Fishing.....	6
Reservoir recreation (non-fishing).....	6
Trail system.....	6
Other recreation .....	6
Infrastructure and Administrative Facilities at Contra Loma Regional Park .....	7
Restrooms .....	7
Buildings and structures.....	7
Other infrastructure.....	8
Facility Management at Contra Loma Regional Park.....	8
Litter and animal feces (dogs, horses, geese) .....	8
Other facility management.....	8
Recreational Facilities and Opportunities at Antioch Community Park.....	9
Soccer and baseball fields.....	9
Other recreation .....	9
Facility Management at Antioch Community Park .....	10
Litter, feces, and graffiti.....	10
Staffing.....	10
Other facility management.....	10
Reservoir Management and Reservoir Water Quality .....	10
Reservoir level fluctuation.....	10
Reservoir water quality .....	10
<b>Overview of Affected Environment.....</b>	<b>11</b>
Operational Conditions .....	11
Summary of Current Conditions.....	11
Potential Constraints and Opportunities .....	12
Approach to Resolving Issues.....	13
Natural Resources .....	13
Summary of Current Conditions.....	13
Potential Constraints and Opportunities .....	14

Approach to Resolving Issues.....	15
Socioeconomic Conditions .....	15
Summary of Current Conditions.....	16
Potential Constraints and Opportunities .....	16
Approach to Resolving Issues.....	16
Existing Land Uses and Management.....	17
Summary of Current Conditions.....	17
Potential Constraints and Opportunities .....	18
Approach to Resolving Issues.....	18
Cultural Resources .....	18
Summary of Current Conditions.....	18
Potential Constraints and Opportunities .....	19
Approach to Resolving Issues.....	20
<b>Conclusions and Next Steps .....</b>	<b>20</b>
Conclusions.....	20
Potential Goal Statements .....	21
Next Steps .....	21
<b>References.....</b>	<b>22</b>

# Introduction

The U.S. Bureau of Reclamation (Reclamation) is developing a Resource Management Plan (RMP) for the Contra Loma Reservoir and Recreation Area (Contra Loma) in Antioch, Contra Costa County, California. The Contra Loma RMP will be a long-term plan to guide management of the reservoir, the recreation areas, and surrounding lands owned by Reclamation. The RMP is being developed based on a comprehensive inventory of environmental resources and facilities; input from the current local managing partners (i.e., the East Bay Regional Park District [EBRPD], the City of Antioch [the City], and the Contra Costa Water District [CCWD]); and input from the public. The primary emphasis of the RMP is to protect water supply, water quality, and natural resources, while enhancing recreational uses.

The overall objective of this RMP is to establish a set of management objectives, goals, and actions to be implemented by Reclamation, either directly or through its management agreement(s) that will:

- establish uniform policy and land management guidelines that promote organized use, development, and management of the Contra Loma Reservoir and the surrounding recreation area lands compatible with applicable federal and state laws;
- protect the water supply and water-quality functions of Contra Loma Reservoir;
- protect and enhance natural and cultural resources in and around the reservoir, consistent with federal law and Reclamation policies;
- provide recreational opportunities and facilities to enhance and develop management strategies, consistent with Reclamation policies, and state water policies; and
- provide guidance for future decision making.

Contra Loma Reservoir was constructed as part of the Central Valley Project and is managed by Reclamation's Mid-Pacific Region through its South-Central California Area Office. The reservoir receives water from the Contra Costa Canal and stores it until it is released back to the canal via gravity flow. The reservoir is primarily used as a regulating reservoir for peak or short-term municipal water supplies for CCWD customers, for emergency storage, and as a backup water supply during maintenance of upstream facilities. The CCWD operates and maintains the reservoir and manages its water level. EBRPD is responsible for managing the surrounding recreational lands as provided for

under a management agreement between Reclamation and EBRPD. On September 19, 1972, Reclamation transferred responsibility of land use management and development, construction, and maintenance of public recreational facilities to EBRPD. The City operates and manages the Antioch Community Park in the northwestern portion of Contra Loma under a license agreement with EBRPD, granted in January 1990. EBRPD, CCWD, and the City are the current managing partners for Contra Loma.

The management agreement between Reclamation and EBRPD expires on December 31, 2010. Reclamation issued an extension on December 6, 2010 to extend the agreement with EBRPD through completion of the RMP process, which is scheduled for early 2013. After completion of the RMP process, Reclamation will negotiate a new long-term management agreement with one or more local managing partner(s). The managing partner(s) may include EBRPD, the City, and/or other local partner(s). The RMP will provide the overall resource and recreation management direction and framework for Contra Loma and will serve as a guidance document for the local managing partner(s) for day-to-day operations and long-range planning.

The purpose of this issues and opportunities report is to provide an overview of the facilities and the natural and cultural resources that will be addressed in the RMP and to identify potential issues, constraints, and opportunities relating to management of the resources. Under each resource topic, the discussion includes a brief description or overview of the resource, identification of any gaps in information currently available, an approach to collecting the additional information, and the potential issues and opportunities that should be considered during development of the RMP. If it is anticipated that specific technical studies will be required, these are identified under the appropriate resource topic. The information presented in this report will be used to help identify issues and opportunities in developing alternatives and will become the basis for the existing conditions/affected environment chapter of the RMP and Environmental Impact Statement (EIS).

## **Summary of Topics and Issues Identified Through Scoping and Public Workshops**

Reclamation held the first scoping meeting for the RMP/EIS on February 8, 2010, at the Nick Rodriguez Community Center in Antioch. Reclamation held a public workshop on August 4, 2010, at Sutter Elementary School in Antioch to seek ideas, concerns, and comments that will inform the development of the RMP/EIS. Reclamation also solicited written scoping comments between February 8 and 22, 2010, and solicited written comments to inform the RMP between August 4 and 31, 2010.

## Topics Identified During Public Outreach

These public-outreach opportunities resulted in many written and verbal comments about management of the reservoir and recreation area and issues to consider during development of the RMP. Specific topics identified during the initial scoping period are:

- Soccer fields at Antioch Community Park
- Recreational opportunities and facilities at Contra Loma Reservoir
- General improvement and maintenance of the park
- Management agreement with EBRPD
- Water quality of the reservoir
- Fluctuations in the level of the reservoir
- Largemouth bass populations
- Invasive aquatic species
- Wildlife habitat restoration
- Wildlife habitat and movement
- East County Parks Habitat Conservation Plan

Specific additional topics identified during the August 2010 comment period are:

- Enjoyment of Contra Loma
- Water quality of the reservoir
- Dead clams and fish carcasses along the shoreline
- Relative abundance of insects and small fish along the shoreline
- Fish populations (largemouth bass and crappie)
- Fish stocking
- Algae blooms in the reservoir
- Illegal fishing (poaching)

- Fishing docks
- Weeds and tules that may hinder fishing
- Animal feces (geese, horses, dogs) near the reservoir
- Job opportunities for lifeguards and swimming instructors
- Swimming/lifeguard lessons and programs at the lagoon
- Picnic areas
- Swim lagoon size, capacity, and facilities
- Public safety services (police/fire)
- Community enrichment
- Bird and wildlife habitat
- Naturalist programs
- Educational opportunities for children
- Trail quality, condition, shade, connections
- Dog use
- Parking supply
- Expansion or renovation of facilities
- Addition of a park residence
- Restroom facilities
- Kayaking restrictions
- Mountain bike loop-trail opportunities
- Litter and clean-up
- Communications among park staff
- Swimming events in the reservoir
- Running and other community events

- Disc golf course
- Integrated pest management program
- Water infrastructure for grazing
- Team sports at Antioch Community Park
- Mix of baseball and soccer fields at Antioch Community Park
- Staffing and security at Antioch Community Park
- Cleanliness at Antioch Community Park
- Trail and grass conditions at Antioch Community Park
- Trail connections at Antioch Community Park
- Operating hours of Antioch Community Park
- Pathway lighting improvement at Antioch Community Park
- A botanical garden at Antioch Community Park

## **Issues Raised During Public Outreach**

The following is a list of resource management issues raised by the public and the current managing partner agencies during the public outreach process. These issues should be considered during development of the RMP.

### **Recreational Facilities and Opportunities at Contra Loma Regional Park**

#### ***Swim lagoon***

- Increase the size of the swim lagoon to accommodate demand.
- Provide a safe swim area or splash pad for small children.
- Provide more shade around the swim lagoon lawn.
- Add benches in the swim lagoon area.
- Increase parking at the swim lagoon.
- Consider the effects of the swim lagoon on the visual character and peacefulness of the recreation area.

- Prohibit smoking at the lagoon and designate smoking areas down-wind from swimmers.

### ***Fishing***

- Improve shoreline access for fishing by controlling vegetation along the shoreline.
- Replace aging fishing docks.
- Modify fishing docks to allow safe, continuous fishing during reservoir drawdowns.
- Add more fishing docks, possibly on the east shore.
- Enforce poaching regulations.
- Increase fish stocking.
- Control vegetation in the reservoir.
- Repair the fish-cleaning facility.

### ***Reservoir recreation (non-fishing)***

- Ease restrictions on kayaking intended to reduce body contact with the reservoir.
- Reintroduce swimming in the reservoir.
- Reintroduce swimming events in the reservoir.

### ***Trail system***

- Improve the existing East Shore–West Shore trails loop with an all-season surface.
- Provide more shade along the trails.
- Increase availability of trails for mountain biking.
- Increase loop-trail opportunities for mountain biking.
- Create multi-use trail connectors in several locations.

### ***Other recreation***

- Install shade structures to support recreational uses and to provide shade in parking areas.
- Construct more picnic sites where useful and appropriate.

- Provide a playground structure.
- Continue or increase running events in Contra Loma.
- Continue to provide outdoor educational experiences for children.
- Consider overnight group camping as part of the current day-camp programs or for special events.
- Consider building a disc golf course.
- Consider the effects of additional improvements on the character of the recreation area.
- Ensure that improvements are consistent with EBRPD's future habitat-restoration projects and its future Habitat Conservation Plan (HCP) and Natural Community Conservation Plan (NCCP).
- Construct a fishermen's shelter.
- Increase off-leash dog areas.

## **Infrastructure and Administrative Facilities at Contra Loma Regional Park**

### ***Restrooms***

- Provide more and better restroom facilities to accommodate existing user needs.
- Replace the existing chemical toilets with modern vault restrooms.
- Provide a restroom facility near the northwest-shore fishing dock.
- Consider installing sewer lines that connect the regional park to the City's wastewater system.

### ***Buildings and structures***

- Expand or renovate existing park offices, the EBRPD police substation, the secondary storage yard, and the buildings near the swim lagoon to better provide for public service and safety.
- Add structures and facilities for classes, including swimming and safety lessons.
- Build a new park residence.
- Expand the gravel/overflow parking areas.
- Consider paving the existing gravel parking areas.

- Consider a fueling station and storage tank at or near the maintenance yard for park staff and public safety officers.

***Other infrastructure***

- Consider adding a radio communication tower and other needed facilities to improve communications for EBRPD and public service providers.
- Install water infrastructure to support grazing.

**Facility Management at Contra Loma Regional Park**

***Litter and animal feces (dogs, horses, geese)***

- Increase litter cans on the east and northwest shores and the dam and along trails.
- Provide signage with telephone contact information to report litter and feces problems.
- Increase the education of park users about keeping the park clean with signage and rangers, especially in the picnic areas.
- Issue littering tickets.
- Provide stations for dog-feces bags throughout the park.
- Reduce occurrence of horse feces near the reservoir.
- Patrol and clean up trails more frequently to remove litter and feces.

***Other facility management***

- Continue and expand programs to manage zebra and quagga mussels, New Zealand mud snails, and carp.
- Continue to implement an integrated pest management plan (weeds, rodents, wasps).
- Clarify law enforcement and public safety roles for each managing partner agency.
- Consider a donation box for walk-in users.
- Consider increasing EBRPD's irrigation allotment of 100 acre-feet per year by 50 percent.

## **Recreational Facilities and Opportunities at Antioch Community Park**

### ***Soccer and baseball fields***

- Increase ball fields and/or modify ball field use to meet the demand for particular sports (e.g., baseball, soccer).
- Expand soccer and multi-use areas by adding fields south of the existing fields.
- Increase the size of some soccer fields to accommodate older youths and adults (i.e., 70 yards x 110 yards).
- Reduce the focus on baseball fields and increase opportunities for mixed-use fields.
- Improve maintenance of the soccer fields to reduce drainage problems, eliminate gopher holes and uneven surfaces, and improve turf quality.
- Improve soccer fields to allow use in wet weather.
- Replace natural turf with artificial turf or a more robust grass.
- Install lighting for the soccer and multi-use fields to enable evening use throughout the year.
- Improve drainage on the south side of the southern baseball field.
- Increase parking if additional ball fields are built.

### ***Other recreation***

- Increase opportunities for community involvement through special event notices.
- Increase public input regarding marketing of recreation programs on the site.
- Increase the number of trails along the creek and riparian area and improve the interconnection between trail systems.
- Create a botanical garden in the open space adjacent to the soccer fields.
- Reduce erosion and muddy conditions in the area between the parking lot and the trail on the west side of the park.
- Improve pathway lighting.

## **Facility Management at Antioch Community Park**

### ***Litter, feces, and graffiti***

- Take measures to reduce litter and graffiti.
- Provide bags for dog feces at stations throughout the park.

### ***Staffing***

- Increase ranger or security presence.
- Improve parking lot security to reduce car break-ins.

### ***Other facility management***

- Specify gate closure times.
- Improve the cleanliness of play structures.
- Clear the firs from the play area more regularly.

## **Reservoir Management and Reservoir Water Quality**

### ***Reservoir level fluctuation***

- Manage reservoir levels to avoid conflict with the reproductive cycles of largemouth bass, crappie, and other fish.
- Manage reservoir levels to avoid conflict with the reproductive cycles of birds, waterfowl, and other aquatic life along the shoreline.
- Operate the reservoir in a manner that reduces occurrence of algae blooms and clam mortality along the shoreline.
- Operate the reservoir to improve recreational fishing and to increase catches.

### ***Reservoir water quality***

- Distribute water-quality sampling locations more widely around the reservoir and at varying depths.
- Reduce occurrence of animal feces (e.g., geese, horses, dogs) around the reservoir.
- Reduce occurrence or duration of fish carcasses, whether left by birds, fishermen, or nature, along the shore.
- Remove fish carcasses daily.
- Remove trash and dead tules from the reservoir when water levels are low.

# Overview of Affected Environment

Contra Loma is part of the Central Valley Project and is one of EBRPD's regional parks that they currently manage on behalf of Reclamation. It encompasses approximately 776 acres of grasslands, scattered woodlands, and park facilities and includes an 80-acre reservoir on the northern edge of the Diablo mountain range in the north-central portion of Contra Costa County. Land uses in the vicinity of Contra Loma include development associated with the City of Antioch to the north and east; the City's Lone Tree Golf Course to the east; and undeveloped, rolling hills associated with the Black Diamond Mines Regional Preserve to the south and west. The Sacramento–San Joaquin Delta is less than 5 miles north of Contra Loma, and the San Francisco Bay is 30 miles west. The Contra Costa Canal forms the northern boundary.

This section of the report contains an overview of the resources and facilities at Contra Loma and identifies resource management constraints and potential opportunities for resolving the resource management issues listed in Section 2.2 above. This section is not intended to provide a detailed description of each resource topic, but to present a summary of available information on each topic. Additional details on each resource and additional discussion of potential issues, constraints, or opportunities identified through the public involvement process will be available in the resource inventory report and the RMP/EIS. Resources that are not present at Contra Loma are described below and will not be discussed in detail in subsequent documents.

## Operational Conditions

Operational conditions include recreational uses, recreational and operational facilities, utilities, and public health and safety. Fishing is a primary recreational activity at Contra Loma and will be discussed in this section. The primary use of the reservoir is to meet customer water demands during shortages as discussed further below.

## Summary of Current Conditions

EBRPD operates the recreational component of Contra Loma Regional Park, including reservoir recreation, and the City manages the community park. Common recreational activities at the regional park include fishing, hiking, swimming (only at the swim lagoon), windsurfing, kayaking, canoeing, picnicking, and horseback and bicycle riding. Visitation is about 160,000 annually. The regional park contains various facilities that support the recreational uses offered at the park (e.g., trails, picnic tables, food concession, parking areas, fishing docks, boat launch) and provide means to manage the land (e.g., fencing, access gate, roads). Many, but not all, of the recreational facilities are in compliance with the Americans with Disabilities Act (ADA). EBRPD has offices, maintenance equipment and facilities, and law enforcement

vehicles onsite. The regional park has potable (drinking) water, restrooms and showers with a septic tank, portable chemical toilets, electricity, telephones, and a radio communication system.

Fishing is a very popular activity at Contra Loma. The reservoir supports 14 species of fish including 8 species of game fish. EBRPD and California Department of Fish and Game plant (i.e., stock) rainbow trout and channel catfish in the reservoir. The reservoir also supports self-sustaining populations of largemouth bass, crappie, redear sunfish, and bluegill, which are also popular with anglers. A state fishing license and an EBRPD Fishing Access Permit are required for all anglers 16 years and older.

Some regional park users have expressed specific concerns related to recreational fishing. Some believe fluctuations in the reservoir level in April and May conflict with the reproductive cycles for largemouth bass, crappie, and other fish, thereby inhibiting reproduction and reducing fish populations and catches. Fish population data for the past several years would be needed to understand population trends for these species. Even with accurate trend information, it may be difficult to precisely identify the causes of population changes. Fluctuations in water level during the spawning season, water temperature, and excessive legal and illegal harvesting can all contribute to reduced fish populations.

The primary uses of the community park are baseball, softball, soccer, picnicking, group activities, and hiking. Because of the community park's proximity to the regional park, its trails serve as pathways into the regional park. The community park has two parking lots.

CCWD manages and operates the Contra Loma Reservoir for water supply and emergency storage. The Contra Loma Dam is on the northern side of the reservoir and contains a pumping system to collect water from the Contra Costa Canal. Water returns to the canal via gravity flow. Operation of the reservoir entails periodic pumping from and releases to the canal, which can cause reservoir levels to fluctuate substantially.

### **Potential Constraints and Opportunities**

The following operational constraint must be considered when developing the RMP. Its relative level of sensitivity is shown in parentheses.

- Compliance with applicable laws, regulations, and policies (high sensitivity)

The following list describes opportunities for resolving the operational issues that should be considered when developing the RMP:

- Available space could be used to expand recreational and administrative facilities in the vicinity of the reservoir.

- Flat, disturbed grazing land east of the reservoir could be used for additional ball fields
- Existing ball fields could be reconfigured to accommodate a variety of sports.
- Underused shoreline could accommodate additional fishing docks.
- Additional fish stocking could be done.
- Fish habitat could be created or modified to increase the numbers of desired fish.
- Sewer trunk lines serving nearby City neighborhoods might accommodate park wastewater.

### **Approach to Resolving Issues**

In addition, general information gathering via websites, agency contacts, and literature reviews will be ongoing as the RMP/EIS is developed to obtain background information on various topics relating to operational conditions. The agencies responsible for managing Contra Loma have provided documentation from previous studies and analyses, and they will continue to provide valuable information to describe and characterize the environment at Contra Loma.

With respect to the relationship between fish populations and water level fluctuations, Reclamation will review available EBRPD data to better understand population trends of potentially affected species. Even with accurate trend information, it may be difficult to precisely identify the causes of population changes without additional investigation. The time and expense of performing such investigations are likely not warranted for the purposes of the RMP. Instead, the RMP will identify cost-effective opportunities for improving the reservoir's recreational fishery, if desirable.

### **Natural Resources**

Natural resources include climate, air quality, hydrology, water quality, geology, soils, vegetation, and wildlife. Fisheries are discussed in Section 3.1.

### **Summary of Current Conditions**

The climate of the region is hot and dry during the summer and mild and wet during the winter. The strong predominance of westerly winds blowing through the Carquinez Strait disperses air pollutants, reducing the atmospheric potential for air pollution in the vicinity of Antioch. Federal and state air quality standards occur primarily are exceeded during meteorological conditions

conducive to high pollution levels, such as cold, windless winter nights or hot, sunny summer afternoons (Antioch 2003).

Although most of Contra Loma is relatively flat, the surrounding hills to the west create a barrier between San Francisco and the reservoir and recreation area. Some hills in Contra Loma have fairly steep slopes (greater than 10 percent grade) and, when combined with the high clay content of the soils, create unstable building conditions. The drainage pattern of the area is to the north toward the Sacramento–San Joaquin Delta. The western half of Contra Loma drains into the reservoir, while the eastern half follows the former drainage pattern of the area and flows north away from the reservoir and through the community park. Maintaining reservoir water quality is very important because of its use for water supply. Sediment and pollutants draining from the surrounding uplands have the potential to affect water quality. Litter, animal feces (e.g., cattle, dogs, wildlife), and human contact with the reservoir can also affect water quality.

Contra Loma is dominated by grasslands and the reservoir, while also supporting scattered woodlands, riparian habitat, wetlands, and landscaped areas. The less-developed areas of Contra Loma support a variety of plant and wildlife species, which may include several special-status species. Some of the special-status species that are known or suspected to occur at Contra Loma are Alameda whipsnake, California tiger salamander, burrowing owl, and San Joaquin kit fox. California quail are also present.

### **Potential Constraints and Opportunities**

The following list describes natural resources constraints that must be considered when developing the RMP. The relative level of sensitivity is shown in parentheses.

- Comply with existing contracts/agreements with CCWD about reservoir operations (high sensitivity)
- Protect and maintain the water quality of the reservoir (high sensitivity).
- Protect the water supply function of the reservoir (high sensitivity).
- Enforce body contact restrictions for the reservoir (high sensitivity).
- Avoid conflict with EBRPD's future HCP/NCCP (high sensitivity).
- Avoid/protect wetland and riparian habitat (high sensitivity).
- Avoid/protect special-status plant and wildlife species (high sensitivity if present).

- Avoid/protect California quail habitat and EBRPD's quail habitat enhancement programs (high sensitivity).
- Avoid conflict with EBRPD's barn owl project to control pocket gophers (medium sensitivity).
- Steep slopes across much of the recreation area constrain development (high sensitivity).
- Clay soils have high degrees of shrink-swell, which make them susceptible to erosion and slumping (medium sensitivity).
- Clay soils have high runoff potential (low sensitivity).

The following list describes opportunities for resolving the natural resources management issues that should be considered when developing the RMP:

- The expansive natural areas are suitable for habitat restoration.
- EBRPD's planned HCP/NCCP may represent an opportunity to expand resource stewardship.

### **Approach to Resolving Issues**

The primary approach to resolving issues about natural resources at Contra Loma is to compile and review available information on the resources. Existing data and reports from the agencies, personal communications with agency specialists, and literature reviews will provide the majority of the information for the RMP/EIS. To supplement this information, reconnaissance-level field surveys of Contra Loma will describe current habitat conditions, identify suitable habitat for special-status species, and identify areas in the park that might be restored or enhanced to improve habitat conditions, if needed. Focused surveys are not anticipated at this level, but may be a component of the alternatives or a requirement for subsequent plans or projects.

The information review and surveys will guide alternatives development by identifying plant and wildlife species that should be more actively managed or protected, identifying soils or geologic constraints, providing information on water-quality goals and ways to protect water quality, and providing other useful information to set the framework for overall management of Contra Loma. Public input regarding natural resources from the scoping process will also be considered, and input from technical experts will be valuable.

### **Socioeconomic Conditions**

Socioeconomic conditions include population, demographics, socioeconomics, and environmental justice.

The purpose of the RMP is not to encourage or induce growth in nearby communities, but to manage natural, cultural, and other resources at Contra Loma. The RMP would not remove obstacles to growth in the nearby communities. By its nature, the RMP would not induce growth; therefore, growth-inducing effects will not be discussed further.

### **Summary of Current Conditions**

Contra Costa County, one of nine counties in the San Francisco–Oakland bay area, is a fairly populous county with more than 1 million residents. The City of Antioch is located in eastern Contra Costa County and has more than 100,000 residents. The City offers a variety of employment opportunities, affordable housing, shopping, and recreational activities.

Contra Loma is entirely in the City boundary. Residential developments around Contra Loma are primarily single-family homes with some multi-family homes. Visitors to the reservoir and recreation area include local residents, Bay Area residents, and, to a lesser extent, people traveling from more than 100 miles away. Contra Loma attracts visitors of all ethnicities and backgrounds and often receives non–English-speaking visitors.

Management of the regional park is funded by EBRPD, with partial funding from Reclamation in accordance with the management agreement, and the City of Antioch funds operation of the community park. CCWD funds operation of the reservoir to maintain water quality and use it for water supply and has provided funding for some improvements at the regional park (e.g., the swim lagoon).

### **Potential Constraints and Opportunities**

The following socioeconomic constraint must be considered when developing the RMP. Its relative level of sensitivity is shown in parentheses.

- Some park users may not be able to communicate effectively in English (medium constraint).

The following opportunity for resolving socioeconomic issues should be considered when developing the RMP:

- Increase the use of multi-lingual written and verbal communications techniques.

### **Approach to Resolving Issues**

Few socioeconomic issues are anticipated, but those listed above will be addressed similarly to operational conditions (Section 3.1.3). Reclamation will develop a reasonable range of alternatives that considers the issues and opportunities of each resource topic and takes into account public and agency input.

## Existing Land Uses and Management

Existing land uses and management topics include land use, ownership, transportation, parking access, noise, special uses, and visual resources.

No hazardous materials or cleanup sites have been reported at Contra Loma, although several sites are in various stages of cleanup throughout the City of Antioch (Department of Toxic Substances Control 2010). These sites would not be expected to affect management of Contra Loma, and the RMP would not need to address cleanup of hazardous material sites. This topic will not be discussed further.

State Routes 680 and 24 in southeastern Contra Costa County have been officially designated by the State as scenic highways. Both of these routes are on the opposite side of Mount Diablo from Contra Loma and do not offer views of Contra Loma. A segment of State Route 4 in eastern Contra Costa County is eligible for designation, but it is also distant from Contra Loma and does not offer views of the park. The RMP will not need to address management of scenic highways; therefore, this topic will not be discussed further.

### Summary of Current Conditions

Contra Loma is owned by Reclamation but is managed by EBRPD, CCWD, and the City of Antioch via a subcontract from EBRPD. It is designated as open space by the City's general plan (City of Antioch 2004). Surrounding uses include residential and open space (Black Diamond Mines Regional Preserve and Lone Tree Golf Course). EBRPD adopted a land use development plan for the regional park in the mid-1970s (East Bay Regional Park District 1977). The land use plan established a natural environment unit, recreation cluster, and reclamation zone for purposes of managing the recreation area. Certain special uses, such as group or community events, are allowed with a permit.

Access to Contra Loma is via State Route 4 and surface streets in the City. Contra Loma Boulevard provides the only vehicle entrance to the regional park, and James Donlon Boulevard provides vehicle access to the community park. Multi-use trails in the vicinity connect the reservoir and recreation area to other parks and locales in the City and County. Portions of Contra Loma are fenced, the recreation area and reservoir are open to the public during daylight hours. The area immediately below (north of) the dam is restricted to authorized personnel only. Sources of noise at Contra Loma are primarily visitors, traffic, and occasional airplanes. Natural sounds, such as water, wind, and wildlife, also occur in the area.

The rolling hills and grasslands of the region create scenic views around the reservoir. The reservoir at normal water levels and riparian and woodland vegetation also contribute to the aesthetic values of the area.

## **Potential Constraints and Opportunities**

The following land use constraints should be considered during development of the RMP. The relative level of sensitivity is shown in parentheses.

- Ensure that lighting, noise, traffic, and parking are compatible with nearby land uses (low sensitivity).
- Consider the rural open space character of a regional park (high sensitivity).

The following opportunity for resolving land use issues should be considered when developing the RMP:

- Locating additional ball fields in the land east of the reservoir and south of the existing soccer fields would reduce land use compatibility impacts for nearby residences.

## **Approach to Resolving Issues**

Primary land use and management issues revolve around the agreements between Reclamation and the other agencies. These agreements will be a subject of discussion during development of the RMP/EIS and will need to be renewed or rewritten to meet the needs of the agencies and management strategies and objectives identified in the RMP. Other issues will be addressed similarly to operational conditions (Section 3.1.3). Reclamation will develop a reasonable range of alternatives that considers the issues and opportunities of each resource topic and takes into account public and agency input.

## **Cultural Resources**

Cultural resources are the tangible and intangible elements of past and present human socio-cultural systems and can include sites, structures, landscapes, objects, districts, and artifacts of importance to a culture or community for traditional, religious, historical, and scientific reasons.

Indian Trust Assets are legal interests in property held in trust by the United States for Indian tribes or individuals. Examples of such assets are land, mineral rights, hunting and fishing rights, and water rights. No Indian Trust Assets are known to exist at Contra Loma; therefore, this topic will not be discussed further.

## **Summary of Current Conditions**

Prehistoric human occupation of California dates back more than 10,000 years during the late Pleistocene Era. The earliest known occupation of the Bay Area region dates from approximately 8,000 BC to circa AD 1800 (the Historic era) and was recorded in the Los Vaqueros reservoir area approximately 11 miles southeast of Contra Loma (Milliken et al. 2007). The Karkin Costanoan (Ohlone) and Bay Miwok occupied the Contra Loma region during this period,

until the Spanish Empire expanded into the region as early as the 1760s to establish missions and convert the local people to Christianity. Several land grants were established by the Spanish during the expansion of the Spanish Empire, and these were maintained by Mexico after the missions were disbanded in the 1820s. Two land grants are in the vicinity of Contra Loma: the Rancho de los Medanos north of Contra Loma in the Antioch and Pittsburg area and the Rancho los Mejanos southeast of Contra Loma (Hulaniski 1917). The ranchos focused primarily on the hide-and-tallow trade and cattle ranching.

With the discovery of gold in the region, the 1850s were a period of rapid settlement of agricultural and industrially important lands in the Bay Area. Towns such as Antioch grew quickly, and the hinterlands around the towns became dominated by ranches and farms. In the last half of the 19th century, the main industries and economic focus of the region in and around Contra Loma were farming, ranching, and dairying (Hulaniski 1917). Several homestead patents in the park were awarded in the 1870s, and evidence of occupation may still exist. Coal mining was an important local industry between the 1860s and the 1890s. Although mining did not occur in the park boundaries, trails and roads through Contra Loma were used for travel between Antioch and the mines (e.g., wagon road, railroad).

Several cultural resource surveys and studies were conducted at Contra Loma between 1983 and 2008. The surveys covered the entire recreation area, but the most recent surveys were completed in the 1980s. Two formally recorded and archived archaeological resources (a prehistoric use site and the Contra Costa Canal) relate to Contra Loma.

The previous surveys were conducted more than 20 years ago, and site conditions since then may have changed to expose more resources or modify the conditions of the recorded sites. If cultural resources have become exposed, the proximity of recreational activities near archaeological deposits can create an atmosphere of casual souvenir taking in which people remove small artifacts (e.g., projectile points, unusual colored rocks or glass, etc.). Also, some of these resources may be in locations where future recreation and infrastructure improvements may be considered. In addition, changes in archaeological techniques and research interests, coupled with the passage of time, might bring academic and public interest to archaeological deposits that were previously overlooked.

### **Potential Constraints and Opportunities**

The following issues and constraints regarding cultural resources should be considered during development of the RMP:

- Protect and enhance cultural resources (sensitivity to be determined).

The following opportunity for resolving cultural resource issues should be considered when developing the RMP:

- Contra Loma’s history offers opportunities for interpretation and education related to cultural resources, such as through interpretive signs or kiosks.
- Interpretive opportunities could be designed around known sites to incorporate information about them while protecting them from the public.
- Natural resources such as plants of importance to local Native American groups could be promoted as areas of interest to the general public through the use of signs, or could be protected and made available for practitioners of traditional tribal practices.

### **Approach to Resolving Issues**

Similar to natural resources, the approach for resolving issues about cultural resources at Contra Loma is to compile and review information on the resources. Because of the age of the most recent surveys, at a minimum, known archaeological sites should be revisited to monitor and record current conditions.

## **Conclusions and Next Steps**

### **Conclusions**

Some of the key issues and opportunities to consider regarding operational conditions are improvements to recreational facilities, expansion of recreational opportunities, and modification of park utility systems. Bilingual communications is an important key issue to consider under socioeconomic conditions, and Contra Loma’s location near the City of Antioch provides an excellent opportunity to attract local and regional residents to the park. Land use and management of Contra Loma will be a primary topic for the RMP/EIS and will focus on the best ways for each agency to manage the resources and benefit the public. Coordination between the agencies will be important during development of the alternatives. Additional public involvement and outreach and collection of additional background information will provide the means necessary to develop alternatives that reflect the various options for management of operational and socioeconomic conditions and land use.

Sensitive habitats, special-status plant and wildlife species, steep slopes, and water quality are key issues to consider for management of the natural resources of Contra Loma. The Contra Loma area has a rich history with potential for the presence of resources dating from 8,000 BC to the Historic Era, and cultural resources have also been documented at Contra Loma. Much information is available about these resources, and known archaeological sites should be revisited to monitor and record current conditions.

## Potential Goal Statements

Based on the preliminary issues identified through the public involvement process and this report, the following goal statements might be considered to guide development of the alternatives:

1. Promote responsible stewardship of federal land and water resources for the public benefit.
2. Protect and maintain water quality.
3. Protect and enhance the natural and cultural resources at Contra Loma.
4. Protect and maintain existing recreational uses and educational opportunities.
5. Provide for enhanced or new recreational uses and facilities that are compatible with other RMP goals.
6. Maintain the character and ambience of Contra Loma's setting.
7. Promote continued compatibility with nearby land uses.

## Next Steps

On December 8, 2010, Reclamation conducted a conference call with the current managing partners to present conceptual draft alternatives packages for the RMP and solicit comments from these agencies. Written comments from these agencies are due January 7, 2011. Reclamation will consider these comments and then refine the conceptual draft alternatives packages and present them at a public workshop that will take place in February 2011. After the February public workshop, Reclamation and North State Resources will further refine the alternatives and flesh out details and descriptions for inclusion in the Draft RMP. The RMP alternatives will include different strategies and objectives to achieve the management goals and will provide a reasonable range of management opportunities to reflect public and agency input. These alternatives will then be evaluated in the EIS.

Prior to preparation of the Draft RMP, Reclamation will prepare a resource inventory report (RIR). The RIR will provide a detailed description of the resources at Contra Loma and will serve as the affected environment section of the RMP/EIS. While the RIR is being prepared, Reclamation will develop alternatives to evaluate in the RMP/EIS. In addition to the alternatives and affected environment sections, the RMP/EIS will include sections required by Reclamation and the Council on Environmental Quality for compliance with the RMP Guidebook and National Environmental Policy Act. The issues and opportunities presented in this report and identified through additional public

outreach will feed directly into the alternatives and will be summarized in the RMP/EIS. Additional opportunity for public involvement will occur when the Draft RMP/EIS is released for public review and when the RMP/EIS is finalized.

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## APPENDIX B

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### Operations and Maintenance

## Operations and Maintenance Activities

### Contra Loma Regional Park

January 2014

Park-related operations and maintenance activities currently performed by the East Bay Regional Park District at Contra Loma Regional Park include the following.

- Mow annual grassland for 2-3 weeks each year for fire hazard reduction
- Mow and line trim landscaped areas
  - Mow on a weekly basis from spring to fall
  - Line trim 1-2 weeks a month from spring to summer
  - Line trim during every summer month based on noxious weed growth
- Irrigation maintenance
  - Repair pipes, valves, and sprinkler heads
  - Maintain irrigation clocks that operate the pumps in the reservoir
  - Service pumps every 4-7 years
- Remove floating debris from the reservoir daily during staff operating hours
- Pest management
  - Contract out on a monthly basis for mice, rat, and ant control
  - Ground squirrels are bated from June through September to control the population at a rate of 3-5 lbs. a month at 16 bait stations.
- Vegetation management
  - Graze 25-45 head of cattle throughout the year for fuel and noxious/invasive weed control
- Aquatic pest management
  - Perform quagga mussel inspections of all aquatic vessels and wetsuits on an daily basis throughout the year
- Infrastructure (road, utility) and facility maintenance (as needed)
  - Patch asphalt on paths, roads, and parking lots
  - Strip roadway lines
  - Add gravel to overflow lots
  - Maintain vegetation on traffic islands
  - Maintain underground potable water supply
  - Maintain flush toilets, urinals and sinks
- Trail maintenance
  - Grade trails as needed annually
  - Repair trails as needed for water diversion seasonally
  - Prune and periodically mow vegetation along trails in the spring
- Maintenance of swim lagoon infrastructure

- Maintain recirculation pump annually or bi-annually
- Fill cracks in deck area annually
- Resurface the pool plaster every five year or less
- Resurface the drainage grates every ten years or less
- Repair the coping and tile annually
- Service the metering pumps for pool chemicals (i.e., chlorine and acid pumps) annually
- Replace the sand in the sand filters as necessary
- Repair fencing surrounding the swim lagoon
- Repair asphalt surrounding the swim lagoon
- Repair concrete surrounding the swim lagoon
- Replace safety mechanisms in pool area (protective devices and ADA lifts)
- Replacement of chemtrol device as necessary
- Replace probes for water sanitation and chemistry balance annually
- Maintain chlorine injectors annually
- Litter and waste management
  - Remove trash from all receptacles daily (dumped into a 30-yard container that is dumped on a monthly or as-needed basis)
  - Collect recycling on a bi-weekly basis (dumped into a 20-yard container and hauled away as needed)
- Human waste management
  - Fourteen portable wooden/plastic toilets are pumped bi-weekly in the summer and weekly in the winter.
- Invasive species management and native species promotion
  - Cattle grazing is used as a management tool for invasive plant species
  - Promote native species through timely and monitored grazing

# Operations and Maintenance Activities

## Antioch Community Park

January 2014

Park-related operations and maintenance activities currently performed by the City of Antioch at the Antioch Community Park generally fall into four categories: maintenance of amenities/general facilities, vegetation management and upkeep, irrigation systems maintenance, and pest control.

### Maintenance of Amenities/General Facilities

- Cleaning, painting and repairs of picnic tables, benches, backstops, horseshoe pits, and barbecues
- Playground maintenance (remove trash, repair equipment, sand box cleaning and sweeping)
- Renovate all baseball diamonds in preparation for baseball/softball seasons by loosening, leveling, and grading compacted diamond cinder fines and clay.
- Vacuuming of artificial turf on sports fields annually
- Sweeping of the artificial turf on sports fields periodically
- Installation of decorative bark at park name sign annually
- Draining and clearing concrete lined ditches and gutters
- Sidewalk cleansing, sweeping, blowing
- Parking lot cleansing, sweeping, blowing, vacuuming
- Trash
  - Inspect and empty trash containers
  - Remove and dispose of trash/litter
  - Inspect and empty recyclables containers
- Repair of fence line and debris clearance
- Restroom maintenance
  - clean and sanitize using detergents; remove dirt, cobwebs, standing water; inspect and refill soap, tissue, and paper product dispensers; inspect and maintain toilet and sink flow; air freshening
  - Open and close restroom facilities at City-designated hours
- Remove/repair vandalized property
  - Graffiti abatement (e.g., surface removal, painting)

### Vegetation Management and Upkeep

- Tree, shrub, and vine pruning
- Seasonal building and removal of water basins around plants

- Add/remove stakes and ties for trees as needed
- Replace decaying or dead vegetation
- Mow, edge, fertilize, and aerate grass lawns
- Mow, trim, replant ground cover (ivy, hypericum)
- Weed control and abatement: especially *Digitaria* (crab grass), *Poa annua* (annual bluegrass), and broadleaf weeds
- Application of fertilizers, herbicides
- Prune vegetation from line of sight obstruction at street intersections
- Disposal of grass clippings, pruned vegetation
- Blowing and raking of leaves from park premises
- Storm damage maintenance pruning and removal of vegetation

#### Irrigation Systems Maintenance

- Monitor and repair irrigation leaks or damage to hardware
- Seasonal irrigation frequency scheduling
- Flush irrigation systems
- Adjust sprinkler head heights to maximize irrigation efficiency
- Maintenance of automatic controllers
- Inspection and replacement of batteries in battery powered light and irrigation controllers

#### Animal, Insect, and other Pest Control

- Rodent (gopher, ground squirrel, tree squirrel) control
- Pest control: slugs, snails
- Maintain familiarity with Integrated Pest Management programs

## APPENDIX C

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Applicable Regulations

# Appendix C: Applicable Regulations

## Air Quality

- **The Clean Air Act of 1970, (42 US Code [USC], Sections 7401 et seq.)** regulates air emissions from area, stationary, and mobile sources. Under this law, National Ambient Air Quality Standards (NAAQS) are established for each state by the EPA in order to protect public health and the environment (EPA 2003).

## Noise

- **43 Code of Federal Regulations (CFR Part 423.22[e][3])** prohibits disorderly conduct on Reclamation land, unreasonable noise, considering the nature of the purpose of the persons conduct, location, time of day or night, and other factors that would govern the conduct of a reasonably prudent person under the circumstances.

## Water Resources

### Federal Laws and Statutes

- **The Clean Water Act of 1987, as amended (33 USC, Section 1251)** establishes objectives to restore and maintain the chemical, physical, and biological integrity of the nation's water;
- **The Federal Water Pollution Control Act (33 USC, Section 1 1323)** requires the Federal land manager to comply with all Federal, state, and local requirements, administrative authority, processes, and sanctions regarding the control and abatement of water pollution in the same manner and to the same extent as any nongovernmental entity;
- **The Safe Drinking Water Act (42 USC, Section 201)** is designed to make the nation's waters drinkable and swimmable. Amendments in 1996 establish a direct connection between safe drinking water and watershed protection and management;
- **The Watershed Protection and Flood Control Act of 1954**, as amended, directs the Federal government to cooperate with states and their political subdivisions, soil or water conservation districts, flood prevention or control districts, and other local public agencies to prevent erosion or flood water and sediment damage;
- **The Water Resources Research Act of 1954**, as amended, permits the Secretary of the Interior to give grants to, and cooperate with, Federal, state, and local agencies to undertake research into any water problems related to the mission of the department;

- **Executive Order 11288** requires heads of agencies to provide leadership in the field of water quality management and requires Federal facilities to develop pollution abatement plans;
- **Executive Order 11507** directs the Federal government in the design, operation, and maintenance of its facilities to provide leadership in the nationwide effort to protect and enhance the quality of air and water resources. It provides for action necessary to correct air and water pollution at existing facilities to be completed or underway by December 31, 1972, and requires surveillance to ensure that water quality standards are met;
- **Executive Order 11514, as amended by Executive Order 11991**, directs Federal agencies to provide leadership in protecting and enhancing the quality of the nation's environment to sustain and enrich human life. It provides for continued monitoring, evaluation, and control of the activities of each Federal agency, as well as development of programs and measures to protect and enhance environmental quality and to exchange data and research results and cooperate with other agencies to accomplish the goals of NEPA;
- **Executive Order 11738** directs each Federal agency to enforce the Clean Air Act and the Clean Water Act in the procurement of goods, materials, and services;
- **Executive Order 11752** mandates that Federal agencies provide national leadership to protect and enhance the quality of air, water, and land resources by complying with applicable Federal, state, interstate, and local pollution standards. This order mentions the Clean Air Act, Federal Water Pollution Control Act, Solid Waste Act, Noise Control Act, insecticide and pesticide acts, and NEPA;
- **Executive Order 11990, Protection of Wetlands**, directs Federal agencies to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial value of wetlands in carrying out programs affecting land use;
- **Executive Order 12088, Federal Compliance with Pollution Control Standards**, requires all Federal agencies to comply with local standards and limitations relating to water quality. As a wastewater management agency, each Federal agency is bound to recognize and adopt the policies, goals, and standards of approved Section 208 area-wide water quality management plans in regard to those Federal lands under its jurisdiction. Each agency also must implement plan standards to the maximum extent feasible in its own planning process and management activities;

### **Reclamation Policies and Regulations**

- **Floodplain Management Policy (CMP P01)** was established to (1) reduce the vulnerability of the nation to loss of life and property and the disruption of societal and economic pursuits caused by flooding or facility operations; and (2) sustain, restore, or enhance the natural resources, ecosystems, and other functions of the floodplain; and
- **Floodplain Management Directive and Standard (CMP 01-01)** was established to (1) reduce the vulnerability of the nation to loss of life and property and the disruption of societal and economic pursuits caused by flooding or facility operations; and (2) sustain, restore, or enhance the natural resources, ecosystems, and other functions of the floodplain.

# Cultural Resources

## Federal Laws and Statutes

- **An Act for the Preservation of American Antiquities [Antiquities Act of 1906] (PL 59-209; 34 Stat. 225; 16 USC, Sections 432 and 433)** made it unlawful for any person to 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.
- **Historic Sites Act of 1935 (PL 74-292; 49 Stat. 666; 16 USC, Section 461)** declares a national policy to identify and preserve nationally significant “historic sites, buildings, objects and antiquities.” It authorizes the National Historic Landmarks program and provides the foundation for the National Register of Historic Places authorized in the National Historic Preservation Act of 1966. Regulations implementing the National Historic Landmarks Program are at 36 CFR Part 65.
- **National Historic Preservation Act of 1966 and amendments (PL 89-665; 80 Stat. 915; 16 USC, Section 470)** creates the National Register of Historic Places and extends protection to historic places of state and local as well as national significance. It establishes the Advisory Council on Historic Preservation, State Historic Preservation Officers, Tribal Preservation Officers, and a preservation grants-in-aid program. Section 106 directs Federal agencies to take into account effects of their actions (“undertakings”) on properties in or eligible for the National Register.
- **National Environmental Policy Act of 1969 (PL 91-190; 83 Stat. 852; 42 USC, Section 4321)** states that it is the Federal government’s continuing responsibility to use all practicable means to preserve important historic, cultural, and natural aspects of our national heritage. It instructs Federal agencies to prepare environmental impact statements for each major Federal action having an effect on the environment.
- **Historical and Archaeological Data Preservation Act of 1974 (16 USC 469 et seq.)**, also called the Moss-Bennett Act, provides for the preservation of historic American sites, buildings, objects, and antiquities of national significance and the preservation of historical and archaeological data (including relics and specimens) that may otherwise be irreparably lost or destroyed as a result of any alteration of the terrain caused by any federal construction projects of federally licensed activity or program. The act requires a federal agency to notify the Secretary of the Interior if a project threatens the loss of destruction of significant historic or archaeological data. The NEPA lead federal agency’s Section 106 compliance process provides substantially the same protection.
- **American Indian Religious Freedom Act of 1978 (PL 1 95-341; 92 Stat. 469; 42 USC, Section 1996)** states that “it shall be the policy of the United States to protect and preserve for American Indians their inherent right of freedom to believe, express, and exercise the traditional religions of the American Indian, Eskimo, Aleut, and Native Hawaiians, including but not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonials and traditional rites”.

- **Archaeological Resources Protection Act (ARPA) of 1979 [PL 96-95; 93 Stat. 721; 16 USC, Sections 470(aa)-470(mm)], as amended (PL 100-555; PL 100-588)** expands the protections provided by the Antiquities Act of 1906 in protecting archaeological resources and sites located on public and Indian lands. ARPA has felony-level penalties for excavating, removing, damaging, altering, or defacing any archaeological resource more than 100 years of age, on public or Indian lands, unless authorized by a permit.
- **Native American Graves Protection and Repatriation Act of 1990 (PL 101-601; 25 USC, Sections 3000-3013; 104 Stat. 3048-3058)** provides for disposition of cultural items from Federal or tribal lands. The ownership or control of Native American cultural items that are excavated or discovered on Federal or tribal lands after 1990 is determined by a custody hierarchy set out in the statute.
- **Reservoir Salvage Act of 1960, as amended [16 USC, Sections 469-469(c)]** extended the Historic Sites Act of 1935. It gave the Department of the Interior, through the National Park Service, major responsibility for preserving archaeological data that might be lost specifically through dam construction.
- **Curation of Federally-Owned and Administered Archeological Collections (36 CFR, Part 79)** establishes definitions, standards, procedures, and guidelines to be followed by Federal agencies to preserve collections of prehistoric and historic material remains and associated records.
- **Determinations of Eligibility for Inclusion in the National Register (36 CFR, Part 63)** was developed to assist Federal agencies in identifying and evaluating the eligibility of properties for inclusion in the National Register.
- **National Register of Historic Places (36 CFR, Part 60)** describes the criteria for eligibility for inclusion of properties in the NRHP.
- **Protection of Historic Properties (36 CFR, Part 800)** describes the Section 106 Process.
- **Public Conduct on Bureau of Reclamation Facilities, Lands, and Waterbodies (43 CFR, Part 423)** intends to maintain law and order and protect persons and property within Reclamation projects and on Reclamation facilities, lands, and waterbodies by specifying areas open and closed to public use.
- **Executive Order 13175, Consultation and Coordination with Indian Tribal Governments (65 FR 67249)** was issued to establish regular and meaningful consultation and collaboration with tribal officials in the development of Federal policies that have tribal implications. When implementing such policies, agencies shall consult with tribal officials as to the need for Federal standards and any alternatives that limit their scope or otherwise preserve the prerogatives and authority of Indian tribes.
- **Government-to-Government Relations with Native American Tribal Governments (Memorandum signed by President Clinton; April 29, 1994) (61 FR 42255)** directs Federal agencies to consult, to the greatest extent practicable and to the extent permitted by

law, with tribal governments prior to taking actions that affect Federally recognized tribal governments. Federal agencies must assess the impact of Federal government plans, projects, programs, and activities on tribal trust resources and assure that tribal government rights and concerns are considered during such development.

- **Executive Order 11593, Protection and Enhancement of the Cultural Environment (36 FR 8921)**, directs Federal agencies to inventory cultural properties under their jurisdiction, to nominate to the National Register all Federally owned properties that meet the criteria, to use due caution until the inventory and nomination processes are completed, and to assure that Federal plans and programs contribute to preservation and enhancement of non-Federal properties.
- **Executive Order 13007, Indian Sacred Sites (61 FR 26771)** directs Federal agencies in managing Federal lands to 1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners; and 2) avoid adversely affecting the physical integrity of such sacred sites.
- **Executive Order 13287, Preserve America 2003 (68 FR 10635)**, directs Federal agencies to improve their management of historic properties and to foster heritage tourism in partnership with local communities.

### **Reclamation Policies and Regulations**

- **Cultural Resources Management Policy (LND-P01)** states that cultural resources are recognized as fragile, irreplaceable resources with potential public and scientific uses, and represent an important and integral part of our Nation's heritage. It is Reclamation's practice to:
  1. Manage cultural resources under Reclamation jurisdiction or control according to their relative importance, to protect against impairment, destruction, and inadvertent loss, and to encourage and accommodate the uses determined appropriate through planning and public participation.
  2. Manage cultural resources under cultural resource statutes and the planning and decision making processes as are followed in managing other public land resources.
  3. Ensure that tribal issues and concerns are given consideration during planning and decision making, including fire management planning and decision making for specific fire management projects.

This policy is not limited to Reclamation's activities that affect Federal lands. It is the responsibility of Reclamation to assure that its actions and authorizations are considered in terms of effects on cultural resources located on non-Federal lands. Fire management planning and activities on site-specific projects that involve non-Federal land shall consider this responsibility.

- **Cultural Resources Management Directive and Standard (LND 02-01)** ensures that Reclamation manages its cultural resources according to Federal legislative mandates and in

a spirit of stewardship; clarifies Reclamation's roles and responsibilities related to cultural resources; and provides direction for consistent implementation of Reclamation's cultural resources management responsibilities.

- **Inadvertent Discovery of Human Remains on Reclamation Lands (LND 07-01)** establishes procedures for compliance with federal statutes when inadvertent (i.e., unplanned) discoveries of human remains occur on Reclamation lands.

## Biological Resources

### Federal Laws and Statutes

- **Fish and Wildlife Coordination Act of 1934** requires consultation with USFWS and state agencies whenever the waters or channels of a body of water are modified by a department or agency of the U.S, with a view to the conservation of wildlife resources. It provides that land, water and interests may be acquired by Federal construction agencies for wildlife conservation and development.
- **Sikes Act of 1974** directs the Secretaries of Interior and Agriculture to, in cooperation with the State agencies, develop, maintain, and coordinate programs for the conservation and rehabilitation of wildlife, fish, and game. Such conservation and rehabilitation programs shall include, but are not limited to, specific habitat improvement projects and related activities and adequate protection for species considered threatened or endangered.
- **North American Waterfowl Management Plan of 1986** was signed between Canada and USA and aims to conserve migratory birds throughout the continent. Further, it sets population goals for waterfowl and provides guidance as to how these goals can be achieved.
- **Federal Endangered Species Act of 1973** provides a program for the conservation of threatened and endangered plants and animals and the habitats in which they are found. It is designed to protect critically imperiled species from extinction due to "the consequences of economic growth and development untempered by adequate concern and conservation".
- **Migratory Bird Treaty Act of 1918 and amendments** establishes a Federal prohibition, unless permitted by regulations, to "pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, ... any migratory bird . . . or any part, nest, or egg of any such bird." An amendment was passed in 1972 to include owls, hawks, and other birds of prey.
- **Bald Eagle Protection Act of 1940** provides for the protection of the bald eagle and the golden eagle by prohibiting, except under certain specified conditions, the taking, possession and commerce of such birds.
- **Federal Noxious Weed Act of 1974** provides for the control and management of nonindigenous weeds that injure or have the potential to injure the interests of agriculture and commerce, wildlife resources, or the public health. Under this Act, the Secretary of Agriculture was given the authority to designate plants as noxious weeds, and inspect, seize and destroy products, and to quarantine areas, if necessary to prevent the spread of such weeds.

- **Executive Order 13112 Invasive Species (64 FR 2793)**, signed in 1999, directs Federal agencies to prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological, and human health impacts that invasive species cause. To do this, the EO established the National Invasive Species Council; currently there are 13 Departments and Agencies on the Council.

### **Reclamation Policies and Regulations**

- **Implementation of the Cost-Sharing Authorities for Recreation and Fish and Wildlife Enhancement Directive and Standard (LND 01-01)** establishes the Bureau of Reclamation's approach to implementing the cost sharing authorities for recreation and fish and wildlife enhancement facilities. This cost sharing may include planning, developing, operating, maintaining, and replacing recreation and fish and wildlife enhancement facilities on lands and waterbodies under Reclamation jurisdiction;
- **Reclamation Policy for Consultation under the Endangered Species Act of 1973, as amended (ENV P04)** describes Reclamation's role in consultations required by the Endangered Species Act; and
- **Wetlands Mitigation and Enhancement Policy (LND P03)** establishes policy for Reclamation to use in determining appropriate mitigation for all actions affecting wetlands. Encourage activities protecting, preserving, and enhancing wetlands.

## **Indian Trust Assets**

### **Federal Laws and Statutes**

- **Executive Order 13175, Consultation and Coordination with Indian Tribal Governments (65 FR 67249)**, was issued to establish regular and meaningful consultation and collaboration with tribal officials in the development of Federal policies that have tribal implications. When implementing such policies, agencies shall consult with tribal officials as to the need for Federal standards and any alternatives that limits their scope or otherwise preserves the prerogatives and authority of Indian tribes.
- **Government-to-Government Relations with Native American Tribal Governments (Memorandum signed by President Clinton; April 29, 1994) (61 FR 42255)** directs Federal agencies to consult, to the greatest extent practicable and to the extent permitted by law, with tribal governments prior to taking actions that affect Federally recognized tribal governments. Federal agencies must assess the impact of Federal government plans, projects, programs, and activities on tribal trust resources and assure that tribal government rights and concerns are considered during such development.

### **Department of Interior Directives**

- **Secretarial Order No. 3175, Departmental Responsibilities for Indian Trust Resources**, requires Interior bureaus and offices to consult with the recognized tribal government with jurisdiction over the trust property that a proposal may affect.

- **Secretarial Order No. 3206, American Indian Tribal Rights, Federal –Tribal Trust Responsibilities, and the Endangered Species Act**, clarifies the responsibilities of the Interior agencies with regard to the effects of ESA compliance actions affect, or may affect, Indian lands, tribal trust resources, or the exercise of American Indian tribal rights. Interior agencies will carry out their responsibilities in a manner that harmonizes the Federal trust responsibility to tribes, tribal sovereignty, and statutory missions of the departments, and that strives to ensure that Indian tribes do not bear a disproportionate burden for the conservation of listed species.
- **Secretarial Order No. 3215, Principles for the Discharge of the Secretary’s Trust Responsibility**, provides guidance to the employees of the Department of the Interior who are responsible for carrying out the Secretary’s trust responsibility as it pertains to ITAs.
- **Departmental Manual 512 DM Chapter 2, Departmental Responsibilities for Indian Trust Resources**, establishes the policies, responsibilities, and procedures for operating on a government-to-government basis with Federally-recognized Indian tribes for the identification, conservation, and protection of American Indian and Alaska Native trust resources to ensure the fulfillment of the Federal Indian Trust Responsibility.

## **Reclamation Policies and Regulations**

- **Indian Policy of the Bureau of Reclamation** affirms that Reclamation will comply with both the letter and the spirit of Federal laws and policies relating to Indians; acknowledge and affirm the special relationship between the United States and Federally recognized Indian tribes; and actively seek partnerships with Indian tribes to ensure that tribes have the opportunity to participate fully in the Reclamation program as they develop and manage their water and related resources.
- **Bureau of Reclamation Protocol Guidelines: Consulting with Indian Tribal Governments** provides guidance on the protocol for conducting consultation and maintaining government to government relationships with Indian tribes.
- **Bureau of Reclamation Indian Trust Asset Policy and Guidance** is described in a 1993 Memorandum outlining National Environmental Policy Act Handbook Procedures to Implement Indian Trust Asset Policy.

## **Land Management**

### **Land Use**

#### *Federal Laws and Statutes*

- **The Recreation and Public Purposes Act of 1926, as amended**, authorizes the sale or lease of public lands for recreational or public purposes to State and local governments and to qualified nonprofit organizations. Examples of typical uses under the act are historic monument sites, campgrounds, schools, fire houses, law enforcement facilities, municipal facilities, landfills, hospitals, parks, and fairgrounds;

- **The Reclamation Project Act of 1939; as amended**, provides a feasible and comprehensive plan for the variable payment of construction charges on United States reclamation projects, to protect the investment of the United States in such projects, and for other purposes;
- **Land and Water Conservation Fund Act of 1965, as amended**, purposes are to assist in preserving, developing, and assuring accessibility to all citizens of the United States of America of present and future generations and visitors who are lawfully present within the boundaries of the United States of America such quality and quantity of outdoor recreation resources as may be available and are necessary and desirable for individual active participation in such recreation and to strengthen the health and vitality of the citizens of the United States by (1) providing funds for and authorizing Federal assistance to the States in planning, acquisition, and development of needed land and water areas and facilities and (2) providing funds for the Federal acquisition and development of certain lands and other areas.
- **Federal Land Transaction Facilitation Act of 2000 (FLTFA)** allows the Department of the Interior agencies and the U.S. Forest Service (USFS) to use the proceeds from sales of Bureau of Land Management (BLM) lands to acquire inholdings in national parks, national wildlife refuges, national forests and BLM and designated areas, including the National Landscape Conservation System. FLTFA provides federal agencies with an important funding source to complement the Land and Water Conservation Fund, land exchanges, and other federal programs. It is a self-funded program requiring no additional appropriations;
- **The Condemnation Act of 1888, as amended**, authorized the condemnation of lands for sites for public buildings, and other purposes;
- **The Engle Act of 1958** provides that withdrawals, reservations, or restrictions of more than five thousand acres of public lands of the United States for certain purposes shall not become effective until approved by Act of Congress, and for other purposes;
- **The Federal Power Act of 1920, as amended**, provides for cooperation between the Federal Energy Regulatory Commission and other Federal agencies, including resource agencies, in licensing and relicensing power projects;
- **The Carey Act of 1894, as amended**, provided for the transfer to Western states of U.S.-owned desert lands on the condition that they be irrigated. It allowed private companies in the U.S. to erect irrigation systems in the western semi-arid states, and profit from the sales of water;
- **43 CFR, Part 402: Sale of Lands in Federal Reclamation Projects** regulates the sale of certain classes of lands that are subject to the reclamation laws and that may be sold under The Act of May 20, 1920, The Act of May 16, 1930, and The Act of March 31, 1950;
- **43 CFR, Part 420: Off-road vehicle use** establishes regulations for off-road vehicle use on reclamation lands to protect the land resources, to promote the safety of all users, to minimize conflict among the various users, and to ensure that any permitted use will not result in significant adverse environmental impact or cause irreversible damage to existing ecological balances; and

- **43 CFR, Part 429: Procedure to process and recover the value of rights-of-use and administrative costs incurred in permitting such use** purpose is to set forth procedures for the Bureau of Reclamation to recover the value of rights-of-use interests granted to applicants, and for the collection of administrative costs associated with the issuing of rights-of-use over land administered by Reclamation.

### *Reclamation Policies and Regulations*

- **Land Withdrawals, Withdrawal Reviews and Withdrawal Revocations Directive and Standard (LND 03-01)** was established to provide direction for the management of various aspects of land withdrawals in conjunction with the needs of an authorized Bureau of Reclamation project. This Directive and Standard sets basic standards and provides information on current applicable Federal laws, regulations, and policies for land withdrawals, withdrawal management including modifications and extensions, and withdrawal revocations;
- **Real Estate Appraisal Directive and Standard (LND 05-01)** sets forth procedures and provides information to ensure compliance with appropriate authorities and regulations. This Directive and Standard clearly articulates the real property appraisal processes, specifically as they relate to Reclamation's program needs;
- **Land Acquisition Directive and Standard (LND 06-01)** provides direction for the acquisition of land or interests in land by the Bureau of Reclamation and the management of those acquisitions in compliance with existing law and Department of the Interior requirements;
- **Land Use Authorizations Directive and Standard (LND 08-01)** provides standard procedures for issuing use authorization documents such as easements, leases, licenses, and permits which allow others to use Reclamation lands and interests in its lands, facilities, and water surfaces;
- **Land Disposal Directive and Standard (LND 08-02)** prescribes the procedures, methods, and criteria for disposing of Reclamation lands excluding title transfer of project facilities under specific authorizing legislation;
- **Real Property Management Records Directive and Standard (LND 09-01)** establishes the requirements for maintenance of records for Federal land and interests in land under the Bureau of Reclamation's jurisdiction; and
- **Payments in Lieu of Taxes (PILT) Directive and Standard (LND 09-02)** purpose is threefold: (a) to define the responsibility of the Bureau of Reclamation for reporting those PILT entitlement acres located within Reclamation's project boundaries, where appropriate; (b) to ensure there is no multiple reporting or lack of reporting of PILT entitlement acres by Reclamation or between Reclamation and other Federal agencies; and (c) to outline how various land categories must be coded in Foundation Information for Real Property Management (FIRM) to meet Reclamation's reporting requirements under the PILT Act and its regulations.

## **Concessions**

### ***Reclamation Policies and Regulations***

- **Concessions Management Policy (LND P02)** defines the Bureau of Reclamation's responsibility for the museum property it owns, controls, or administers on behalf of the United States Government in accordance with Federal laws, regulations, and Department of the Interior policies. The benefit of this Policy is improved accountability through accuracy and consistency in managing Reclamation's museum property, and completion of required administrative actions in Reclamation's Museum Property Program. It also provides increased opportunities for public access to, and use of, Reclamation's museum property;
- **Concessions Management by Reclamation Directive and Standard (LND 04-01)** sets forth the directives and standards for planning, development, and management of concessions at Reclamation projects; and
- **Concessions Management by Non-Federal Partners Directive and Standard (LND 04-02)** establishes minimum approval standards for all new, modified, or renewed non-Federal concession contracts.

## **Facilities Management**

### ***Reclamation Policies and Regulations***

- **Environmental Management Systems Policy (LND P05)** defines the Bureau of Reclamation's responsibility for the museum property it owns, controls, or administers on behalf of the United States Government in accordance with Federal laws, regulations, and Department of the Interior policies. This improves accountability through accuracy and consistency in managing Reclamation's museum property, and completion of required administrative actions in Reclamation's Museum Property Program. It also provides increased opportunities for public access to, and use of, Reclamation's museum property;
- **Emergency Management Policy (FAC P01)** provides for the safety of the public and protect environmental resources from incidents at Reclamation facilities by (1) taking reasonable and prudent actions necessary to ensure timely notification to potentially affected jurisdictions of such incidents so that warning and evacuation of the public can be accomplished; and (2) defining program needs and requirements essential to maintain self-regulation by line managers, be responsive to public safety, and satisfy legal requirements during operations or emergency incidents at our facilities;
- **Hazardous Waste and Materials Management Policy (ENV P01)** establishes the requirements and responsibilities for the management of hazardous waste generated by the Bureau of Reclamation at Reclamation facilities and the remediation of hazardous waste sites on Reclamation lands. This policy deals with hazardous materials only where required by related hazardous waste management regulations;
- **Pollution Prevention-Hazardous and Solid Waste Minimization Directive and Standard (ENV 02-03)** establishes methods to minimize hazardous and solid waste produced at Reclamation facilities; and

- **Emergency Management Directive and Standard (FAC 01-01)** provides for the safety of the public and protect environmental resources from incidents at our facilities by (1) taking reasonable and prudent actions necessary to ensure timely notification to potentially affected jurisdictions of such incidents so that warning and evacuation of the public can be accomplished; and (2) defining program needs and requirements essential to maintain self-regulation by line managers, be responsive to public safety, and satisfy legal requirements during operations or emergency incidents at Reclamation facilities.

## **Fire Management**

### *Federal Laws and Statutes*

- **Timber Protection Act of September 20, 1922 (42 Stat. 857; 16 USC, Section 594)** authorizes the Secretary of the Interior is authorized to protect and preserve, from fire, disease, or the ravages of beetles, or other insects, timber owned by the United States upon the public lands, national parks, national monuments, Indian reservations, or other lands under the jurisdiction of the Department of the Interior owned by the United States, either directly or in cooperation with other departments of the Federal Government, with States, or with owners of timber; and appropriations are authorized to be made for such purposes;
- **Reciprocal Fire Protection Act of May 27, 1955 [69 Stat. 66; 42 USC, Sections 1856 and 1856(a)]** charges each agency head with the duty of providing fire protection for any property of the United States and is authorized to enter into a reciprocal agreement, with any fire organization maintaining fire protection facilities in the vicinity of such property, for mutual aid in furnishing fire protection for such property and for other property for which such organization normally provides fire protection;
- **Economy Act of June 30, 1932 (47 Stat. 417; 31 USC, Section 686)** allows the head of an agency or major organizational unit within an agency to place an order with a major organizational unit within the same agency or another agency for goods or services if: (a) amounts are available; (b) the head of the ordering agency or unit decides the order is in the best interest of the United States Government; (c) the agency or unit to fill the order is able to provide or get by contract the ordered goods or services; and (d) the head of the agency decides ordered goods or services cannot be provided by contract as conveniently or cheaply by a commercial enterprise;
- **Disaster Relief Act, Section 417 (PL 93-288)** provides an orderly and continuing means of assistance by the Federal Government to State and local governments in carrying out their responsibilities to alleviate the suffering and damage which result from such disasters by: (1) revising and broadening the scope of existing disaster relief programs; (2) encouraging the development of comprehensive disaster preparedness and assistance plans, programs, capabilities, and organizations by the States and by local governments; (3) achieving greater coordination and responsiveness of disaster preparedness and relief programs; (4) encouraging individuals, States, and local governments to protect themselves by obtaining insurance coverage to supplement or replace governmental assistance; (5) encouraging hazard mitigation measures to reduce losses from disasters, including development of land use and construction regulations; and (6) providing Federal assistance programs for both public and private losses sustained in disasters;

- **The Multiple-Use Sustained-Yield Act of June 12, 1960** authorizes and directs that the national forests be managed under principles of multiple use and to produce a sustained yield of products and services;
- **The Forest and Rangeland Renewable Resources Planning Act of August 17, 1974** provides for the Forest Service, Department of Agriculture, to protect, develop, and enhance the productivity and other values of certain of the Nation’s lands and resources, and for other purposes;

#### *Department of Interior Directives*

- **1998 Departmental Manual 620 Chapter 1, Wildland Fire Management General Policy and Procedures.**

### **Transportation**

#### *Federal Laws and Statutes*

- **Highway Safety Act of 1966, as amended**, provides for a coordinated national highway safety program through financial assistance to the States to accelerate highway traffic safety programs and for other purposes; and
- **Surface Transportation Act of 1978 and 1982, as amended**, authorizes appropriations for construction of certain highways in accordance with title 23, United States Code, for highway safety, for mass transportation in urban and rural areas, and for other purposes.

### **Range Management**

#### *Federal Laws and Statutes*

- **The Taylor Grazing Act of 1934 (43 USC, Section 315)** states “[T]he Secretary of the Interior is authorized, in his discretion, by order to establish grazing districts or additions thereto...of vacant inappropriate and unreserved lands from any part of the public domain...which in his opinion are chiefly valuable for grazing and raising forage crops[.]...” The act also provides for the classification of lands for particular uses;
- **The Public Rangelands Improvement Act of 1978 (43 USC, Section 1901)** provides that the public rangelands be managed so that they become as productive as feasible in accordance with management objectives and the land use planning process established pursuant to 43 USC, Section 1712; and
- **43 CFR, Part 4100 (Grazing Regulations)** provides uniform guidance for administration of grazing on the public lands exclusive of Alaska.

### **Public Safety**

#### *Federal Laws and Statutes*

- **The Federal Water Pollution Control Act of 1977 (33 USC, Section 1323)** requires Federal land managers to comply with all Federal, state, and local requirements, administrative authority, process, and sanctions regarding the control and abatement of water pollution in the same manner and to the same extent as any nongovernmental entity;

- **The Clean Water Act (CWA) of 1972, as amended (33 USC, Section 1251)** establishes objectives to restore and maintain the chemical, physical, and biological integrity of the nation's water;
- **The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended (42 USC, Sections 9601 et seq.),** also known as Superfund, is primarily intended to address risks posed to human health and welfare or the environment resulting from releases or potential releases of hazardous substances. Other key acts related to CERCLA include the following:
  - **Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA)** amends CERCLA/SARA (42 USC, Section 11001) and adds sections 120 and 121 dealing with Federal facilities;
  - **Community Environmental Response Facilitation Act of 1992 (CERFA)** amends CERCLA Section 120(h) (42 USC, Section 9620);
  - **Pollution Prevention Act of 1990 (42 USC, Section 13101)** sets a national policy that pollution should be prevented or reduced at the source whenever feasible; pollution that cannot be prevented should be recycled in an environmentally safe manner, whenever feasible; pollution that cannot be prevented or recycled should be treated in an environmentally safe manner whenever feasible; and disposal or other release into the environment should be employed only as a last resort and should be conducted in an environmentally safe manner;
  - **Resource Conservation and Recovery Act of 1976 (RCRA), as amended (42 USC, Sections 5 6901 et seq.)** purposes are to protect human health and the environment from the potential hazards of waste disposal, to conserve energy and natural resources, to reduce the amount of waste generated, and to ensure that wastes are managed in an environmentally sound manner. RCRA regulates the management of solid waste (e.g., garbage), hazardous waste, and underground storage tanks holding petroleum products or certain chemicals;
  - **Toxic Substances Control Act of 1976 (15 USC, Sections 2601 et seq.)** allows EPA to regulate new commercial chemicals before they enter the market, to regulate existing chemicals (1976) when they pose an unreasonable risk to health or to the environment, and to regulate their distribution and use;
  - **Federal Insecticide, Fungicide, and Rodenticide Act of 1975 (7 USC, Sections 136 et seq.)** sets up the basic U.S. system of pesticide regulation to protect applicators, consumers, and the environment;
  - **Clean Air Act of 1970, as amended (42 USC, Sections 7401 et seq.)** purposes are: (1) to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population; (2) to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution; (3) to provide technical and financial assistance to State and local

governments in connection with the development and execution of their air pollution prevention and control programs; and (4) to encourage and assist the development and operation of regional air pollution prevention and control programs;

- **Safe Drinking Water Act of 1974, as amended (42 USC, Sections 300 et seq.)** ensures the quality of Americans' drinking water. Under SDWA, EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards;
- **Hazardous Materials Transportation Act amendments of 1976 and 1990 (49 USC, Sections 1801 et seq.)** purpose is to provide adequate protection against the risks to life and property inherent in the transportation of hazardous material in commerce;
- **Executive Order 11514, Protection and Enhancement of Environmental Quality, 18 March 5, 1970**, sets a national policy to provide leadership in protecting and enhancing the quality of the Nation's environment to sustain and enrich human life. Federal agencies shall initiate measures needed to direct their policies, plans and programs so as to meet national environmental goals;
- **National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR, Part 20 300)** purpose is to provide the organizational structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances, pollutants, and contaminants;
- **Occupational Safety and Health Act of 1970, as amended**, assures safe and healthful working conditions for working men and women; by authorizing enforcement of the standards developed under the Act; by assisting and encouraging the States in their efforts to assure safe and healthful working conditions; by providing for research, information, education, and training in the field of occupational safety and health; and for other purposes; and
- **Lead-based Paint Poisoning Prevention Act, as amended**, purposes are: (1) to develop a national strategy to build the infrastructure necessary to eliminate lead-based paint hazards in all housing as expeditiously as possible; (2) to reorient the national approach to the presence of lead-based paint in housing to implement, on a priority basis, a broad program to evaluate and reduce lead-based paint hazards in the Nation's housing stock; (3) to encourage effective action to prevent childhood lead poisoning by establishing a workable framework for lead-based paint hazard evaluation and reduction and by ending the current confusion over reasonable standards of care; (4) to ensure that the existence of lead-based paint hazards is taken into account in the development of Government housing policies and in the sale, rental, and renovation of homes and apartments; (5) to mobilize national resources expeditiously, through a partnership among all levels of government and the private sector, to develop the most promising, cost-effective methods for evaluating and reducing lead-based paint hazards; (6) to reduce the threat of childhood lead poisoning in housing owned, assisted, or transferred by the Federal Government; and (7) to educate the public concerning the hazards and sources of lead-based paint poisoning and steps to reduce and eliminate such hazards.

### ***Reclamation Policies and Regulations***

- **Hazardous Waste and Materials Management Policy (ENV P01)** establishes the requirements and responsibilities for the management of hazardous waste generated by the Bureau of Reclamation at Reclamation facilities and the remediation of hazardous waste sites on Reclamation lands. This policy deals with hazardous materials only where required by related hazardous waste management regulations;
- **Pest Management Policy (ENV P02)** establishes policy for the management of pests on Reclamation lands. Reclamation is responsible for the identification and proper management of pests on Reclamation lands and at Reclamation-owned facilities in accordance with the national policies set out in FIFRA, Federal Noxious Weed Act, Carlson-Foley Act, and applicable State and local laws and standards;
- **Occupational Safety and Health Program Policy (SAF P01)** sets forth Reclamation-specific policy for the implementation and administration of an effective safety and health program. This includes safe and healthful working conditions and facilities to protect persons from injury/illness, to prevent accidental damage to facilities, and to prevent public exposure to unsafe conditions;
- **Pest Management/Resource Protection (Integrated Pest Management) Program Directive and Standard (ENV 01-01)** provides directives and standards for Reclamation personnel involved with the implementation of Pest Management/Resource Protection (PM/RP) plans for the operation and maintenance of Reclamation lands and facilities;
- **Public Notification of Aerial Pesticide Applications on Lands Managed Directly by Reclamation Directive and Standard (ENV 01-02)** provides directives and standards for Reclamation personnel involved in aerial applications of pesticides to lands managed directly by Reclamation;
- **Pollution Prevention-Hazardous and Solid Waste Minimization Directive and Standard (ENV 02-03)** establishes methods to minimize hazardous and solid waste produced at Reclamation facilities;
- **Emergency Management Directive and Standard (FAC 01-01)** provides for the safety of the public and protect environmental resources from incidents at our facilities by (1) taking reasonable and prudent actions necessary to ensure timely notification to potentially affected jurisdictions of such incidents so that warning and evacuation of the public can be accomplished; and (2) defining program needs and requirements essential to maintain self-regulation by line managers, be responsive to public safety, and satisfy legal requirements during operations or emergency incidents at Reclamation facilities; and
- **Hazardous Materials Directive and Standard (FAC 01-03)** provides for the safety of the public and protect environmental resources from incidents at our facilities by defining program needs and requirements essential to maintain self-regulation by line managers, be responsive to public safety, and satisfy legal requirements during operations or emergency incidents at Reclamation facilities.

# Visitor Use and Recreation

## Federal Laws and Statutes

- **Procedure to process and recover the value of rights-of-use and administrative costs incurred in permitting such use (43 CFR, Part 429)** intends to meet the requirements of the Independent Offices Appropriation Act [31 USC, Section 483(a)] and Departmental Manual Part 346, Chapters 1.6 and 4.10, to set forth procedures for Reclamation to recover the value of rights-of-use interests granted to applicants, and for the collection of administrative costs associated with the issuing of rights-of-use over lands administered by Reclamation;
- **Reclamation Recreation Management Act of 1992** is an amendment to the Federal Project Recreation Act of 1965, PL 89-72, that provides up to 50 percent Federal cost sharing for the planning, construction, and operation and maintenance of recreation facilities with non-Federal public entities. It also provides 75 percent Federal cost sharing with non-Federal partners for fish and wildlife enhancement and up to 50 percent of the operation and maintenance of such facilities. Non-Federal public entities that have agreed to manage developed facilities and lands at Reclamation projects are to work with local Reclamation offices to identify proposed projects for funding. Congressional funds are appropriated annually and distributed for selected sites;
- **Public conduct on Reclamation lands and projects (43 CFR, Part 423)**, established on April 17, 2002, is meant to maintain law and order and protect persons and property on Reclamation lands and at Reclamation projects. This statute at the time of authorization honored all designated closures and special use areas on Reclamation property.
- **The Reclamation Act of 1902, as amended** set aside Federal money to irrigate lands in the West to promote farming and vested Reclamation with the authority to operate water projects;
- **36 CFR, Part 71, Recreation Fees**, specifies the criteria under which recreation fees may be charged on Federal lands. Fees must be entrance fees, daily recreation use fees, or special use permit fees. Areas with recreational facilities provided at Federal government expense are eligible to charge use fees;
- **43 CFR, Part 24, Department of the Interior Fish and Wildlife Policy: State- Federal Relationships**, establishes policy on intergovernmental cooperation for the management, use, and preservation of fish and wildlife resources;
- **The Federal Water Project Recreation Act of 1965, as amended**, mandates that planning for any Federal water resource project must address opportunities for recreation and fish and wildlife enhancement;
- **The Land and Water Conservation Fund Act of 1964** directed the Secretary of the Interior to inventory, evaluate and classify outdoor recreation facilities, and formulate and maintain a comprehensive nationwide outdoor recreation plan;

- **PL 106-206, Commercial Filming**, established the requirement of a permit and reasonable fee for filming on lands under the supervision of the Secretary of Interior or Secretary of Agriculture;
- **Americans with Disabilities Act of 1990** prohibits private employers, state and local governments, employment agencies and labor unions from discriminating against persons with physical disabilities; and
- **Office of Management and Budget (OMB) Circular A-025, Revised 1993** establishes Federal policy regarding fees assessed for Government services and for sale or use of Government goods or resources. It provides information on the scope and types of activities subject to user charges and on the basis upon which user charges are to be set. Finally, it provides guidance for agency implementation of charges and the disposition of collections.

## Socioeconomics and Environmental Justice

### Federal Laws and Statutes

- **Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations** requires that Federal Agencies make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations;

### Reclamation Policies and Regulations

- **Compliance with Civil Rights Laws and Regulations Directive and Standard (PEC 10-25)** states that the contractor must comply with Title VI of the Civil Rights Act of 1964, the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, and any other applicable civil rights laws. Contractors must also comply with any implementing regulations or guidelines imposed by the U.S. Department of the Interior and/or Bureau of Reclamation. Any complaints of discrimination against the contractor will be investigated by the Contracting Officer's Office of Civil Rights;
- **Public Civil Rights Policy (CRM P01)** establishes and conveys the policy of the Bureau of Reclamation's prohibition against discrimination in its programs, services and activities: (a) receiving Federal financial assistance; or (b) conducted by, or on behalf of, Reclamation. The benefits of this Policy are ensuring compliance, operational effectiveness, and consistency in implementing Federal Public Civil Rights laws and regulations of the Department of the Interior, Department of Justice, and Reclamation; and
- **The Accessibility Program, or Nondiscrimination on the Basis of Disability in Federally Conducted Programs, Activities, and Services (CRM 03-01)** standardizes and clarifies requirements to ensure compliance with nondiscrimination laws covering persons who have disabilities for consistent implementation throughout the Bureau of Reclamation. The benefits of this Directive and Standard are twofold: (1) public access to, and benefit from, programs, activities and services; and (2) clarification of roles and responsibilities.

# Paleontological Resources

## Federal Laws and Statutes

- **PL 111-011, Omnibus Public Land Management Act of 2009** requires the Department of the Interior to manage and protect paleontological resources on Federal land using scientific principles and expertise.

APPENDIX D

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Public Meeting Notices, Materials, and Summaries

**Mid-Pacific Region  
Sacramento, CA**

MP-10-015

Media Contact: Pete Lucero, 916-978-5100, [plucero@usbr.gov](mailto:plucero@usbr.gov)

For Release On: January 25, 2010

## **Reclamation to Hold Public Scoping Meeting on a Proposed RMP/EIS for Contra Loma Reservoir and Recreation Area**

The Bureau of Reclamation will hold a Public Scoping Meeting on Monday, February 8, 2010, to solicit comments on the preparation of a Resource Management Plan (RMP) and Environmental Impact Statement (EIS) for the Contra Loma Reservoir and Recreation Area (CLRRA). The EIS will be developed consistent with requirements of the National Environmental Policy Act. A Notice of Intent to prepare the RMP/EIS was published in the Federal Register on November 12, 2009.

Located in Antioch, California, Contra Costa County, Contra Loma Reservoir is part of the Central Valley Project and is managed by the Mid-Pacific Region's South-Central California Area Office. The CLRRA is operated and maintained by the East Bay Regional Park District (EBRPD) under a Management Agreement with Reclamation. The Management Agreement includes multiple subleases issued by EBRPD that will expire on December 31, 2010. The EBRPD is interested in renewing the CLRRA Management Agreement with Reclamation.

The RMP/EIS would establish uniform policy and land management guidelines that promote an organized use, development, and management of the Contra Loma Reservoir and the surrounding recreational area lands compatible with applicable Federal and State laws. The RMP would incorporate all information pertinent to the future guidance of the CLRRA and would serve as the basis for future decisionmaking for the area. Through the scoping meeting, Reclamation will solicit public input on concerns, issues, and alternatives to be addressed in the RMP/EIS. The meeting will be held:

**Monday, February 8, 2010, 6:30-8:30 p.m.**

Nick Rodriguez Community Center  
City of Antioch Recreation Department  
213 F Street, Antioch, CA 94509

For additional information, please contact Ms. Sheryl Carter at Reclamation's South-Central California Area Office at 559-487-5299 (TTY 1-800-735-2929) or e-mail [scarter@usbr.gov](mailto:scarter@usbr.gov), or Mr. Scott Goebel, North State Resources, at 916-446-2566, extension 202.

###

Reclamation is the largest wholesale water supplier and the second largest producer of hydroelectric power in the United States, with operations and facilities in the 17 Western States. Its facilities also provide substantial flood control, recreation, and fish and wildlife benefits. Visit our website at <http://www.usbr.gov>.

**Minutes  
Public Scoping Meeting**

Contra Loma Reservoir and Recreation Area RMP/EIS  
@ Nick Rodriguez Community Center  
February 8, 2010  
630 pm – 830 pm

**Attendees**

Project Team:

Sheryl Carter, Reclamation

Rain Healer, Reclamation

Scott Goebel, North State Resources (NSR)

Leslie Wagner, NSR

See sign-in sheet for public attendees.

**Format of Meeting**

NSR (Scott Goebel) introduced the project team and welcomed the attendees to the meeting. He provided a presentation on the project and purpose of the RMP/EIS and explained the intent of the scoping meeting. Following the presentation, the public was invited to ask questions and provide verbal comments. Comment forms were available for people wishing to submit written comments.

**Verbal Comments**

Most of the comments received at the meeting were focused on the need for improved and additional soccer fields at the Antioch Community Park. Several comments were also received on improving recreational opportunities at Contra Loma Reservoir. The comments from individuals are summarized in the following table.

<b>Commenter</b>	<b>Comment Summary</b>
Roy Immekus, DYSL	<ul style="list-style-type: none"><li>▪ Community growth needs to be considered to ensure enough ball fields are available for youth into the future.</li><li>▪ The City does not currently have enough ball fields for youth soccer.</li><li>▪ The area south of the existing fields at the community park should be considered for expansion of the soccer fields at the park.</li><li>▪ Ball fields require little to establish—just a flat area and grass.</li></ul>

**Commenter**

**Comment Summary**

<p>Paul Adler, Supervisor Glover's Office (Contra Costa County)</p>	<ul style="list-style-type: none"><li>▪ Current use of the soccer fields at the park includes 60-150 children each weekday and approximately 400 children on Saturdays.</li><li>▪ Some children must travel to Pittsburg to play because of fields in Antioch being unavailable.</li><li>▪ DYSL wants all children to have the opportunity to play, but does not want them to have to travel outside the community to play.</li><li>▪ Youth baseball is also sometimes restricted at the park because there are not enough fields.</li><li>▪ The City wants the opportunity to expand the fields and extend its agreement to continue maintaining the park.</li><li>▪ The County recommends renewing the agreement with the City.</li><li>▪ Soccer fields should be expanded and have turf instead of grass.</li><li>▪ Increased youth sport opportunities would benefit the community.</li><li>▪ The park improvements would be consistent with ongoing infrastructure and Highway 4 improvements being implemented by the County.</li></ul>
<p>Tom Menell</p>	<ul style="list-style-type: none"><li>▪ Fields in Antioch close when it rains, and youth must drive to Danville or other communities to play.</li><li>▪ Turf surface is preferred to allow all-weather play, and it has low water needs.</li><li>▪ Fields in Brentville are also used on occasion if the fields in Antioch are not available.</li><li>▪ Fields are not always watered due to water supply shortages, which poses a hazard to players because of dry or barren patches and uneven surfaces.</li></ul>
<p>Dee Vieira</p>	<ul style="list-style-type: none"><li>▪ Teams are not able to practice enough because local fields are not always available.</li><li>▪ Fields in poor condition create safety concerns.</li><li>▪ No current turf fields exist in Antioch; turf fields would expand opportunities for youth practice.</li></ul>
<p>Allen Payton, Turf and Track Group</p>	<ul style="list-style-type: none"><li>▪ Turf surface should be considered for safety reasons. It requires little maintenance and provides year-round opportunities.</li></ul>

**Commenter**

**Comment Summary**

Manny Flores, Antioch Parks and Recreation Commission	<ul style="list-style-type: none"><li>▪ Existing fields pose safety concerns—potholes, gopher holes, uneven surfaces, slopes, dry grass.</li><li>▪ Opportunities appear to be available at the regional park to provide more fields for the community park.</li><li>▪ Use of turf could alleviate safety concerns.</li></ul>
Will Linville, DYSL	<ul style="list-style-type: none"><li>▪ Turf fields are recommended to alleviate safety concerns.</li><li>▪ As a soccer coach, Will would like to see turf fields at the park to expand opportunities for youth sports.</li><li>▪ Lights on fields would also provide more opportunities for playing.</li><li>▪ Available land near the community park should not be used for another purpose that could permanently convert it into a non-compatible use, resulting in the lost opportunity to expand soccer fields.</li><li>▪ DYSL’s goal is to provide opportunities for more children to play soccer.</li><li>▪ Existing fields could be replaced with turf, but expansion on available land should also be considered.</li><li>▪ Youth are not currently able to practice in evenings (after dark) or if it rains because the fields at the community park are shut down. This forces kids to leave the area in order to get more playing opportunities.</li><li>▪ Turf would expand opportunities for soccer, softball, and football and provide year-round opportunities.</li></ul>
Dave Sanderson, City of Antioch	<ul style="list-style-type: none"><li>▪ The City is currently applying to put turf and lights at the existing soccer fields at the community park.</li><li>▪ The City is working with EBRPD to implement the upgrades.</li><li>▪ These field improvements would help, but they would not expand opportunities, which are needed to provide more children with the opportunity to play locally.</li></ul>
Shari Gayle	<ul style="list-style-type: none"><li>▪ Water quality is a concern in the reservoir.</li><li>▪ Invasive species, such as carp and mussels, are also a concern.</li><li>▪ CCWD is aware of the issues with zebra and quagga mussels and New Zealand mud snails.</li></ul>

**Commenter**

**Comment Summary**

Douglas Young

Janet Gomes, EBRPD

- Carp are currently removed annually when biologists survey the reservoir during draw downs.
- The current economy increases the potential for pests to be introduced to the reservoir.
- Carp is a concern, but not necessarily a major issue.
- Mussels may clog the outlet pipes.
- Reclamation programs to manage mussels will need to be considered.
- Largemouth bass may be affected by reservoir draw downs, resulting in a reduced bass population, which affects the recreational fishery.
- The timing of the draw downs may coincide with bass spawning and may prevent bass from spawning.
- A study should be done to evaluate these effects.
- Additional fishing docks are needed to support the fishermen.
- Opportunities should be provided for children to fish and use the reservoir.
- Organized group camps would be beneficial for scouts and other children's groups.
- A year-round surface should be considered for the lake trail because of inaccessibility during wet weather (muddy conditions).

# RECLAMATION

*Managing Water in the West*



The U.S. Bureau of Reclamation invites you to a

## Public Workshop for the Contra Loma Reservoir and Recreation Area Resource Management Plan

Wednesday, August 4, 2010  
6:00 – 9:00 pm

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Sutter Elementary School • 3410 Longview Road • Antioch, CA 94509

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The U.S. Bureau of Reclamation is preparing a Resource Management Plan (RMP) for the Contra Loma Reservoir and Recreation Area (Contra Loma), which includes the Contra Loma Regional Park and the Antioch Community Park. This is your chance to help guide the future management of recreational uses and natural, cultural, and water resources at Contra Loma.

As public participants, you will have the opportunity to:

- **Learn** about the planning and environmental review process
- **Identify** key resource or land use issues at Contra Loma
- **Provide opinions** about the recreational uses and facilities now at Contra Loma Regional Park and the Antioch Community Park
- **Identify** opportunities for improving resource management and recreational experiences

**The success of the Contra Loma Resource Management Plan depends on public involvement. Attend the workshop to share your thoughts and ideas!**

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Beverages and light snacks will be provided.

For more information about the public workshop, please contact Ben Gettleman at 415-391-7900, [bgettleman@kearnswest.com](mailto:bgettleman@kearnswest.com) or visit [www.ebparks.org/planning](http://www.ebparks.org/planning). For more information about the RMP process, please contact Sheryl Carter at 559-487-5299, [scarter@usbr.gov](mailto:scarter@usbr.gov).

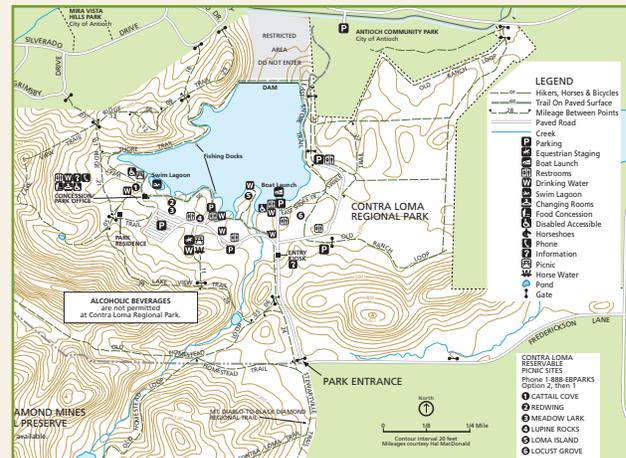


U. S. Department of the Interior  
Bureau of Reclamation

## What is the Contra Loma Reservoir and Recreation Area?

The Contra Loma Reservoir and Recreation Area encompasses an 80-acre reservoir, the 780-acre Contra Loma Regional Park and the Antioch Community Park. The area is owned by the U.S. Bureau of Reclamation (Reclamation) and managed by the East Bay Regional Park District (EBRPD), the Contra Costa Water District (CCWD) and the City of Antioch.

The reservoir regulates peak and short-term water supplies and provides emergency storage for CCWD customers throughout central and eastern Contra Costa County. The reservoir is managed and operated by CCWD. The facilities at the regional park, managed by the EBRPD, offer a variety of recreational uses, such as fishing, picnicking, hiking, wildlife observation, and swimming, and local residents use the Community Park for soccer, baseball or softball, walking, and picnicking.



## What plan is being developed for Contra Loma?

Reclamation is preparing a Resource Management Plan (RMP) for Contra Loma. The RMP will be the guide for future land and water resources management decisions at Contra Loma. The RMP is intended to establish uniform policy and land management guidelines that promote organized use, development, and management of Contra Loma while protecting water quality, water supply, and natural and cultural resources. Reclamation will also prepare an Environmental Impact Statement (EIS) to evaluate the environmental effects of implementing the RMP. The RMP and EIS will be prepared as a single document. A draft of the RMP/EIS will be available for public review by the fall of 2012.



## What is the format of the August 4<sup>th</sup> workshop?

The workshop will begin with an overview presentation by the project team, followed by an opportunity for participants to visit topic stations (including current and future uses, natural resources, and others), learn more about the process, and submit comments on those topics.

## Why should I attend?

Engaged participation by the public, user organizations, and agencies is critical to the success of this planning effort. Your ideas, concerns, and comments will inform the development of the RMP/EIS for management of Contra Loma's valuable resources.

## What if I can't attend the workshop in person?

If you are not able to attend the workshop, the presentation and meeting materials will be available at [www.ebparcs.org/planning](http://www.ebparcs.org/planning). You may provide your comments, questions and concerns on these issues to Ben Gettleman at: (415) 391-7900, [bgettleman@kearnswest.com](mailto:bgettleman@kearnswest.com).

A second public workshop will take place in the winter of 2010 to summarize the results of the public involvement process, to present possible alternatives for the RMP, and seek comments about those alternatives. Visit the program website for more details as they become available: [www.ebparcs.org/planning](http://www.ebparcs.org/planning).

# RECLAMATION

*Managing Water in the West*



## Notice of Public Workshop

Wednesday, August 4, 2010

6:00 – 9:00 pm

Sutter Elementary School • 3410 Longview Road • Antioch, CA 94509

The U.S. Bureau of Reclamation (Reclamation) invites you to attend a public workshop to inform the development a Resource Management Plan (RMP) for the Contra Loma Reservoir and Recreation Area (Contra Loma), which includes Contra Loma Regional Park and Antioch Community Park.

As public participants, you will have the opportunity to:

- **Learn** about the planning and environmental review process
- **Identify** key resource or land use issues at Contra Loma
- **Provide opinions** about the recreational uses and facilities now at Contra Loma Regional Park and Antioch Community Park
- **Identify** opportunities for improving resource management and recreational experiences

**This is your chance to help guide the future management of recreational uses and natural, cultural, and water resources at Contra Loma. Attend the workshop to share your thoughts and ideas!**

For more information about the public workshop, please contact Ben Gettleman at 415-391-7900, [bgettleman@kearnswest.com](mailto:bgettleman@kearnswest.com) or visit [www.ebparcs.org/planning](http://www.ebparcs.org/planning). For more information about the RMP process, please contact Sheryl Carter at 559-487-5299, [scarter@usbr.gov](mailto:scarter@usbr.gov).

# RECLAMATION

*Managing Water in the West*



## Contra Loma Reservoir and Recreation Area Resource Management Plan Public Workshop

Wednesday, August 4, 2010

Sutter Elementary School • Antioch, CA

### FINAL MEETING SUMMARY

#### I. Workshop Purpose

A public workshop was convened by the U.S. Bureau of Reclamation (Reclamation) on August 4, 2010 in Antioch, California to solicit input for development of a Resource Management Plan (RMP) for the Contra Loma Reservoir and Recreation Area (Contra Loma). The purpose of the public workshop was to provide an overview of the planning and environmental review process, identify key resource and land use issues, solicit input (i.e., comments and information) about Contra Loma, and identify opportunities, and constraints to manage the resources at Contra Loma. The workshop agenda is attached as Appendix A.

#### II. Welcome and Project Overview

Sheryl Carter, Reclamation, welcomed participants and provided an overview of Reclamation and the RMP process. Ms. Carter noted the following key points: Reclamation owns Contra Loma and manages it in partnership with the City of Antioch, East Bay Regional Park District (EBRPD), and Contra Costa Water District (CCWD); the current management agreement with EBRPD will expire in December 2010, and a new agreement will be needed that incorporates decisions in the RMP; and the goal of the workshop is to solicit comments on how the public would like to see Contra Loma and its resources managed in the future.

Scott Goebel, NSR, further described Contra Loma, its managing partners, and the RMP process. Mr. Goebel clarified that Contra Loma includes three main areas: Antioch Community Park, Contra Loma Reservoir, and Contra Loma Regional Park. He also noted the following key points regarding the current management and use of Contra Loma: Antioch Community Park is managed by the City of Antioch, and it includes many recreational opportunities including softball fields, picnic areas, and trails; the reservoir is operated by CCWD and its main purpose is to supply drinking water (and therefore water quality is the highest priority); and Contra Loma Regional Park is managed by EBRPD and provides recreational activities including a swim lagoon, fishing, and hiking.

Mr. Goebel clarified that the RMP is a land use management plan that will guide the future management of resources of this area for at least the next 10 years and that the input received at this workshop would inform the development of RMP alternatives. He added that these alternatives would be available for review at a second public workshop planned for January 2011, and that based on public comments received at that time, the alternatives are expected to be refined to three alternative management scenarios.

<sup>1</sup> This summary represents Kearns & West's efforts to synthesize the input received by workshop participants as well as the responses provided by project staff. This report focuses on summarizing the public's input on key issues; it is not intended to serve as a transcript of all issues discussed or points made.



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Bureau of Reclamation

### III. Workshop Topic Stations

Ben Gettleman, Kearns & West, explained the structure and flow of the four topic stations. He noted that at each station, participants would be asked to provide feedback on what is working (priorities), what is not working (concerns), and how it could be improved (opportunities). Each topic station was staffed by a lead and at least one representative from the managing partner agency to answer questions about the RMP process or the area being managed.

Topic Station	Topic	Station Lead	Partner Representative
1	RMP/EIS Process	Scott Goebel (NSR)	
2	Contra Loma Regional Park	Leslie Wagner (NSR)	Anne Rivoire (EBRPD) and other EBRPD staff
3	Contra Loma Reservoir	Sheryl Carter (Reclamation)	Fran Garland (CCWD)
4	Antioch Community Park	Rebecca Gaertner (NSR)	Lonnie Karste (City of Antioch)

The public comments received at each topic station are summarized below:

#### 1. RMP/EIS Process

##### A. What is working (priorities)?

- Sincere appreciation and enjoyment of the park.

##### B. What is not working (concerns)?

- One commentor recently observed an abundance of dead clams around the reservoir shoreline. The commentor is concerned that the dead clams are an indication of poor water quality.
- Over the past 2 years, fewer dragonflies and small fish have been observed along the shoreline.
- Fish catches appear to be down recently.
- Water levels appear to be lower recently.
- Black bass and crappie populations appear to be decreasing. Water level fluctuations may be inhibiting regeneration. These fish lay eggs on the reservoir bottom in April/May. Lowering the reservoir level below the level of the eggs causes egg mortality.
- Algae blooms appear in backwater areas. They are unsightly and promote neglect.
- Apparent abundance of animal feces (geese, horses, dogs) is noticeable around the reservoir, which could reduce reservoir water quality. The feces is unsightly and promotes neglect of reservoir and recreational area.

##### C. How could it be improved (opportunities)?

- Water quality sampling locations should be distributed more widely around the reservoir.
- Maintain water level at a constant elevation in April/May to allow black bass and crappie eggs to hatch. After April/May water level fluctuations would not affect these fish.
- One solution to the feces issue would include abundant signage with telephone contact information to report problems. Suggest placing at least 10 dog feces bag stations throughout the park and adding more garbage cans on NW shore, east shore and dam.

#### 2. Contra Loma Regional Park

##### A. What is working (priorities)?

- Job opportunities – L.G./swim instructors (EBRPD)
- Swimming lessons
- Jr. lifeguard program
- Swimming test – maintains safety
- Swim instructors – very helpful
- Picnic areas – kept clean
- Management of capacity in lagoon area
- Swim program
  - o Keeping children safe/life skills
  - o A place for families to bond
  - o Job placement (JG's)
- Public safety (police/fire) coverage
- Jr. lifeguard program builds self worth and confidence for children

- Community enrichment
  - Friday naturalist programs
  - Trail quality (much improved)
  - Great park for dogs
- B. *What is not working (concerns)?*
- The trails around the west shore get muddy.
  - More shade is needed around the lawn at the swim lagoon.
  - There is not enough parking at lagoon.
  - The swim lagoon is too small.
  - There are not enough restroom facilities.
  - Children ages 0-5 need a separate safe pool for improved safety (or a portion of existing lagoon should be roped off for toddlers ages 0-5).
  - Animal (dog/horse) feces is noticeable along trails around the reservoir.
  - There is not enough shade along the trails.
  - There is not enough defined off-leash dog areas.
  - Horses near the reservoir may pose water quality concerns (feces)
  - Restrictions on kayaking to reduce human contact are too severe.
  - There are limited mountain bike loop trail opportunities.
- C. *How could it be improved (opportunities)?*
- Placing gravel along the west shore trails could keep them from getting muddy.
  - More trees around the park, and especially on the west shore would increase shade.
  - Add building/facilities for classes and better bathrooms.
  - Expand gravel/overflow parking.
  - Have more public clean-up days.
  - Issue more littering tickets.
  - Add a secure locked “donation box” for walk-ins.
  - Expand lagoon or add additional swim areas.
  - Improve communication between kiosk attendants/lagoon kiosk attendant/lifeguards/rangers and naturalist programs.
  - Create multi-use trail connectors in the following locations:
    - o Between the bulletin board at the stop sign area and the gravel road
    - o Between the boat ramp and the creek side bridge along the water
    - o A full circle around the island (should be gravel)
    - o Between the boat ramp and the east shore trail
    - o At the entrance road
  - Make lagoon “non-smoking only” and designate smoking area down-wind from swimmers.
  - Patrol and clean up trails at least daily to remove feces/garbage.
  - Place more garbage cans along trails.
  - Place at least 10 dog feces bag stations at garbage cans and along trails.
  - Improve signs about cleaning up feces, using large text that is easy to understand.
  - Plant trees along trails for shade.
  - Designate more off-leash dog areas, perhaps including:
    - o A dog park within the park
    - o An off-leash area SE of the reservoir in the grassy area (#1 or #2)<sup>2</sup>
  - Educate users about keeping the park clean, especially the picnic areas.
  - Use rangers to patrol and talk to users about keeping the park clean. Consider using bilingual rangers.
  - Add more signs to clean up picnic areas. These signs should:
    - o Be at each table
    - o Be bilingual
    - o Notify park users about about fines/non-compliance
  - Expand trails available to mountain bikes,

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<sup>2</sup> See Appendix B: Map of Contra Loma Regional Park. Participants were able to number areas of the map to comment on.

### 3. Contra Loma Reservoir

#### A. *What is working (priorities)?*

- Water and open space matter to:
  - People: health, fitness, spirituality, fun
  - Flora & fauna: habitats, ecosystems
- The lagoon's separation from the reservoir maintains the primary objective of maintaining water quality.

#### B. *What is not working (concerns)?*

- Lake levels are inconsistent and no warning or notification is provided about fluctuations.
- Trash is exposed or trapped during low water levels.
- Algae is observed on the lake and the shore.
- Fish carcasses are observed along shore, possibly left by birds, fishermen, or nature.
- Restrictions on kayaking to reduce human contact are too severe.

#### C. *How could it be improved (opportunities)?*

- Consider removing trash and dead tules from the reservoir when water levels are low.
- Remove fish carcasses daily.
- Explain the source of the algae and whether it is caused by neglect.
- Clean up will prevent bad odors from algae and reduce the appearance of neglect.
- Relax restrictions on kayaking.

### 4. Antioch Community Park

#### A. *What is working (priorities)?*

- The park is clean and well-maintained in general. Some exceptions include garbage, excrement, and graffiti.
- The park offers abundant team sports with good schedules.
- The facilities are effectively used.
- There is great shade at picnic and play areas.

#### B. *What is not working (concerns)?*

- There should be less focus on baseball fields and more focus on mixed-use fields. The third baseball diamond should be converted to a multi-use field.
- There is a lack of community presence (e.g., not enough sign-up sheets for special events)
- There is a lack of ranger presence.
- There are not enough garbage bins along the dam.
- There is a lack of dog-waste bags.
- There should be more public input regarding marketing of recreation programs on the site.
- Play structure cleanliness could be improved.
- Car break-ins have increased recently.
- The area between the parking lot and the trail on the west side of the park is unfinished and suffers from erosion.
- The grass area on the west side of the park is not complete and becomes muddy.
- Gate closure times should be specific.
- The gate attendant can be grumpy.
- The soccer fields should be better maintained to address drainage, gophers, and turf quality.
- The soccer fields are not usable in wet weather
- The soccer and multi-use fields are not lighted, which limits use in the winter.

#### C. *How could it be improved (opportunities)?*

- Reduce flooding at map location #1<sup>3</sup>.
- Increase police patrols in parking lots.
- Increase trails along the creek and riparian area and improve interconnection between trail systems.
- Improve playground cleanliness, possibly with power washing.
- Eliminate the playground sand or replace the sand with clean sand
- Increase police presence.
- Improve muddy areas with grass or gravel.
- Clear figs on the play area more regularly.

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<sup>3</sup> See Appendix C: Map of Antioch Community Park.

- Improve pathway lighting.
- Create a botanical garden in the open space adjacent to the soccer fields.
- Expand the area for soccer and multi-use fields by adding fields to the south.
- Install lighting on the soccer/multi-use fields.
- Install synthetic fields for all-weather use
- Improve maintenance of existing soccer fields
- Replace the existing natural turf on soccer fields with Bermuda or other more robust turf.

#### IV. Workshop Recap and Next Steps

Following the topic station session, the leads for each station reported back to the group on key themes.

- 1. RMP/EIS:** There were general concerns about water quality issues, citing increased sightings of dead clams on the shoreline and fewer sightings of insects and small fish. The suggestion to keep the reservoir's water level steady in April/May was also noted.
- 2. Contra Loma Regional Park:** Participants enjoy the park in general, particularly the swimming area and job opportunities. This park could benefit from improved trails, picnic areas, and additional signage.
- 3. Contra Loma Reservoir:** This area is used a lot and is important. People wanted to know more about when water levels will change and whether this reservoir is regularly patrolled or cleaned.
- 4. Antioch Community Park:** This park is well maintained and enjoyed by users. Participants would like to see the trails better connected, the multi-use facilities and areas increased, and police presence increased.

Comments during this round will be received until August 31, 2010. To receive a Comment Form or additional information, please email or call Ben Gettleman: [bgettleman@kearnswest.com](mailto:bgettleman@kearnswest.com), (415) 391-7900. A second public workshop is planned for January 2011, where Reclamation will solicit feedback on the alternative RMP packages.

## Public Workshop Agenda

Wednesday, August 4, 2010 • 6:00 – 9:00 pm

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Sutter Elementary School • 3410 Longview Road • Antioch, CA 94509

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### Workshop Goals

During the workshop, public participants will:

- **Learn** about the planning and environmental review process
- **Identify** key resource or land use issues at Contra Loma
- **Provide opinions** about the recreational uses and facilities now at Contra Loma Regional Park and the Antioch Community Park
- **Identify** opportunities for improving resource management and recreational experiences

### Workshop Agenda

**5:30 pm – 6:00 pm: Registration**

**6:00 pm – 6:15 pm: Welcome and Project Overview**

The project team will provide an overview of the management plan and environmental review processes. They will also outline the flow of the workshop.

**6:15 pm – 8:30 pm: Workshop Topic Stations**

Workshop attendees will visit the topic stations and provide comments. The project team and managing partner agency staff will be available at each station to discuss specific aspects of Contra Loma, to answer questions and to receive your feedback.

#### Topic Stations:

- Station 1: Contra Loma RMP/EIS Process
- Station 2: Contra Loma Regional Park
- Station 3: Contra Loma Reservoir
- Station 4: Antioch Community Park

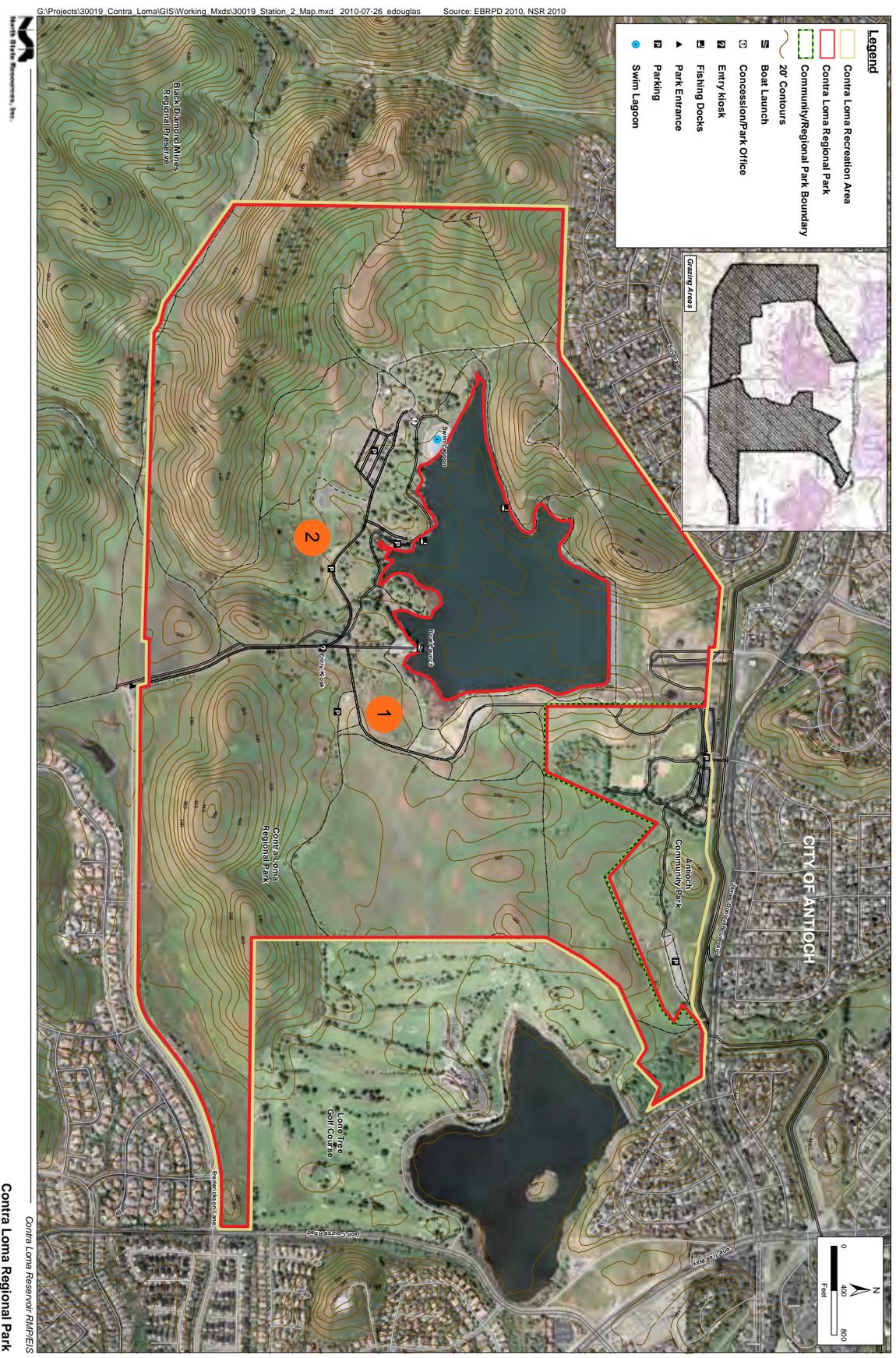
**8:30 pm – 9:00 pm: Report Back and Next Steps**

Key themes and issues from each topic station will be shared with the larger group. The project team will also discuss next steps and future opportunities for public involvement.

### Background

The U.S. Bureau of Reclamation (Reclamation) is preparing a Resource Management Plan (RMP) for the Contra Loma Reservoir and Recreation Area (Contra Loma), which includes the Contra Loma Regional Park and the Antioch Community Park. The RMP is intended to establish uniform policy and land management guidelines that promote organized use, development, and management of Contra Loma while protecting water quality, water supply, and natural and cultural resources.

# Contra Loma Regional Park



# Antioch Community Park



## Workshop Attendees

<b>Name</b>	<b>Organization/Affiliation</b>
Martha Parsons	Antioch City Council
Lonnie Karste	City of Antioch
Brian Hooker	Congressman Garamendi
Fran Garland	Contra Costa Water District
Scott Bartlebaum	Delta Youth Soccer League
Neal Fujita	East Bay Regional Park District
Nancy Kalser	East Bay Regional Park District
Matt Medison	East Bay Regional Park District
Dan McCormick	East Bay Regional Park District
Paul Miller	East Bay Regional Park District
Anne Rivoire	East Bay Regional Park District
Anne Scheer	East Bay Regional Park District
Dania Stoneham	East Bay Regional Park District
Jeff Wilson	East Bay Regional Park District
Ben Gettleman	Kearns & West (Facilitation support)
Christine Lim	Kearns & West
Rebecca Gaertner	North State Resources
Scott Goebel	North State Resources
Leslie Wagner	North State Resources
Rich Brownley	Participant
Daniel Herzberg	Participant
Steve Lucky	Participant
Janet Ray	Participant
Cort Wilcox	Participant
Christina Wilcoy	Participant
Cuiqui Hernandez	St. Anthony Church
Nely Rubio	St. Anthony Church
Maricelo Reynoso	St. Anthony Church
Sheryl Carter	U.S. Bureau of Reclamation
Dan Broin	Village Community Resource Center
Eric Hoffman	Village Community Resource Center
Anthony Murillo	Village Community Resource Center

**Mid-Pacific Region  
Sacramento, CA**

MP-11-022

Media Contact: Pete Lucero, 916-978-5100, [plucero@usbr.gov](mailto:plucero@usbr.gov)

For Release On: February 24, 2011

## **Reclamation Announces Scoping Meeting on Management Plan for Contra Loma Reservoir and Recreation Area**

The Bureau of Reclamation will hold a public meeting on the scope of issues related to a Resource Management Plan and Environmental Impact Statement for the Contra Loma Reservoir and Recreation Area.

The East Bay Regional Park District operates the area in Contra Costa County for Reclamation under an interim agreement and has requested a renewal of that plan. A Resources Management Plan (RMP) addresses the resources of an area and provides future objectives, goals and management direction on recreational lands. An environmental impact statement must be prepared on an RMP.

The public meeting will be in:

Antioch  
Thursday, March 3, 2011  
6 p.m.-8 p.m.  
Prewett Family Park and Community Center  
4701 Lone Tree Way, Antioch, CA 94531

For additional information, please call Sheryl Carter at Reclamation's South-Central California Area Office at 559-487-5299 (TDD 1-800-735-2929).

###

Reclamation is the largest wholesale water supplier and the second largest producer of hydroelectric power in the United States, with operations and facilities in the 17 Western States. Its facilities also provide substantial flood control, recreation, and fish and wildlife benefits. Visit our website at <http://www.usbr.gov>.

# RECLAMATION

*Managing Water in the West*



The U.S. Bureau of Reclamation invites you to a

## Public Workshop for the Contra Loma Reservoir and Recreation Area Resource Management Plan

Thursday, March 3, 2011  
6:00 – 8:00 pm

Prewett Family Park & Community Center • 4701 Lone Tree Way • Antioch, CA 94531

The U.S. Bureau of Reclamation is preparing a Resource Management Plan (RMP) to guide future management of the Contra Loma Reservoir and Recreation Area (Contra Loma), which includes Contra Loma Regional Park and Antioch Community Park. The March 3 workshop is another chance to help guide the future management of recreational uses and natural, cultural, and water resources at Contra Loma.

As workshop participants, you will have the opportunity to:

- **Learn** about the process and timeline for Contra Loma planning and environmental review
- **Understand** how community input has helped inform the process to date
- **Provide input** on possible future actions and how they relate to uses, including recreation
- **Identify** additional opportunities for improving resource management and recreational experiences at Contra Loma

**The continued success of Contra Loma management depends on your involvement.**

**Attend the workshop to share your thoughts and ideas!**

If you plan on attending, please **RSVP** by **Monday, February 28<sup>th</sup>** to Christine Lim at 415-391-7900, [clim@kearnswest.com](mailto:clim@kearnswest.com)

Beverages and light snacks will be provided.

### Workshop Location



For more information about the public workshop, please contact Christine Lim at 415-391-7900, [clim@kearnswest.com](mailto:clim@kearnswest.com) or visit [www.ebparcs.org/planning#contraloma](http://www.ebparcs.org/planning#contraloma). For more information about the RMP process, please contact Sheryl Carter at 559-487-5299, [scarter@usbr.gov](mailto:scarter@usbr.gov).



U. S. Department of the Interior  
Bureau of Reclamation

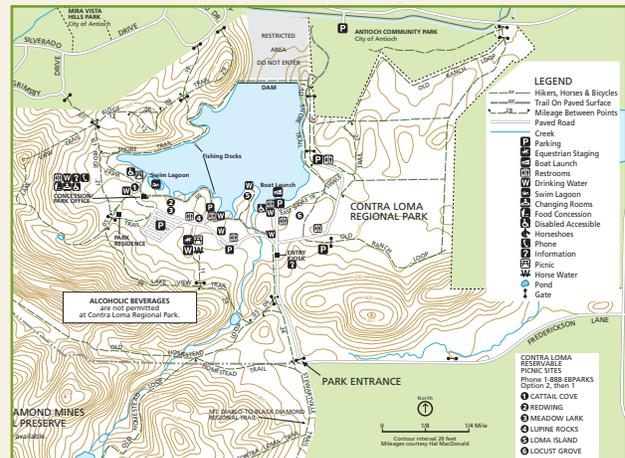
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The reservoir regulates peak and short-term water supplies and provides emergency storage for CCWD customers throughout central and eastern Contra Costa County. The reservoir is managed and operated by CCWD. The facilities at the regional park, managed by the EBRPD, offer a variety of recreational uses, such as **fishing, picnicking, hiking, wildlife observation, and swimming**, and local residents use the Community Park for **soccer, baseball or softball, walking, and picnicking**.

## What plan is being developed for Contra Loma?

Reclamation is preparing a Resource Management Plan (RMP) for Contra Loma. The RMP will be the guide for future land and water resources management decisions at Contra Loma. The RMP is intended to establish uniform policy and land management guidelines that promote organized use, development, and management of Contra Loma while protecting water quality, water supply, and natural and cultural resources. Reclamation will also prepare an Environmental Impact Statement (EIS) to evaluate the environmental effects of implementing the RMP. The RMP and EIS will be prepared as a single document.



## What is the purpose of the March 3 workshop?

Over the past year, members of the public and managing partner agencies have provided Reclamation with ideas, concerns, and comments that have helped inform the development of the RMP. Based on this information, Reclamation has developed conceptual draft packages of future actions, or alternatives, to be included in the RMP. This workshop provides an opportunity to learn about the conceptual draft alternatives and to provide additional input. Following the workshop, Reclamation will further refine and flesh out the details and descriptions of the alternatives, and prepare the full draft RMP which will be circulated for public review and comment by the fall of 2012.

## What is the format of the March 3 workshop?

The workshop will begin with an overview presentation of the RMP development process, including public comments to date. This will be followed by break-out stations where members of the public can provide input on the draft actions and alternatives being considered for inclusion in the draft RMP.

## Why should I attend?

Engaged participation by the public, user organizations, and agencies is critical to the success of this planning effort. Your ideas, concerns, and opinions will continue to inform the development of the RMP/EIS for management of Contra Loma's valuable resources.

## What if I can't attend the workshop in person?

If you are not able to attend, materials from the workshop will be available at [www.ebparks.org/planning#contraloma](http://www.ebparks.org/planning#contraloma). You are encouraged to provide your ideas, questions and concerns on these issues to Christine Lim at: (415) 391-7900, [clim@kearnswest.com](mailto:clim@kearnswest.com).

## **Contra Loma Reservoir and Recreation Area Resource Management Plan Public Workshop**

Thursday, March 3, 2011  
Prewett Family Park and Community Center  
Antioch, CA

### **MEETING SUMMARY<sup>1</sup>**

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#### **Summary**

##### **I. Workshop Purpose**

A public workshop was convened by the U.S. Bureau of Reclamation (Reclamation) on March 3, 2011 in Antioch, California to solicit input for the development of a Resource Management Plan (RMP) for the Contra Loma Reservoir and Recreation Area (Contra Loma). The purpose of the workshop was to provide an overview of the planning and environmental review process, share how community input has informed the process to date, solicit input (i.e., comments and information) on possible future management actions, and identify additional opportunities to improve the management of resources at Contra Loma. The workshop agenda is attached as Appendix A.

##### **II. Welcome and Project Overview**

Sheryl Carter, Reclamation, welcomed participants and provided an overview of Reclamation and the RMP process. Ms. Carter noted that Reclamation owns Contra Loma and manages it in partnership with the City of Antioch, East Bay Regional Park District (EBRPD), and the Contra Costa Water District (CCWD), and that new agreements will be established that incorporate recommendations from the RMP.

Scott Goebel, NSR, further described Contra Loma, its managing partners, and the RMP process. Mr. Goebel clarified that Contra Loma includes three main areas: Antioch Community Park, Contra Loma Reservoir, and Contra Loma Regional Park. He also noted the following key points regarding the current management and use of Contra Loma: Antioch Community Park is managed by the City of Antioch, and it includes many recreational opportunities including softball fields, picnic areas, and trails; the reservoir is operated by CCWD and its main purpose is to supply drinking water (and therefore water quality is the highest priority); and Contra Loma Regional Park is managed by EBRPD and provides recreational activities including a swim lagoon, fishing, and hiking.

Mr. Goebel clarified that the RMP will provide guidance for the future management of resources to achieve the desired future condition of the project area. He added that the RMP primarily focuses on protecting water supply, water quality and natural resources, and that enhancing recreational uses is a secondary emphasis.

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<sup>1</sup> This summary represents Kearns & West's efforts to synthesize the input received by workshop participants. This report focuses on summarizing the public's input on key issues; it is not intended to serve as a transcript of all issues discussed or points made.

Mr. Goebel noted that, to date, the RMP has been informed by feedback from two public workshops, input from managing partner agencies, and additional research on existing environmental resources and facilities. This information has been considered against a set of planning criteria to develop conceptual, draft management actions which can be implemented to meet the goals of the RMP.

The 71 conceptual, draft management actions are packaged into three conceptual draft alternatives:

1. “No Action” Alternative: Continues current management practices with no substantive changes.
2. Enhanced Alternative: Enhances current recreation, with minimal changes to Contra Loma’s aesthetic character.
3. Expanded Alternative: Expands recreation substantially with new infrastructure; this alternative would include management actions from the Enhanced Alternative as well.

Mr. Goebel shared that the RMP will have a preferred alternative, which could be one of the alternatives listed above or a combination of alternatives. The outcome will depend on the findings of the related environmental processes, public comments and input from managing partners. He added that the RMP is a planning level document, not a project level document, and that specific descriptions and improvements will not be defined at this stage.

Mr. Goebel stated that the purpose of this workshop was to receive comments on the draft alternatives before they are further developed. Regarding the project timeline, Mr. Goebel shared that the next revision of the draft RMP alternatives will be available for public comment in December 2012, and that the draft Environmental Impact Statement (EIS) for these alternatives will be available for public comment in January 2013. Based on this feedback, a preferred RMP alternative will be identified in January 2013, leading to the development of a final RMP and EIS.

### **III. Workshop Comment Stations**

Ben Gettleman, Kearns & West, explained the structure and flow of the comment stations.

#### *Station 1: Review Input Received to Date*

Participants were asked to review comments provided to date and provide input on whether the management action adequately addresses the corresponding comment, and whether the management action could be revised to better address the comment.

#### *Station 2: Provide Input on Draft Management Actions*

Participants reviewed the management actions under the three different management alternatives. They were asked to provide feedback on whether they supported the management action, how the management action could be improved, and what additional management actions should be considered.

The public comments received are summarized below:

#### *Station 1 Comments*

- Trail safety should be increased through bicycle patrols or call boxes.
- A disc golf course should be considered because people would use it.

*Station 2: Common Alternative Comments*

- Advertisement of the different events taking place at Contra Loma should be better coordinated.
- **MA 6:** One central phone number for the Contra Loma area should be established; it is currently unclear which agency should be called to report an issue.
- **MA 7:** Enforce self-pay entrance fees.
- **MA 8:** Work with city volunteers to address litter, waste and graffiti.

*Station 2: Enhanced Alternative Comments*

- **MA 35:** Provide a separate, small child area during high volume days.

*Station 2: Expanded Alternative Comments*

- Additional signage of trails, distances, and locations are needed.
- Spanish speaking staff should always be present during the summer months to assist guests.
- The snack bar should also supply pampers, a first aid kit, etc.
- Security cameras should be installed throughout Contra Loma, but particularly in the most heavily trafficked areas.
- **MA 54:** Additional docks are needed, and not just for fishermen's use.

#### **IV. Next Steps**

Workshop participants were encouraged to contact Scott Goebel with additional comments and questions ([Goebel@nsrnet.com](mailto:Goebel@nsrnet.com), (916) 717-9069). Project information and materials will be available on the project website: [www.usbr.gov/mp/nepa/nepa\\_projdetails.cfm?Project\\_ID=639](http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=639).

## Appendix A: Public Workshop Agenda

# Public Workshop Agenda

Thursday, March 3, 2011 • 6:00 – 8:00 pm

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**Prewett Family Park and Community Center • 4701 Lone Tree Way • Antioch, CA 94531**

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### Workshop Goals

During the workshop, public participants will:

- **Learn** about the process and timeline for Contra Loma planning and environmental review
- **Understand** how community input has helped inform the process to date
- **Provide input** on possible future actions and how they relate to uses, including recreation
- **Identify** additional opportunities for improving resource management and recreational experiences at Contra Loma

### Workshop Agenda

**5:30 pm – 6:00 pm: Registration**

**6:00 pm – 6:15 pm: Welcome and Project Overview**

The project team will provide an overview of the Resource Management Plan development process and the purpose of the workshop. They will also outline the flow of the workshop.

**6:15 pm – 8:00 pm: Workshop Stations**

Workshop attendees will visit comment stations and provide input on the draft management actions. The project team will be available to provide additional detail, to answer questions and to receive feedback.

### Comment Stations:

- Station 1: Summary of Input Received
  - Attendees will review comments provided to date and how they were addressed.
- Station 2: Input on Draft Management Actions
  - Attendees will review draft management actions and provide input on how they could potentially be revised or improved.

### Workshop Agenda

The U.S. Bureau of Reclamation (Reclamation) is preparing a Resource Management Plan (RMP) for the Contra Loma Reservoir and Recreation Area (Contra Loma), which includes the Contra Loma Regional Park and the Antioch Community Park. The RMP is intended to establish uniform policy and land management guidelines that promote organized use, development, and management of Contra Loma while protecting water quality, water supply, and natural and cultural resources.

**Appendix B: Workshop Attendees**

<b><u>Name</u></b>	<b><u>Organization/Affiliation</u></b>
Tina Wehrmeister	City of Antioch
Vincent Manuel	City of Antioch Planning Commission
Fran Garland	Contra Costa Water District
Scott Bartlebaum	Delta Youth Soccer League
Julie Bondurant	East Bay Regional Park District
Paul Miller	East Bay Regional Park District
Dania Stoneham	East Bay Regional Park District
Jeff Wilson	East Bay Regional Park District
Ben Gettleman	Kearns & West
Christine Lim	Kearns & West
Brandon Amrhein	North State Resources
Scott Goebel	North State Resources
Satinder Malhi	Office of Senator Mark DeSaulnier
Paul Adler	Office of Supervisor Federal Glover
Eloine Chapman	Resident
Christina Wilcox	Resident
Cort Wilcox	Resident
Sheryl Carter	U.S. Bureau of Reclamation

APPENDIX E

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Contra Loma Resource Management Plan Preliminary Draft Alternatives

# Contra Loma Resource Management Plan Preliminary Draft Alternatives

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## 1. Introduction

### 1.1 Resource Management Plan Overview

The U.S. Bureau of Reclamation (Reclamation) is developing a Resource Management Plan (RMP) for the Contra Loma Reservoir and Recreation Area (Contra Loma) in Antioch, Contra Costa County, California. The Contra Loma RMP will be a long-term plan to guide management of the reservoir, recreation area, and surrounding lands owned by Reclamation. The RMP is being developed based on a comprehensive inventory of environmental resources and facilities; input from the current managing partners (i.e., the East Bay Regional Park District [EBRPD], City of Antioch [the City], and Contra Costa Water District [CCWD]); and input from the public. The primary emphasis of the RMP is to protect water supply, water quality, and natural resources, while enhancing recreational uses.

The overall objective of this RMP is to establish a set of management objectives, goals, and actions to be implemented by Reclamation, either directly or through its management agreement(s) that will:

1. Establish uniform policy and land management guidelines that promote an organized use, development, and management of the Contra Loma Reservoir and the surrounding recreational area lands compatible with applicable federal and state laws.
2. Protect the water supply and water quality functions of Contra Loma Reservoir.
3. Protect and enhance natural and cultural resources in and around the reservoir, consistent with federal law and Reclamation policies.
4. Provide recreational opportunities and facilities consistent with EBRPD's current management strategies, Reclamation policies, and state water policies.
5. Provide guidance for future decision making.

### 1.2 Purpose of the Preliminary Draft Alternatives

Reclamation has drafted planning criteria that help establish the sideboards and parameters for development of the RMP and help highlight major areas of concern, management objectives for the RMP, and goals that will provide overall guidance for the RMP management direction and actions. Reclamation has also drafted three conceptual RMP alternatives. Reclamation sought technical comments from EBRPD, the City, and CCWD (i.e., the current managing partners) on the draft planning criteria, draft

management objectives, draft goals, and the draft alternatives before presenting them to the public at a workshop to be held on March 3, 2011. The alternatives are conceptual at this stage, and are not intended to include substantial detail. After receiving comments from the current managing partners and the public, Reclamation will develop the draft alternatives in more detail, and circulate the draft RMP for public comment together with the Environmental Impact Statement (EIS) that will evaluate the environmental effects of each alternative.

## 2. Draft Planning Criteria, Objectives, and Goals

### 2.1 Draft Planning Criteria

As described in Reclamation's RMP Guidebook, planning criteria are short and concise statements that help establish the sideboards and parameters for development of the RMP and help highlight major areas of concern. Planning criteria are intended to assist Reclamation in formulating and selecting combinations of land uses and management actions that will be considered in the RMP. Reclamation has drafted the following planning criteria for the Contra Loma RMP.

- Protect the water supply and water quality functions of the reservoir
- Protect and enhance natural resources
- Protect cultural resources
- Recognize community concerns and values about Contra Loma
- Encourage an appropriate range of recreational uses
- Ensure consistency with federal policies, laws, and regulations
- Protect public health and safety
- Limit alternatives to those with reasonable certainty that:
  - the management actions can be implemented within the 20-year planning period;
  - Reclamation or managing partner(s) can fund the management actions; and
  - Reclamation or managing partner(s) are committed to seeking financial, program, and staffing resources necessary to implement the management actions.

### 2.2 Draft Management Objectives

The overall objective of this RMP is to establish a set of management objectives, goals, and actions to be implemented by Reclamation, either directly or through its management agreement(s) that will:

- Establish uniform policy and land management guidelines that promote an organized use, development, and management of the Contra Loma Reservoir and the surrounding recreational area lands compatible with applicable federal and state laws.
- Protect the water supply and water quality functions of Contra Loma Reservoir.

- Protect and enhance natural and cultural resources in and around the reservoir, consistent with federal law and Reclamation policies.
- Provide recreational opportunities and facilities consistent with EBRPD's current management strategies, Reclamation policies, and state water policies.
- Provide guidance for future decision making.

Reclamation has drafted the following management objectives to fulfill the purpose and meet the overall objective of the RMP:

- Develop and implement a comprehensive land use strategy considering uses of Contra Loma and adjacent lands.
- Identify long-term resource programs and implementation policies to manage and develop recreational, natural, and cultural resources.
- Identify opportunities and develop partnerships for managing recreational and natural resources.
- Develop strategies and approaches to protect and preserve the natural, recreational, and cultural resources.
- Provide adequate public safety and security measures for protection of visitors and resources.
- Determine the opportunities for new or enhanced recreation facilities that are needed based on demand.

## **2.3 Draft Goals**

Reclamation has drafted the following primary goals of the Contra Loma RMP to provide overall guidance for the RMP management direction and actions. The degree to which the various RMP alternatives meet these goals will be described in RMP/EIS.

- Promote responsible stewardship of federal land and water resources for the public benefit.
- Protect and maintain water quality.
- Protect and enhance the natural and cultural resources at Contra Loma.
- Protect and maintain existing recreational uses and educational opportunities.
- Provide for enhanced or new recreational uses and facilities that are compatible with other RMP goals.
- Maintain the character and ambience of Contra Loma's setting.
- Promote continued compatibility with nearby land uses.

## 3. Formulation of Alternatives

### 3.1 Introduction

This section describes the conceptual draft RMP alternatives designed to address the planning issues, opportunities, and constraints at Contra Loma. Reclamation's intent is to develop a broad range of management actions to address alternatives that would represent the varied interests pertaining to Contra Loma. The No Action Alternative and two action alternatives are as follows:

- No Action (Alternative 1)—This alternative manages land and activities with the continuation of current management practice.
- Enhanced Recreation and Facilities (Alternative 2)—This alternative enhances recreation opportunities and existing facilities, but limits expansion of recreation and facilities to minimize changes to park character and adverse effects on natural resources.
- Expanded Recreation and Facilities (Alternative 3)—This alternative emphasizes expanded recreation opportunities and facilities.

Several management actions would be common to all alternatives. Unique management actions for each alternative are detailed in Sections 4.3 through 4.4.

### 3.2 Roles of Reclamation and Local Managing Partner(s)

Reclamation will negotiate a long-term agreement with one or more local managing partner(s) for Contra Loma. The local managing partner(s) will have overall responsibility for managing public access, recreation, infrastructure and public services, and natural resources in Contra Loma, excluding the dam. Responsibilities for dam and reservoir operations are subject to a separate contract between Reclamation and CCWD; therefore, these operations would not be affected by the RMP. The RMP will provide the overall resource and recreation management direction and framework for Contra Loma. It will be a guidance document for the local managing partner(s) for day-to-day operations and long-range planning.

Reclamation will have overall responsibility for ensuring that all actions in Contra Loma by Reclamation and its managing partner(s) are consistent with the RMP. The managing partner(s) must ensure that its actions in managing Contra Loma and associated land, recreation facilities, and infrastructure, are consistent with the RMP.

The agreement with managing partner(s) will require that the managing partner(s) use the RMP as the primary land use, natural resource, and recreation management guidance document to be followed during the management of Contra Loma. A term of the agreement will specify that any other agreements affecting management of Contra Loma that preceded the RMP will be not be changed or invalidated by the RMP, and that any agreements that occur after the agreement, or any new agreement, will include the RMP or an amended RMP (if modified by Reclamation).

## **3.3 Implementation Approach**

The RMP will be implemented through recommendations for specific management actions and improvement projects.

### **3.3.1 Management Actions and Projects**

The RMP includes recommendations for various resource management actions and facility improvement projects. These are specific actions that may be implemented at Contra Loma to meet the RMP goals. These management actions and projects are defined at a conceptual or programmatic level in the RMP. More detailed descriptions of the actions and project will be developed during the planning horizon of the RMP. The responsibility for funding, designing, and implementing (or constructing) the management actions and improvement projects will be specified in a long-term agreement with the local managing partner(s).

It should be noted that the RMP will not require the local managing partner(s) to implement all the recommended management actions and facility improvements. Implementation of some management actions, however, may be required. The local managing partner(s) will have the option of implementing the optional management actions and improvements based on considerations of the following factors: (1) sufficient public demand, (2) sufficient staffing and funding to manage any new or modified facilities in accordance with the RMP, and (3) potential for increased public benefits and use. New facilities or activities allowed under the RMP may also be discontinued in the future at the discretion of the local managing partner(s) if demand decreases, the activity is not economically viable, new security or safety considerations arise, and/or unforeseen significant environmental impacts occur that cannot be mitigated.

It should be noted that the local managing partner(s) will be required to conduct an appropriate site specific environmental review for most of the new or expanded recreational activities or facilities identified in the RMP such as new sports fields at the Antioch Community Park or new sewer lines to connect the regional park sanitary facilities to the City's wastewater treatment system. The project-specific environmental documentation would need to be prepared to meet National Environmental Policy Act (NEPA) requirements because the projects would occur on federal land, and may need to satisfy California Environmental Quality Act (CEQA) requirements if the projects are partially funded or managed by the local managing partner(s).

### **3.3.2 Amendments to the RMP**

Reclamation can amend the RMP at any time if the need arises. Conditions that may require an amendment could include, but are not limited to, (1) changed environmental conditions; (2) unforeseen events; (3) changes in policies and land use plans that have been determined to be infeasible, impractical, or have undesirable consequences; and (4) change in applicable laws and regulations. Reclamation would initiate the amendment process, which would include appropriate NEPA environmental review tiered from this document.

The RMP can be updated to reflect any changed environmental or institutional circumstances; and new laws, regulations, or policies; and changes in Contra Loma operations. Reclamation would conduct public meetings and an environmental review when updating the RMP.

## 4. Preliminary Draft Alternatives

### 4.1 Common Infrastructure, Operational Improvements, and Management Actions for All Alternatives

Each alternative has different components and management actions that would achieve the objectives of that alternative. However, several components and management actions are common to all alternatives. These are consistent with the current resource and recreation management direction and practices at Contra Loma and are listed in this section. The remaining management actions are listed as they apply to each alternative.

#### 4.1.1 Administrative and Operational Activities

All RMP alternatives include the following administrative and operational activities.

##### Facilities Management at Contra Loma Regional Park

###### *Litter and Waste*

1. Continue to implement a litter and waste reduction program to effectively meet demand. Elements of this program will include staff outreach and public education, routine litter and nuisance pickup and removal, and availability of sufficient litter cans and dog feces bag stations. Elements of this program will be modified or expanded as necessary to meet demand.

###### *Other Facility Management*

2. Continue to perform routine maintenance and repairs of existing facilities.
3. Continue programs to manage zebra and quagga mussels, New Zealand mud snails, and carp. Elements of this program will be modified or expanded as necessary.
4. Continue to implement pesticide management plans, and an integrated pest management plan for weeds, pest rodents, and wasps.
5. Continue to implement plans for fire and emergency preparedness and to provide public safety through EBRPD's police and fire departments. Continue to operate the existing EBRPD police substation and Fire Station 8 at Contra Loma and continue to provide lifeguard services at the swim lagoon with emergency response capability at Contra Loma reservoir.
6. Clarify law enforcement and public safety roles for each managing partner agency.
7. Consider adding new donation boxes for walk-in users at key locations.

## **Facilities Management at Antioch Community Park**

### ***Litter, Waste, and Graffiti***

8. Continue to implement a litter, waste, and graffiti reduction program to effectively meet demand. Elements of this program will include staff outreach and public education, routine litter pickup and removal, availability of sufficient litter cans and dog feces bag stations, and prompt graffiti removal. Elements of this program will be modified or expanded as necessary to meet demand.

### ***Staffing***

9. Continue routine police patrols or implement other measures needed to provide sufficient security.

## **Recreational Facilities and Opportunities at Contra Loma Regional Park**

### ***Swim Lagoon***

10. Continue to operate the swim lagoon with a capacity for 1,500 people, including the grass area adjacent to the lagoon and within the lagoon area fence.

### ***Fishing***

11. Continue to provide a recreational fishing program in the reservoir, and manage fish populations through fish planting (i.e., stocking) programs.
12. Continue to enforce poaching regulations.

### ***Other Recreation***

13. Continue to allow boating and windsurfing on the reservoir consistent with current park rules.
14. Continue to operate, manage, and maintain the existing trail system throughout park for hiking, equestrian, and bicycle use.
15. Continue to provide opportunities for wildlife viewing, photography, and painting.
16. Continue to provide recreation programs including low-income youth swim programs, junior lifeguard programs, Girl Scout and Boy Scout events, fishing derbies, outdoor educational experiences for children, cross-country running meets, fundraiser events, and similar programs.

## **Natural Resource Management and Protection**

17. Continue to perform botanical surveys, to inventory and assess special-status plants within Contra Loma.

18. Continue to develop and implement habitat enhancement programs to protect special-status species likely to occur at the park. Such species may include burrowing owl, loggerhead shrike, California tiger salamander, San Joaquin kit fox, tri-colored blackbird, and white-tailed kite.
19. Continue to implement habitat restoration and improvement activities including quail habitat enhancement projects and installation of bat houses and avian nest boxes.
20. Improvements will be consistent with laws and regulations that govern the protection of natural and cultural resources within Contra Loma.
21. Improvements will be consistent with future EBRPD habitat restoration projects and the HCP/NCCP.

#### **4.1.2 Management Actions for Alternative 1: No Action (Status Quo)**

##### **Objectives**

Under this alternative, the current resource and recreation management direction and practices at Contra Loma would continue unchanged, consistent with EBRPD's current Reservoir Area Management plan (RAMP; dated 1975), the current management agreement between Reclamation and EBRPD, the license agreement between EBRPD and the City, and EBRPD land use plans pertaining to Contra Loma. The local managing partner(s) would implement and manage the administrative and operational activities listed in Section 4.1.1, however, no additional management actions would be implemented. The managing partner(s) would be allowed to implement any of these activities that do not require permits or environmental review under NEPA or CEQA without the need for additional review or authorization by Reclamation or CCWD. This alternative addresses certain public comments that no further substantive improvements will be made at Contra Loma.

#### **4.1.3 Management Actions for Alternative 2: Enhanced Recreation and Facilities**

##### **Objectives**

The objective of this alternative is to enhance current recreational uses and facilities at Contra Loma to fulfill the evolving needs of the public who recreate at Contra Loma and to implement several basic infrastructure improvements while minimizing changes to Contra Loma's aesthetic character and adverse effects on natural resources. Alternative 2 involves no major expansion of recreational facilities, and would therefore retain more undeveloped land within the regional park than Alternative 3 (Expanded Recreation and Facilities).

#### **Management Actions and Improvements at Contra Loma Regional Park**

##### ***Restrooms***

22. Provide more and better restroom facilities to accommodate existing and future user needs.
23. Replace the existing chemical toilets with modern vault restrooms.

24. Provide a restroom facility near the northwest shore fishing dock.
25. Consider installing sewer lines that connect the regional park to the City's wastewater system.

### ***Buildings and Structures***

26. Expand or renovate the existing park offices, the EBRPD police substation, the secondary storage yard, and the buildings near the swim lagoon to better provide for public service and safety.
27. Add structures and facilities for classes, including swim and safety lessons, near the swim lagoon.
28. Build a new park residence near the park office.
29. Expand gravel/overflow parking.
30. Pave some existing gravel parking areas.
31. Add a fueling station and storage tank at or near the maintenance yard for park staff and public safety officers.

### ***Other Infrastructure***

32. Add a radio communication tower and other needed facilities to improve communications for EBRPD and public service providers. This tower will be sited and designed in a manner that minimizes aesthetic impacts on the park character.
33. Install water infrastructure to support grazing.
34. Comply with Americans with Disabilities Act (ADA) accessibility requirements for future improvements at the Regional Park. Continue implementation of an ADA facility retrofit program that includes replacing, retrofitting, and restructuring many of the park facilities to meet the current standards of the ADA requirements.

## **Recreational Facilities and Opportunities at Contra Loma Regional Park**

### ***Swim Lagoon***

35. Provide a safe swim area or splash pad for small children.
36. Provide more shade around the swim lagoon lawn.
37. Add benches in the swim lagoon area.
38. Prohibit smoking at the lagoon and designate smoking areas down-wind from swimmers.

### ***Fishing***

39. Replace aging fishing docks.

40. Modify or reconstruct existing fishing docks to allow safe, continuous fishing use during reservoir drawdowns.
41. Increase fish stocking.
42. Control vegetation within the reservoir to enhance the fishing experience.
43. Repair or reconstruct the fish cleaning facility.

### ***Trail System***

44. Improve the existing East Shore-West Shore trails loop with an all-season surface.

### ***Other Recreation***

45. Construct more picnic sites where useful and appropriate.

## **Facilities Management at Contra Loma Regional Park**

46. Increase EBRPD's irrigation allotment of 100 acre-feet per year by 50%.
47. Remove trash and dead tules from the reservoir when water levels are low.

## **Recreational Facilities and Opportunities at Antioch Community Park**

### ***Sports Fields***

48. When new or modified sports fields are planned, the types of sports desired by the public will be considered. Mixed-use sports fields will be considered.
49. Improve maintenance of the existing soccer fields to reduce drainage problems, eliminate gopher holes and uneven surfaces, and improve turf quality.
50. Improve existing soccer fields to allow use in wet weather.
51. Improve drainage on the south side of the southern sports field while reducing impacts on the adjacent riparian habitat.

### ***Other Facility Management***

52. Comply with ADA accessibility requirements for future improvements at the Community Park..

## **4.2 Management Actions for Alternative 3: Expanded Recreation and Facilities**

### **Objectives**

The objective of this alternative is to expand recreational uses and facilities to accommodate increasing demand, especially for additional all-weather sports fields, while protecting natural and cultural resources.

This alternative is included to demonstrate a scenario in which recreational uses and facilities at Contra Loma are substantially expanded while still meeting the RMP goals related to protection of natural and cultural resources to the extent feasible. This alternative builds upon and is in addition to the management actions listed under Alternative 2.

## **Recreational Facilities and Opportunities at Contra Loma Regional Park**

### ***Swim lagoon***

53. Increase the size of the swim lagoon, if needed to accommodate increased demand.

### ***Fishing***

54. Add more fishing docks if needed to accommodate increased demand, possibly on the east shore.
55. Improve shoreline access for fishing by managing shoreline vegetation in areas not used for wildlife nesting or breeding.
56. Construct a fishermen's shelter.

### ***Trail System***

57. Plant shade trees along trails.
58. Increase the number and length of trails available for mountain biking.
59. Increase loop trail opportunities for mountain biking.
60. Create multi-use trail connectors in several locations.

### ***Other Recreation***

61. Install shade structures to support recreational uses and to provide shade in parking areas. Some shade structures may include solar panels that would supplement the Regional Park's energy needs.
62. Provide a playground structure.
63. Consider overnight group camping as part of the current day camp programs or special events that require event-specific EBRPD authorization, oversight, and regulation.

## **Recreational Facilities and Opportunities at Antioch Community Park**

### ***Sports Fields***

64. Expand the area for multi-use sports fields by adding fields directly south of the two existing soccer fields on the east side of the community park. This would require expansion of the community park boundaries south into the Regional Park and adjustment of the boundary between the two parks.

65. Increase parking if additional sports fields are built.
66. Increase the size of some soccer fields to accommodate older youth and adults (i.e., 70 yards x 110 yards).
67. Replace or install natural turf with artificial turf or a more robust grass.
68. Install lighting for the unlit sports fields to enable evening use throughout the year.

### ***Other Recreation***

69. Increase trails along the creek and riparian area and improve interconnection between trail systems.
70. Create a botanical garden in the open space adjacent to the soccer fields.

## **Reservoir Management and Reservoir Water Quality**

### ***Reservoir Level Fluctuation***

71. EBRPD and CCWD will work together toward developing a plan for managing reservoir levels in a manner that reduces conflict with the reproductive cycle for fish, birds, waterfowl, and other aquatic life along the shoreline; reduces occurrence of algae blooms and clam mortality along shoreline; and improves recreational fishing and increase catches. The plan will be consistent with the RMP management objective of protecting the water supply and water quality functions of Contra Loma Reservoir.

## APPENDIX F

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Biological Resources

## Representative Photos of Contra Loma's Biological Resources



Photo 1. Annual grassland



Photo 2. Valley foothill riparian in Antioch Community Park



Photo 3. Urban habitat at the swim lagoon



Photo 4. Barren habitat on the dam crest



Photo 5. Annual grassland and blue oak woodland



Photo 6. Riverine habitat running through annual grassland



Photo 7. Fresh emergent wetlands along reservoir shoreline



Photo 8. Lacustrine habitat



Photo 9. Quail habitat restoration



Photo 10. Stinkbells (*Fritillaria agrestis*) with maturing fruit

Database Accessed April 24, 2013

**U.S. Fish & Wildlife Service**

**Sacramento Fish & Wildlife Office**

**Federal Endangered and Threatened Species that Occur in  
or may be Affected by Projects in the Counties and/or  
U.S.G.S. 7 1/2 Minute Quads you requested**

**Document Number: 130424031040**

**Database Last Updated: September 18, 2011**

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#### **Quad Lists**

#### **Listed Species**

#### **Invertebrates**

- Branchinecta conservatio
  - Conservancy fairy shrimp (E)
- Branchinecta longiantenna
  - longhorn fairy shrimp (E)
- Branchinecta lynchi
  - Critical habitat, vernal pool fairy shrimp (X)
  - vernal pool fairy shrimp (T)
- Desmocerus californicus dimorphus
  - valley elderberry longhorn beetle (T)
- Lepidurus packardi
  - vernal pool tadpole shrimp (E)

#### **Fish**

- Hypomesus transpacificus
  - Critical habitat, delta smelt (X)
  - delta smelt (T)

- *Oncorhynchus mykiss*
  - Central Valley steelhead (T) (NMFS)
- *Oncorhynchus tshawytscha*
  - Central Valley spring-run chinook salmon (T) (NMFS)
  - winter-run chinook salmon, Sacramento River (E) (NMFS)

### **Amphibians**

- *Ambystoma californiense*
  - California tiger salamander, central population (T)
- *Rana draytonii*
  - California red-legged frog (T)

### **Reptiles**

- *Masticophis lateralis euryxanthus*
  - Alameda whipsnake [=striped racer] (T)
  - Critical habitat, Alameda whipsnake (X)
- *Thamnophis gigas*
  - giant garter snake (T)

### **Birds**

- *Rallus longirostris obsoletus*
  - California clapper rail (E)
- *Sternula antillarum* (=Sterna, =albifrons) browni
  - California least tern (E)

### **Mammals**

- *Vulpes macrotis mutica*
  - San Joaquin kit fox (E)

### **Plants**

- *Amsinckia grandiflora*
  - large-flowered fiddleneck (E)
- *Lasthenia conjugens*
  - Contra Costa goldfields (E)

**Quads Containing Listed, Proposed or Candidate Species:**

ANTIOCH SOUTH (464A)

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**County Lists**

No county species lists requested.

**Key:**

- (E) Endangered - Listed as being in danger of extinction.
- (T) Threatened - Listed as likely to become endangered within the foreseeable future.
- (P) Proposed - Officially proposed in the Federal Register for listing as endangered or threatened.
- (NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.
- Critical Habitat - Area essential to the conservation of a species.
- (PX) Proposed Critical Habitat - The species is already listed. Critical habitat is being proposed for it.
- (C) Candidate - Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) Critical Habitat designated for this species

**Important Information About Your Species List**

**How We Make Species Lists**

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, or may be affected by projects within, the quads

covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

## **Plants**

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online [Inventory of Rare and Endangered Plants](#).

## **Surveying**

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list.

See our [Protocol](#) and [Recovery Permits](#) pages.

For plant surveys, we recommend using the [Guidelines for Conducting and Reporting Botanical Inventories](#). The results of your surveys should be published in any environmental documents prepared for your project.

## **Your Responsibilities Under the Endangered Species Act**

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

### **Take incidental to an otherwise lawful activity may be authorized by one of two procedures:**

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal [consultation](#) with the Service.
- During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The

opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.
- Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

### **Critical Habitat**

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our [Map Room](#) page.

### **Candidate Species**

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

### **Species of Concern**

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. [More info](#)

### **Wetlands**

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions

regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6520.

### **Updates**

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be July 23, 2013.



## Summary Table Report

### California Department of Fish and Wildlife

### California Natural Diversity Database



Query Criteria: Quad is (Antioch South (3712187))

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Ambystoma californiense</i> California tiger salamander	G2G3 S2S3	Threatened Threatened	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable	50 900	1067 S:31	3	13	2	0	1	12	9	22	30	0	1
<i>Amsinckia grandiflora</i> large-flowered fiddleneck	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1	1,150 1,200	8 S:3	0	0	0	0	2	1	2	1	1	0	2
<i>Andrena blenospermatis</i> Blennosperma vernal pool andrenid bee	G2 S2	None None		900 900	15 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Anniella pulchra pulchra</i> silvery legless lizard	G3G4T3T4Q S3	None None	CDFW_SSC-Species of Special Concern USFS_S-Sensitive	80 450	91 S:3	1	0	0	0	0	2	2	1	3	0	0
<i>Anomobryum julaceum</i> slender silver moss	G4G5 S2	None None	Rare Plant Rank - 2B.2		13 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Antrozous pallidus</i> pallid bat	G5 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	780 780	402 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Arctostaphylos auriculata</i> Mt. Diablo manzanita	G2 S2	None None	Rare Plant Rank - 1B.3	600 1,150	17 S:6	0	3	2	0	0	1	3	3	6	0	0
<i>Athene cucularia</i> burrowing owl	G4 S2	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	60 300	1844 S:11	5	2	3	0	0	1	0	11	11	0	0
<i>Atriplex depressa</i> brittlescale	G2Q S2,2	None None	Rare Plant Rank - 1B.2	160 210	61 S:2	0	0	1	0	0	1	1	1	2	0	0
<i>Atriplex joaquinana</i> San Joaquin spearscale	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	160 250	109 S:5	0	1	1	2	0	1	3	2	5	0	0



## Summary Table Report

### California Department of Fish and Wildlife

### California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Blepharizonia plumosa</i> big tarplant	G1 S1	None None	Rare Plant Rank - 1B.1	300 600	48 S:12	1	6	2	0	1	2	3	9	11	1	0
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	G3 S2S3	Threatened None	IUCN_VU-Vulnerable	220 330	611 S:4	0	0	3	0	0	1	0	4	4	0	0
<i>Buteo swainsoni</i> Swainson's hawk	G5 S2	None Threatened	ABC_WLBCC-Watch List of Birds of Conservation Concern BLM_S-Sensitive IUCN_LC-Least Concern USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	50 685	2132 S:3	0	2	1	0	0	0	0	3	3	0	0
<i>California macrophylla</i> round-leaved filaree	G2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive	170 600	155 S:7	0	1	0	0	1	5	2	5	6	1	0
<i>Calochortus pulchellus</i> Mt. Diablo fairy-lantern	G2 S2	None None	Rare Plant Rank - 1B.2	495 1,110	40 S:5	1	0	0	1	0	3	1	4	5	0	0
<i>Cryptantha hooveri</i> Hoover's cryptantha	GH SH	None None	Rare Plant Rank - 1A	30 30	3 S:1	0	0	0	0	1	0	1	0	0	1	0
<i>Emys marmorata</i> western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	290 900	1135 S:3	0	1	0	0	0	2	2	1	3	0	0
<i>Eriogonum truncatum</i> Mt. Diablo buckwheat	G2 S2	None None	Rare Plant Rank - 1B.1	350 350	6 S:2	0	0	0	0	0	2	2	0	1	1	0
<i>Eschscholzia rhombipetala</i> diamond-petaled California poppy	G1 S1	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive	30 30	10 S:1	0	0	0	0	1	0	1	0	0	1	0
<i>Helianthella castanea</i> Diablo helianthella	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	600 1,600	96 S:6	1	3	0	0	0	2	0	6	6	0	0
<i>Helminthoglypta nickliniana bridgesi</i> Bridges' coast range shoulderband	G3T1 S1	None None	IUCN_DD-Data Deficient	1,950 1,950	6 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Hesperolinon breweri</i> Brewer's western flax	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	850 850	24 S:3	0	0	0	0	0	3	0	3	3	0	0



**Summary Table Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Lasiurus blossevillii</i> western red bat	G5 S3?	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	15 15	119 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Lasthenia conjugens</i> Contra Costa goldfields	G1 S1	Endangered None	Rare Plant Rank - 1B.1	50 50	33 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	G3 S2S3	Endangered None	IUCN_EN-Endangered	330 330	274 S:1	0	0	1	0	0	0	0	1	1	0	0
<i>Linderiella occidentalis</i> California linderiella	G3 S2S3	None None	IUCN_NT-Near Threatened	240 260	384 S:2	0	0	0	0	0	2	0	2	2	0	0
<i>Lytta molesta</i> molestan blister beetle	G2 S2	None None		400 400	17 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Madia radiata</i> showy golden madia	G2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive	250 250	52 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Malacothamnus hallii</i> Hall's bush-mallow	G2Q S2	None None	Rare Plant Rank - 1B.2		37 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Masticophis lateralis euryxanthus</i> Alameda whipsnake	G4T2 S2	Threatened Threatened		305 915	145 S:7	1	5	0	0	0	1	1	6	7	0	0
<i>Navarretia nigelliformis ssp. radians</i> shining navarretia	G4T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	260 560	64 S:2	0	0	1	0	0	1	0	2	2	0	0
<i>Perognathus inornatus inornatus</i> San Joaquin pocket mouse	G4T2T3 S2S3	None None	BLM_S-Sensitive	500 750	109 S:3	1	2	0	0	0	0	3	0	3	0	0
<i>Rana draytonii</i> California red-legged frog	G4T2T3 S2S3	Threatened None	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable	130 935	1335 S:17	2	9	3	0	0	3	4	13	17	0	0
<i>Senecio aphanactis</i> chaparral ragwort	G3? S2	None None	Rare Plant Rank - 2B.2	1,000 1,000	47 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Taxidea taxus</i> American badger	G5 S4	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	179 280	470 S:3	0	0	2	0	0	1	0	3	3	0	0

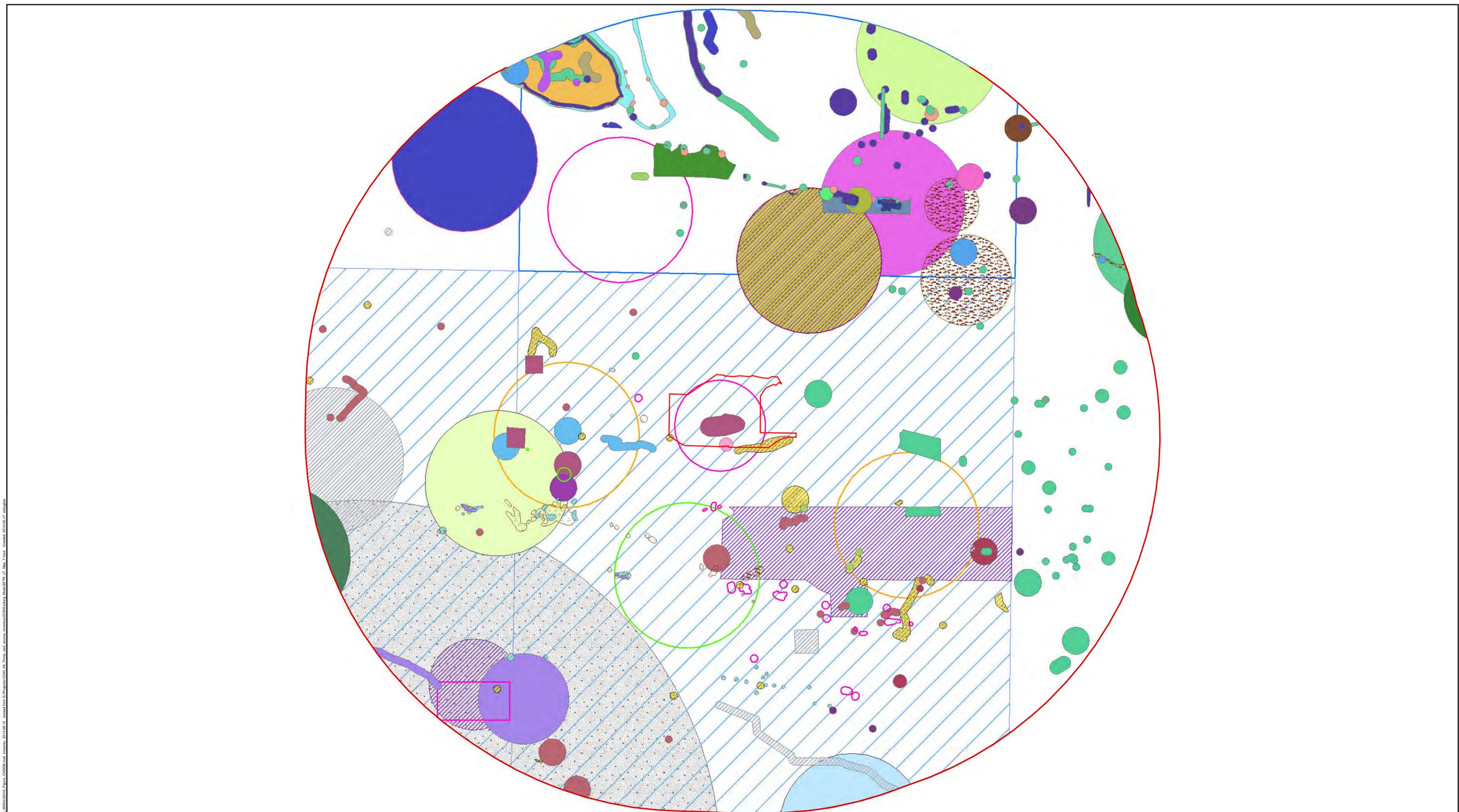


## Summary Table Report

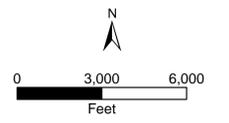
California Department of Fish and Wildlife  
California Natural Diversity Database



Name (Scientific/Common)	CNDDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Viburnum ellipticum</i> oval-leaved viburnum	G5 S2.3	None None	Rare Plant Rank - 2B.3		29 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	G4T2T3 S2S3	Endangered Threatened		220 750	961 S:6	0	4	0	0	0	2	5	1	6	0	0



Study Area	Antioch Dunes halictid bee	Brewer's western flax	Delta tule pea	Mason's lillaeopsis	San Joaquin kit fox	burrowing owl	large-flowered fiddleneck	silvery legless lizard
5-mile Buffer	Antioch andrenid bee	California black rail	Diablo helianthella	Middlekauff's shieldback katydid	San Joaquin pocket mouse	caper-fruited tropidocarpum	redheaded sphecid wasp	slender silver moss
Alameda whipsnake	Antioch efferian robberfly	California red-legged frog	Hall's bush-mallow	Mt. Diablo buckwheat	Stabilized Interior Dunes	chaparral ragwort	round-leaved filaree	soft bird's-beak
American badger	Antioch multilid wasp	California tiger salamander	Hoover's cryptantha	Mt. Diablo fairy-lantern	Suisun Marsh aster	curved-foot hygrotus diving beetle	salt-marsh harvest mouse	vernal pool fairy shrimp
Antioch Dunes anthicid beetle	Antioch specid wasp	Coastal Brackish Marsh	Hurd's metapogon robberfly	Mt. Diablo manzanita	Suisun song sparrow	diamond-petaled California poppy	saltmarsh common yellowthroat	vernal pool tadpole shrimp
Antioch Dunes buckwheat	Blennosperma vernal pool andrenid bee	Contra Costa goldfields	Kings River buckwheat	Sacramento perch	Swainson's hawk	double-crested cormorant	shining navarretia	western red bat
Antioch Dunes evening-primrose	Bolander's water-hemlock	Contra Costa wallflower	Lange's metalmark butterfly	San Joaquin dune beetle	big tarplant	giant garter snake	showy golden madia	white-tailed kite



California Native Plant Society Inventory of Rare and Endangered Plants  
*Antioch South, California* USGS Quadrangle Plus the Eight Surrounding Quadrangles

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank	State Listing Status	Federal Listing Status	Lowest Elevation	Highest Elevation	CA Endemic
<u><a href="#">Amsinckia grandiflora</a></u>	large-flowered fiddleneck	Boraginaceae	annual herb	1B.1	S1	G1	CE	FE	275 m	550 m	yes
<u><a href="#">Androsace elongata ssp. acuta</a></u>	California androsace	Primulaceae	annual herb	4.2	S3.2?	G5?T3T4			150 m	1200 m	
<u><a href="#">Anomobryum julaceum</a></u>	slender silver moss	Bryaceae	moss	2B.2	S2	G4G5			100 m	1000 m	
<u><a href="#">Arabis blepharophylla</a></u>	coast rockcress	Brassicaceae	perennial herb	4.3	S3.3?	G3			3 m	1100 m	yes
<u><a href="#">Arctostaphylos auriculata</a></u>	Mt. Diablo manzanita	Ericaceae	perennial evergreen shrub	1B.3	S2	G2			135 m	650 m	yes
<u><a href="#">Arctostaphylos manzanita ssp. laevigata</a></u>	Contra Costa manzanita	Ericaceae	perennial evergreen shrub	1B.2	S2	G5T2			500 m	1100 m	yes
<u><a href="#">Astragalus tener var. tener</a></u>	alkali milk-vetch	Fabaceae	annual herb	1B.2	S2	G2T2			1 m	60 m	yes
<u><a href="#">Atriplex cordulata var. cordulata</a></u>	heartscale	Chenopodiaceae	annual herb	1B.2	S2.2?	G3T2			0 m	560 m	yes
<u><a href="#">Atriplex coronata var. coronata</a></u>	crownscale	Chenopodiaceae	annual herb	4.2	S3.2	G4T3			1 m	590 m	yes
<u><a href="#">Atriplex depressa</a></u>	brittlescale	Chenopodiaceae	annual herb	1B.2	S2.2	G2Q			1 m	320 m	yes
<u><a href="#">Atriplex joaquinana</a></u>	San Joaquin spearscale	Chenopodiaceae	annual herb	1B.2	S2	G2			1 m	835 m	yes

<u>Blepharizonia plumosa</u>	big tarplant	Asteraceae	annual herb	1B.1	S1	G1			30 m	505 m	yes
<u>Calandrinia breweri</u>	Brewer's calandrinia	Montiaceae	annual herb	4.2	S3.2?	G4			10 m	1220 m	
<u>California macrophylla</u>	round-leaved filaree	Geraniaceae	annual herb	1B.1	S2	G2			15 m	1200 m	
<u>Calochortus pulchellus</u>	Mt. Diablo fairy-lantern	Liliaceae	perennial bulbiferous herb	1B.2	S2	G2			30 m	840 m	yes
<u>Calochortus umbellatus</u>	Oakland star-tulip	Liliaceae	perennial bulbiferous herb	4.2	S3.2	G3			100 m	700 m	yes
<u>Campanula exigua</u>	chaparral harebell	Campanulaceae	annual herb	1B.2	S2.2	G2			275 m	1250 m	yes
<u>Centromadia parryi ssp. congdonii</u>	Congdon's tarplant	Asteraceae	annual herb	1B.1	S2	G4T2			0 m	230 m	yes
<u>Chloropyron molle ssp. molle</u>	soft bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	1B.2	S1	G2T1	CR	FE	0 m	3 m	yes
<u>Cicuta maculata var. bolanderi</u>	Bolander's water-hemlock	Apiaceae	perennial herb	2B.1	S2	G5T3T4			0 m	200 m	
<u>Collomia diversifolia</u>	serpentine collomia	Polemoniaceae	annual herb	4.3	S3.3	G3			300 m	600 m	yes
<u>Convolvulus simulans</u>	small-flowered morning-glory	Convolvulaceae	annual herb	4.2	S3.2	G3			30 m	700 m	
<u>Cordylanthus nidularius</u>	Mt. Diablo bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	1B.1	S1	G1	CR		600 m	800 m	yes
<u>Cryptantha hooveri</u>	Hoover's cryptantha	Boraginaceae	annual herb	1A	SH	GH			9 m	150 m	yes
<u>Delphinium californicum ssp. interius</u>	Hospital Canyon larkspur	Ranunculaceae	perennial herb	1B.2	S2?	G3T2?			195 m	1095 m	yes

<u>Delphinium recurvatum</u>	recurved larkspur	Ranunculaceae	perennial herb	1B.2	S3	G3			3 m	790 m	yes
<u>Didymodon norrisii</u>	Norris' beard moss	Pottiaceae	moss	2B.2	S3S4	G3G4			600 m	1973 m	
<u>Dirca occidentalis</u>	western leatherwood	Thymelaeaceae	perennial deciduous shrub	1B.2	S2S3	G2G3			25 m	425 m	yes
<u>Downingia pusilla</u>	dwarf downingia	Campanulaceae	annual herb	2B.2	S2	G2			1 m	445 m	
<u>Eriogonum nudum var. psychicola</u>	Antioch Dunes buckwheat	Polygonaceae	perennial herb	1B.1	S1	G5T1			0 m	20 m	yes
<u>Eriogonum truncatum</u>	Mt. Diablo buckwheat	Polygonaceae	annual herb	1B.1	S2	G2			3 m	350 m	yes
<u>Eriophyllum jepsonii</u>	Jepson's woolly sunflower	Asteraceae	perennial herb	4.3	S3	G3			200 m	1025 m	yes
<u>Erysimum capitatum var. angustatum</u>	Contra Costa wallflower	Brassicaceae	perennial herb	1B.1	S1	G5T1	CE	FE	3 m	20 m	yes
<u>Eschscholzia rhombipetala</u>	diamond-petaled California poppy	Papaveraceae	annual herb	1B.1	S1	G1			0 m	975 m	yes
<u>Fritillaria agrestis</u>	stinkbells	Liliaceae	perennial bulbiferous herb	4.2	S3.2	G3			10 m	1555 m	Yes
<u>Fritillaria liliacea</u>	fragrant fritillary	Liliaceae	perennial bulbiferous herb	1B.2	S2	G2			3 m	410 m	Yes
<u>Galium andrewsii ssp. gatense</u>	phlox-leaf serpentine bedstraw	Rubiaceae	perennial herb	4.2	S3.2	G5T3			150 m	1450 m	Yes
<u>Helianthella castanea</u>	Diablo helianthella	Asteraceae	perennial herb	1B.2	S2	G2			60 m	1300 m	Yes

<u>Hesperivax caulescens</u>	hogwallow starfish	Asteraceae	annual herb	4.2	S3.2	G3		0 m	505 m	Yes
<u>Hesperolinon breweri</u>	Brewer's western flax	Linaceae	annual herb	1B.2	S2	G2		30 m	900 m	Yes
<u>Hibiscus lasiocarpus var. occidentalis</u>	woolly rose-mallow	Malvaceae	perennial rhizomatous herb	1B.2	S2	G5T2		0 m	120 m	Yes
<u>Isocoma arguta</u>	Carquinez goldenbush	Asteraceae	perennial shrub	1B.1	S1	G1		1 m	20 m	Yes
<u>Lasthenia coniugens</u>	Contra Costa goldfields	Asteraceae	annual herb	1B.1	S1	G1	FE	0 m	470 m	Yes
<u>Lathyrus jepsonii var. jepsonii</u>	Delta tule pea	Fabaceae	perennial herb	1B.2	S2.2	G5T2		0 m	4 m	Yes
<u>Lilaeopsis masonii</u>	Mason's lilaeopsis	Apiaceae	perennial rhizomatous herb	1B.1	S2	G2	CR	0 m	10 m	Yes
<u>Limosella australis</u>	Delta mudwort	Scrophulariaceae	perennial stoloniferous herb	2B.1	S2	G4G5		0 m	3 m	
<u>Madia radiata</u>	showy golden madia	Asteraceae	annual herb	1B.1	S2	G2		25 m	1215 m	Yes
<u>Malacothamnus hallii</u>	Hall's bush-mallow	Malvaceae	perennial evergreen shrub	1B.2	S2	G2Q		10 m	760 m	Yes
<u>Monardella antonina ssp. antonina</u>	San Antonio Hills monardella	Lamiaceae	perennial rhizomatous herb	3	S3?	G4T3Q		500 m	1000 m	Yes
<u>Monolopia gracilens</u>	woodland woolythreads	Asteraceae	annual herb	1B.2	S2S3	G2G3		100 m	1200 m	Yes
<u>Navarretia gowenii</u>	Lime Ridge navarretia	Polemoniaceae	annual herb	1B.1	S1	G1		180 m	305 m	Yes
<u>Navarretia heterandra</u>	Tehama navarretia	Polemoniaceae	annual herb	4.3	S3.3	G3		30 m	1010 m	

<u>Navarretia nigelliformis ssp. nigelliformis</u>	adobe navarretia	Polemoniaceae	annual herb	4.2	S3.2	G4T3			100 m	1000 m	yes
<u>Navarretia nigelliformis ssp. radians</u>	shining navarretia	Polemoniaceae	annual herb	1B.2	S2	G4T2			76 m	1000 m	Yes
<u>Neostapfia colusana</u>	Colusa grass	Poaceae	annual herb	1B.1	S2	G2	CE	FT	5 m	200 m	Yes
<u>Oenothera deltooides ssp. howellii</u>	Antioch Dunes evening-primrose	Onagraceae	perennial herb	1B.1	S1	G5T1	CE	FE	0 m	30 m	Yes
<u>Phacelia phacelloides</u>	Mt. Diablo phacelia	Boraginaceae	annual herb	1B.2	S1	G1			500 m	1370 m	Yes
<u>Plagiobothrys hystriculus</u>	bearded popcorn-flower	Boraginaceae	annual herb	1B.1	S2	G2			0 m	274 m	Yes
<u>Potamogeton zosteriformis</u>	eel-grass pondweed	Potamogetonaceae	annual herb	2B.2	S2.2?	G5			0 m	1860 m	
<u>Ranunculus lobbii</u>	Lobb's aquatic buttercup	Ranunculaceae	annual herb	4.2	S3.2	G4			15 m	470 m	
<u>Sanicula saxatilis</u>	rock sanicle	Apiaceae	perennial herb	1B.2	S2	G2	CR		620 m	1175 m	Yes
<u>Senecio aphanactis</u>	chaparral ragwort	Asteraceae	annual herb	2B.2	S2	G3?			15 m	800 m	
<u>Senecio hydrophiloides</u>	sweet marsh ragwort	Asteraceae	perennial herb	4.2	S2S3	G4G5			0 m	2800 m	
<u>Streptanthus albidus ssp. peramoenus</u>	most beautiful jewel-flower	Brassicaceae	annual herb	1B.2	S2.2	G2T2			94 m	1000 m	Yes
<u>Streptanthus hispidus</u>	Mt. Diablo jewel-flower	Brassicaceae	annual herb	1B.3	S1	G1			365 m	1200 m	Yes
<u>Symphotrichum lentum</u>	Suisun Marsh aster	Asteraceae	perennial rhizomatous herb	1B.2	S2	G2			0 m	3 m	Yes

<u>Triquetrella californica</u>	coastal triquetrella	Pottiaceae	moss	1B.2	S1	G1	10 m	100 m	
<u>Tropidocarpum capparideum</u>	caper-fruited tropidocarpum	Brassicaceae	annual herb	1B.1	S1	G1	1 m	455 m	Yes
<u>Viburnum ellipticum</u>	oval-leaved viburnum	Adoxaceae	perennial deciduous shrub	2B.3	S2,3	G5	215 m	1400 m	

**Suggested Citation**

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### Review of Regionally Occurring Special-Status Plant Species

COMMON NAME (SCIENTIFIC NAME)	STATUS <sup>1</sup> FED/ST/RPR	GENERAL HABITAT DESCRIPTION	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR AT THE SITE <sup>2</sup>
large-flowered fiddleneck ( <i>Amsinckia grandiflora</i> )	FE/SE/1B.1	Cismontane woodland, Valley and foothill grassland; elevation 902 - 1804 feet	Apr-May	<b>NO.</b> The site does not provide suitable habitat. There is only one known existing population and one known surviving reintroduced population of this species – neither are in the vicinity of the site.
slender silver moss ( <i>Anomobryum julaceum</i> )	--/--/2.2	Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest/damp rock and soil on outcrops, usually on roadcuts; elevation 328 - 3280 feet	Year-round	<b>NO.</b> The site does not provide suitable habitat.
Mt. Diablo manzanita ( <i>Arctostaphylos auriculata</i> )	--/--/1B.3	Chaparral(sandstone), Cismontane woodland; elevation 442.8 - 2132 feet	Jan-Mar	<b>NO.</b> The site does not provide suitable habitat.
Contra Costa manzanita ( <i>Arctostaphylos manzanita</i> ssp. <i>laevigata</i> )	--/--/1B.2	Chaparral(rocky); elevation 1640 - 3608 feet	Jan-Mar(Apr)	<b>NO.</b> The site does not provide suitable habitat.
pallid manzanita ( <i>Arctostaphylos pallida</i> )	FT/SE/1B.1	Siliceous shale, sandy or gravelly soils within Broadleafed upland forest, Closed-cone coniferous forest, Chaparral, Cismontane woodland, Coastal scrub; elevation 607 - 1526 feet	Dec-Mar	<b>NO.</b> The site does not provide suitable habitat.
alkali milk-vetch ( <i>Astragalus tener</i> var. <i>tener</i> )	--/--/1B.2	Playas, Valley and foothill grassland(adobe clay), Vernal pools/alkaline; elevation 3.28 - 196.8 feet	Mar-Jun	<b>NO.</b> The site does not provide suitable habitat.
heartscale ( <i>Atriplex cordulata</i> )	--/--/1B.2	Chenopod scrub, Meadows and seeps, Valley and foothill grassland(sandy)/saline or alkaline; elevation 3.28 - 1230 feet	Apr-Oct	<b>NO.</b> The site does not provide suitable habitat.
brittlescale ( <i>Atriplex depressa</i> )	--/--/1B.2	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland, Vernal pools/alkaline, clay; elevation 3.28 - 1049.6 feet	Apr-Oct	<b>NO.</b> The site does not provide suitable habitat.
San Joaquin spearscale ( <i>Atriplex joaquiniana</i> )	--/--/1B.2	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland/alkaline; elevation 3.28 - 2738.8 feet	Apr-Oct	<b>NO.</b> The site does not provide suitable habitat.

COMMON NAME (SCIENTIFIC NAME)	STATUS <sup>1</sup> FED/ST/RPR	GENERAL HABITAT DESCRIPTION	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR AT THE SITE <sup>2</sup>
big tarplant ( <i>Blepharizonia plumosa</i> )	--/1B.1	Valley and foothill grassland; elevation 98.4 - 1656.4 feet	Jul-Oct	<b>LOW.</b> The site has suitable foothill grassland habitat.
round-leaved filaree ( <i>California macrophylla</i> )	--/1B.1	Cismontane woodland, Valley and foothill grassland/clay; elevation 49.2 - 3936 feet	Mar-May	<b>LOW.</b> The site has suitable foothill grassland habitat and clay soils.
Mt. Diablo fairy-lantern ( <i>Calochortus pulchellus</i> )	--/1B.2	Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland; elevation 98.4 - 2755.2 feet	Apr-Jun	<b>LOW.</b> The site has suitable foothill grassland habitat.
chaparral harebell ( <i>Campanula exigua</i> )	--/1B.2	Chaparral(rocky, usually serpentinite); elevation 902 - 4100 feet	May-Jun	<b>NO.</b> The site does not provide suitable habitat.
pink creamsacs ( <i>Castilleja rubicundula</i> ssp. <i>rubicundula</i> )	--/1B.2	Chaparral (openings), Cismontane woodland, Meadows and seeps, Valley and foothill grassland/serpentinite; elevation 66 – 2,986 feet	April - June	<b>NO.</b> The site does not provide suitable habitat.
Congdon's tarplant ( <i>Centromadia parryi</i> ssp. <i>congdonii</i> )	--/1B.2	Valley and foothill grassland(alkaline); elevation 3.28 - 754.4 feet	May-Oct (Nov)	<b>NO.</b> The site does not provide suitable habitat.
Bolander's water-hemlock ( <i>Cicuta maculata</i> var. <i>bolanderi</i> )	--/2.1	Marshes and swamps. Coastal, fresh or brackish water; elevation 0 - 656 feet	Jul-Sep	<b>NO.</b> The site does not provide suitable habitat.
soft bird's-beak ( <i>Cordylanthus mollis</i> ssp. <i>mollis</i> )	FE/SR/1B.2	Marshes and swamps (coastal salt); elevation 0 - 9.84 feet	Jul-Nov	<b>NO.</b> The site does not provide suitable habitat.
Mt. Diablo bird's-beak ( <i>Cordylanthus nidularius</i> )	--/SR/1B.1	Chaparral(serpentinite); elevation 1968 - 2624 feet	Jul-Aug	<b>NO.</b> The site does not provide suitable habitat.
Hoover's cryptantha ( <i>Cryptantha hooveri</i> )	--/1A	Inland dunes, Valley and foothill grassland(sandy); elevation 29.52 - 492 feet	Apr-May	<b>NO.</b> The site does not provide suitable habitat.
Hospital Canyon larkspur ( <i>Delphinium californicum</i> ssp. <i>interius</i> )	--/1B.2	Chaparral(openings), Cismontane woodland(mesic); elevation 754.4 - 3591.6 feet	Apr-Jun	<b>NO.</b> The site does not provide suitable habitat.
recurved larkspur ( <i>Delphinium recurvatum</i> )	--/1B.2	Chenopod scrub, Cismontane woodland, Valley and foothill grassland/alkaline; elevation 9.84 - 2460 feet	Mar-Jun	<b>NO.</b> The site does not provide suitable habitat.

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Norris' beard moss ( <i>Didymodon norrisii</i> )	--/--/2.2	Cismontane woodland, Lower montane coniferous forest/intermittently mesic, rock; elevation 1968 - 6471.44 feet	Year-round	<b>NO.</b> The site does not provide suitable habitat.
western leatherwood ( <i>Dirca occidentalis</i> )	--/--/1B.2	Broadleaved upland forest, Closed-cone coniferous forest, Chaparral, Cismontane woodland, North Coast coniferous forest, Riparian forest, Riparian woodland/mesic; elevation 164 - 1295.6 feet	Jan-Mar (Apr)	<b>NO.</b> The site does not provide suitable habitat.
dwarf downingia ( <i>Downingia pusilla</i> )	--/--/2.2	Valley and foothill grassland(mesic), Vernal pools; elevation 3.28 - 1459.6 feet	Mar-May	<b>NO.</b> The site does not provide suitable habitat.
Brandegee's eriastrum ( <i>Eriastrum brandegeae</i> )	--/--/1B.2	Chaparral, Cismontane woodland/volcanic, sandy; elevation 1000.4 - 3378.4 feet	Apr-Aug	<b>NO.</b> The site does not provide suitable habitat.
Antioch Dunes buckwheat ( <i>Eriogonum nudum</i> var. <i>psychicola</i> )	--/--/1B.1	Inland dunes; elevation 0 - 65.6 feet	Jul-Oct	<b>NO.</b> The site does not provide suitable habitat.
Kings River buckwheat ( <i>Eriogonum nudum</i> var. <i>regirivum</i> )	--/--/1B.2	Cismontane woodland (carbonate, rocky); elevation 492 - 984 feet	Aug-Nov	<b>NO.</b> The site does not provide suitable habitat.
Mt. Diablo buckwheat ( <i>Eriogonum truncatum</i> )	--/--/1B.1	Chaparral, Coastal scrub, Valley and foothill grassland/sandy; elevation 9.84 - 1148 feet	Apr-Sep (Nov-Dec)	<b>NO.</b> The site does not provide suitable habitat.
Contra Costa wallflower ( <i>Erysimum capitatum</i> var. <i>angustatum</i> )	FE/SE/1B.1	Inland dunes; elevation 9.84 - 65.6 feet	Mar-Jul	<b>NO.</b> The site does not provide suitable habitat.
diamond-petaled California poppy ( <i>Eschscholzia rhombipetala</i> )	--/--/1B.1	Valley and foothill grassland (alkaline, clay); elevation 0 - 3198 feet	Mar-Apr	<b>NO.</b> The site does not provide suitable habitat.
stinkbells ( <i>Fritillaria agrestis</i> )	--/--/4.2	Chaparral, Cismontane woodland, Pinyon and juniper woodland, Valley and foothill grassland/ Clay, sometimes serpentinite; elevation 33 – 5,100 feet	Mar - Jun	<b>HIGH.</b> A known population of this species has been surveyed by the East Bay Regional Park botanist every year since 1998. Plants have been observed every year except 2001.
fragrant fritillary ( <i>Fritillaria liliacea</i> )	--/--/1B.2	Cismontane woodland, Coastal prairie, Coastal scrub, Valley and foothill grassland/often serpentinite; elevation 9.84 - 1344.8 feet	Feb-Apr	<b>NO.</b> The site does not provide suitable habitat.

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Diablo helianthella ( <i>Helianthella castanea</i> )	--/1B.2	Broadleafed upland forest, Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland, Valley and foothill grassland; elevation 196.8 - 4264 feet	Mar-Jun	<b>LOW.</b> EBRMD has documented plants at Clayton Ranch.
Brewer's western flax ( <i>Hesperolinon breweri</i> )	--/1B.2	Chaparral, Cismontane woodland, Valley and foothill grassland/usually serpentinite; elevation 98.4 - 2952 feet	May-Jul	<b>NO.</b> The site does not provide suitable habitat.
woolly rose-mallow ( <i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i> )	--/1B.2	Marshes and swamps(freshwater); elevation 0 - 393.6 feet	Jun-Sep	<b>NO.</b> The site does not provide suitable habitat.
Santa Cruz tarplant ( <i>Holocarpha macradenia</i> )	FT/SE/1B.1	Clay or sandy soils within Coastal prairie, Coastal scrub, Valley and foothill grassland; 30 – 720 feet	June-Oct	<b>NO.</b> The site does not provide suitable habitat.
Carquinez goldenbush ( <i>Isocoma arguta</i> )	--/1B.1	Valley and foothill grassland (alkaline); elevation 3.28 - 65.6 feet	Aug-Dec	<b>NO.</b> The site does not provide suitable habitat.
Contra Costa goldfields ( <i>Lasthenia conjugens</i> )	FE/--/1B.1	Cismontane woodland, Playas(alkaline), Valley and foothill grassland, Vernal pools/mesic; elevation 0 - 1541.6 feet	Mar-Jun	<b>NO.</b> The site does not provide suitable habitat. Plant is extirpated from region. Not reported since 1895.
Delta tule pea ( <i>Lathyrus jepsonii</i> var. <i>jepsonii</i> )	--/1B.2	Marshes and swamps(freshwater and brackish); elevation 0 - 13.12 feet	May-Jul (Sep)	<b>NO.</b> The site does not provide suitable habitat.
Mason's lilaeopsis ( <i>Lilaeopsis masonii</i> )	--/SR/1B.1	Marshes and swamps (brackish or freshwater), Riparian scrub; elevation 0 - 32.8 feet	Apr-Nov	<b>NO.</b> The site does not provide suitable habitat.
Delta mudwort ( <i>Limosella subulata</i> )	--/2.1	Marshes and swamps; elevation 0 - 9.84 feet	May-Aug	<b>NO.</b> The site does not provide suitable habitat.
showy golden madia ( <i>Madia radiata</i> )	--/1B.1	Cismontane woodland, Valley and foothill grassland; elevation 82 - 2952 feet	Mar-May	<b>NO.</b> The site provides suitable general habitat, however, the last CNDDDB observation in the county occurred in 1941.
San Antonio Hills monardella ( <i>Monardella antonina</i> ssp. <i>antonina</i> )	--/3	Chaparral, Cismontane woodland; elevation 1640 - 3280 feet	Jun-Aug	<b>LOW.</b> The site has limited suitable woodland habitat.

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Hall's bush-mallow ( <i>Malacothamnus hallii</i> )	--/1B.2	Chaparral, Coastal scrub; elevation 32.8 - 2492.8 feet	May-Sep (Oct)	<b>NO.</b> The site does not provide suitable habitat.
woodland woollythreads ( <i>Monolopia gracilens</i> )	--/1B.2	Broadleaved upland forest openings, Chaparral openings, Cismontane woodland, North Coast coniferous forest openings, Valley and foothill grassland/serpentine; elevation 328 - 3936 feet	Mar-Jul	<b>NO.</b> The site does not provide suitable habitat.
Lime Ridge navarretia ( <i>Navarretia gowenii</i> )	--/1B.1	Chaparral; elevation 590.4 - 1000.4 feet	May-Jun	<b>NO.</b> The site does not provide suitable habitat.
Colusa grass ( <i>Neostapfia colusana</i> )	FT/SE/1B.1	Vernal pools(adobe, large); elevation 16.4 - 656 feet	May-Aug	<b>NO.</b> The site does not provide suitable habitat.
Antioch Dunes evening-primrose ( <i>Oenothera deltoides</i> ssp. <i>howellii</i> )	FE/SE/1B.1	Inland dunes; elevation 0 - 98.4 feet	Mar-Sep	<b>NO.</b> The site does not provide suitable habitat.
Mt. Diablo phacelia ( <i>Phacelia phacelioides</i> )	--/1B.2	Chaparral, Cismontane woodland/rocky; elevation 1640 - 4493.6 feet	Apr-May	<b>NO.</b> The site does not provide suitable habitat.
bearded popcorn-flower ( <i>Plagiobothrys hystriculus</i> )	--/1B.1	Valley and foothill grassland(mesic), Vernal pool margins/often vernal swales; elevation 0 - 898.72 feet	Apr-May	<b>NO.</b> The site does not provide suitable habitat.
slender-leaved pondweed ( <i>Potamogeton filiformis</i> )	--/2.2	Marshes and swamps (assorted shallow freshwater); elevation 984 - 7052 feet	May-Jul	<b>NO.</b> The site does not provide suitable habitat.
eel-grass pondweed ( <i>Potamogeton zosteriformis</i> )	--/2.2	Marshes and swamps(assorted freshwater); elevation 0 - 6100.8 feet	Jun-Jul	<b>NO.</b> The site does not provide suitable habitat.
rock sanicle ( <i>Sanicula saxatilis</i> )	--/SR/1B.2	Broadleaved upland forest, Chaparral, Valley and foothill grassland/rocky; elevation 2033.6 - 3854 feet	Apr-May	<b>NO.</b> The site does not provide suitable habitat.
chaparral ragwort ( <i>Senecio aphanactis</i> )	--/2.2	Chaparral, Cismontane woodland, Coastal scrub/sometimes alkaline; elevation 49.2 - 2624 feet	Jan-Apr	<b>NO.</b> The site does not provide suitable habitat.
most beautiful jewel-flower ( <i>Streptanthus albidus</i> ssp. <i>peramoenus</i> )	--/1B.2	Chaparral, Cismontane woodland, Valley and foothill grassland/serpentine; elevation 308.32 - 3280 feet	(Mar) Apr-Sep (Oct)	<b>NO.</b> The site does not provide suitable habitat.

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Mt. Diablo jewel-flower ( <i>Streptanthus hispidus</i> )	--/1B.3	Chaparral, Valley and foothill grassland/rocky; elevation 1197.2 - 3936 feet	Mar-Jun	<b>NO.</b> The site does not provide suitable habitat.
Suisun Marsh aster ( <i>Symphotrichum lentum</i> )	--/1B.2	Marshes and swamps(brackish and freshwater); elevation 0 - 9.84 feet	May-Nov	<b>NO.</b> The site does not provide suitable habitat.
coastal triquetrella ( <i>Triquetrella californica</i> )	--/1B.2	Coastal bluff scrub, Coastal scrub/soil; elevation 32.8 - 328 feet	year-round	<b>NO.</b> The site does not provide suitable habitat.
caper-fruited tropidocarpum ( <i>Tropidocarpum capparideum</i> )	--/1B.1	Valley and foothill grassland(alkaline hills); elevation 3.28 - 1492.4 feet	Mar-Apr	<b>NO.</b> The site does not provide suitable habitat.
oval-leaved viburnum ( <i>Viburnum ellipticum</i> )	--/2.3	Chaparral, Cismontane woodland, Lower montane coniferous forest; elevation 705.2 - 4592 feet	May-Jun	<b>NO.</b> The site does not provide suitable habitat.

<sup>1</sup> Federal Codes: FE = Federally Listed Endangered; FT = Federally Listed Threatened

State Codes: SE = State-listed Endangered; ST = State-listed Threatened

California Rare Plant Rank (RPR) Codes:

List 1B Plants rare, threatened, or endangered in California and elsewhere.'

List 2 Plants rare, threatened, or endangered in California but more common elsewhere.'

List 3 Plants about which we need more information, review list'

Extensions

.3 Not very endangered in California

.2 Fairly endangered in California

.1 Seriously endangered in California

<sup>2</sup> NO = The project site and immediate vicinity do not support suitable habitat for the species, and/or the project does not have the potential to significantly impact the species.

LOW = The project site and immediate vicinity provide only limited or marginal habitat, or may be outside the characteristic range and/or very rare in project region.

MEDIUM = The project site and/or immediate vicinity provides suitable, but not ideal habitat conditions. Species not observed within the project site.

HIGH = The project site and/or immediate vicinity provides ideal habitat conditions. Species observed in project site or known to occur in the project area.

**Plant Species Observed at the Contra Loma Regional Park**  
**Field visit dates: October 20 and 22, 2010, and March 30, 2011**

SCIENTIFIC NAME	COMMON NAME	FAMILY	NATIVE/ NON-NATIVE <sup>1</sup>
<i>Achillea millefolium</i>	yarrow	Asteraceae	Native
<i>Achyrachaena mollis</i>	blow-wives	Asteraceae	Native
<i>Aesculus californica</i>	California buckeye	Hippocastanaceae	Native
<i>Amsinckia menziesii</i> var. <i>intermedia</i>	common fiddleneck	Boraginaceae	Native
<i>Avena barbata</i>	slender wild-oat	Poaceae	Cal-IPC [Moderate]
<i>Baccharis salicifolia</i>	mule fat	Asteraceae	Native
<i>Brassica nigra</i>	black mustard	Brassicaceae	Cal-IPC [Moderate]
<i>Brodiaea coronaria</i>	early harvest brodiaea	Liliaceae	Native
<i>Bromus diandrus</i>	ripgut brome	Poaceae	Cal-IPC [Moderate]
<i>Bromus hordeaceus</i>	soft brome	Poaceae	Not native
<i>Bromus madritensis</i>	foxtail chess	Poaceae	Cal-IPC [High]
<i>Capsella bursa-pastoris</i>	shepherd's purse	Brassicaceae	Not native
<i>Castilleja exserta</i>	purple owl's clover	Scrophulariaceae	Native
<i>Centaurea solstitialis</i>	yellow star-thistle	Asteraceae	Cal-IPC [High]; CDFG [C]
<i>Cerastium glomeratum</i>	sticky mouse-eared chickweed	Caryophyllaceae	Not native
<i>Chamomilla suaveolens</i>	pineapple weed	Asteraceae	Not native
<i>Chlorogalum angustifolium</i>	narrow-leaved soap plant	Liliaceae	Native
<i>Cirsium vulgare</i>	bull thistle	Asteraceae	Cal-IPC [Moderate]; CDFG [C]
<i>Claytonia perfoliata</i>	miner's lettuce	Portulacaceae	Native
<i>Conium maculatum</i>	poison hemlock	Apiaceae	Cal-IPC [Moderate]
<i>Cyperus eragrostis</i>	tall flatsedge	Cyperaceae	Native
<i>Dichelostemma capitatum</i>	blue dicks	Liliaceae	Native
<i>Erodium cicutarium</i>	red-stemmed filaree	Geraniaceae	Not native
<i>Erodium moschatum</i>	white-stemmed filaree	Geraniaceae	Not native
<i>Fritillaria agrestis</i>	stinkbells	Liliaceae	Native
<i>Galium aparine</i>	goose grass	Rubiaceae	Native
<i>Geranium dissectum</i>	cut-leaved geranium	Geraniaceae	Not native
<i>Geranium molle</i>	dove's foot geranium	Geraniaceae	Not native
<i>Grindelia camporum</i>	great valley gumweed	Asteraceae	Native
<i>Holocarpha virgata</i>	narrow tarplant	Asteraceae	Native
<i>Hordeum jubatum</i>	foxtail barley	Poaceae	Native
<i>Hypochaeris glabra</i>	smooth cat's-ear	Asteraceae	Not native
<i>Juglans californica</i> var. <i>hindsii</i>	northern California black walnut	Juglandaceae	Native
<i>Juncus balticus</i>	Baltic rush	Juncaceae	Native
<i>Lepidium nitidum</i>	shining pepper grass	Brassicaceae	Native
<i>Lolium multiflorum</i>	Italian ryegrass	Poaceae	Cal-IPC [Moderate]

SCIENTIFIC NAME	COMMON NAME	FAMILY	NATIVE/ NON-NATIVE <sup>1</sup>
<i>Lupinus bicolor</i>	miniature lupine	Fabaceae	Native
<i>Lupinus succulentus</i>	arroyo lupine	Fabaceae	Native
<i>Lythrum hyssopifolium</i>	hyssop loosestrife	Lythraceae	Cal-IPC [Limited]
<i>Malva neglecta</i>	common mallow	Malvaceae	Not native
<i>Marah fabaceus</i>	California man-root	Cucurbitaceae	Native
<i>Myriophyllum spicatum</i>	Eurasian milfoil	Haloragaceae	Cal-IPC [High]; CDFA [C]
<i>Paspalum dilatatum</i>	dallis grass	Poaceae	Not native
<i>Plagiobothrys fulvus</i>	fulvous popcorn flower	Boraginaceae	Native
<i>Quercus douglasii</i>	blue oak	Fagaceae	Native
<i>Quercus lobata</i>	valley oak	Fagaceae	Native
<i>Quercus wislizenii</i>	interior live oak	Fagaceae	Native
<i>Ranunculus occidentalis</i>	western buttercup	Ranunculaceae	Native
<i>Rubus discolor</i>	himalayan blackberry	Rosaceae	Cal-IPC [High]
<i>Rumex crispus</i>	curly dock	Polygonaceae	Not native
<i>Salix laevigata</i>	red willow	Salicaceae	Native
<i>Sanicula bipinnata</i>	poison sanicle	Apiaceae	Native
<i>Scirpus acutus var. acutus</i>	tule	Cyperaceae	Native
<i>Silene gallica</i>	windmill pink	Caryophyllaceae	Not native
<i>Silybum marianum</i>	milk thistle	Asteraceae	Cal-IPC [Limited]
<i>Toxicodendron diversilobum</i>	poison oak	Anacardiaceae	Native
<i>Trifolium variegatum</i>	white-tipped clover	Fabaceae	Native
<i>Triteleia laxa</i>	Ithuriel's spear	Liliaceae	Native
<i>Typha latifolia</i>	common cattail	Typhaceae	Native
<i>Vulpia myuros</i>	rattail fescue	Poaceae	Not native
<i>Xanthium strumarium</i>	cocklebur	Asteraceae	Native

<sup>1</sup> Native status of plants is based on *The Jepson Manual* (Hickman 1993). Additionally, Cal-IPC and CDFA ratings are shown in brackets for non-native plants included in the *California Invasive Plant Inventory* (Cal-IPC 2006) or listed as noxious weeds by the California Department of Food and Agriculture (CDFA)(California Department of Food and Agriculture 2011).

#### References:

Cal-IPC. 2006. California invasive plant inventory: Cal-IPC publication 2006-02.

California Department of Food and Agriculture. 2011. Encycloweedica: data sheets. Available online at [http://www.cdffa.ca.gov/phpps/ipc/weedinfo/wininfo\\_table-sciname.htm](http://www.cdffa.ca.gov/phpps/ipc/weedinfo/wininfo_table-sciname.htm) (accessed 10/18/11)

## Observed Wildlife Within Contra Loma

COMMON NAME	SCIENTIFIC NAME
Allen's hummingbird	<i>Selasphorus Sasin</i>
American coot	<i>Fulica americana</i>
American crow	<i>Corvus brachyrhynchos</i>
American kestrel	<i>Falco sparverius</i>
American robin	<i>Turdus migratorius</i>
Black phoebe	<i>Sayornis nigricans</i>
Black-tailed Jackrabbit	<i>Lepus californicus</i>
Brewer's blackbird	<i>Euphagus cyanocephalus</i>
Brown pelican	<i>Pelecanus occidentalis</i>
Bullfrog	<i>Rana catesbeiana</i>
California ground squirrel	<i>Spermophilus beecheyi</i>
Canada goose	<i>Branta canadensis</i>
Common merganser	<i>Mergus merganser</i>
Common raven	<i>Corvus corax</i>
Coyote	<i>Canis latrans</i>
Desert cottontail	<i>Sylvilagus audubonii</i>
Double-crested cormorant	<i>Phalacrocorax auritus</i>
Eastern gray squirrel	<i>Sciurus carolinensis</i>
European starling	<i>Sturnus vulgaris</i>
Gray fox	<i>Urocyon cinereoargenteus</i>
Great blue heron	<i>Ardea herodias</i>
Great egret	<i>Ardea alba</i>
Grebe	<i>Aechmophorus occidentalis</i>
Hose sparrow	<i>Passer domesticus</i>
House finch	<i>Carpodacus mexicanus</i>
Largemouth bass	<i>Micropterus salmoides</i>
Mallard	<i>Anas platyrhynchos</i>
Mourning dove	<i>Zenaida macroura</i>
Northern flicker	<i>Colaptes auratus</i>
Northern mockingbird	<i>Mimus polyglottos</i>
Pacific treefrog	<i>Pseudacris regilla</i>
Red tailed hawk	<i>Buteo jamaicensis</i>
Red-shouldered hawk	<i>Buteo lineatus</i>
Red-winged blackbird	<i>Agelaius phoeniceus</i>
Rock dove	<i>Columba livia</i>
Song sparrow	<i>Melospiza melodia</i>
Tarantula	<i>Aphonopelma iodium</i>
Turkey vulture	<i>Cathartes aura</i>
Western bluebird	<i>Sialia mexicana</i>
Western fence lizard	<i>Sceloporus occidentalis</i>
Western meadowlark	<i>Sturnella neglecta</i>
Western scrub jay	<i>Aphelocoma californica</i>
White-tailed kite	<i>Elanus leucurus</i>