CLAY PIT

STATE VEHICULAR RECREATION AREA

Draft General Plan

State Clearinghouse Number 2010092003

February 2012

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CALIFORNIA STATE PARKS

Draft General Plan

State Clearinghouse Number 2010092003

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ACRONYMS AND ABBREVIATIONS

ADA	Americans with Disabilities Act
ALUC	airport land use commission
ALUCP	*Airport Land Use Compatibility Plan*
AQMD	Air Quality Management District
CARB	California Air Resources Board
ASI	All-Terrain Vehicle Safety Institute
ATV	all-terrain vehicle
BCAG	Butte County Association of Governments
BCFD	Butte County Fire Department
BLM	U.S. Department of the Interior Bureau of Land Management
BMO	Basin Management Objective
BMP	best management practice
CAA	federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
Cal/EPA	California Environmental Protection Agency
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CH_4	methane
CHP	California Highway Patrol
City	City of Oroville
CNDDB	California Natural Diversity Database
CO_2	carbon dioxide
CRHR	California Register of Historical Resources
CWA	Clean Water Act of 1972
Department	Butte County Department of Water and Resource Conservation
DFG	California Department of Fish and Game
DMA	Drainage Management Area
DOF	California Department of Finance
DU	Development Use Area
DWR	California Department of Water Resources

ACRONYMS AND ABBREVIATIONS

E-Street MX	E Street Motocross
EIR	environmental impact report
EPA	U.S. Environmental Protection Agency
ESA	federal Endangered Species Act
GHG	greenhouse gas
HCP	habitat conservation plan
IPCC	Intergovernmental Panel on Climate Change
LEED®	Leadership in Energy and Environmental Design
LOS	levels of service
MBTA	Migratory Bird Treaty Act
MLD	most likely descendent
mph	miles per hour
MPO	metropolitan planning organization
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
N_2O	nitrous oxide
NCCP	natural community conservation plan
NIC	Northeast Information Center
NOAA	National Oceanic and Atmospheric Administration
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NRM	Natural Resource Management
SVAB	Sacramento Valley Air Basin
OHMVR	Off-Highway Motor Vehicle Recreation
OHV	off-highway vehicle
OHV BMP Manual	*OHV BMP Manual for Erosion and Sediment Control*
OM	Operations and Management
PEF	Project Evaluation Form
$PM_{2.5}$	fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less

ACRONYMS AND ABBREVIATIONS

PM_{10}	respirable particulate matter with an aerodynamic diameter of 10 micrometers or less
PRC	California Public Resource Code
RD	Resource Conservation land use designation
ROG	reactive organic gas
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SCOR	Sewerage Commission—Oroville Region
SCRCD	Sutter County Resource Conservation District
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SIU	Sub-Inventory Unit
SOI	sphere of influence
SPPO	State Parks Peace Officer
SR	State Route
SRA	State Recreation Area
State Parks	California Department of Parks and Recreation
SVAB	Sacramento Valley Air Basin
SVRA	State Vehicular Recreation Area
SWP	State Water Project
TAC	toxic air contaminant
TMDL	total maximum daily load
USACE	U.S. Army Corps of Engineers
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
UTV	Utility Terrain Vehicle
VELB	valley elderberry longhorn beetle
VEO	Visitor Experience and Opportunities

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Chapter 1.0 – Introduction

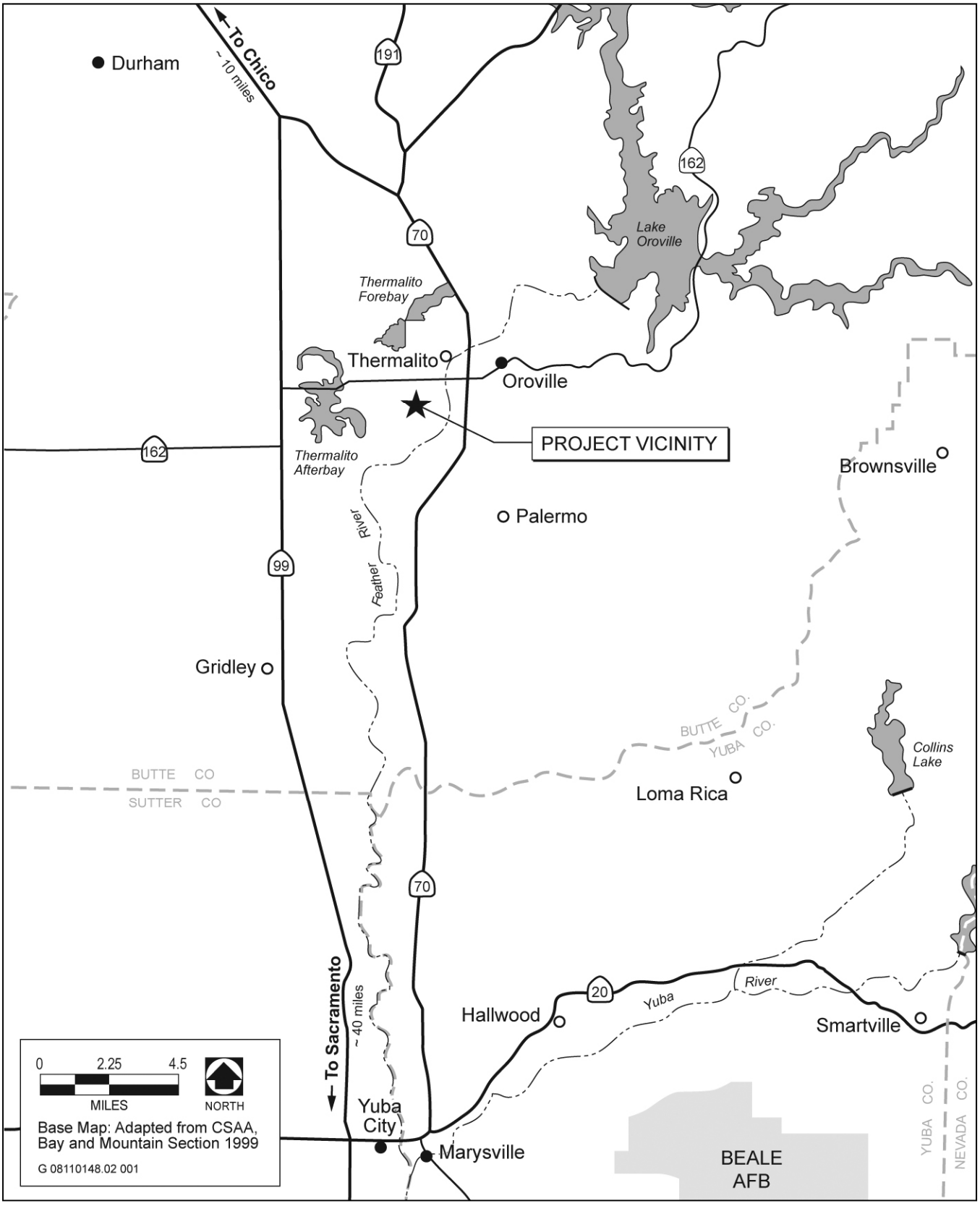
SVRA visitors parked beneath the cottonwoods

Clay Pit State Vehicular Recreation Area (Clay Pit SVRA or the SVRA) is a 220-acre site that is used for off-highway vehicle (OHV) recreational use. The Clay Pit basin is a large, shallow, excavated depression that was formed when clay was mined and used to construct the Oroville Dam. After construction of the dam was complete, California State Parks (State Parks) entered into an agreement with the California Department of Fish and Game (DFG) and the California Department of Water Resources (DWR) to take over management of the northern section of the Clay Pit site for the purpose of providing OHV recreation. The DFG manages a shooting range on the southern portion of the Clay Pit site.

1.1 Local and Regional Context

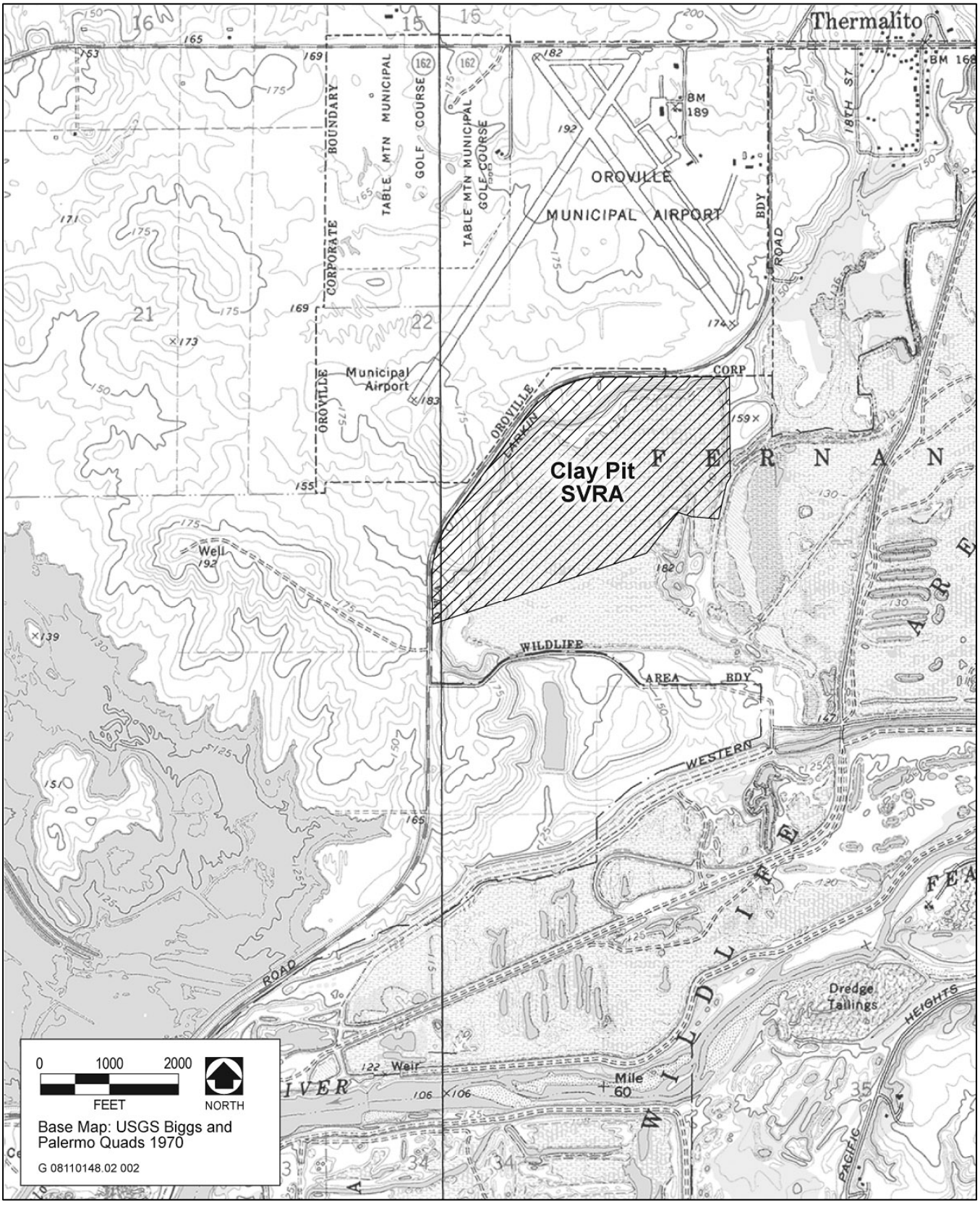
Clay Pit SVRA is located in unincorporated Butte County (Figure 1-1). The site is on Larkin Road, 2 miles south of Oroville Dam Boulevard (State Route [SR] 162). The Oroville Municipal Airport is located north and northwest of the SVRA, scattered residences and agricultural uses are located to the west, and DFG's Oroville Wildlife Management Area is located to the east and south (Figure 1-2). The closest SVRAs to Clay Pit SVRA are Prairie City SVRA in Rancho Cordova, approximately 90 miles to the south, and Carnegie SVRA in Livermore, 160 miles to the south. Mammoth Bar OHV Area is located within the Auburn State Recreation Area (SRA) located in the Sierra Nevada foothills approximately 70 miles southeast of Clay Pit SVRA. Lake Oroville SRA northeast of Oroville is the closest state park unit.

The nearest population centers include the City of Oroville (15,000 population), just north and east of Clay Pit SVRA; the City of Biggs (1,800 population), approximately 6 miles southwest; and the City of Gridley (6,500 population), approximately 9 miles southwest. The largest city in the region is Chico (88,000 population), approximately 30 miles to the northwest. Sacramento (447,000 population) is approximately 70 miles to the south. The population within unincorporated Butte County includes approximately 84,000 people (DOF 2010).



Source: Adapted by AECOM in 2010

Regional Location of Clay Pit SVRA **Figure 1-1**



Source: Adapted by AECOM in 2010

Local Context of Clay Pit SVRA **Figure 1-2**

1.2 Site Characteristics

The natural topography of Clay Pit SVRA was highly altered by the excavation of clay materials used to construct Oroville Dam. A terrace surrounding the excavated pit contains the only remaining natural topography and vegetation. A central drainage canal transects the site from the northwest to the southeast. During the rainy season, runoff from the airport property to the north is conveyed through a culvert under Larkin Road and into this canal. This water is then discharged off-site to a remnant oxbow lake within the DFG Oroville Wildlife Area to the east, adjacent to the Feather River.

Plant communities in the SVRA consist of degraded annual grassland and wetlands. Wetland communities include vernal pools, an intermittent drainage, the drainage canal, and an emergent marsh. Degraded annual grasslands occur primarily along the bluffs and elevated rim along the northern and western perimeter of the SVRA, but also are located throughout the basin floor where slight elevations in microtopography occur.

Clay Pit SVRA is considered a destination for beginner and intermediate riders and offers hills to climb, an open riding area, and informal trails. Clay Pit SVRA contains a limited number of developed facilities, including a paved parking lot, an interpretive sign, two shade ramadas, two picnic tables, and a vault toilet.

Northeast section of Clay Pit SVRA: existing restroom, parking lot, ramadas, and picnic tables

1.3 Purpose Acquired

In 1981, State Parks entered into an agreement with DFG and DWR, the land owners, to take over management of the Clay Pit site, previously known as "the impervious materials borrow area at Oroville Division." The *Agreement for Transfer to Department of Parks and Recreation of the*

Impervious Materials Borrow Area at Oroville Division was signed on January 22, 1981. The agreement gave State Parks the right to plan, develop, and administer real and personal property for the site as an OHV park, and the site was designated as an SVRA. DWR retains the right to inundate the site or remove additional borrow material if necessary for the Oroville Division of the State Water Project (Oroville Dam); however, to date, DWR has not exercised these rights nor expressed an interest in exercising these rights.

1.4 Sense of Place

Clay Pit SVRA is a destination for beginner and intermediate OHV recreationists who generally visit the site for a few hours of practice and then return to the local communities. Clay Pit SVRA provides an inexpensive local opportunity for OHV recreation.

OHV recreationist in the Clay Pit SVRA basin

1.5 Purpose of the General Plan

This Clay Pit SVRA General Plan is a broad-based policy document that establishes a long-range vision and provides goals and guidelines to direct future improvements, services, and programs in Clay Pit SVRA. By providing a clear purpose and vision, and long and short-term goals and guidelines, the General Plan defines the broadest management framework possible for Clay Pit SVRA including program development, ongoing management, and public use. This framework is intended to guide day-to-day decision making and serve as the basis for developing focused feasibility and management plans, specific project plans, and other management actions necessary to implement the goals of the General Plan. General Plans do not expire, per se, but are reconsidered for amendments or revisions when circumstances and needs dictate, such as additional land acquisitions and/or substantial development considerations that were not addressed in the General Plan or evaluated during the General Plan process.

1.6 Organization of the General Plan

This General Plan is organized into six chapters. The first three chapters provide an overview of Clay Pit SVRA. Chapter 4.0 presents goals and guidelines for Clay Pit SVRA. Chapters 5.0 and 6.0

provide references and plan contributor information. A brief description of each General Plan chapter is provided below.

- **Chapter 1.0** provides an introduction to Clay Pit SVRA.
- **Chapter 2.0** presents a summary of existing conditions, facilities, and important resources.
- **Chapter 3.0** summarizes and analyzes key issues identified during the planning process.
- **Chapter 4.0** provides an overview of the proposed General Plan components, including SVRA classification, purpose, vision, goals and guidelines, and land use management.
- **Chapter 5.0** lists references cited.
- **Chapter 6.0** identifies General Plan contributors.

1.7 Subsequent Planning and Environmental Review

The General Plan provides a framework to guide the management and planning for Clay Pit SVRA; however, future programs and projects may require plans that offer more specific guidance or details. Subsequent plans for Clay Pit SVRA may include management plans or project plans, as described below. Any subsequent planning efforts must be consistent with the General Plan. If a subsequent program or project would be inconsistent with the General Plan (e.g., a proposed change in use within a designated use area), a General Plan amendment or revision would be required.

Subsequent Plan Type	Description	Examples
Management plan	Defines the objectives, methodologies, and/or designs for accomplishing management goals. Management plans are consistent with systemwide plans and policies and with the unit's General Plan. Prepared on an as-needed basis, management plans typically focus on specific management topics, goals, or issues.	Resource management plans Trail management plans Operation plans Interpretive plans Concession plans
Specific project plan	Detailed implementation plans are needed to accomplish specific projects.	Design concepts Facility development plans (e.g., OHV track, developed trail system)

A General Plan is considered a "project" under the California Environmental Quality Act (CEQA) and is subject to environmental review. The proposed project involves the adoption of a General Plan, which of itself would cause no environmental impacts. Implementation of the General Plan would include actions that could physically alter the environment. Possible actions that may result from the adoption and implementation of the General Plan are anticipated, and potential impacts resulting from these actions were analyzed in an environmental impact report (EIR). The EIR addresses all of the points required by Article 9 of the State CEQA Guidelines, including existing

setting, impact analysis, alternatives analysis, and cumulative impacts. The EIR is an accompanying document to this General Plan, bound as a separate volume.

The goals, guidelines, proposed use areas, uses, and facilities described in this General Plan were evaluated in the EIR for their potential effects on the environment. The environmental analysis was conducted concurrent with the development of the General Plan. Impact minimization measures were incorporated within the General Plan wherever possible to help ensure that planned actions described in the General Plan, including those to be implemented in the future, will not result in significant environmental impacts.

Therefore, the CEQA analysis detailed in the EIR that accompanies this General Plan is intended to be adequate for many future projects implemented in a manner consistent with the goals and guidelines herein. Some actions described in the General Plan may require additional CEQA analysis documentation once the project details are known. Projects that may be implemented in the future as a result of adopting this General Plan must be subjected to CEQA review according to CEQA Guidelines Section 15168, in light of the information in the EIR prepared for this General Plan, to determine if additional CEQA documentation is necessary. The type of additional CEQA documentation completed would be determined based on CEQA Guidelines Sections 15162–15164. When future projects requiring additional environmental review are implemented, State Parks may refer to the EIR prepared for this General Plan as a starting point for a "tiered CEQA analysis," per Section 15168 of the State CEQA Guidelines.

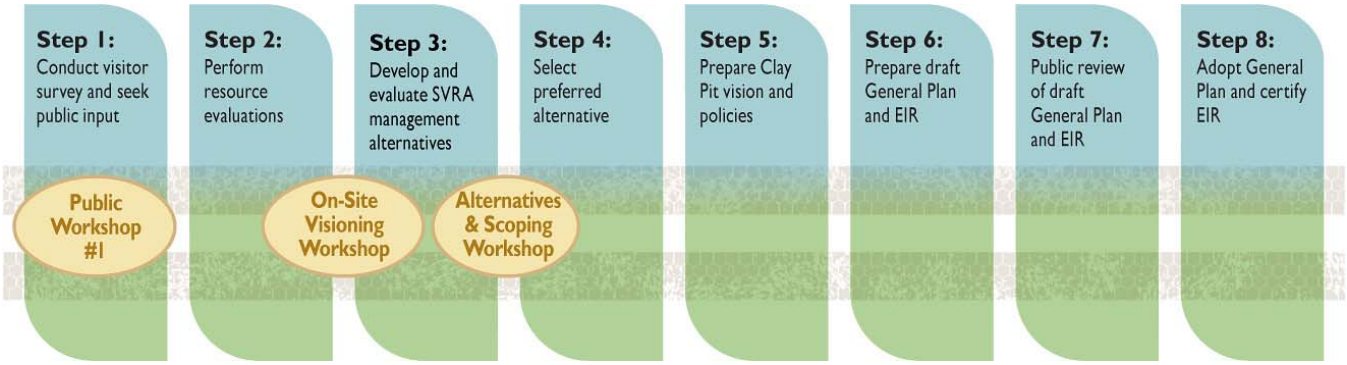
Although most of the General Plan was analyzed at a programmatic level, the specific proposal for new headquarters facilities was analyzed at a "project" level per Section 15161 of the State CEQA Guidelines. Once the General Plan has been approved and the accompanying EIR has been certified by the Off-Highway Motor Vehicle Recreation (OHMVR) Commission, construction of the new headquarters facilities may move forward without further CEQA review.

1.8 The Planning Process

1.8.1 Overview of the Planning Process

This is the first General Plan prepared for Clay Pit SVRA. Key phases in the General Plan process included researching existing conditions and evaluating resources, gathering public input, developing and evaluating land use alternatives, selecting a preferred alternative, and preparing the General Plan document. Eight major steps completed while preparing the General Plan are illustrated in Figure 1-3.

Existing conditions research included the preparation of a cultural resources survey, a wetland delineation, a reconnaissance-level wildlife survey, a survey for special-status shrimp species, a survey for special-status plants, a hydrologic assessment, a noise and sound assessment, and a visitor survey. Steps used for gathering public input are described in section 1.9 below. Existing



The General Plan Process **Figure 1-3**

conditions opportunities and constraints and public input on land use alternatives were combined to develop goals, guidelines, and a land use plan.

1.8.2 The Planning Framework

The General Plan was prepared consistent with the planning framework established by the State Parks Planning Division. The Classification, Declaration of Purpose, SVRA Vision, goals and guidelines, and Use Areas established within the General Plan guide the specific development of Clay Pit SVRA under guidance set forth by the OHMVR Division. A description of the planning hierarchy that provides direction for the future of Clay Pit SVRA is included in the table below.

Planning Concept	Description
OHMVR Division Mission	The OHMVR Division mission guides acquisition, planning, and management of the SVRAs as part of the OHMVR Division's responsibility to provide leadership for a statewide OHV program.
Classification	SVRA management, operation, and development are guided by the classification of a park unit. Clay Pit is a State Vehicle Recreation Area.
Declaration of Purpose	This is a broad statement of direction unique to each SVRA. The California Public Resources Code (PRC) Section 5090.43 (a) indicates that SVRAs shall be developed, managed, and operated for the purpose of making the fullest public use of the outdoor recreational opportunities present, while balancing the protection of natural and cultural resources.
SVRA Vision	The Vision Statement is a view of the desired future conditions for Clay Pit SVRA. It expresses what Clay Pit SVRA should ultimately be and look like and what kinds of visitor experiences should be available in the future.
Goals and Guidelines	Goals are developed to address existing issues and provide ongoing guidance for management of the SVRA. Guidelines provide the direction that the OHMVR Division will consider to achieve these goals.
Use Areas	Use Areas allow for specialized management by area. These Use Areas are developed through consideration of a variety of factors, including topographic features, resource values, ecological parameters, management issues and goals, types and intensities of use, and visitor use and experience. Targeted goals and guidelines are developed for each Use Area.

1.9 Interagency and Stakeholder Involvement

Opportunities for public and stakeholder input occurred throughout the General Plan process, and results are summarized in Appendix A. Specifically, the public participation program included the following elements:

- **Visitor Surveys**—A questionnaire was provided on the Internet and hard copies were distributed at public meetings. A total of 105 people responded to the survey between May and October 2010.
- **Stakeholder Interviews—**Interviews were conducted with OHV and Clay Pit SVRA stakeholders regarding potential ideas, concerns, and common goals associated with development of the General Plan. The interviews were conducted in spring and summer 2010.

On-site meeting

- **Three Public Workshops—**Workshops were held to gather public input during the formulation of the General Plan. At the first workshop, held in June 2010, OHMVR Division staff presented the General Plan process and asked for input regarding potential facility improvements. The second workshop was held on August 28, 2010, at Clay Pit SVRA where staff met with visitors and meeting attendees. Staff presented visitors with a draft conceptual diagram, requested comments on the conceptual plans being presented, and requested suggestions for refining the plans. The third public workshop was held on September 14, 2010, and included a discussion of three development alternatives. Staff manned three stations to collect comments from attendees. Comment cards were distributed and collected. This workshop also served as a formal CEQA Scoping Meeting.


Public scoping meeting

- **Fact Sheet and Newsletters**—These documents were distributed to individuals on the mailing list and posted at Clay Pit SVRA to provide background information on the project, updates on project progress, and announcements of the public workshops.

- **Flyer**—A flyer advertising the second and third public workshops was posted on-site and sent to libraries, OHV-related shops, and user groups.

- **State Parks Website**—The Website was updated regularly with information pertaining to the General Plan process, opportunities for public input, information concerning the online survey, and a list of project documents.

- **Agency Check-Ins**—Throughout the General Plan process, OHMVR Division staff contacted various responsible agencies including the U.S. Fish and Wildlife Service (USFWS), DFG, DWR, and Central Valley Regional Water Quality Control Board (RWQCB), to obtain their input on plans proposed for the SVRA. These contacts included phone calls, e-mails, U.S. mail, public meetings, and interagency meetings. OHMVR Division staff also met on-site with a USFWS representative to obtain their input on the proposed plan. Coordination with these agencies will continue as this General Plan is implemented.

Clay Pit Fact Sheet

Public Meeting Flyer

Chapter 2.0 – Existing Conditions

Sutter Buttes behind Clay Pit SVRA

This chapter describes the environmental setting and context of Clay Pit SVRA. It summarizes agency roles and the influence of local planning efforts. It also describes recreational opportunities, natural and cultural resources, existing land uses, and aesthetic resources at the site. The information in this chapter provides the baseline data for the General Plan goals and guidelines and serves as the setting for environmental review.

2.1 Regional Land Use and Facilities

2.1.1 Regional Land Use

Clay Pit SVRA is located in unincorporated Butte County southwest of the City of Oroville. North of the site is the Oroville Municipal Airport and associated industrial uses (Figure 2-1). To the east and south is the DFG's Oroville Wildlife Area, which includes a shooting range. Grazing land and scattered residences are to the west and south.

The closest urban center is the City of Oroville (City). The City has grown in population from 13,004 to 14,687 between 2000 and 2010 (City of Oroville 2009). Clay Pit SVRA shares its northern boundary with the City. When updating its General Plan recently, the City expanded its sphere of influence (SOI) to include the area containing Clay Pit SVRA and areas to the south of Clay Pit SVRA. As stated in the City's General Plan, "the updated SOI represents a geographic area that better defines the greater Oroville area and establishes where the City intends to focus development for the next 25 years and beyond." Clay Pit SVRA and the adjacent Oroville Wildlife Area are owned by the state and would not be annexed to the City. Descriptions of the County's zoning and General Plan land use designations for these areas are provided in Section 2.7.2, "Regional Planning."

Source: BCAG 2007

Land Use **Figure 2-1**

2.1.2 Regional Recreation Facilities

Clay Pit SVRA plays an important role of meeting the recreational needs of the local and regional community. OHV recreation is a popular pastime in the region, as evidenced by the number of private OHV facilities available in the vicinity. However, Clay Pit SVRA provides the only local, publicly owned, low-cost alternative for novice and intermediate OHV recreationists. A number of high-quality public natural areas exist in the region, including the DFG Oroville Wildlife Area directly adjacent to Clay Pit SVRA. Therefore, Clay Pit SVRA is not frequently used for natural-resource-oriented recreation. However, opportunities for improved education and interpretation of natural and cultural resources exist at the SVRA.

Many parks and recreational facilities are located within or near Butte County. The facilities located within Butte County and near Clay Pit SVRA range from small neighborhood parks to regional recreation facilities. These parks provide opportunities for passive and active recreation such as picnic areas, sports fields, trails, and fishing and boating opportunities. Opportunities to use OHVs are not provided by any publicly-operated parks within Butte County, but are provided in nearby counties. No designated trail corridors are located near Clay Pit SVRA.

Federal Properties

Clay Pit SVRA is in the vicinity of an extensive network of federal lands, including land owned by the U.S. Army Corps of Engineers (USACE), U.S. Department of the Interior Bureau of Land Management (BLM), and U.S. Forest Service (USFS). Several areas within 100 miles of Clay Pit SVRA allow OHV use, including the Chappie-Shasta Off-Highway Vehicle Area managed by BLM; the Black Butte Lake area managed by USACE; and several areas managed by USFS within the Grindstone, Nevada City, Foresthill, American River, Mt. Hough, Feather River, and Beckwourth ranger districts.

State Owned Properties

The State of California has a significant recreational presence in Butte County. Near Clay Pit SVRA, the state manages Bidwell Mansion State Historic Park, located within the City of Chico near California State University, Chico; Bidwell-Sacramento River State Park, located west of Chico; and Lake Oroville SRA, located east of the City of Oroville. None of these facilities provide OHV recreation opportunities.

DFG manages the Oroville Wildlife Area located directly east and south of Clay Pit SVRA. The 11,869-acre Wildlife Area primarily includes riparian woodland habitat along the Feather River, and grasslands around the Thermalito Afterbay. Recreational opportunities include camping, fishing, hunting, boating, horseback riding, dog training, and shooting at the rifle range.

The closest state-managed OHV facility is the Mammoth Bar OHV Area located within the Auburn SRA. This OHV area is located in the Sierra Nevada foothills approximately 70 miles southeast of

Clay Pit SVRA. This motorcycle and all-terrain vehicle (ATV) riding area has been used by OHV enthusiasts for nearly 25 years and offers a wide range of trails and opportunities in a beautiful setting next to the Middle Fork of the American River. The area is under the jurisdiction of the Bureau of Reclamation and is operated by State Parks.

The closest state-managed SVRA is Prairie City SVRA located in Rancho Cordova approximately 90 miles to the south. This SVRA offers OHV enthusiasts a variety of interesting terrain, trails and OHV facilities for motorcycles, ATVs, and 4-wheel drive vehicles, an environmental training center, a paved Kart track, and a paved Quarter Midget track. There are flat, open grasslands, rolling hills with native blue oak trees, and acres of cobbled mine tailings left after gold dredges combed ancient river beds in search of gold during the late 1800s. Beginners as well as experts find the variety of terrain both challenging and enjoyable.

Because no designated trail corridors are located near Clay Pit SVRA, no opportunities exist for connecting Clay Pit SVRA to the California Statewide Motorized Trail (described below in Section 2.7.1, "Systemwide Planning").

Regional Parks

Five recreation districts are within Butte County: Feather River Recreation and Park District, Durham Recreation and Park District, Richvale Recreation and Park District, Paradise Recreation and Park District, and Chico Area Recreation and Park District. In addition, the county maintains two county service areas, C.S.A. 31 and C.S.A. 34, for the Biggs and Gridley swimming pools (Butte County GIS Division 2008).

The parks managed by each district are listed below:

Feather River Recreation and Park District

- Riverbend Park
- Bedrock Skate and Bike Park
- Bedrock Park
- Palermo Park
- Playtown Park
- Martin Luther King Jr. Park
- Forbestown Park

Durham Recreation and Park District

- Durham Community Park
- Dwight Brinson Swim Center
- Louis Edwards Park
- Ravekes Park
- Midway Park
- Nelson Park
- Durham Memorial Hall

Richvale Recreation and Park District

- Richvale Elementary School Park

Paradise Recreation and Park District

- Bille Park
- Bille Park Expansion
- Moore Road Park
- Coutolenc Park
- Aquatic Park

Chico Area Recreation and Park District

- Community Park
- DeGarmo Park
- Hooker Oak Park
- Oak Way Park
- Peterson Park
- Rotary Park

Municipal Parks

The five incorporated municipalities in Butte County (Paradise, Biggs, Gridley, Oroville, and Chico) provide parks within their boundaries. These parks include Paradise Community Park in Paradise; Family Park, Pocket Park, and Rio Bonito Park in Biggs; Daddow Park, Quota Park, Gridley Skate and Water Park, Vierra Park, and Rotary Park in Gridley; Hammon Park, Hewitt Park, and Rotary Park in Oroville, and Bidwell Park in Chico. Bidwell Park is the third-largest municipal park in the nation. Facilities within Bidwell Park include Caper Acres, Chico Creek Nature Center, Five-Mile Recreation Area, One-Mile Recreation Area, Upper Park, and Wildwood Park.

Private OHV Recreation Facilities

In addition to public parkland, several nearby private recreational facilities provide opportunities for OHV use. Four of these private facilities are located within 30 miles of Clay Pit SVRA. The following is not intended as an all-inclusive list and is subject to change based upon operator circumstances.

MMX Racing

MMX Racing is located in Marysville, approximately 30 miles south of Clay Pit SVRA. This private motocross facility is available for practice, group rental, and special events. Several groomed tracks are available for all ages and abilities, and practice fees are charged (MMX Racing 2010).

E-Street Motocross Track

The E Street Motocross Track, located in Marysville, is operated by E-Street MX, and is open to the public for practice and special events. This facility has three tracks: a main track, a sandy track, and a 50cc track. Fees to practice vary depending on whether or not the rider is a member (E-Street MX 2010).

Riverfront Park

Riverfront Park, located in Marysville, is also operated by E-Street MX. It has multiple tracks for users of all skill levels and age ranges, it includes a drag strip, and practice fees are charged.

Cycleland Speedway

Located 14 miles south of Chico, this facility includes several tracks accommodating karts, midgets, and motocross. The tracks are used for practice and events. The cost to use the track

depends on the type of vehicle, the level of the rider, and whether the rider is practicing or racing. (Cycleland Speedway 2010).

2.2 Existing Clay Pit SVRA Land Use and Facilities

2.2.1 Land Use

Clay Pit SVRA comprises 220 acres of a broad, excavated depression surrounded by remnant terraces of grassland. It provides basic, informal riding and open spaces for OHV use; the low hills and smooth landscape generally do not provide for more extreme riding or hill climbing. The SVRA has limited infrastructure and improvements including one vault toilet, two shaded picnic tables, and one interpretive sign. The SVRA is open only for day use.

2.2.2 Circulation

Site Access

Regional access to Clay Pit SVRA is provided by a road network that includes SR 70 to the east and SR 99 to the west (Figure 1-1). SR 70 and SR 99 are parallel north/south highways connecting the cities of Chico to the north with Marysville and Yuba City to the south. Local access is provided by Larkin Road, which connects to SR 162 (Oroville Dam Boulevard West) to the north and Biggs Highway East to the south. Larkin Road is classified as a two-lane arterial and has a 55 mph speed limit.

The main entrance for Clay Pit SVRA is located on Larkin Road approximately 1 mile south of SR 162 and 1,000 feet east of the Larkin Road/Airport Park intersection. This entry point is marked with State Parks signage, and the intersection is not stop controlled. No left turn lane is provided on Larkin Road at the entrance to the SVRA. The main access road into the SVRA leads to a parking lot, picnic tables, and restrooms in the northeast corner of the site. Internal OHV circulation consists of informal open terrain across the entire site.

Clay Pit SVRA generates minimal traffic and access to the site from Larkin Road functions at a satisfactory level (Appendix B). Intersections along Larkin Road and near the SVRA operate at acceptable levels of service (LOS) during peak traffic periods. Intersection improvements at Larkin Road and SR 162 are included in the Butte County General Plan. No date has been determined to make these improvements and they have not yet been funded. No other near- or long-term road projects are planned in the project area.

Alternative Modes of Transportation

The Butte Regional Transit agency operates transit routes in the City of Oroville, but none of the routes are near Clay Pit SVRA. No other alternative modes of transportation, such as rail, bicycle, or pedestrian facilities, are available in the area. Because OHVs are typically transported to

recreational areas by vehicle (many OHVs, with the exception of trucks and jeeps, cannot legally be driven on public roads), the use of alternative transportation options is limited.

Entrance to Clay Pit SVRA

2.2.3 Facilities

Visitor Facilities

Facilities on-site are limited to one vault toilet, two shaded picnic tables, and one interpretive sign.

Ramada

Administration and Maintenance Facilities

No administration or maintenance facilities are on-site. Administration and maintenance functions are managed by the Twin Cities District offices located at the Prairie City SVRA in Rancho Cordova, and local maintenance is provided out of the Northern Buttes District office in Oroville.

Utilities

No utilities are currently provided on-site; however, utilities (e.g., telephone, electricity, water, sewer, fiber optic cable) are provided to the Oroville Municipal Airport and adjacent businesses across Larkin Road. These utilities could be extended to Clay Pit SVRA. Water also could be provided by constructing one or more wells on-site; water tables in nearby wells are shallow. Percolation tests indicate that on-site soils likely are not suitable for a standard gravity-fed septic system (Geocon 2010).

Recology Butte Colusa Counties provides trash collection and recycling services for residents and businesses of Butte County. Solid waste is transported to the Neal Road Recycling and Waste Facility. The Neal Road Recycling and Waste Facility is located at 1023 Neal Road in an unincorporated area, south of the City of Chico and approximately 15 miles north of the project site. Permitted waste types at the Neal Road Recycling and Waste Facility include Class II and III, non-hazardous, municipal waste including construction/demolition, green materials, inert, metals, mixed municipal, sludge (biosolids), tires, and wood waste. The permitted rate of disposal for the landfill is a maximum of 1,500 tons per day and it has a remaining capacity of 20,847,970 cubic yards (CalRecycle 2010).

2.2.4 Visitor Use and Recreation

Clay Pit SVRA serves a wide age group of visitors, generally from the local area. The site is known as a suitable location to bring children and beginning users. According to the visitor survey conducted between May and October 2010, most respondents come to the site with their family or friends, while approximately 20 percent enjoy coming alone. Respondents also indicated that 78 percent reside less than 50 miles from the SVRA and 94 percent reside within 100 miles.

2.2.5 Recreation Trends

Federal research on OHV use indicates that the OHV-using population has been growing nationwide, and a larger proportion of people under age thirty have participated in OHV use. The same research found that "OHV users as a whole are more active in almost every recreation activity relative to the general U.S. population age 16 and older" (USFS 2005). According to State Parks, residents in Northern California think that OHV areas are important (State Parks 2009a).

2.2.6 Future Opportunities

Opportunities for circulation, facility, and recreation improvements exist at Clay Pit SVRA. The SVRA is largely undeveloped. There have been suggestions from the public that recreation facilities, such as tracks, trails, and obstacles be built (Appendix A). As part of this General Plan, State Parks proposes to improve access to the site with a new entry and headquarters facilities, envisions improvements to internal circulation with the construction and installation of internal

roadways and directional signage, and envisions providing additional recreation and maintenance facilities. The proposed and envisioned changes are described in Chapter 4.0, "The Plan."

2.3 Significant Resource Values

2.3.1 Physical Resources

This section describes the topography; geology, soils, and minerals; hydrology and water resources; and climate and air resources present at Clay Pit SVRA.

Topography

The bowl-shaped topography of the Clay Pit SVRA basin was created by past excavation of clay materials used in the construction of the Oroville Dam. Some areas of natural topography remain on a narrow terrace of grassland bordering Larkin Road, and on rangeland bordering the northeast portion of the SVRA. The basin was excavated to approximately 30 to 40 feet below the surrounding grade, it has a relatively flat bottom, and it is surrounded by gently inclined side slopes. Based on a United States Geological Survey (USGS) topographic map (7.5-minute Palermo quadrangle), the bottom elevation is approximately 135 feet above mean sea level and the elevation of the rim is approximately 170 feet above mean sea level. An artificial berm is located within the perimeter of the park fence on the east and southeast. The berm provides a visual and physical separation between the park and surrounding properties, including a partial separation between the park and the adjacent shooting range. Dredge tailings, primarily in the southeastern corner of the park, are a reminder of the past history of placer mining along the Feather River (Martin 2005).

Geology, Soils, and Minerals

The site is underlain by a Tertiary-aged Laguna Formation. This formation generally consists of interbedded alluvial deposits comprising poorly graded gravel with silt, clay, sand and cobbles, silty

Drainage from southwest culvert under Larkin Rd.

Drainage from north culvert under Larkin Rd.

Cobbled soil on-site

Vernal Pools on-site

gravel, and clayey gravel. Consistency and relative density of the Laguna Formation varies because of variations in weathering, cementation, and deposition, but is generally stiff/dense to hard/very dense. The cemented layers are generally slightly to moderately cemented and difficult to excavate.

The soil profiles originally present throughout Clay Pit SVRA have been virtually eliminated by historic placer mining and clay soil extraction activities. The grassland terrace along Larkin Road contains some undisturbed areas, although an informal road and OHV use have disturbed and altered these areas. In some places within the SVRA the surface substrate is gravel and cobble-sized alluvium deposits associated with the hydrogeomorphology of the Feather River. The parent material of the alluvium is derived from igneous and metamorphic rock in the upper watershed of the Feather River, located on the western slopes of the Sierra Nevada Range. The Natural Resource Conservation Service mapped two soil types within Clay Pit SVRA. The terrace along the northern and western rim consists of Oroville-Thermalito-Fernandez-Thompsonflat Complex (gravelly fine sandy loam), and the basin floor consists of Pits (i.e., silty clay).

Thermalito Forebay (view southwest)

Thermalito Afterbay (view northwest)

Lake Oroville (source: NASA/JPL image)

Hydrology and Water Resources

Surface Water Resources

Clay Pit SVRA is located within the Lower Feather River Watershed (EPA 2011). This watershed is situated within the Lower Feather River hydrologic area and subarea of the Marysville hydrologic unit, within the Sacramento Valley hydrological region (DOC 2010).

The nearby Oroville Ranger Station receives an average of 29 inches of rain annually (State Parks 2011a). Winter months tend to be wetter than summer months. The wettest month of the year is January, with an average rainfall of 5.52 inches. The majority of the precipitation over the area occurs from October to April, with July being the driest month, receiving typically less than 0.07 inches. In a

year, an average of 66 days experience measurable precipitation. The July high temperature is approximately 96 °F in most years, although it varies between 80 to and the low 100s. The January low temperature is approximately 37 °F in most years, but varies between the upper 30s to mid 40s.

The SVRA lies within 7 miles of four major bodies of water: Thermalito Forebay (2 miles north), Thermalito Afterbay (2 miles west), the Feather River (1 mile east), and Lake Oroville (6.5 miles northeast).

Constructed between 1965 and 1968, Thermalito Forebay is an offstream reservoir contained by Thermalito Forebay Dam on the south and east, and by the Campbell Hills on the north and west. It is located about 4 miles west of the City of Oroville. The forebay conveys water between Thermalito Power Canal and Thermalito Powerplant, provides regulatory storage and surge damping for the Hyatt-Thermalito power complex, and serves as a recreational site. The maximum operating storage is 11,770 acre-feet (DWR 2010).

Constructed at the same time as Thermalito Forebay, Thermalito Afterbay is also an offstream reservoir. Located about 6 miles southwest of the City of Oroville, the afterbay stores water required for pumping operations at Lake Oroville, helps regulate the Thermalito power system, produces controlled flow in the Feather River downstream from the Oroville-Thermalito facilities, and provides opportunities for recreation. It also serves as a warming basin for delivery of agricultural water to farms east of the afterbay. The maximum operating storage is 57,040 acre-feet (DWR 2010).

Oroville Dam and Lake Oroville lie in the foothills on the western slope of the Sierra Nevada, 1 mile downstream of the junction of the Feather River's major tributaries. Work on the dam site began in 1961, and the embankment was topped out in 1967. The lake stores winter and spring runoff, which is released into the Feather River to meet downstream water needs. The reservoir has a maximum operating storage of 3,537,580 acre-feet (NCWA 2010).

The drainage area that includes Clay Pit SVRA comprises 1,315 acres. It includes the Oroville Municipal Airport, the Table Mountain Golf Course, and surrounding farmland. The SVRA encompasses 18 percent of the watershed, yet the entire watershed drains through the SVRA to an outlet at its eastern boundary**.** The overall drainage area consists of relatively flat topography with mound and swale features that allow the formation of vernal/ephemeral pools and swales that collect water during the wet season (State Parks 2011a).

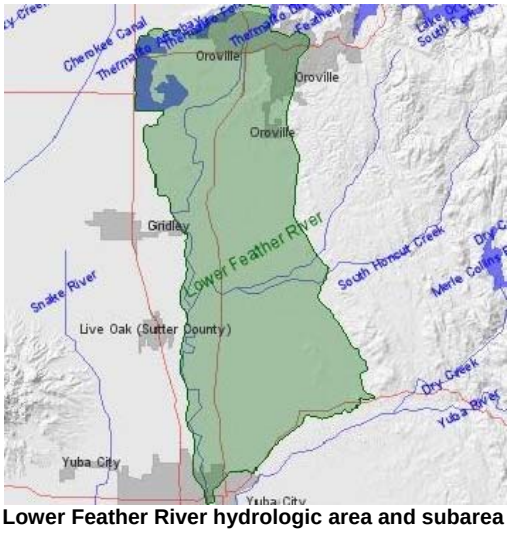
Since the 1940s the Clay Pit basin and surrounding areas have experienced significant land disturbance from construction activities. After gold mining operations first disturbed the land, any naturally occurring drainage patterns that remained were altered when the Oroville Municipal Airport was constructed in the 1940s and when the pit was excavated in 1964. According to a study of airport drainage conditions commissioned by the City of Oroville in 2008, the land used by the airport business park and surrounding runways was leveled to build the airport infrastructure,

leaving almost no natural hydrology or topography (Rolls Anderson & Rolls 2008, as cited in State Parks 2011a). A series of human-made ditches exist to drain water away from the airport runways and transport it off the property through five culverts under Larkin Road, four of which drain into Clay Pit SVRA. Furthermore, the Table Mountain Golf Course has a series of human-made ditches that discharge onto the airport property, eventually draining to the SVRA (State Parks 2011a).

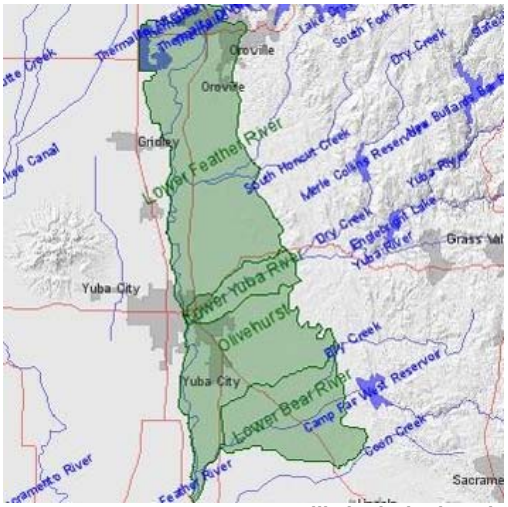
Water enters Clay Pit SVRA from direct precipitation, sheet flows from surrounding properties, and through a series of culverts under Larkin Road (Figure 2-2). Because of its low elevation, the southeastern portion of the basin within the SVRA is inundated periodically during high-flow events with backflow from the Feather River (State Parks 2011a). However, according to the Federal Emergency Management Agency's Flood Insurance Rate Maps, the SVRA is outside of the 500-year floodplain of the Feather River.

When the Clay Pit basin was excavated to provide materials needed to build the Oroville dam, a drainage canal was constructed to drain the water from the impervious clay soils. The canal bisected the area in a west-east direction. The east end of the drainage canal is the discharge point for Clay Pit SVRA, and thus, the discharge point for most of the watershed. The drainage canal leads to a remnant oxbow of the Feather River within the DFG Oroville Wildlife Area. A large berm, approximately 25 feet high, constructed to haul material by train from the borrow pit (the basin) to the Oroville dam site, obstructed any drainage connection between the pit and the remnant oxbow. The existing hydraulic connection between Clay Pit SVRA and the oxbow was created when a section of the berm was removed.

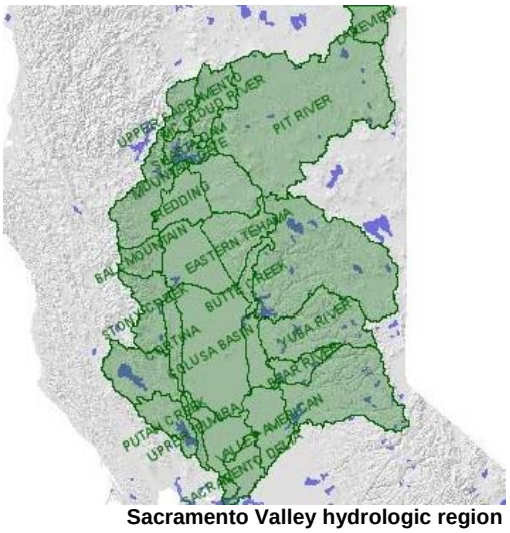
Other artificial landforms and evidence of significant disturbance to the natural landforms are common in



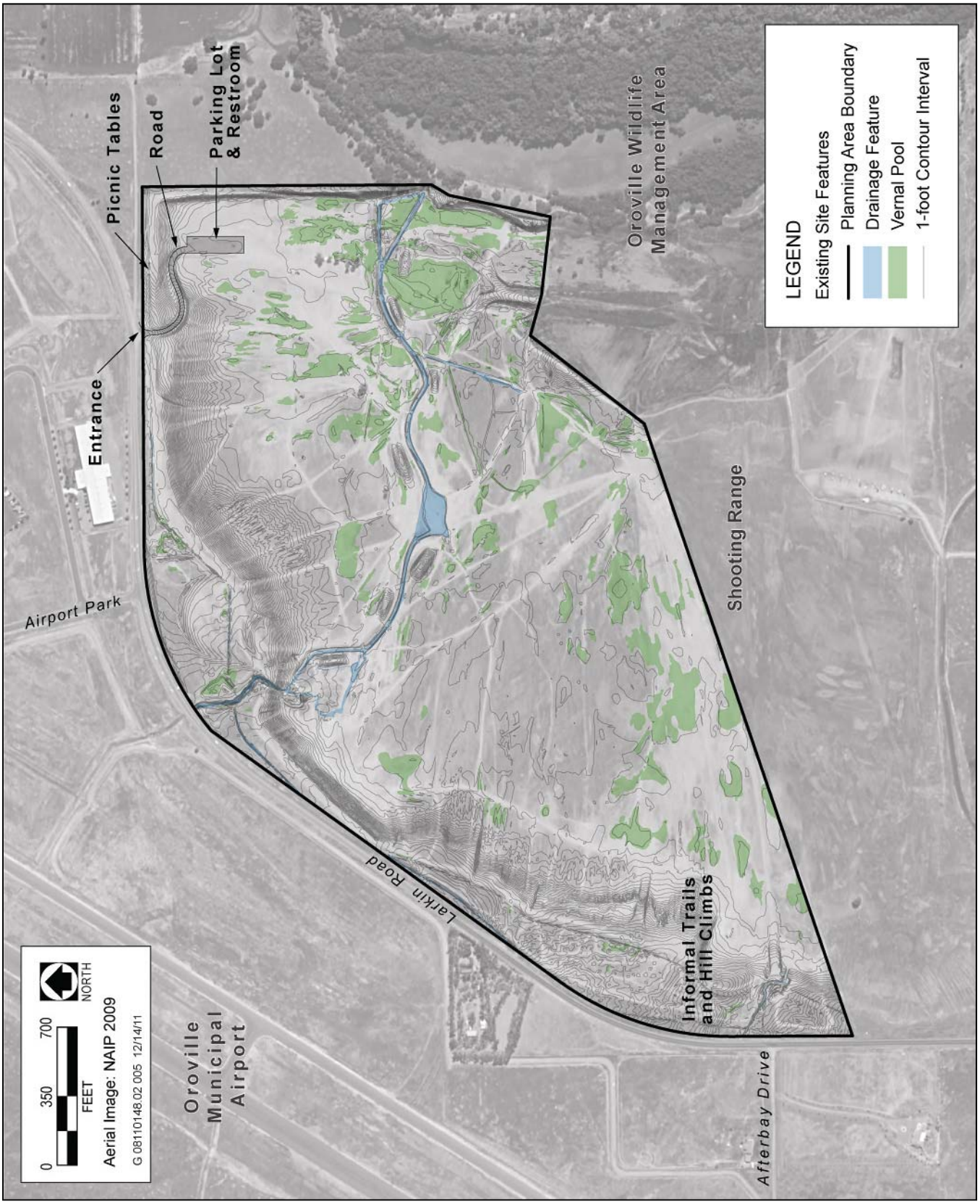
Lower Feather River hydrologic area and subarea



Marysville hydrologic unit



Sacramento Valley hydrologic region



Source: Topo provided by David Evans and Associates 2008, data compiled by AECOM in 2010

Clay Pit SVRA Existing Conditions **Figure 2-2**

this area, as evidenced by 1.6 miles of large mine tailings between the eastern boundary of Clay Pit SVRA and the Feather River (State Parks 2011a). Also, two access roads and a levee within the wildlife refuge lie between the SVRA and the Feather River.

Severe soil erosion is evident in two places at the outfalls of the culverts under Larkin Road, creating deeply incised channels along the northern and western boundaries of Clay Pit SVRA. A narrow roadside ditch runs along the northern perimeter of the SVRA. The ditch begins at a culvert under Larkin Road on the north side of the project site, runs parallel to Larkin Road, and empties into the main drainage canal. However, the ditch is disjointed in areas because it has been disturbed.

The 220-acre project site contains 25.69 acres of jurisdictional waters of the United States, including wetlands (AECOM 2010). A preliminary wetland delineation report submitted to the USACE was verified in March 2011. Based on proximity to the Feather River and existing drainage patterns, all mapped wetland and water features exhibit a "significant nexus" to the Feather River system; thus, these features are under USACE jurisdiction. These waters and wetlands include vernal pools, emergent marsh, ephemeral drainage, nonrelatively permanent waters, ponds, canals, and intermittent drainage or relatively permanent waters. Section 2.3.2, "Biotic Resources," includes additional descriptions of these features.

Surface Water Management

Surface water is an important piece of Butte County's integrated water network; it is integral to the local economy, communities and ecosystem (Butte County 2010a). Management of Butte County's State Water Project allocation (27,500 acre feet) is a priority for the County. Since Butte County became a State Water Project contractor in the1960s, the County has sought to find in-county uses for its entire allocation. However, because water costs and water infrastructure costs are high, Butte County has been unable to use the entire 27,500 acre feet allocation within the County. Although the in-county utilization doubled in 2008-09, the Butte County Department of Water and Resource Conservation (Department) is continuing a feasibility study to investigate options for the use of their entire contracted allocation. Until full in-county utilization can be achieved (estimated to be within the next 7–10 years), the Department will continue to pursue opportunities that allow for the management of surplus water (Butte County 2010b). In 2010 the Department administered the second year of a 2-year sale of surplus water to another State Water Project Contractor, the Palmdale Water District. The sale of this surplus water provided sufficient revenue to cover the County's allocation charges for at least three years (Butte County 2010a). As Butte County continues to develop the means to use more of its water allocation in-county, less will be sold to other State Water Project contractors. No surface water is currently used at Clay Pit SVRA.

Surface Water Quality

Clay Pit SVRA is located within the jurisdiction of the Central Valley (RWQCB), which is responsible for implementing federal and state laws and regulations to protect water quality within the Central Valley Basin. Water quality within the state is regulated under the California Water Code (Section 13240) and supported by the federal Clean Water Act (CWA) by means of regional basin plans. Basin plans define beneficial uses of regional waters, water quality objectives to protect those uses, and a program of implementation for achieving the objectives (Central Valley RWQCB 2009).

The Water Quality Control Plan (Basin Plan) for the Sacramento River and the San Joaquin River Basins (or the Central Valley Region Basin Plan) defines beneficial uses of the Feather River (Hydrologic Unit 515) from the Fish Barrier Dam downstream of Lake Oroville to the confluence with the Sacramento River as "municipal and domestic water supply, irrigation, recreation, freshwater habitat-warm and cold, migration-warm and cold, spawning-warm and cold, and wildlife habitat" (Central Valley RWQCB 2009). Surface water in the Feather River watershed is generally high-quality water. However, in 1994, the Feather River was listed under Section 303d of the CWA for impaired beneficial uses along its 60-mile reach from Oroville Dam to the confluence of the Sacramento River (i.e., Lower Feather River). Beneficial uses are impaired by diazinon, mercury, group A pesticides, temperature, and other toxins (SCRCD 2010b; SWRCB 2008).

The basin plan includes objectives and parameters for turbidity, dissolved oxygen, and diazinon, among others. According to the basin plan, waters "shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses". Increases in turbidity attributable to controllable water quality factors cannot exceed limits that are defined relative to existing background turbidity levels. The basin plan specifies a water quality objective for dissolved oxygen for Hydrologic Unit 515 of 8.0 milligrams per liter from September 1 through May 31 (CRWQCB 2009). High concentrations of diazinon in surface runoff caused the Central Valley RWQCB to establish total maximum daily load (TMDL) regulations for diazinon on the Lower Feather River (SCRCD 2010b; SWRCB 2008). Other parameters of the basin plan that are exceeded in some surface waters include temperature and level of chlorpyrifos, aluminum, arsenic, iron, manganese, mercury, zinc, bacteria, and viruses (SCRCD 2010a).

Clay Pit SVRA receives runoff directly from the Oroville Municipal Airport and Larkin Road and indirectly from the Table Mountain Golf Course. Surface water quality may be affected by operations at the airport resulting from fuel spills, from the accumulation of lubricants on paved surfaces associated with aircraft maintenance and support equipment, and from the use of herbicides to control unwanted vegetation. Similarly, runoff from Larkin Road may degrade water quality primarily from the accumulation of lubricants on the road surface. Water quality may also be affected by debris from tire wear with associated heavy metals (primarily zinc) that can accumulate on and adjacent to the road surface (Adachi and Tainosho 2004). Runoff from the

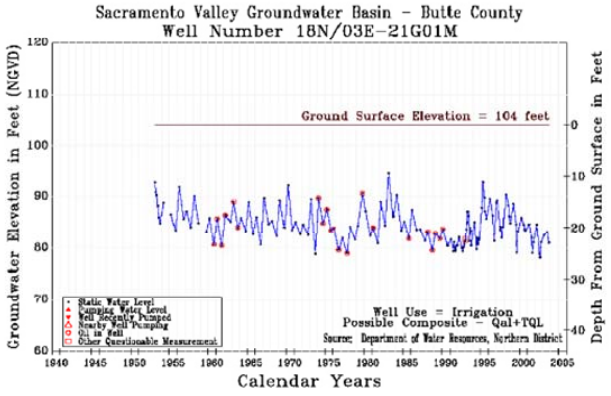
Table Mountain Golf Course may include fertilizers, herbicides, and pesticides; the most likely pollutant in the runoff water is phosphorous (Zwierschke 2009). Activities within Clay Pit SVRA may also contribute pollutants to surface waters. Turbidity may be increased by soil erosion caused by OHV use, and pollutants such as fuels and lubricants from OHVs may enter runoff waters.

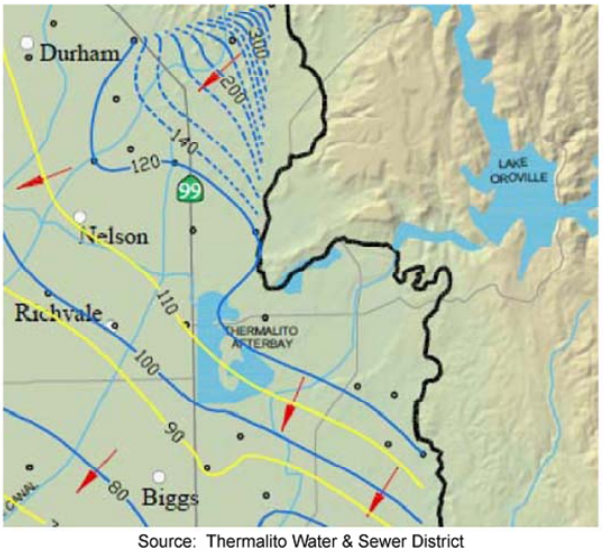
Goals have been established in the basin plan to address these water quality issues. Goals that may apply to Clay Pit SVRA include, among others, those that encourage the use of vegetated filter strips and other best management practices (BMPs) to reduce pollutant loads, and those that support the efforts of the Sacramento Valley Water Quality Coalition and the Butte/Yuba/Sutter Water Quality Coalition to implement a BMP program and a program to monitor BMP effectiveness to protect regional water quality (SCRCD 2010b; SWRCB 2008).

Groundwater Resources

In the Sacramento Valley Region of Butte County, formations that bear groundwater include, from youngest (shallowest) to oldest (deepest), the Modesto, Riverbank, Laguna, Tehama, and Tuscan Formations. Those formations included in the Thermalito Sub-Inventory Unit (SIU), which includes Clay Pit SVRA, are the Riverbank Formation, Laguna Formation, and the Tuscan Unit B (Lower Tuscan). In the Thermalito SIU, spring groundwater moves south and southwest. Locally, groundwater mounding caused by recharge from the Thermalito Afterbay causes groundwater to move southeast toward the Feather River and then southwest. The average groundwater gradient in the Thermalito SIU is about 5 feet per mile (Thermalito Water and Sewer District 2010).

Groundwater contours were constructed in 2009 (Figure 2-3) using groundwater level measurements taken by the California Department of Water Resources (DWR) and its local cooperators between March 1 and March 20, 2009. The groundwater level measurements were taken from wells constructed within the middle portion of the aquifer system (100 to 400 feet deep). This portion of the aquifer supplies approximately 70





Source: Thermalito Water & Sewer District

Arrows show the direction of the groundwater movement.

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Figure 2-3 Sacramento Valley Groundwater Basin Information

percent of all domestic, agricultural, and municipal wells. Blue contour lines represent measurements made in 20-foot intervals and yellow contour lines represent measurements made in 10-foot intervals (Thermalito Water and Sewer District 2010).

Clay Pit SVRA is located within the east-central part of the East Butte subbasin, and groundwater depths in this subbasin have remained fairly stable over time, ranging from 5 to 20 feet below land surface. Shallow wells can yield large quantities of water, reported from 200 to 2,000 gallons per minute (SCRCD 2010a). A review of well data from DWR indicates depth to groundwater within Clay Pit SVRA and vicinity varies seasonably from approximately 30 to 45 feet below ground surface (Geocon 2010).

Well 18N/03E-21G01M is located in the southern portion of the Thermalito SIU, approximately 1mile west of the Feather River (Butte County 2005). This well is an active irrigation well producing groundwater from the shallow to intermediate portion of the aquifer system. Groundwater levels have been recorded since the late 1940s (Figure 2-3). Groundwater levels in this well were monitored on a semiannual basis to 1991, and on a monthly basis from 1991 to about 1994. Since 1994, this well has been monitored four times a year during March, July, August, and October.

This well indicates a fluctuation in groundwater levels between spring and summer, and between drought years and years with normal precipitation. Groundwater levels fluctuate from spring to summer between 5 and 8 feet during years of normal precipitation, and fluctuate between 2 and 5 feet during drought years. This decrease in spring to summer fluctuation is the result of a drop in spring groundwater levels, while summer levels remain constant. The drop in spring groundwater levels indicates that the aquifer system in this area does not fully recharge during years of drought. The quick drop, then relatively constant draw-down during drought years indicates that the aquifer system in this area is likely being recharged from a steady source of surface water; in this case the Feather River. During drought years, groundwater levels drop relatively quickly until they reach the point where the aquifer is interconnected with the Feather River. The hydrograph indicates that, in this area, the surface water–groundwater interconnection takes place at about 23 feet below ground surface, or at an elevation of about 80 feet above mean sea level (Butte County 2005).

A long-term comparison of spring-to-spring groundwater levels shows an overall decline during the 1976-77 and 1986-94 droughts, followed by recovery to predrought levels. A long-term comparison of spring-to-spring groundwater levels during normal years indicates very little change between the late 1950s until 1998. Successive spring groundwater levels have declined steadily in this well by about 1½ feet per year since 1998. Fall and summer groundwater levels have also declined but at a slower rate of about one-half foot per year during the same period. These declines are probably climate related and not the result of overusing the groundwater resource. Examining the overall record reveals that long-term depletion of groundwater in storage is probably not occurring at this time (Butte County 2005).

Constituents of concern for groundwater quality within the East Butte subbasin include manganese, iron, magnesium, total dissolved solids, conductivity, the adjusted sodium absorption ratio, calcium, arsenic, and nitrate in the Walton Groundwater Area (SCRCD 2010a).

Groundwater Management

Butte County's groundwater is considered an important resource and is the backbone of the County's economy, communities, and ecosystems. Approximately 75 percent of the County's residential water supply is extracted from groundwater (Butte County 2010c). In 2005, the County adopted a groundwater management plan that established goals and actions to sustain groundwater resources (Butte County 2010a).

Fundamental pieces of Butte County's groundwater protection efforts come from Groundwater Conservation and Well Head Protection Ordinances. These ordinances provide protection for people who rely on groundwater by regulating groundwater transfers or substitution of groundwater for surface water as part of a water transfer outside the county and by setting standards for wells. The Butte County Department of Water and Resource Conservation (Department) requires that any project submitted under Chapter 33 of the Butte County Code (Groundwater Conservation) receive the appropriate environmental analysis, have a mitigation component, and assess impacts on neighboring groundwater users. Any project submitted under Chapter 33 will not be approved if it causes unmitigated impacts on existing groundwater users. The Basin Management Objective (BMO) process, Chapter 33A of the Butte County Code, builds on the Groundwater Conservation Ordinance by establishing a process for determining alert levels at the local level. The BMOs are set annually by each SIU working through the Water Advisory Committee and the Water Commission (Butte County 2010a).

The Department, in cooperation with DWR, assesses groundwater resources through monitoring of groundwater elevation, land subsidence, and water quality parameters. These data help to assess changes to our groundwater resources. The network of wells throughout the county is monitored during March, July, August, and October. Groundwater pumping can lead to land subsidence; however, no known incidents of subsidence exist in Butte County. During the 2009-2010 fiscal year the Department was working with other neighboring counties to establish a regional subsidence network, which will be a key monitoring tool for the department to use to identify inelastic land subsidence. Assessing groundwater quality can also play an integral role in managing water. The Department will continue to acquire groundwater temperature, ph, and electrical conductivity for a subset of wells annually. These data are the cornerstones of supporting groundwater protection efforts (Butte County 2010a).

Water Supply and Demand

In 2001, Butte County conducted a comprehensive inventory of its water resources and evaluated its overall water supply in the document entitled *Butte County Water Inventory and Analysis* (Butte County 2001). The evaluation and document were updated in 2008. The *Butte County Water*

Inventory and Analysis indicates that the majority of the water demand in Butte County occurs in the valley areas because of the concentration of urban populations and farming. Agricultural water needs constitute 71 percent of the total demand in all of Butte County, including the incorporated municipalities (Butte County 2010b).

The *Butte County Water Inventory and Analysis* indicates that no shortfall of water supply exists during normal years, but that shortages occur during dry conditions in specific areas. Shortages are concentrated in the southwestern portion of the county, where agricultural demand is higher and where supply is limited by the geology of the aquifer and groundwater fluctuations during drier summer months (Butte County 2010b).

Users in certain parts of the county rely on groundwater pumping as an alternative to importing water from outside the county. According to investigations by the U.S. Geological Survey documented in the 1977 Safety Element of Butte County's previous General Plan, the areas of heaviest groundwater withdrawal extend about 2 miles north and south of Chico and in a 1-mile radius around Gridley (Butte County 2010b).

Air Quality

Clay Pit SVRA is located in Butte County within the northern Sacramento Valley Air Basin (SVAB). The northern SVAB includes Shasta County, Tehama County, Glen County, Colusa County, Sutter County, Yuba County, and Butte County. The SVAB is bounded on the north and west by the Coastal Mountain Range and on the east by the southern portion of the Cascade Range and the northern portion of the Sierra Nevada Range. The mountain ranges surrounding the SVAB reach heights greater than 6,000 feet, with individual mountains reaching much higher elevations. The surrounding mountains create a substantial barrier to airflow, which leads to the entrapment of air pollutants when meteorological conditions are unfavorable for the pollutants' transport and dilution. The pollutants are both locally produced and transported north from the Sacramento Metropolitan area. The SVAB is also prone to atmospheric inversions and high summertime temperatures. These conditions combined with the geological barriers create the potential for air pollution problems.

The highest frequency of poor air movement occurs in the fall and winter when high-pressure cells exist over the SVAB. The lack of surface wind during these periods, combined with the reduced vertical flow because of less surface heating, reduces the influx of air and leads to the concentration of air pollutants under stable meteorological conditions. Surface concentrations of air pollutant emissions are highest when these conditions occur in combination with agricultural burning activities or temperature inversions, which hamper dispersion by creating a ceiling over the area and trapping air pollutants near the ground.

May to October is ozone season in the SVAB. This period is characterized by poor air movement in the mornings and the arrival of the Sacramento–San Joaquin Delta sea breeze from the southwest in the afternoons. Longer daylight hours provide plentiful sunlight to fuel photochemical reactions

between reactive organic gases (ROGs) and oxides of nitrogen (NO_X) which result in ozone formation.

Typical winter day at Clay Pit SVRA

Characteristic SVAB winters are periods of dense and persistent low-level fog, which are most prevalent between storms. The prevailing winds are moderate in speed and vary from moisture-laden breezes from the south to dryland breezes from the north. Local meteorology of the project area is represented by measurements recorded at the Chico station. The predominant wind direction and speed is from the south-southeast at around 11 miles per hour (mph) (CARB 1994). Most precipitation in the area results from air masses that move in from the Pacific Ocean, usually from the west or northwest, during the winter months. More than half the total annual precipitation falls during the winter rainy season (November–February). The normal annual precipitation, measured at the Chico station, is approximately 26 inches. January temperatures range from a normal minimum of 35°F to a normal maximum of 54°F. July temperatures range from a normal minimum of 61°F to a normal maximum of 94°F (NOAA 1992).

Butte County Air Quality Management District (Butte County AQMD) attains and maintains air quality conditions in Butte County through comprehensive programs of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. Both the California Air Resources Board (CARB) and U.S. Environmental Protection Agency (EPA) designate areas according to their attainment status for criteria air pollutants. The three basic designation categories are nonattainment, attainment, and unclassified. If an area is redesignated from nonattainment to attainment, the federal Clean Air Act (CAA) requires a revision to the State Implementation Plan (SIP), called a maintenance plan, to demonstrate how the air quality standard will be maintained for 10 years.

The northern SVAB is currently designated by national standards as a nonattainment area for the 8-hour ozone standard, and a nonattainment area for respirable particulate matter with an aerodynamic diameter of 2.5 micrometers or less ($PM_{2.5}$). The SVAB is in attainment with national standards for the remaining criteria air pollutants. The SVAB is currently designated by state standards as a nonattainment area for the 1-hour and the 8-hour ozone standard, and a

nonattainment area for $PM_{2.5}$ and PM_{10} (particulate matter with an aerodynamic diameter of 10 micrometers or less). The SVAB is in attainment with state standards for the remaining criteria air pollutants.

Ozone located in the upper atmosphere (stratosphere) acts in a beneficial manner by shielding the earth from harmful ultraviolet radiation that is emitted by the sun. However, ozone located in the lower atmosphere (troposphere) is a major health and environmental concern. The adverse health effects associated with exposure to ozone pertain primarily to the respiratory system. Scientific evidence indicates that ambient levels of ozone affect not only sensitive receptors, such as asthmatics and children, but healthy adults as well.

PM_{10} consists of particulate matter emitted directly into the air, such as soot and smoke from mobile and stationary sources; natural windblown dust; dust generated by human activities such as construction operations; and fires. Generally, adverse health effects associated with PM_{10} may result from both short-term and long-term exposure to elevated concentrations and may include breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, alterations to the immune system, carcinogenesis, and premature death (EPA 2009).

The majority of Clay Pit SVRA comprises a clay pan area with loose gravel, silt, and cobbles. When the loose soils are disturbed by OHV use during the dry months, fugitive dust (up to PM_{10}) becomes airborne. The presence of geographic barriers and inversions resulting in a stable atmosphere cause particulate matter to accumulate and achieve elevated concentrations, thus reducing visibility and increasing periods with potentially adverse health effects. The periods of greatest concern for elevated PM_{10} concentrations (the summer months) do not coincide with the highest OHV activity at Clay Pit SVRA (the spring and fall). High average daily temperatures in the summer discourage use of Clay Pit SVRA. Peak SVRA use tends to be during the late spring and fall, when the soils within the clay pit are still wet but the standing water has either started drying out or has not accumulated yet.

In addition, using OHVs within Clay Pit SVRA creates exhaust emissions from fuel combustion to operate the OHVs. These emissions include gasses known as ozone precursors, which, when exposed to sunlight, react with other gases in the atmosphere to form ozone. The ozone precursors typically regulated are ROGs and NO_X. By limiting either of these gases the amount of ozone produced in a given area can be limited as well. Typically, few OHVs have devices to control emissions, so all gases generated from the combustion of fuel are emitted to the atmosphere, including ROGs and NO_X. The addition of ozone precursors contribute to the existing ozone nonattainment.

Climate Change

Certain gases in the earth's atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface, and a smaller portion of

this radiation is reflected back toward space. The absorbed radiation is then emitted from the earth, not as high-frequency solar radiation, but lower frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. The earth has a much lower temperature than the sun; therefore, the earth emits lower frequency (longer wavelength) radiation. Most solar radiation passes through GHGs; however, infrared radiation is selectively absorbed by GHGs. As a result, infrared radiation released from the earth that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the "greenhouse effect," is responsible for maintaining a habitable climate on earth. Without the greenhouse effect, the earth would not be able to support life as we know it.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated compounds. Human-caused emissions of these GHGs in excess of natural ambient concentrations are responsible for intensifying the greenhouse effect and have led to a trend of unnatural warming of the earth's climate, known as global climate change (IPCC 2007).

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants (TACs), which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about 1 day), GHGs have long atmospheric lifetimes (1 year to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule depends on multiple variables and cannot be pinpointed, more CO_2 is currently emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO_2 emissions within a year, approximately 54 percent is sequestered through ocean uptake, uptake by northern hemisphere forest regrowth, and other terrestrial sinks, whereas the remaining 46 percent of human-caused CO_2 emissions remains stored in the atmosphere (Seinfeld and Pandis 1998). The biggest source of GHG emissions in the U.S. by percent is combustion of fossil fuels at approximately 79 percent of the 2010 inventory (EPA 2009).

Natural resource management is changing as warming trends take place or scientific predictions of future warming are known. As a result of these trends, resource management is focused on reducing key environmental stressors on biologic resources, providing hedges against resource losses from impacts of climate change, and possible evolutionary responses. At Clay Pit SVRA, climate change could lead to changes in water supply and atmospheric temperature. In turn, these could change the ecosystem health of sensitive habitats and species on site, such as vernal pools and the shrimp species that inhabit these pools.

The quantity of GHGs that it takes to ultimately result in climate change is not precisely known, although the quantity would be enormous. No single project would be expected to measurably contribute to a noticeable incremental change in the global average temperature, or to global,

local, or micro climates. The use of OHVs within Clay Pit SVRA creates exhaust emissions from fuel combustion to operate the OHVs and from driving vehicles varying distances to reach Clay Pit SVRA. These emissions include GHGs. Because, typically, few OHVs have devices to control emissions, all gases generated from the combustion of fuel are emitted to the atmosphere, including GHGs. The addition of these GHGs will add to the cumulative impacts on our changing climate.

2.3.2 Biotic Resources

This section describes the vegetation communities and plant and animal life present at Clay Pit SVRA.

Vegetation

Four vegetation communities are present within Clay Pit SVRA: northern hardpan vernal pool, California annual grassland, cattail, and arroyo willow.

Northern Hardpan Vernal Pools

Vernal pools are a type of seasonal wetland found in shallow depressions within ancient soil formations having an impervious or restrictive soil layer (e.g., hardpan or claypan) near the surface, resulting in a perched water table. Vernal pools have a hydrologic regime characterized primarily by inundation rather than saturation because of the restrictive soil layer. They are distinguished by a unique host of plant and wildlife species adapted to the extreme conditions created by the cycles of inundation and drying. Vernal pools generally remain inundated during the wet season (winter) and dry out through spring and early summer. The hydroperiod (inundation duration) for an individual pool depends on many factors including the size and depth of the pool, the hardpan/clay pan soil depth, topography, and annual precipitation.

Northern hardpan vernal pools are a type of vernal pool that occurs in the Northeastern Sacramento Valley Vernal Pool Region of California (USFWS 2005). They tend to occur on old, acidic, iron-silica cemented soils (Sawyer et al. 1995). Due to the location of Clay Pit SVRA within the Northeastern Sacramento Valley Vernal Pool Region of California and also the presence of iron-silica cemented soils on the site, the vernal pools at the SVRA are considered northern hardpan vernal pools. The terrace area along Larkin Road supports remnant vernal pool grassland with distinct pools and mima mounds (humps of soil). The rest of the vernal pool habitat on the site is the result of unnatural depressions that formed after excavation of hardpan soils. Approximately 23 acres of northern hardpan vernal pool habitat is present on the project site, concentrated in the excavated pit area with a few scattered pools on the terrace along Larkin Road (Figure 2-2). The vernal pool habitat along the terrace and in the pit is currently open to OHV use.

Characteristic plant species of the vernal pools at Clay Pit SVRA include pale spikerush (*Eleacharis macrostachya*), coyote thistle (*Eryngium castrense*), stipitate popcorn flower (*Plagiobothrys*

stipitatus), annual hairgrass (*Deschampsia danthonioides*), and Fremont's goldfields (*Lasthenia fremontii*). Other frequently observed plants in vernal pools and swales include native vernal pool wildflowers such as white-headed navarretia (*Navarretia leucocephala*), horned downingia (*Downingia bicornuta*), needleleaf navarretia (*Navarretia intertexta*), bractless hedge-hyssop (*Gratiola ebracteata*), Sacramento mesa mint (*Pogogyne zizyphoroides*), and woolly marbles (*Psilocarphus brevissimus*). Nonnative species commonly observed in the vernal pools include Italian ryegrass (*Lolium multiflorum*) and hyssop loostrife (*Lythrum hyssopifolium*) (AECOM 2010).

Informal OHV trails in grasslands

California Annual Grassland

The majority of Clay Pit SVRA (approximately 194 acres) is characterized by degraded annual grassland between and surrounding wetland features. Typically this vegetation is sparse because of the rocky soils exposed by historic placer mining and clay soil extraction activities. It consists primarily of nonnative ruderal (weedy) species adapted to disturbance, although some native flora is present. The terrace along Larkin Road (approximately 25 acres) includes some remnant natural vernal pool grassland. Numerous OHV trails traverse the degraded annual grassland habitat creating large swaths of bare ground throughout the SVRA.

The native grassland species at the SVRA occur in greater numbers in moister locations, especially near vernal pools. Conversely, drier upland sites are more likely to be dominated by nonnative species (AECOM 2010; Martin 2005). Commonly observed nonnative grasses include wild oat (*Avena fatua*), medusa-head (*Taeniatherum caput-medusae*), barbed goat grass (*Aegilops triuncialis*), and soft chess (*Bromus hordeaceus*). Common native plant species include foothill calycadenia (*Calycadenia spicata*), blue dicks (*Dichelostemma capitatum)*, purple clarkia (*Clarkia purpurea*), purple navarretia (*Navarretia pubescens*), marigold navarretia (*Navarretia tagetina*), California goldfields (*Lasthenia californica*), vinegar weed (*Trichostema lanceolatum*), and Fremont's tidytips (*Layia fremontii*). Nonnative plant species commonly observed include long-beaked filaree (*Erodium botrys*), rough cat's-ear (*Hypochaeris radicata*), rose clover (*Trifolium hirtum*), and hairy vetch (*Vicia villosa*). Fremont cottonwood (*Populus fremontii*) trees are present as widely scattered individuals and small stands in the annual grassland habitat on the eastern

portion of the SVRA. These stands of cottonwood trees lack sufficient characteristics, especially associated species, to constitute a cottonwood forest community.

Cattail

The cattail vegetation community is limited to a single location adjacent to Larkin Road. A small, intermittent stream that drains the airport area and surrounding uplands has become an approximately .05-acre pond at this location. The dominant species in this area is broadleaf cattail (*Typha latifolia*) (AECOM 2010; Martin 2005). Other hydrophytes observed include common spikerush (*Eleocharis macrostachya*), tall flatsedge (*Cyperus eragrostis*), curly dock (*Rumex crispus*), common rush (*Juncus effusus*), smartweed (*Polygonum* sp.), purslane speedwell (*Veronica perigrina* ssp. *xalapensis*) and annual beardgrass (*Polypogon monspeliensis*).

Arroyo Willow

Like the cattail vegetation community, the arroyo willow community covers a small area (approximately 0.48 acres) of the SVRA. This community occurs as a narrow, discontinuous band located just south of the cattail vegetation community. This area is subject to annual scouring, evidenced by the coarse depositional material covering the site and sparse to nonexistent herbaceous and shrub layers. Arroyo willow (*Salix lasiolepis*) is the dominant species, with a scattering of other species, including one blue elderberry (*Sambucus mexicana*) shrub, white alder (*Alnus rhombifolia*), and vetch (*Vicia* sp.) (AECOM 2010; Martin 2005).

Wildlife

The vernal pool habitat at Clay Pit SVRA supports a number of invertebrate species including California fairy shrimp (*Linderiella occidentalis*), California clam shrimp (*Cyzicus californicus*), water fleas (cladocerans), seed shrimp (ostracods), predaceous diving beetles (dyticids), water boatmen (corixids), and flat worms (microturbularians).

California clam shrimp

The California annual grassland vegetation community provides foraging habitat for a number of bird species, including red-tailed hawk (*Buteo jamaicensis*), northern harrier (*Circus cyaneus*), western meadow lark (*Sternella neglecta*), western kingbird (*Tyrannus verticalis*), turkey vulture (*Cathartes aura*), lark sparrow (*Chondestes grammacus*), and killdeer (*Charadrius vociferous*)(AECOM 2010). Other species found within California annual grassland and likely to reside at the SVRA include black-tailed jackrabbit, western fence lizard, and western rattlesnake.

Some special-status species have also been observed at the SVRA, such as vernal pool fairy shrimp (*Branchinecta lynchi*), Swainson's hawk (*Buteo swainsonii*), and tri-colored blackbirds (*Agelaius tricolor*). These species are discussed further below.

Special-Status Plant and Wildlife Species

Special-status species are generally defined as those species that are legally protected or otherwise considered sensitive by federal, state, or local resource conservation agencies and organizations.

Plants

A protocol-level special-status plant survey of Clay Pit SVRA was conducted by a qualified DWR botanist in 2005 (Martin 2005). Based on this survey, no special-status plant species are known to occur within the SVRA. Special-status vernal pool plants have been documented within 5 miles of the SVRA (CNDDB 2010; CNPS 2010). Ahart's dwarf rush (*Juncus leiospermus* var. ahartii), a CNPS List 1B.2[1] species, is known to occur at the Oroville Municipal Airport just west of the project site (CNDDB 2010). Other special-status vernal pool plant species that occur within 5 miles (CNDDB 2010) include:

- Ahart's paronychia (*Paronychia ahoartii*)(CNPS List 1B.1[2]);
- Butte County golden clover (*Trifolium jokerstii*) (FE,[3] CE,[4] CNPS List 1B.2);
- Butte County meadowfoam (*Limnanthes floccosa* ssp. *californica*) (CNPS List 1B.1);
- Greene's tuctoria (*Tuctoria greenei*) (FE, CR,[5] CNPS List 1B.1); and
- slender orcutt grass (*Orcuttia tenuis*) (FT,[6] CE, CNPS List 1B.1).

The vernal pool habitat in the excavated basin of the SVRA is unlikely to support special-status plant species because of the degraded nature of this area. While the remnant natural vernal pool grassland on the terrace along Larkin Road provides potential habitat for special-status vernal pool plants, protocol level special-status plant surveys conducted in 2005 did not document the presence of special status plants. While it is possible that seeds of special-status vernal pool plants from nearby source populations could drift onto the project site through natural seed dispersal mechanisms (e.g., wind, wildlife deposition), continuing disturbance of the site would likely prevent the establishment of a permanent population.

Suitable habitat for Sanford's arrowhead (*Sagittaria sanfordi*) (CNPS List 1B.2) is present in the cattail vegetation community at Clay Pit SVRA. This species has not been observed during special-

[1] CNPS List 1B = Rare, threatened or endangered in California or elsewhere. .2 = Fairly endangered in California.
[2] CNPS List 1B = Rare, threatened or endangered in California or elsewhere. .1 = Seriously endangered in California.
[3] FE = Federally Endangered
[4] CE = California Endangered
[5] CR = California Rare
[6] FT = Federally Threatened

status plant surveys conducted at the SVRA. Sanford's arrowhead is known to occur approximately 2 miles southwest of the SVRA (CNDDB 2010).

Wildlife

Three special-status wildlife species have been observed at Clay Pit SVRA: vernal pool fairy shrimp, Swainson's hawk, and tri-colored blackbird.

Vernal pool fairy shrimp, a species federally listed as threatened, was observed in several of the surveyed vernal pools at the SVRA (EcoAnalysts 2010). Vernal pool tadpole shrimp (*Lepidurus* packardi), a species federally listed as endangered, has not been observed at the SVRA; however, suitable habitat for this species is present in the vernal pools along the terrace and in the excavated basin at the project site. The nearest known occurrence of vernal pool tadpole shrimp is 1.4 miles north of the SVRA (CNDDB 2010).

DFG lists Swainson's hawk as threatened and tri-colored blackbird as a California species of special concern. Although these species were observed flying over the SVRA (AECOM 2010), Swainson's hawk likely prefer the superior foraging and nesting habitat present within the adjacent DFG Oroville Wildlife Area. No known Swainson's hawk or tri-colored nests are present in the SVRA, and the SVRA does not support habitat suitable for tri-colored blackbirds.

One blue elderberry shrub, the host plant for valley elderberry longhorn beetle (VELB) (*Desmocerus californicus*), a species federally listed as threatened, is present within the arroyo willow habitat on the project site. Because of the isolated nature of the shrub, it is not likely to be inhabited by VELB. The nearest known VELB occurrence is along the Feather River, 1.4 miles south of Clay Pit SVRA (CNDDB 2010).

Cottonwood Tree

Giant garter snake (*Thamnophis gigas*), a species federally listed as threatened, is not known to occur at the SVRA. The nearest known occurrence is in rice fields approximately 5 miles west (CNDDB 2010). Suitable habitat occurs near the SVRA in the DFG Oroville Wildlife Area to the east, which is sometimes hydrologically connected to the drainage canal that traverses the project site during high flood events. However, the drainage canal traversing Clay Pit SVRA is dry during the summer months and this species needs a permanent source of water. Therefore, suitable habitat for giant garter snake is not present at the SVRA.

Sensitive Plant Communities

Sensitive plant communities may be of special concern to resource agencies and conservation organizations for a variety of reasons, including their local or regional decline, or because they provide important habitat to common and special-status species. Many of these communities are tracked in DFG's California Natural Diversity Data Base (CNDDB). Northern hardpan vernal pool is considered a sensitive plant community (DFG 2003, 2007).

Exotic Plants and Wildlife

Exotic plant and wildlife species are those that have been introduced through human activities, either incidentally or deliberately. Most exotic or nonnative species are not invasive and do not cause adverse effects on natural plant and animal communities. Nevertheless, some exotic plant species have resulted in the conversion of native habitats to a nonnative vegetation type. While numerous exotic annual plant species are found at Clay Pit SVRA, none of these species are common enough to have converted the native habitats to nonnative plant communities.

Introduced wildlife (such as feral cats and dogs) can compete with and negatively affect native wildlife. Bullfrogs (*Rana catesbeiana*) have been observed in vernal pools and wetlands at the SVRA and are considered a nonnative predator of vernal pool fairy shrimp.

2.3.3 Cultural Resources

Cultural resources investigations for Clay Pit SVRA include background research and a pedestrian archaeological survey conducted by State Park archaeologists. A records search was conducted at the Northeast Information Center (NIC) on October 21, 2008, and was followed by the archaeological survey on October 28, 2008. A cultural resource inventory was completed for Clay Pit SVRA by OHVMR Division archaeologists (Perez and Long 2009). During the records search, no known prehistoric resources were discovered in or within a 1-mile radius of the SVRA, and no historic-era resources were identified within the SVRA. Eight historic-era resources were identified by the NIC as being within a 1-mile radius of the SVRA.

In the 1950s and 1960s, archaeological investigations were conducted in conjunction with the construction of the Lake Oroville dam and reservoir. According to Perez and Long 2009, the absence of previous cultural resource inventories and recorded sites for Clay Pit SVRA indicates that this portion of the Oroville Dam project was not included in the archaeological surveys and excavations undertaken during that time The pedestrian survey conducted in October 2008 focused on segments of the project site's original surface elevation along the existing SVRA boundary. Visibility of the ground surface was not hindered by vegetation. The interior of the basin was not surveyed because previous mining activity conducted during the late 19th and early 20th centuries likely removed any cultural resources that may have existed.

The 2008 archaeological survey of the project site resulted in identifying one historic-era site: a ditch complex (Primary number P-04-3142). This complex appears to be associated with the extensive gold-dredging operations that occurred in the area between 1898 and 1916, although it could be associated with construction of the clay pit itself. Such ditches are found throughout the gold-bearing regions of California and were used as part of elaborate systems for conveying water to placer diggings. However, this particular complex is not presently known to be directly associated with any specific significant mining operation. The integrity of the ditch complex was compromised by activities that took place during the construction of the Lake Oroville Dam, and the condition of the ditches is recorded as affected by modern-day activities. Although there are OHV crossings on the ditches, the ditches remain in fair condition and retain some historic integrity as interpretive elements of the landscape. The ditches lack a significant association, these types of ditches are ubiquitous, and the integrity of the ditches has been compromised. A Determination of Eligibility Statement was prepared for the State Historic Preservation Officer (SHPO) and submitted on June 16, 2010. SHPO concurred that this resource was not eligible as a historical resource defined by PRC 5020.1[j].

The 2008 archaeological survey also resulted in the documentation of three resources (a culvert concentration, a historic refuse pile, and a wire cable concentration) that are associated with the excavation of the basin for the construction of the Lake Oroville Dam. These artifacts date from 1964 and will not become potentially significant cultural resources until they are 50 years old.

This potential would occur within the lifetime of the General Plan so these potential resources were included in the June 16, 2010 Determination of Eligibility Statement for SHPO. It was decided by SHPO that the 1964-era resources are not considered eligible as historical resources defined by PRC 5020.1[j].

A description of the existing environmental conditions, including prehistoric and historic-era cultural overviews, follows.

Prehistory

Clay Pit SVRA is located within the northern reaches of California's Central Valley. Therefore, the following describes the Lake Oroville Sequence (the prehistory of the immediate region) and the prehistoric cultures of the Central Valley.

The earliest well-documented entry and spread of humans into California occurred at the beginning of the Paleo-Indian Period (11,550 to 8550 B.C.). Social units are thought to have been small and highly mobile. Known sites have been identified within the contexts of ancient pluvial lake shores and coastlines, as evidenced by the presence of such characteristic hunting implements as fluted projectile points and chipped stone crescent forms. Prehistoric adaptations over the ensuing centuries have been identified in the archaeological record by numerous researchers working in the area since the early 1900s, as summarized by Fredrickson (1974) and Moratto (1984). Because of the Central Valley's plentiful resources and temperate climate, the

valley was well populated prehistorically and served as the location for some of the more substantial village sites known in California.

Beardsley (1948) and others conducted numerous studies that form the core of our early understanding of upper Central Valley archaeology. Little has been found archaeologically that dates to the Paleo-Indian or the Lower Archaic time periods (8550 to 5550 B.C.); however, archaeologists have recovered a great deal of data from sites occupied by the Middle Archaic Period (5550 to 550 B.C.). The lack of sites from earlier periods may be attributable to high sedimentation rates that left the earliest sites deeply buried and inaccessible. During the Middle Archaic Period, the broad regional patterns of strategies for foraging for subsistence gave way to more intensive procurement practices. Subsistence economies were more diversified, possibly including the introduction of acorn-processing technology. Human populations were growing and occupying more diverse settings. Permanent villages that were occupied throughout the year were established, primarily along major waterways. The onset of status distinctions and other indicators of growing sociopolitical complexity mark the Upper Archaic Period (550 B.C. to A.D. 1100). Exchange systems became more complex and formalized. Evidence of regular, sustained trade between groups was seen for the first time.

Several technological and social changes characterize the Emergent Period (A.D. 1100–A.D. 800). The bow and arrow were introduced, ultimately replacing the dart and atlatl (a spear-throwing device). Territorial boundaries between groups became well established. It became increasingly common that distinctions in an individual's social status could be linked to acquired wealth. The exchange of goods between groups became more regularized with more goods, including raw materials, entering into the exchange networks. In the latter portion of this period, exchange relations became highly regularized and sophisticated. The clamshell disk bead became a monetary unit for exchange, and increasing quantities of goods moved greater distances. Specialists arose to govern various aspects of production and exchange.

The construction of the Oroville Dam in Butte County during the 20th century provided the opportunity for researchers to develop a local sequence of prehistoric cultural developments; referred to as the Oroville Sequence. The Oroville Sequence has been divided into four distinct groups based largely on their predominant technological and subsistence patterns:

- The Mesilla Complex (1000 B.C. to A.D. 1) includes the heavy use of handstones and milling slabs for food processing although mortars and pestles were also occasionally used. Populations during this time were relatively mobile.

- The Bidwell Complex (A.D. 1 to A.D. 800) shares similar characteristics with the Mesilla Complex in its preference for milling stones and handstones versus the use of mortars and pestles. A larger variety of projectile points were used during the Bidwell Phase compared to the Mesilla Complex. Additionally, carved steatite bowls were used. Mobility decreased and fixed settlements began to develop.

- The Sweetwater Phase (A.D. 800 to A.D. 1600) is characterized by a distinct shift from milling stones and handstones to mortars and pestles for food processing. Smaller projectile points were used during this time period, acorns were increasingly used for subsistence, and populations became more sedentary. Because of the Sweetwater Phase's similarities to the Bidwell Phase some contend that they should be combined into one inclusive phase.

- The Oroville Complex (A.D. 1600 to A.D. 1850) contains the only exclusive representation of mortars and pestles and smaller Desert Side-Notched projectile points. Shell ornamentation and Cottonwood Points were also used during this period.

Ethnography

Ethnographically, the Oroville area was inhabited primarily by the Maidu (also referred to as the Konkow or the Mechoopda near Clay Pit SVRA). The Maidu controlled extensive territory in the region, particularly on the east side of the Sacramento River (Perez and Long 2009). The most extensive documentation of the Maidu, as noted in Perez and Long (2009), was compiled by Dixon (1905), with other works by Hill (1978), Kroeber (1925, 1932), Riddell (1978), and Voegelin (1942).

The name Konkow, derived from the anglicized version of the native term koyo-mkawi, meaning "meadow land," refers to peoples whose territory included sections of the Sacramento Valley floor and portions of the Sierra foothills east of the present-day cities of Chico and Oroville (Perez and Long 2009). Formal delineations of the territory may have included prominent physiographic features and landforms, although any certainty as to the early historic-period boundaries have been lost through the decimation of the tribe through disease and the removal of the people from their traditional lands during the 19th century. In general, such boundaries may not have been as hard and fast as reported in ethnographic accounts because extensive trail systems existed within the valley and foothill regions that connected the Konkow with the Maidu and other tribes throughout northern and central California.

With a few notable exceptions, the lifeways of the Konkow differed little from their neighbors in the valley and in the Sierra foothills to the east. The main difference, other than linguistic variation, occurred in the spiritual realm because the Konkow adhered to the ritual and belief systems associated with the Kuksu cult involving the impersonation of deity figures (White 2003:21). Many other groups in the area did not practice these rituals, although the Nisenan and other non-Maiduan central California peoples did (Dixon 1905:322).

Konkow settlement conformed to a "village community" pattern, which served as the only formal political structure of the tribe (Kroeber 1925:398). Village communities, which consisted of several closely spaced small settlements and a larger village containing a semi-subterranean earth-covered ceremonial lodge, were autonomous and self-sufficient units (White 2003:21). Individual communities probably numbered around 200 inhabitants and "owned" or controlled specific territories in which hunting, gathering, and fishing areas were considered common

property. The most politically influential man of each community lived in the central village. The head-man acted as an advisor and spokesman for his group, although he possessed little in the way of concrete power. This individual was not selected by members of the village community nor was the position hereditary. Rather, the head-man was chosen by the village shaman with the aid of various messenger spirits who could also remove him as they saw fit (Dixon 1905:223-224).

Konkow economic and subsistence patterns were largely based on a seasonal cycle that involved residence in winter village sites in the valley and summer journeys into the mountains for hunting. In the spring, various types of roots, stems, leaves, seeds, and fruits were gathered in large quantities to be dried for winter consumption (Dixon 1905:187). As with many Native American groups in California, the acorn, gathered from a variety of oak species, formed the staple food of the Konkow diet.

In general, Konkow and Maidu life remained unchanged for generations until a disease epidemic, possibly malaria, in 1833 decimated tribes throughout central California. The Konkow population and cultural systems probably never fully recovered from the effects of the epidemic by the time the Gold Rush period began in 1849. These two factors combined to thoroughly disrupt their social, spiritual, economic, and subsistence patterns and the Konkow and Maidu were quickly reduced to a marginal existence in the region. Population estimates best illustrate the impact these events had on the Konkow and the Nisenan neighbors: In 1846, approximately 8,000 people from these groups were recorded. By 1910, that population was reduced to less than 1,000 (Riddell 1978:386). Today, however, the Maidu people are enjoying a resurgence in their community and, through new-found cultural, economic, and political influence, are reinvesting in their traditions.

Historic Era

Early Euro-American History of Butte County

The European presence in Butte County extends back to 1808 when Gabriel Moraga crossed the Feather River at the site of present-day Oroville. Moraga was journeying to the uncharted northern regions of Spain's province of Alta (Upper) California, making contact with native populations, and scouting for potential mission sites. In 1817, Captain Luis Arguello, who was also sent to scout the province, ventured into present-day Butte County. Upon reaching the intersection of the Sacramento and Feather Rivers, Arguello reportedly saw wild pigeon feathers floating on the surface of the easternmost river, and thus named it the "*Rio de las Plumas*," the River of the Feathers, currently recognized as the Feather River (Perez and Long 2009:17).

The first Euro-Americans journeyed through present-day Butte County in 1825 under the direction of fur trapper Jedediah Smith. Smith led a party of approximately 40 American fur traders from the east into California. Butte would become one of the original 27 counties in the new State of California (Perez and Long 2009).

Gold Rush

The presence of gold in California was known at least as early as a discovery made by Jedediah Smith near Mono Lake in 1825. While such deposits had been worked on a limited scale by indigenous cultures for some time it wasn't until 1848 when James W. Marshall discovered the precious metal at Sutter's Mill in Coloma, El Dorado County (Perez and Long 2009) that a true gold "rush" occurred. General John Bidwell's 1848 discovery of gold on the Feather River in Hamilton, Butte County occurred 4 months after Marshall's discovery. Shortly thereafter gold was discovered on the Calaveras, Stanislaus, Mokelumne, Yuba, Trinity, Klamath, American, and Scott Rivers. These watercourses are documented as having received the greatest amount of attention from gold prospectors during the Gold Rush and were quickly overtaken with large mining operations (Wells and Chambers 1882:120).

The pursuit of gold in Butte County and throughout the Sierra foothills led to a boom in population and construction. One of the more notable early engineering projects started in 1855 when Lewis Cunningham and John C. Fall created the Feather River and Ophir Water Company. The objective of the company was to construct a 14-mile-long ditch beginning at the South Fork of the Feather River near Stringtown and Enterprise, to Ophir City (present-day Oroville). The transportation of water from the South Fork made mining possible in the dry diggings that had all but been abandoned in the earliest years of the Gold Rush, thereby creating more opportunities for the town's prosperity (Wells and Chambers 1882: 235). Similarly, many of the present-day cities in Butte County were established as a result of the numerous mining operations located along the Feather River.

The Establishment and Development of Oroville

In its early years, Ophir (present-day Oroville) was documented as being one of the most dangerous and "wickedest" camps among the Feather River mines. Some in the community made efforts to change the town's bad reputation, such as in the case of preachers who tried to reform some of the more unruly inhabitants (Perez and Long 2009). Local merchants worked together to provide the town with some order and an appearance of consistency, which ultimately lead to community developments such as main roads leading into Ophir from the mountains (Talbitzer 1987:41 and 47).

By 1856 the county seat moved to Ophir, thus requiring a name change because a town in Placer County shared the same name. James Burt, who originally named the town in 1849, renamed the community Oroville, meaning "City of Gold" in fractured Spanish (Talbitzer 1987:47–48). Oroville continued to thrive and at one point ranked as the fifth-largest town in the state (Talbitzer 1987:48).

Oroville and the surrounding region drew entrepreneurs, farmers, and would-be miners from all over the world. The Chinese were one of many groups adding cultural diversity to California's population during the Gold Rush. However, it wasn't until the early 1860s that Butte County

experienced a marked increase in its Chinese population (Perez and Long 2009). By 1873, Oroville's population consisted of approximately 5,000 Chinese miners who were involved in the operations at Oroville (Mansfield 1918:270).

Other significant historical development occurred in Butte County and the surrounding region. Agriculture, water conveyance for farms and mines, hydroelectric power activities, and railroad developments also occurred parallel to the Gold Rush in Oroville and in other areas of Butte County. However, agriculture and the construction of Oroville Dam in the latter decades of the 20th century had a more significant effect on the economy and landscape of the region than most other endeavors.

Agriculture

Shortly after the discovery of gold in Butte County, agriculture rapidly developed into one of the most significant economic pursuits in the region (Wells and Chambers 1882:206). Prime farming and grazing lands were quickly exploited, resulting in a booming agricultural and ranching economy. Although successful at gold prospecting, General John Bidwell also established a successful wheat ranch in Chico, and eventually established one of the first grist mills in the county in 1853 (Wells and Chambers 1882:206). In addition to wheat, Butte County successfully yielded large harvests of fruit, grapes, mulberry, almonds, walnuts, oats, and barley (Wells and Chambers 1882:206).

Butte County also had great success in raising livestock, which developed into an important industry in the area. Beef was used by the mining camps and hides and tallow were used for other purposes (Wells and Chambers 1882:206).

Oroville Dam and Clay Pit SVRA

Oroville Dam was constructed as part of the State Water Project (SWP). The purpose of the SWP is to manage the flow of water from the Feather River to Southern California, approximately 650 miles, by using natural courses and the 444-mile California Aqueduct (Perez and Long 2009:21). Construction of the dam resulted in one of the world's largest earth-moving jobs, consisting of more than 80,000,000 cubic yards of fill material. Suitable earth and rock materials played an important role in constructing the Oroville dam. Materials located in and around the 1869 dredge tailing fields near Oroville provided an abundant source of varying types of earth and rock material for the major embankment zones of the dam. Excavation of the borrow areas began in 1964 using a diesel power shovel equipped with a 3-cubic-yard bucket. The shovel was used to excavate a nearly vertical face and the material was then hauled by bottom-dump trucks to a loading station for processing. A railroad along the Feather River was used to haul the material from the impervious borrow areas to a car dumper at the dam site (Perez and Long 2009:21).

The site that is now Clay Pit SVRA was one of the five areas containing dredge tailings that were used as borrow areas for the construction of Oroville Dam. The site was selected in favor of other

dredge tailing areas because its impervious material consisted of a uniform Red Bluff Formation that was deposited from a river floodplain, and because it was close to transportation facilities used for the pervious borrow areas. The site was used as the favored impervious borrow area for the construction of Oroville Dam until the dam reached its current elevation of 922 feet and was completed on October 6, 1967 (Perez and Long 2009:21).

2.3.4 Aesthetic Resources

The setting of Clay Pit SVRA can be described as a broad, flat, dirt basin containing scattered pools, grasses, and trees. This basin is surrounded by a natural grassland terrace on the north, west, and northeast; vernal pool grasslands on the south; and a remnant oxbow lake surrounded by riparian woodland on the southeast (Figure 2-4).

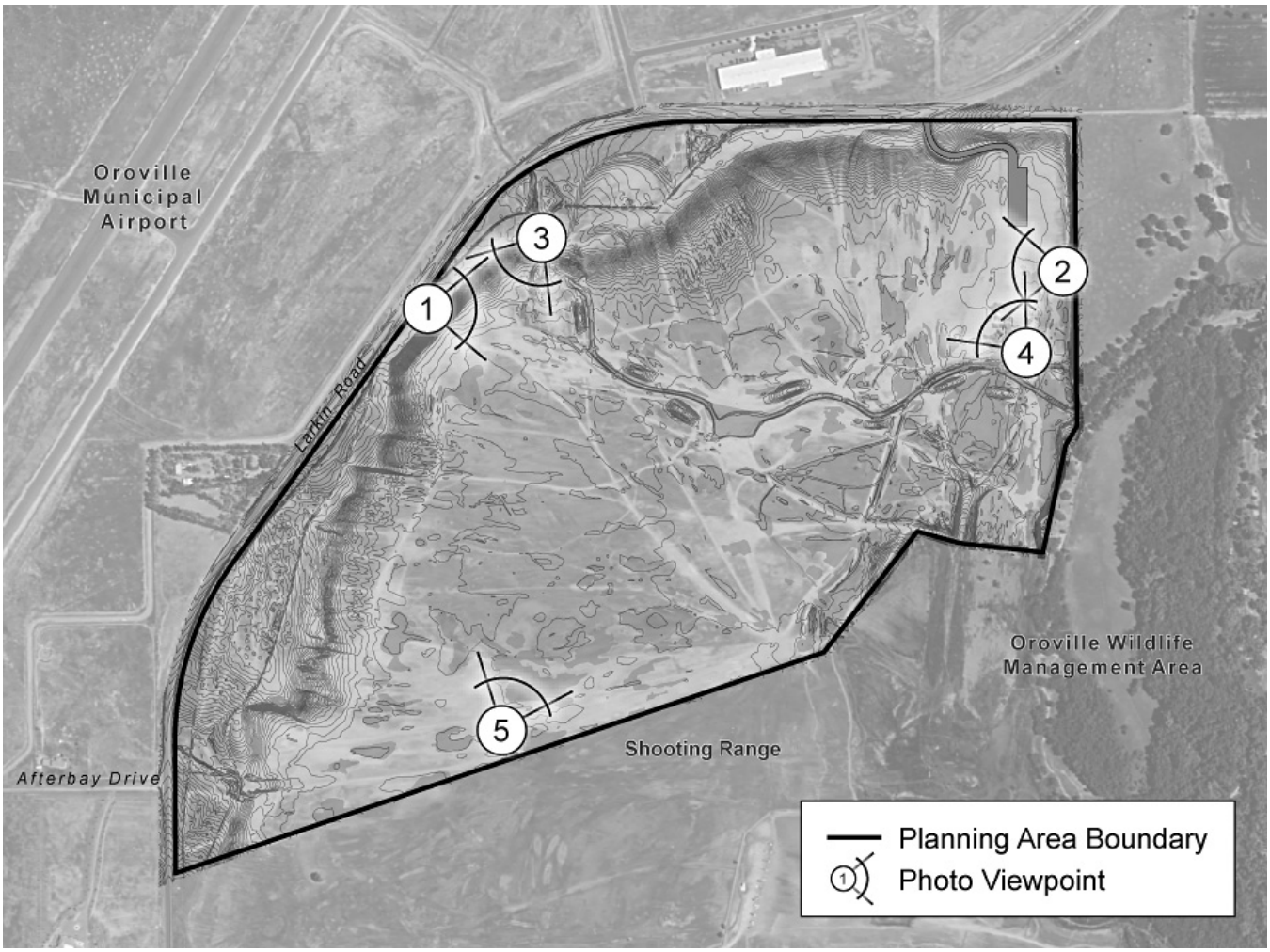


Photo viewpoint locations at Clay Pit SVRA

1: View across Clay Pit SVRA looking east; basin rim in foreground, cottonwood stand in middle ground, Sierra Nevada in background. *(AECOM 2010)*

2: View across Clay Pit SVRA looking west; basin rim in foreground, drainage canal and vernal pool in middle ground. *(Photograph by TRA in 2010)*

Photo Viewpoints **Figure 2-4**

3: View of Clay Pit SVRA looking southwest; basin rim and fencing in the foreground; basin floor, northern drainage canal, elderberry bush, and hill climbs in the middle ground, neighboring residence and Sutter Buttes in the background. *(Photograph by AECOM in 2010)*

4: View from inside the floor of Clay Pit SVRA basin looking northwest; cottonwood stand in the middle ground, airport industrial park in the background. *(AECOM 2010)*

Photo Viewpoints **Figure 2-4**

5: View from inside the floor of Clay Pit SVRA basin looking northeast; large vernal pool in foreground; biologist in middle ground; hill climbs, industrial park, and Sierra Nevada mountains in background. (AECOM 2010)

Photo Viewpoints **Figure 2-4**

Approaching Clay Pit SVRA on Larkin Road from the southwest or the northeast, the grassland terrace is visible along the border of the SVRA, as are portions of the excavated basin as it slopes away to the southeast. Buildings and utility poles associated with the airport are visible on the north side of Larkin Road, farmland is visible on the east side of Larkin Road to the north of the SVRA, and one residence is visible on the northwest. On clear days the snow-capped Sierra Nevada Range can be viewed to the east and the Sutter Buttes to the southwest.

At the entrance to the SVRA along the elevated terrace on the north, almost the entire excavated basin is visible below and to the south. Distant views of the adjacent grasslands and shooting range are to the south, and distant views of the woodland surrounding the oxbow lake are to the southeast. During the wet season, this sweeping view of the basin includes green grasslands interspersed with pools of water and bare dirt areas throughout the SVRA. In the spring and early summer, scattered wildflowers exist throughout the SVRA and at the edges of some pools. During the hot summer months, as the vegetation and pools dry out, the prominent feature of the landscape is the large dirt basin. Scattered cottonwood trees are visible in the eastern portion of the basin and a lone mulberry tree and lone elderberry shrub are visible in the northwest corner of the basin.

The view from inside the basin consists primarily of the flat basin floor and the slopes leading to the terraced grasslands along the rim. The excavated walls of the basin are up to 40 feet tall and vary from gentle hills to steep slopes. While inside the basin, this topography screens much of the view of the surrounding area. Because the main drainage canal that transects the site is incised several feet into the basin floor, unless one is near this feature, it is not generally visible throughout the SVRA. Within the perimeter of the SVRA fence to the east and southeast is an artificial berm that provides a visual separation between the SVRA and surrounding properties, including a partial separation between the SVRA and the adjacent shooting range. Dredge tailings are visible primarily in the southeastern corner of the park.

2.3.5 Sound

Acoustic Fundamentals

Atmospheric conditions such as wind speed, turbulence, temperature gradients, and humidity may change the type of sounds and noise levels at a receptor. The presence of a large object (e.g., barrier, topographic features, intervening building façades) between a noise source and a receptor can provide significant attenuation of noise levels at the receptor. The "shielding" or reduction of noise levels provided by a barrier primarily depends on the size of the barrier, the location of the barrier relative to the source and receptors, and the frequency spectra of the noise. Natural barriers such as berms, hills, or dense woods and human-made features such as buildings and walls may serve as noise barriers.

Existing Sound Environment

The existing sound environment at Clay Pit SVRA is influenced by aircraft overflights, light industrial uses, shooting range activities, and transportation sound emanating from vehicular traffic on the site and on nearby roadways. The off-site noise from vehicular traffic near the SVRA originates from Larkin Road, west and north of the SVRA. Noise originating from the Oroville Municipal Airport and the adjacent industrial park, both located north of the SVRA, contributes to the existing ambient sound environment. The shooting range located south of the SVRA within the DFG Oroville Wildlife Area is in frequent use, although a large berm separates the two uses and reduces some of the noise drifting into the SVRA. The operation of recreational vehicles is the predominant sound source from within the SVRA. Other minor on-site sound sources include vehicle sounds as visitors come and go from the SVRA, people conversing and calling out to other visitors, and small gas-powered generators. Visitors can also enjoy the sounds of nature, such as birds singing, frogs croaking, and wind rustling through the trees and grasses.

The topographic features of Clay Pit SVRA and surrounding areas influence the sound environment. The SVRA is located within a depressed clay basin, which is surrounded by a terrace along its northern, western, and eastern boundaries. The terrace is at the same elevation as the surrounding properties on the north, west, and east. In addition, a large berm stretches along a portion of the

southern boundary of the SVRA. These topographic features attenuate the noises generated from OHV activities for receptors outside of the SVRA.

Existing Noise-Sensitive Land Uses

Noise-sensitive land uses include those that require quiet as an essential element (e.g., a library) or uses that could result in health-related risks to individuals who are exposed to noise. Residential dwellings are of primary concern because there is a potential for increased and prolonged exposure of individuals, both at interior and exterior locations. Land uses such as parks, historic sites, cemeteries, and recreation areas are considered sensitive to increases in exterior sound levels. Schools, places of worship, hotels, libraries, and other places where low interior sound levels are essential are also considered noise-sensitive land uses.

The land surrounding the SVRA is zoned for light industrial, residential, wildlife area, open space, and airport uses. Noise-sensitive receptors near the SVRA include off-site residences adjacent to the SVRA. Four single-family residential dwellings are scattered at irregular intervals to the west and south of the SVRA. One residential dwelling is located west of Larkin Road within 165 feet of the SVRA boundary. In addition, the DFG Oroville Wildlife Area adjacent to the SVRA on the southeast corner is a noise-sensitive land use. In some portions of the wildlife area, visitors may experience noise created by the OHV activities in the SVRA.

Visitors at a shade ramada and picnic table

Interpretive sign

Vault toilet

2.4 Operations

2.4.1 Visitor Services

Clay Pit SVRA is open 7 days a week from 8:00 a.m. until dusk. Clay Pit SVRA has a limited number of developed facilities including a paved parking lot (approximately ½ acre), a three-sided interpretive sign, two shade ramadas, two picnic tables, and a vault toilet. Clay Pit offers hills to climb and a small open riding area.

Hill Climb

2.4.2 Public Safety

One hazard (a gully) is present on the site and is marked with a hazard sign. Vehicle collisions at Clay Pit SVRA are relatively infrequent; one collision was recorded in 2010 and four collisions were recorded in 2009 (State Parks 2011b).

The ATV Safety Institute (ASI) provides training and certification in ATV safety. The OHMVR Division of State Parks has ASI-trained instructors who provide this training to all OHMVR Division staff and others interested in obtaining certification, including other state and federal employees and the public. Certification is required for anyone under 18 who is operating an ATV. Clay Pit SVRA is often used for these training and certification courses.

The Dirt Bike Safety Foundation offers a similar certification for dirt bike riders, although this certification is not required for visitors at state facilities. Clay Pit SVRA would also be a suitable location to provide these training courses.

Emergency Services

Security

State Park Peace Officers (SPPOs) provide law enforcement and emergency services 7 days per week. Emergency services can also be contacted through the 911 emergency number, and radio communications are available at the site. Emergency calls in this area are routed through the California Highway Patrol (CHP) and are dispatched to CHP officers or to SPPOs from the Oroville offices of the State Parks Northern Buttes District. In addition, State Parks operates the Norcom Communication Center which covers the area of Clay Pit SVRA. Norcom provides dispatch and telecommunications support services for SPPOs, Fish and Game Wardens, and numerous other law enforcement personnel in various agencies located throughout the northern part of the state, including the DFG, the National Parks Service, the USFWS, and the Department of Development Services. Through this communication center, State Parks and its partners coordinate efforts to protect both the public and California's natural and cultural treasures.

Fire Protection

Butte County Fire Department (BCFD) is the jurisdictional agency responsible for responding to fires within Clay Pit SVRA; however, fire management is provided through California Department of Forestry & Fire Protection (CAL FIRE). Butte County contracts with CAL FIRE to provide staffing to the BCFD through an annual cooperative agreement. Under the terms of this agreement, Butte County funds CAL FIRE professional command, fire-fighting, and administrative staff for operations. Through this arrangement, CAL FIRE and the BCFD function together as a fully consolidated fire protection agency and provide cost-effective fire protection service for Butte County (Butte County 2007:7-22). The closest Butte County fire station, Station 72, is located at

2290 Palermo Road in Palermo, approximately 5 miles southeast of Clay Pit SVRA. No fire incidents have been recorded at Clay Pit SVRA (Buckingham-Garcia, pers. comm., 2010)

Medical Aid

BCFD responds to 911 calls, and Oroville Ambulance responds to 911 medical aid calls originating from within Clay Pit SVRA. On-site SPPOs are trained in emergency responder medical aid and typically serve as first responders to medical emergencies. Medical equipment kept on-site in law enforcement vehicles includes oxygen, trauma kits, and equipment to assess the extent of injuries, such as blood pressure gauges and stethoscopes.

Emergency Access/Egress

Regional emergency access to Clay Pit SVRA is provided by State Route 70 and State Route 99, while direct access is provided by Larkin Road. There are no formal internal access roads within Clay Pit SVRA boundary. However, an existing entrance road and parking lot at the northeastern-most portion of the SVRA provide primary access for emergency responders. Overall, Clay Pit SVRA is dominated by open dirt areas that are accessible by all law enforcement vehicles and most emergency response vehicles.

2.4.3 Accessibility

Title II of the Americans with Disabilities Act (ADA) requires places of public accommodation, commercial facilities, and certain private entities to be accessible to and usable by persons with disabilities. The *Access to Parks Guidelines* were first published in 1994, and the most recent revision took place in 2009. The guidelines provide details on procedures to make state parks universally accessible while maintaining the quality of park resources. Also included in the guidelines are recommendations and regulations for complying with the standards for accessibility. The guidelines most applicable to Clay Pit SVRA concern picnic sites, fixed benches, ramps, restrooms, drinking fountains, and signage.

The vault toilet at Clay Pit SVRA is universally accessible; no other universally accessible facilities are located in the SVRA. The paved parking lot is not striped so no parking spaces are designated. New facilities described within this General Plan would be constructed to comply with ADA requirements.

2.5 Interpretation and Education

2.5.1 Existing Interpretation and Education

Clay Pit SVRA does not currently have a formal visitor or interpretive center, and no published materials or maps of the SVRA are distributed at the SVRA. A three-sided interpretive sign is located in the SVRA near the parking lot. One panel provides information on the creation of the clay pit, one describes wildlife found in the area, and one outlines rules for riders under the age of

18. ASI training is periodically conducted at Clay Pit SVRA, and is often taught by OHMVR Division staff.

2.5.2 Support for Interpretation and Education

Interpretive sign at Clay Pit SVRA

Because many OHV recreationists also participate in other recreational activities, such as visiting nature centers (67 percent) or historic sites (57 percent), an audience exists for a range of interpretive and educational programming at Clay Pit SVRA (USFS 2005). The full-time SPPO on staff at the SVRA could provide or assist with some interpretive or educational programming. Additional staff that may be hired to support the goals of this General Plan could also contribute to an interpretive or educational program. Although no cooperating associations or supporting organizations contribute to interpretive or educational efforts at the SVRA, opportunities for this type of cooperation exist. Local 4x4 groups have been supportive of Clay Pit SVRA planning efforts in the past. During the preparation of this General Plan these same groups repeatedly expressed interest in providing support for the development of Clay Pit SVRA in the form of donations of time and resources (Appendix A). Other local groups, such as motocross clubs, birding groups, youth groups, and historians, may also be interested in cooperating with the OHMVR Division to provide interpretive or educational programs.

The Lake Oroville Visitor Center, the Bidwell Mansion, the Greenline Tour from Riverbend Park to the Lake Oroville Visitor Center, and the Nature Center at Bidwell Park provide interpretive and educational programming near Clay Pit SVRA.

2.6 Park Support

Currently, no State Parks volunteers, other nonprofit organizations, or other volunteer groups are associated with Clay Pit SVRA. During the public workshops for the General Plan, several individuals expressed interest in volunteering their time and/or their group's time (e.g., the California Association of 4-Wheel Drive Clubs) to help with various improvement efforts at the SVRA.

2.7 Planning Influences

2.7.1 Systemwide Planning

A variety of factors must be considered when making planning decisions for an SVRA. To understand land use, resource, and facility issues in a larger context, planning for an SVRA must

consider issues that cross regional, local, and park boundaries. Therefore, the OHMVR Division addresses SVRA planning issues from a perspective that includes the entire State Parks system. In addition, other federal and state agencies may be responsible for providing oversight of various resources present within SVRAs. The following systemwide directives are relevant to Clay Pit SVRA planning effort:

- State Parks mission statement,
- OHMVR Division mission statement,
- OHMVR Division vision statement,
- OHMVR Division Strategic Plan,
- State Parks Strategic Initiatives,
- Accessibility Guidelines 2009,
- California Statewide Motorized Trail,
- California Public Resources Code,
- Off-Highway Motor Vehicle Recreation Act,
- Soil Conservation Standard and Guidelines,
- OHV BMP Manual for Erosion and Sediment Control,
- OHMVR Resource Management Protocols, and
- Complete Findings of the Survey on Public Opinions and Attitudes on Outdoor Recreation in California 2009

ATV

Dirt bike rider catching air

State Parks Mission Statement

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

OHMVR Division Mission Statement

The mission of the OHMVR Division is to provide leadership statewide in the area of OHV recreation; to acquire, develop, and operate state-owned vehicular recreation areas; and to otherwise provide for a statewide system of managed OHV recreational opportunities through funding to other public agencies. The OHMVR Division also aims to ensure that quality recreational opportunities remain available for future generations by providing for education,

conservation, and enforcement efforts that balance OHV recreation impacts with programs that conserve and protect cultural and natural resources.

OHMVR Division Strategic Plan

The California State Parks Off- Highway Motor Vehicle Recreation Division Strategic Plan (OHMVR Strategic Plan) provides guidance to the OHMVR Division on a strategic approach for administering SVRAs and a statewide financial assistance program that provides off-highway vehicle-related activities. It reaffirms a commitment to protecting California's unique natural areas by providing for well-managed OHV recreation. The plan seeks to actively engage the public to achieve its goals through multiple approaches including providing transparency in program management, and providing opportunities for children to connect with the natural environment. The plan provides a road map for the OHMVR Division based on four strategic themes and five guiding principles. Based on these strategic themes and guiding principles, the OHMVR Strategic Plan adopts a framework of six goals for the OHMVR Program to meet its legislative mandates.

gumplant (*Grindelia camporum*) at Clay Pit SVRA

Themes:

Emphasize the Basics – Maintaining existing OHV areas in good condition and preventing environmental damage are central to the success of the OHMVR Program.

The Greening of OHV Recreation- New technologies are becoming available which present opportunities for OHV recreation to be managed in ways that significantly reduce impacts to the environment.

Improving Technology – New vehicles now available are far more capable than those sold in the past. The OHMVR Program must respond to these improvements in technology by providing facilities appropriate for more capable vehicles.

The New Gateway – The OHMVR Program will take advantage of the opportunity presented by the presence of large numbers of young people and non-traditional user groups in OHV recreation areas by providing educational programs which teach appreciation of nature and the outdoors.

Guiding Principles:

Sustainability- We must manage lands and resources in such a way that they will be available for the enjoyment of many generations of Californians to come.

Transparency in Decision Making- Restoring public trust in the administration of the OHMVR Program depends upon people understanding the reasons behind decisions made by program managers.

Working with Partners and Volunteers- Meeting OHMVR Program goals is far too complex an undertaking to attempt without the assistance of numerous related agencies, and participation from individuals and volunteer organizations.

Considering the Needs and Concerns of Stakeholders- The OHMVR program will only be relevant to the degree to which it responds to the needs and concerns of those who are most invested in the success of the OHMVR Program.

Sound Data for Management Decision Making- In an era of diminishing opportunities, there is little room for mistakes. Commitment of resources and management actions must be based on the best available information to ensure success.

Goals:

Goal 1- Sustain Existing Opportunity: Protect, preserve, and enhance existing OHV opportunities in a manner that ensures well-managed, interesting, and high quality experiences, and address the environmental impacts that may be associated with those activities.

Goal 2- Increase OHV Opportunity: Add new OHV opportunities where appropriate and needed to replace loss of existing opportunities and respond to changing and future demand.

Goal 3- Staff Development: Enhance the abilities of program managers and staff dedicated to the development, management, and implementation of the OHMVR Program.

Goal 4- Develop an Informed and Educated Community: Achieve a highly informed and educated community associated with OHV recreational activities, dedicated to safe and lawful OHV operation and responsible environmental stewardship.

Goal 5- Cooperative Relationships: Establish and maintain productive relationships between individuals, organizations, industry, and government agencies to cooperatively identify problems and develop and implement solutions to advance the Mission and Goals of the OHMVR Program.

Goal 6- Informed Decision Making: Improve the quality, quantity, and accessibility of information needed to support sound decision making, transparency of administration, and communication with the interrelated groups interested in, and associated with, the OHMVR Program.

State Parks Strategic Initiatives

State Parks' Strategic Initiatives are the implementation strategy for the Strategic Vision of State Parks, the image of the future of the State Parks System (State Parks 2010a). Each initiative has its own implementation plan and outcome. They have been crafted to correspond with State Parks'

philosophy to preserve, protect, and interpret California's natural, cultural, and recreational resources. The Strategic Initiatives include:

- increasing diversity and leadership,
- using technology,
- creating an urban connection,
- developing a new image,
- focusing on cultural resources, and
- expanding recreational opportunities.

The development of Clay Pit SVRA would expand recreational opportunities to keep pace with the needs of California's growing, diverse population and changing lifestyles. Annual visitation to California's SVRAs has increased from 1,720,548 to 4,160,989 over the last 10 years (OHMVR Division 2010). The development of Clay Pit SVRA would provide an improved outlet for meeting the demands of this growing past-time.

California State Parks Accessibility Guidelines 2009

The Access to Parks Guidelines detail the procedure to make State Parks universally accessible while maintaining the quality of park resources. Also included in the guidelines are recommendations and regulations for complying with the standards for accessibility. The vision of the guidelines is embodied in the General Plan. The guidelines that would be most applicable to Clay Pit SVRA involve picnic sites, fixed benches, ramps, restrooms, drinking fountains, and signage.

California Statewide Motorized Trail

Section 5090.44 of the PRC provides for the designation of corridors in California as Statewide Motorized Trails. A California Statewide Motorized Trail consists of corridors that are designated and maintained for recreational travel by OHVs. Portions of a California Statewide Motorized Trail may include lands designated and maintained as trailheads. Although multiple areas located within 100 miles of Clay Pit SVRA allow OHV use, no designated trail corridors are near Clay Pit SVRA.

Public Resources Code

PRC Sections 5019.50–5019.80, Classification of the State Parks System, provides guidelines for the designation of State Parks and guiding principles for park improvements. The PRC classifies different types of California State Park units and provides guidelines for the upkeep and improvements of parks. It is also used as a general guide to plan appropriate improvements. Section 5090.35(a) states:

> The protection of public safety, the appropriate utilization of lands, and the conservation of land resources are of the highest priority in the management of the state vehicular recreation areas; and, accordingly, the division shall promptly repair and continuously maintain areas and trails, anticipate and prevent accelerated and unnatural erosion, and restore lands damaged by erosion to the extent possible.

Soil Conservation Standard and Guidelines

The *2008 Soil Conservation Standard and Guidelines* (State Parks 2008) require that the State Parks OHMVR Division manage OHV recreation facilities to meet the following soil standard:

> Off-highway vehicle (OHV) recreation facilities shall be managed for sustainable long-term prescribed use without generating soil loss that exceeds restorability, and without causing erosion or sedimentation which significantly affects resource values beyond the facilities. Management of OHV facilities shall occur in accordance with Public Resources Code, Sections 5090.2, 5090.35, and 5090.53.

The soil guidelines provide tools and techniques that may be used to meet the soil standard. Other tools and techniques that are more applicable to specific facility conditions and organizational protocols also may be used as appropriate to comply with the soil standard.

The *2008 Soil Conservation Standard and Guidelines* (Soil Standard) provides guidance for conserving soil in parks managed by the OHMVR Division, and includes measures to maintain trails to a standard that allows for feasible restoration by natural resource managers. The Soil Standard applies to OHV areas funded by the California OHV Trust Fund, including all SVRAs. In the context of the Soil Standard and the Public Resources Code, restoration means the restoration of land to the contours, the plant communities, and the plant covers comparable to those on surrounding lands or to those that existed prior to OHV use. The Soil Standard also provides measures to help anticipate and prevent accelerated and unnatural erosion, and to guide the maintenance and repair of trails.

OHV BMP Manual for Erosion and Sediment Control

The *OHV BMP Manual for Erosion and Sediment Control* (State Parks 2007) provides guidance on selecting, implementing, and maintaining best management practices (BMPs) for OHV-type facilities and construction activities. BMPs detailed in the manual include BMPs for erosion control (e.g., blankets, mulches, hydroseeding techniques), scour control (e.g., check dams and armoring as in upland swales and ditches), dust control, sediment traps, and waste management.

Off-Highway Motor Vehicle Recreation Act and OHMVR Commission

The Off-Highway Motor Vehicle Recreation Act (Act) requires the OHMVR Division to implement and administer the OHMVR Program, which provides and supports sustainable, ecologically based opportunities for OHV recreation at specified areas throughout the state (PRC Section 5090 et

seq.). The Act states that ecologically balanced recreation requires effectively managed areas, and adequate facilities for the use of OHVs, conservation, and enforcement. The duties and responsibilities of the OHMVR Commission are advisory in nature, in line with those of the State Parks and Recreation Commission. Nine commissioners are appointed to represent a broad range of groups including OHV recreation enthusiasts, biological or soil scientists, rural landowners, law enforcement, environmental protection organizations, and non-motorized recreation interests. The Commission is responsible for reviewing all plans for new and expanded vehicle recreation areas that have applied for grant funds, reviewing and commenting on the strategic plans and General Plans developed by the OHMVR Division, receiving public comment on the plans, and reporting to the Governor and various Legislative committees.

OHMVR Resource Management Protocols

The Wildlife Habitat Protection Program (WHPP) (mandated by PRC Section 5090.35) and the Habitat Management System (HMS) (developed by the OHMVR Division) are a major part of each SVRA's resource monitoring and evaluation program. The HMS emphasizes a broad range of scientifically accepted techniques and measures that are appropriate for the unique habitats found within each SVRA. This monitoring system provides information on protocols for baseline studies, focused studies, monitoring, and surveys, and is used by SVRA resource managers as a tool to aid the development of park-specific monitoring plans and techniques. The goals of the WHPP are to monitor and manage wildlife and plant populations and restore habitats where necessary to sustain a viable species composition within each SVRA. The plans enable adaptive management, allowing management practices and strategies to change, or "adapt," as warranted by new monitoring information. Environmental scientists for each SVRA conduct and oversee the monitoring based on the HMS and other monitoring protocols. Biological resource assessments conducted at Clay Pit SVRA have been compiled according to the guidelines set forth by this system.

2.7.2 Regional Planning

A number of regional planning influences should be understood to anticipate and coordinate with regional planning issues while planning for Clay Pit SVRA. The programs, plans, and organizations that could involve or influence the SVRA are described below.

Butte County Association of Governments Blueprint Planning Activities and Growth Projections

Butte County Association of Governments (BCAG) is an association of all local governments within Butte County. Its members include the cities of Biggs, Chico, Gridley, Oroville, the Town of Paradise, and Butte County. BCAG is responsible for developing federal and state transportation plans and programs that secure transportation funding for the region's highways, transit, streets and roads, and pedestrian and other transportation system improvements. BCAG is also the administrative and policymaking agency for the region's public transit service, coordinates the

preparation of the *Butte Regional Conservation Plan*, and prepares the state-mandated regional housing needs plan.

In response to growth pressures in the Butte County region, BCAG has been involved in a multifaceted planning process aimed at providing a more informed land use and transportation decision-making process. This effort includes the initiation of the *Butte Regional Conservation Plan* and the development of regional growth projections, regional guiding principles, an ecological baseline assessment report, land cover mapping, a biological constraints analysis, an analysis of meadowfoam (*Limnanthes floccosa)* in Butte County, and the integration of General Plan updates with other city and county documents and with the *Butte Regional Conservation Plan.*

Butte County General Plan

Clay Pit SVRA is located within Butte County, but because it is owned by the State of California it is not subject to compliance with the Butte County General Plan policies or Butte County Zoning Ordinance. However, consideration of these documents is desirable to account for regional planning issues and to provide conscientious and neighborly land stewardship.

Butte County adopted an updated General Plan in November 2010. Resource Conservation (RD) is the land use designation for Clay Pit SVRA site and adjacent lands to the south and east. Other nearby land areas are designated Agriculture and Rural Residential. The Oroville Municipal Airport is located the north and west of the SVRA. The SVRA is within Airport Land Use Compatibility Zones B2 (Extended Approach and Departure Zone) and C (Traffic Pattern) which include land use restrictions described the *Butte County Airport Land Use Compatibility Plan* (ALUCP) (Butte County 2000:64).

The Resource Conservation designation indicates natural, wilderness, and study area land uses with limited recreational and commercial recreational uses that do not detract from the area's value for habitat, open space, or research (Butte County 2000:54)

Butte County Zoning

Butte County zoning ordinance designates Clay Pit SVRA and areas to the south as Resource Conservation. Land to the north, west, and northeast are zoned Agricultural-Residential and Agricultural. The Oroville Municipal Airport is located north and west of the SVRA.

Butte Regional Conservation Plan

The *Butte Regional Conservation Plan* is a joint habitat conservation plan/natural communities conservation plan (HCP/NCCP) that focuses on the western half of the county where there is the greatest conflict between urban development and federal- and state-protected species. BCAG is facilitating the development of this plan on behalf of the cities in this area and Butte County. State Parks is not a signatory to this document.

The plan will result in an improved and streamlined environmental permitting process for future land use activities and transportation projects that are identified in the city and Butte County General Plans and for regional transportation projects indentified in the regional transportation plan. The plan is intended to help balance open space, habitat, agriculture, and urban development and provide greater conservation values than the project-by-project, species-by-species environmental permitting process that currently exists. It will allow for appropriate and compatible growth and development in the Butte County region while facilitating the preservation of aquatic and terrestrial resources and providing habitat for threatened and endangered species through conservation partnerships with local agencies (BCAG 2008:3-1, 3-2). Since the summer of 2007, two of the five phases of the Butte Regional Conservation Plan have been completed with a final project completion date expected in mid-2011 (Butte County 2010b:4.9-5).

Butte County Association of Governments Regional Transportation Plan

The Regional Transportation Plan (RTP) specifies the policies, projects, and programs necessary over a more than 20-year period to maintain, manage, and improve the region's transportation system. The Butte County 2008 RTP covers the 27 years between 2008 and 2035 and must be updated every 4 years. The RTP provides a comprehensive long-range view of transportation needs and opportunities for Butte County and serves as the foundation for the development of the Federal Transportation Improvement Program, the Regional Transportation Improvement Program, and the Interregional Transportation Improvement Program for Butte County (BCAG 2008:1-2, 1-2). At this time, Clay Pit SVRA site is not located near any of the proposed regional priority projects or local projects identified in the RTP. Changes at the SVRA may affect regional transportation planning efforts required for the regular update of this RTP.

Butte County Airport Land Use Compatibility Plan

The *Butte County* ALUCP establishes procedures and criteria for the Airport Land Use Commission (ALUC) to review proposed land use development and affected municipalities for compatibility with airport activity. State law requires public access airports to develop comprehensive land use plans, designating airport vicinity and use and clear zones. Such plans are adopted by the ALUC. The purpose of an ALUCP is to ensure that incompatible development does not occur on lands surrounding the airport. Oroville Municipal Airport is included in the Butte County ALUCP adopted by the ALUC in December 2000.

2.7.3 Regulatory Influences

A number of regulatory influences should be understood to anticipate and incorporate regulatory issues while planning for Clay Pit SVRA. Regulatory programs pertinent to the SVRA are described below.

Water and Biotic Resources

Biological resources in California are subject to a variety of state and federal laws and regulations. A brief description of the most relevant laws and regulations that apply to the biological resources found at Clay Pit SVRA are briefly described below.

Federal Regulations and Laws

Federal Endangered Species Act

Species listed under the federal Endangered Species Act (ESA) could be present within or near Clay Pit SVRA. The USFWS has authority over projects that may result in "take" of a species listed as threatened or endangered under ESA. Take is defined under Section 9 of ESA as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Under federal regulation, take is further defined to include habitat modification or degradation that would be expected to result in death or injury to listed wildlife. If a project would result in take of a federally listed species, either an incidental take permit, under Section 10(a) of ESA, or a federal interagency consultation, under Section 7 of ESA, is required before the take can occur. Such a permit typically requires minimization of, and compensation for take.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, implements a series of treaties between the United States and Great Britain (on behalf of Canada), Mexico, Japan, and the former Soviet Union that provide for international migratory bird protection. The MBTA authorizes the Secretary of the Interior to regulate the taking of migratory birds. The act provides that it shall be unlawful, except as permitted by regulations, "to pursue, take, or kill any migratory bird, or any part, nest or egg of any such bird…" (U.S. Code Title 16, Section 703). This prohibition includes both direct and indirect acts, although harassment and habitat modification are not included unless they result in direct loss of birds, nests, or eggs. The current list of species protected by the MBTA includes several hundred species and includes nearly all native birds.

Clean Water Act Section 404

The EPA is the lead federal agency responsible for water quality management. The Clean Water Act of 1972 (CWA) is the primary federal law that governs and authorizes water-quality control activities by EPA and the states.

CWA Section 404 requires a project proponent to obtain a permit from the USACE before engaging in any activity that involves discharge of dredged or fill material into "waters of the United States," including wetlands. Fill material means any material that has the effect of replacing any portion of a water of the United States with dry land or changing the bottom elevation of any portion of a water of the United States. Waters of the United States include navigable waters of the United States; interstate waters; all other waters where the use, degradation, or destruction of the waters

could affect interstate or foreign commerce; tributaries to any of these waters; and many wetlands. Jurisdictional wetlands must be adjacent to traditional navigable waters, must directly abut relatively permanent waters, or must have a significant nexus with a traditional navigable water. Wetlands are defined as those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions. Jurisdictional wetlands must meet three criteria: hydrophytic vegetation, hydric soil, and wetland hydrology.

Before USACE can issue a permit under CWA Section 404, it must determine that the project complies with the CWA Section 404(b) (1) guidelines. The Section 404(b) (1) guidelines specifically require that "no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences" (Title 40 of Code of Federal Regulations [CFR] Section 230.10[a] [40 CFR 230.10(a)]). To comply with this provision, the applicant must evaluate opportunities that would result in less adverse impact on the aquatic ecosystem.

In 2008, USACE and EPA issued regulations governing compensatory mitigation for activities authorized by permits issued by USACE. These regulations establish a preference for the use of mitigation banks to reduce some of the risks and uncertainties associated with compensatory mitigation.

State Regulations and Laws

California Endangered Species Act

The California Endangered Species Act (CESA) directs state agencies to decline approval of projects that would jeopardize the continued existence of an endangered or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of a species. Furthermore, CESA states that reasonable and prudent alternatives shall be developed by the DFG, together with the project proponent and any state lead agency, consistent with conserving the species, while at the same time maintaining the project purpose to the greatest extent possible. A "take" of a species, under CESA, is defined as an activity that would directly or indirectly kill an individual of a species. The CESA definition of take does not include "harm" or "harass" as is included in the federal ESA. As a result, the threshold for a take under CESA may be higher than under the ESA because habitat modification is not necessarily considered take under CESA.

Sections 2081(b) and (c) of CESA allow DFG to issue an incidental take permit for a state-listed threatened and endangered species only if certain criteria are met, including that take is incidental to an otherwise lawful activity; that the impacts of the authorized take have been minimized and

fully mitigated; and that issuance of the permit will not jeopardize the continued existence of a state-listed species.

Under CESA, DFG maintains a list of threatened and endangered species. In addition, DFG maintains lists of candidate species and species of special concern. Candidate species are those species under review for addition to either the list of threatened or endangered species. Species of special concern status applies to animals not listed under the federal ESA or CESA, but which nonetheless are declining at a rate that could result in listing, or to animals that have historically occurred in low numbers and known threats to their persistence currently exist. The designation is intended to result in special consideration for these animals during environmental review.

California Fish and Game Code

Fully Protected Species

The California Fish and Game Code strictly prohibits the incidental or deliberate take of fully protected species. DFG cannot issue a take permit for fully protected species, except under narrow conditions for scientific research or the protection of livestock; therefore, avoidance measures may be required to avoid take of fully protected species.

Protection of Bird Nests

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 of the California Fish and Game Code specifically states that it is unlawful to take, possess, or destroy raptors (e.g., hawks, owls, eagles, falcons), including their nests or eggs.

Lake and Streambed Alteration

Rivers, streams, and lakes in California are subject to regulation by DFG, pursuant to Section 1602 of the California Fish and Game Code. Activities regulated by DFG include diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake. DFG defines a stream as a body of water that flows at least periodically or intermittently through a bed or channel having banks and that supports fish or other aquatic life.

Porter-Cologne Water Quality Control Act and Section 401 of the Clean Water Act

Under Section 401 of the federal CWA, an applicant for a Section 404 permit must obtain a certificate from the appropriate state agency stating that the intended dredging or filling activity is consistent with the state's water quality standards and criteria. In California, the authority to grant water quality certification is delegated by the State Water Resources Control Board (SWRCB) to the nine RWQCBs. The Clay Pit SVRA site is under the jurisdiction of the Central Valley RWQCB.

Each of the nine RWQCBs must also prepare and periodically update basin plans in accordance with the state Porter-Cologne Water Quality Control Act. Each basin plan sets forth water quality standards for surface water and groundwater and actions to control nonpoint and point sources of pollution. These actions seek to achieve and maintain the basin plan standards. Basin plans offer an opportunity to protect waterways and wetlands by establishing water quality objectives.

The RWQCB's jurisdiction includes federally protected waters under CWA Section 401 and state-protected waters under the Porter-Cologne Water Quality Control Act. A "water of the state" is defined as any surface water or groundwater, including saline waters, within the boundaries of the state. The RWQCB has the discretion to take jurisdiction over areas not federally protected under Section 401 provided they meet the definition of waters of the state. The RWQCB typically requires mitigation for impacts on waters and wetlands such that no net loss of functions and values occurs.

Statewide General Permit for Construction Activity

The State of California adopted a new Construction General Permit on September 2, 2009, and enforcement began on July 1, 2010. SWRCB Water Quality Order 2009-0009-DWQ (Construction General Permit) regulates construction site storm water management under the federal National Pollutant Discharge Elimination System, which is promulgated to the SWRCB. Dischargers whose projects disturb 1 or more acres of soil, or whose projects disturb less than 1 acre but are part of a larger common plan of development that in total disturbs 1 or more acres, are required to obtain coverage under the Construction General Permit for discharges of storm water associated with construction activity. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground, such as stockpiling or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility.

Permit applicants are required to submit a notice of intent to SWRCB and to prepare a SWPPP. The SWPPP identifies BMPs that must be implemented to reduce construction effects on receiving water quality based on pollutants anticipated at the construction site. The BMPs identified are directed at implementing both sediment- and erosion-control measures and other measures to control potential chemical contaminants. The SWPPP also includes descriptions of postconstruction BMPs intended to reduce pollutants in storm water discharges after all construction phases have been completed.

Criteria Air Quality Regulations

Air quality in Butte County is regulated by EPA, CARB, and the Butte County Air Quality Management District (Butte County AQMD). Each of these agencies develops rules, regulations, policies, and/or goals to comply with applicable legislation. Although EPA regulations may not be superseded, both state and local regulations may be more stringent.

Federal Regulations and Laws

EPA is responsible for implementing national air quality programs. Its air quality mandates are drawn primarily from the federal 1970 Clean Air Act, as amended. The Clean Air Act requires EPA to establish primary (to protect public health) and secondary (to protect public welfare) National Ambient Air Quality Standards (NAAQS) for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less (PM_{10}), fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less ($PM_{2.5}$), and lead. EPA is also charged with ensuring that each state meets these standards. These air pollutants are commonly referred to as "criteria air pollutants" because they are based on scientific criteria for human and/or environmental health.

To ensure that these standards are met, each state is required to prepare a comprehensive, strategic, and enforceable air quality control plan with set deadlines for attaining the NAAQS in air basins that do not meet one or more of the federal standards. These comprehensive plans are called State Implementation Plans, and they must be updated periodically to keep up with EPA requirements and new control measures.

A State Implementation Plan is not a single document, but is actually a compilation of new and previously approved air quality management plans prepared by air districts that do not meet the NAAQS. Air districts are local special districts created by state law to enforce federal, state, and local air pollution regulations. While individual air districts prepare the individual plans, CARB is the lead agency for each of these plans and oversees their preparation.

Concerning the NAAQS, Northern Sacramento Valley Air Basin is designated as a nonattainment area for ozone and $PM_{2.5}$, and as an attainment area for all other NAAQS. Therefore, the *North Sacramento Valley Planning Area 2006 Air Quality Plan* (described below) was prepared as part of the state's State Implementation Plan.

State Regulations and Laws

California Air Resources Board

CARB, which is part of the California Environmental Protection Agency (Cal/EPA), is responsible for implementing the federal and state air quality regulations in the State of California. The agency approves air quality management plans/State Implementation Plan revisions; monitors air quality throughout the state; determines and updates area attainment designations and maps; sets and enforces emission standards for new mobile sources, consumer products, small utility engines, off-road vehicles, and fuels; and implements the California Clean Air Act. The CARB, in coordination with air districts in the state such as the Butte County AQMD, also develops air quality models to calculate stationary and mobile source air emissions from various land uses and activities.

The California Clean Air Act requires the CARB to establish California Ambient Air Quality Standards (CAAQS), which include the federal criteria pollutants and sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particulate matter. The California Clean Air Act requires all local air districts in the state to achieve and maintain the CAAQS by the earliest practical date. The districts are responsible for developing the overall attainment strategy for their jurisdiction. This involves maintaining emission inventories; modeling of air pollutants; and developing, quantifying, and comparing emission reduction strategies. Air districts in state nonattainment areas are also responsible for developing and implementing transportation control measures (in cooperation with the regional transportation planning agencies) necessary to achieve local ambient air quality standards. Districts have their own authority to regulate area sources of emissions.

In most cases CAAQS are more stringent than NAAQS. Differences in the standards are generally the result of the interpretation of the health-effects studies considered during the standard-setting process and a desire for an added margin of safety to protect sensitive individuals. Butte County is currently designated as a CAAQS nonattainment area for ozone, PM_{10}, and $PM_{2.5}$ and as an attainment area for all other CAAQS.

California Off-Highway Recreational Vehicle Regulations

Regulations for California Off-Highway Recreational Vehicles control the emissions from mobile sources (including evaporative emissions) by ensuring that all OHVs operating in California meet emission standards. In January 1994, CARB adopted emission-control regulations for dirt bikes and ATVs requiring all dirt bikes and ATVs sold in California, model year 1998 and later, to be certified by the On-Road Light-Duty Certification Section of CARB. In 1998 CARB revised the OHV regulations to allow noncompliant dirt bikes and ATVs that do not meet the new emission standards to be used during certain periods of the year—mainly fall, winter, and spring months when ozone levels are low. Noncompliant vehicles are issued a red registration sticker from the Department of Motor Vehicles. Certified compliant vehicles and all OHVs 2002 model year and later are issued a green registration sticker, which allows these vehicles to be operated in any designated use area at any time during the year.

CARB approved evaporative emission standards for OHVs that went into effect in 2008. These standards allowed changes to the use seasons for OHVs with red sticker registration based on new air basin data and added three vehicle types subject to OHV regulations: off-road utility vehicles, off-road sport vehicles, and sand cars (e.g., dune buggies, sand rails).

CARB's Enforcement Program is responsible for preventing the illegal sale and use of nonconforming or non-California certified vehicles, engines, and emissions-related parts in California.

Regional Plans, Rules, and Regulations

Northern Sacramento Valley Planning Area 2006 Air Quality Attainment Plan

The *North Sacramento Valley Planning Area 2006 Air Quality Attainment Plan* (2006 Attainment Plan) is part of the State Implementation Plan described above, and a collaborative document developed by the air districts located in the northern Sacramento Valley Air Basin. The 2006 Attainment Plan is a comprehensive plan that addresses the progress of previous plans and proposes control measures required to attain and maintain the CAAQS for ozone. Similar to the previous plans, the 2006 Attainment Plan focuses on the adoption and implementation of control strategies for stationary, areawide, and indirect sources. In addition, the 2006 Attainment Plan discusses how pollutant transport from adjacent air basins affects the ability of the northern Sacramento Valley Air Basin to attain and maintain CAAQS.

Butte County Air Quality Management District

Butte County AQMD attains and maintains air quality conditions in Butte County through comprehensive programs of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean-air strategy of Butte County AQMD involves preparing plans and programs to attain ambient air quality standards, adopting and enforcing rules and regulations, and issuing permits for stationary sources. The district also inspects stationary sources, responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements other programs and regulations required by the Clean Air Act and California Clean Air Act. All projects in Butte County are subject to applicable Butte County AQMD rules and regulations in effect at the time of construction.

In 2008, Butte County AQMD released and adopted the *CEQA Air Quality Handbook; Guidelines for Assessing Air Quality Impacts for Projects Subject to CEQA Review* (Butte County AQMD 2008). This handbook provides lead agencies, consultants, and project applicants with uniform guidelines for assessing and mitigating air quality in environmental documents.

Greenhouse Gas Emissions Regulations

Greenhouse gas (GHG) emissions in Butte County are regulated by EPA, CARB, Cal/EPA, and Butte County AQMD. Each of these agencies develops rules, regulations, policies, and/or goals to comply with applicable legislation.

Federal Regulations and Laws

On December 7, 2009, EPA adopted its Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases under the CAA (Endangerment Finding). The Endangerment Finding states that six key GHGs (carbon monoxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) in the atmosphere threaten the public health and welfare of current and future generations and that emissions from new motor vehicles and motor

vehicle engines are contributing to air pollution, which is endangering public health and welfare. The findings allowed EPA to finalize the GHG standards proposed earlier in 2009 for new light-duty vehicles as part of the joint rulemaking with the California Department of Transportation.

State Plans, Regulations, and Laws

Executive Order S-3-05

Executive Order S-3-05 states that GHG emissions shall be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80% below the 1990 level by 2050. The Secretary of Cal/EPA is directed to coordinate a multiagency effort to reduce GHG emissions to the target levels.

Assembly Bill 32, the California Global Warming Solutions Act of 2006

AB 32, the California Global Warming Solutions Act of 2006, establishes mechanisms to reduce GHGs to 1990 levels by 2020. This reduction will be accomplished through a declining statewide cap on GHG emissions that will be phased in starting in 2012.

In December 2008, CARB adopted its *Climate Change Scoping Plan* (Scoping Plan), which contains the main strategies that California will implement to achieve the reductions required by AB 32. The Scoping Plan calls for reductions in GHG emissions by improving emissions standards for light-duty vehicles, implementing the Low-Carbon Fuel Standard, applying energy efficiency measures to buildings and appliances, widely developing combined heat and power systems, and applying a renewable portfolio standard for electricity production.

Senate Bill 375

SB 375, signed in September 2008, aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. On September 23, 2010, CARB set regional GHG targets for passenger vehicles and light trucks for 2020 and 2035 for the 18 MPOs in the state, including the Butte County Association of Governments MPO.

Executive Order S-1-07

Executive Order S-1-07 proclaims that the transportation sector is the main source of GHG emissions in California, at more than 40% of statewide emissions. It establishes a goal that the carbon intensity of transportation fuels sold in California should be reduced by a minimum of 10% by 2020. CARB adopted the Low Carbon Fuel Standard on April 23, 2009, and it went into effect January 1, 2011.

Senate Bill 97 and CEQA Amendments

SB 97 acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. The resulting State CEQA Guideline amendments for GHG emissions include requirements for determining the significance of impacts from GHG emissions (Section 15064.4).

In January, 2010, the California Attorney General's Office released a document to assist local agencies with addressing climate change and sustainability at the project level under CEQA. The document provides examples of various measures that may reduce the impacts related to climate change at the individual project level. As appropriate, the measures can be included as design features of a project, required as changes to the project, or imposed as mitigation (whether undertaken directly by the project proponent or funded by mitigation fees).

California Off-Highway Recreational Vehicle Regulations

There are currently no regulations directly addressing the GHG emissions of off-road vehicles in California. However, the California Off-Highway Recreational Vehicle Regulations, described above in the Criteria Air Quality Pollutants section, that are used to control mobile source emissions of all OHVs operating in California also serve to regulate and reduce the impact of these pollutants as GHGs.

Cultural

Cultural resources in California are subject to a variety of federal and state laws and regulations. This section provides brief descriptions of the laws and regulations that apply to cultural resources at Clay Pit SVRA.

Federal Laws and Regulations

Section 106 of the National Historic Preservation Act of 1966 and its implementing regulations (36 CFR Part 800, as amended in 1999) requires federal agencies to consider the effects of their actions, or those they fund or permit, on properties that may be eligible for listing or are listed in the National Register of Historic Places (NRHP).

The NRHP is a register of districts, sites, buildings, structures, and objects of significance in American history, architecture, archaeology, engineering, and culture. The regulations provided in 36 CFR Part 60.4 describe the criteria used to evaluate cultural resources for inclusion in the NRHP. Cultural resources can be significant on the national, state, or local level. Properties may be listed in the NRHP if they possess integrity of location, design, setting, materials, workmanship, feeling, and association, and (36 CFR Part 60.4):

a. are associated with events that have made a significant contribution to the broad patterns of our history;

b. are associated with the lives of persons significant in our past;

c. embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or

d. have yielded, or may be likely to yield, information important in prehistory or history.

To determine whether an undertaking could affect historic properties, cultural resources (including archaeological, historical, and architectural properties) must be identified, inventoried, and evaluated for listing in the NRHP. Although compliance with Section 106 is the responsibility of the lead federal agency, the work necessary to comply can be undertaken by others. The Section 106 review process involves a four-step procedure:

1. Initiate the Section 106 process by establishing the undertaking, developing a plan for public involvement, and identifying other consulting parties.

2. Identify historic properties by determining the scope of efforts, identifying cultural resources, and evaluating their eligibility for inclusion in the NRHP.

3. Assess adverse effects by applying the criteria of adverse effect on historic properties (resources that are eligible for inclusion in the NRHP).

4. Resolve adverse effects by consulting with the State Historic Preservation Officer and other consulting agencies, including the Advisory Council on Historic Preservation if necessary, to develop an agreement that addresses the treatment of historic properties.

If implementation of the General Plan requires a CWA Section 404 permit from USACE, or any other federal permit, or if any federal funding was used to implement certain aspects of the General Plan, compliance with Section 106 also would be required.

State Regulations and Laws

CEQA offers directives regarding impacts on historical resources and unique archaeological resources. CEQA states generally that if implementing a project would result in significant environmental impacts, then public agencies should determine whether such impacts can be substantially lessened or avoided through feasible mitigation measures or feasible alternatives.

Only significant cultural resources (e.g., "historical resources" and "unique archaeological resources") need to be addressed. State CEQA Guidelines define a "historical resource" as, among other things, "a resource listed or eligible for listing on the California Register of Historical Resources" (CRHR) (State CEQA Guidelines, Section 15064.5, subdivision [a][1]; see also Public Resources Code Sections 5024.1, 21084.1). A historical resource may be eligible for inclusion on the CRHR, as determined by the State Historical Resources Commission or the lead agency, if the resource meets any of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage; or

2. Is associated with the lives of persons important in our past; or

3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

4. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, a resource is presumed to constitute a "historical resource" if it is included in a "local register of historical resources" unless "the preponderance of evidence demonstrates that it is not historically or culturally significant." (State CEQA Guidelines, Section 15064.5, subdivision [a] [2]). The State CEQA Guidelines require consideration of unique archaeological sites (Section 15064.5). (See also Public Resources Code Section 21083.2.) A "unique archaeological resource" is defined as "an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that the resource [Section 21083.2]:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information,

2. Has a special and particular quality such as being the oldest of its type or the best available example of its type, or

3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological site does not meet the criteria for inclusion on the CRHR but does meet the definition of a unique archaeological resource as outlined in the Public Resource Code (Section 21083.2), it is entitled to special protection or attention under CEQA. Treatment options under Section 21083.2 of CEQA include activities that preserve such resources in place in an undisturbed state. Other acceptable methods of mitigation under Section 21083.2 include excavation and curation or study in place without excavation and curation (if the study finds that the artifacts would not meet one or more of the criteria for defining a "unique archaeological resource").

Public Resources Code Section 15064.5(e) of the State CEQA Guidelines requires that excavation activities be stopped whenever human remains are uncovered and that the county coroner be called in to assess the remains. If the county coroner determines that the remains are those of Native Americans, the Native American Heritage Commission must be contacted within 24 hours. At that time, Section 15064.5(d) of the State CEQA Guidelines directs the lead agency to consult with the appropriate Native Americans as identified by the Native American Heritage Commission and directs the lead agency (or applicant), under certain circumstances, to develop an agreement with the Native Americans for the treatment and disposition of the remains.

Sound

State Regulations and Laws

The Off-Highway Motor Vehicle Recreation Act of 2003 and California Vehicle Code Section 38370 establishes standards for regulating noise levels generated from the operation of off-highway motor vehicles. The Off-Highway Motor Vehicle Recreation Act adopted the SAE J-1287 stationary test procedure for OHVs (measuring the noise from a stationary vehicle at 20 inches from the exhaust outlet and 45 degrees to the exhaust axis) and established the following noise level limits:

> On and after January 1, 2003, off-highway motor vehicles, when operating pursuant to Section 38001, shall at all times be equipped with a silencer, or other device, which limits noise emissions. (1) Noise emissions of competition off-highway vehicles manufactured on or after January 1, 1998, shall be limited to not more than 96 dB, and if manufactured prior to January 1, 1998, to not more than 101 dB, when measured from a distance of 20 inches using test procedures established by the Society of Automotive Engineers under Standard J-1287, as applicable. Noise emissions of all other off-highway vehicles shall be limited to not more than 96 dB if manufactured on or after January 1, 1986, and not more than 101 dB if manufactured prior to January 1, 1986, when measured from a distance of 20 inches using test procedures established by the Society of Automotive Engineers under Standard J-1287, as applicable.

2.7.4 Demographic Trends and Projections

Regional Demographics

According to California Department of Finance (DOF) data, the population of Butte County, including the incorporated municipalities, was approximately 221,768 in January 2010. The City of Oroville is the nearest incorporated city to Clay Pit SVRA. DOF estimated the population of Oroville to be 14,687 in January 2010 (DOF 2010). As a whole, the population in Butte County increased by 9 percent between 2000 and 2010 (Table 2-1), while the City of Oroville grew almost 13 percent.

In the year 2000 80% of the population in Butte County was white, while 11% was Hispanic. The DOF estimates that in the year 2010 78% of the population of Butte County was white, while approximately 14% was Hispanic. The DOF projects that the percentage of persons with Hispanic ethnicity will continue to increase; by the year 2030 whites are projected to make up 72% of the population while Hispanics are projected to make up 20% of the population (DOF 2010).

The median age in Butte County has shown a decrease in recent years. In the year 2000 the median age was recorded as 35.8 by the U.S. Census (DOF 2010). Estimates in the U.S. Census American Community Survey for the years 2006–2008 recorded a median age of 34.5 years for the county (DOF 2010).

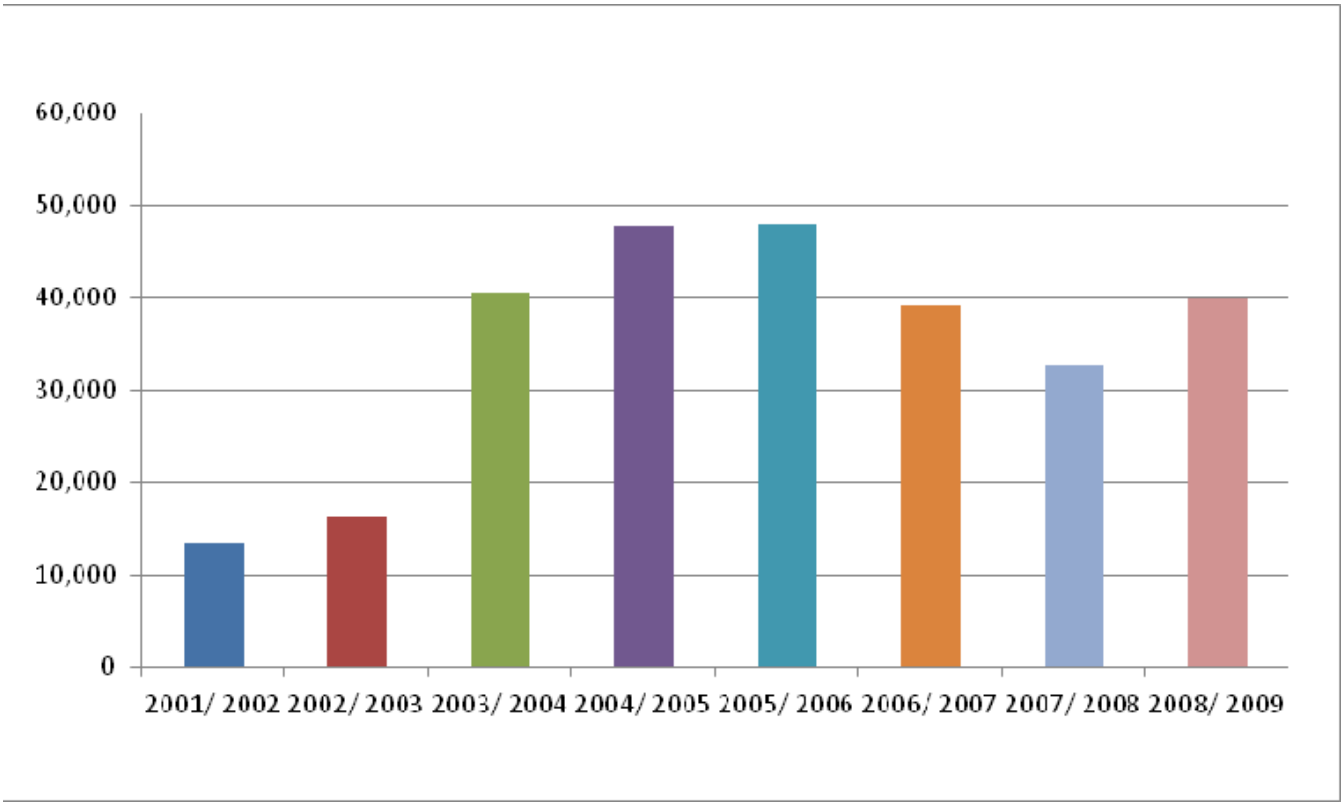
TABLE 2-1: COUNTYWIDE POPULATION GROWTH

County/City	2000	2010	% Increase
Biggs	1,793	1,787	-0.3%
Chico	60,516	88,228	45.8%
Gridley	5,408	6,454	19.3%
Oroville	13,004	14,687	12.9%
Paradise	26,408	26,310	-0.4%
Unincorporated Butte County	96,042	84,302	-12.2%
Butte County Total	203,171	221,768	9.2%

Park Visitation

Two sources of information were used to estimate the number of people now visiting Clay Pit SVRA (Appendix C): traffic counts gathered at the SVRA in support of the General Plan by a traffic consultant in spring 2010, and estimates compiled in the *California State Park System Statistical Report 2008/09 Fiscal Year* (Statistical Report) (State Parks 2010b). Figure 2-5 provides a graphical presentation of Clay Pit SVRA visitor estimates from the Statistical Report. These two sources, which provide baselines that are similar in magnitude, were used to establish a range of estimated visitation. Estimates based on data gathered by the traffic consultant are assumed to be more accurate because they were based on recent on-site data. This data provides a low baseline estimate. Attendance figures in the statistical report for various park units are usually the result of estimates, and produce results of different levels of accuracy. Although the accuracy of these figures is limited, these estimates can be used as a high baseline estimate.

Extrapolating from the traffic counts provides an annual visitation estimate of 11,125 vehicles. Because these traffic counts were considered to be average daily counts for the busy season, subtracting 20 percent generates an average estimate of 8,900 vehicles per year. Averaging the data in the statistical report provides an estimated vehicle count of 13,800 vehicles per year. Therefore, estimates of visitation provided by both methods range from 8,900 to 13,800 vehicles per year. Using a ratio of 2.5 people per vehicle generates an estimated range of 22,250–34,500 visitors per year.



Source: State Parks 2010b

Clay Pit SVRA Visitor Estimates per Fiscal Year **Figure 2-5**

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Chapter 3.0 – Issues and Analysis

This chapter details the planning assumptions and key SVRA issues that were identified during the planning process and are addressed in Chapter 4.0 of this General Plan. Key SVRA issues were identified through research of existing conditions, public outreach efforts, interviews with local experts, and discussions with State Parks OHMVR Division staff.

3.1 Planning Assumptions

The following planning assumptions are based on OHMVR Division policy, core program initiatives, statewide planning issues, and current federal and state law. The assumptions provide the planning context and parameters for addressing General Plan issues for Clay Pit SVRA.

The OHMVR Division will implement the following actions at Clay Pit SVRA:

- maintain and enhance OHV recreational opportunities;
- manage Clay Pit SVRA in a manner that encourages responsible OHV recreation;
- provide education and enforcement efforts that balance OHV recreational opportunities with programs that conserve and protect natural resources at Clay Pit SVRA;
- manage and protect rare, threatened, and endangered species and sensitive wildlife habitat as required by federal and state law; and
- coordinate and collaborate with agencies and regional and local partners on local issues such as air quality, water supply, water quality, and public utilities and services.

3.2 SVRA Planning Issues

3.2.1 Regional Planning Context

Regional Importance

OHV recreation is an important pastime in the Oroville region, Butte County, and foothills of the Sierra Nevada. No other publicly owned OHV facilities exist in the immediate vicinity of Clay Pit SVRA. While privately owned facilities are present in Marysville and Yuba City, these venues charge significant admissions, and Clay Pit SVRA is the only low-cost OHV area available for recreating in the region. Furthermore, the privately owned facilities are often only available for special events, and therefore don't provide regular hours for recreation by casual visitors. For these reasons, Clay Pit SVRA functions as a highly valued regional park and recreation resource for residents of Butte County, particularly for beginning riders and families.

Air Pollution, Greenhouse Gas Emission, and Dust Control

Air quality is an issue of regional concern in the northern Sacramento Valley and in Butte County. OHV use, similar to any other vehicle use, is a contributing factor. Vehicle emissions generated from travel to Clay Pit SVRA and from recreation activities at the SVRA contribute to regional air pollution and climate change. Furthermore, constructing facilities and operating the SVRA could temporarily increase dust particulates in the air and could be a contributing factor to local air pollution. Measures to reduce air pollution, greenhouse gas emission, and release of fugitive dust during construction and operation are addressed in the General Plan.

Water Supply/Conservation

Proposed improvements at Clay Pit SVRA would generate the need for additional water supply. Water would be needed to support the SVRA headquarters and to control dust generated by the use of proposed OHV tracks. The General Plan addresses potential sources of water and provides goals and guidelines for efficient water use and reuse.

3.2.2 Area-Specific Issues

Existing Clay Pit SVRA Uses

Clay Pit SVRA does not have any developed facilities for OHV recreation; the entire SVRA consists of open recreation terrain. While this type of recreation opportunity is appreciated by those who visit and use the SVRA, the area is generally considered underused. Many visitors who took the online survey or participated in public meetings and stakeholder interviews would like some managed facilities (e.g., motocross track, ATV track, 4x4 rock crawl) to be developed. The General Plan addresses this issue by planning for a range of developed tracks and facilities while maintaining opportunities for open-terrain recreation in areas of the SVRA not planned for developed facilities.

Site Access

The existing entrance to Clay Pit SVRA has no traffic controls such as traffic signals or turning lanes. Visitors turn into the SVRA directly from Larkin Road, a relatively busy County road. This direct turn could create a local traffic hazard with increased use of the SVRA, especially with vehicles pulling trailers. The General Plan describes the intent to move the main SVRA entrance from its current location to a new location directly across from Airport Road. This would create a four-way intersection with better opportunities for traffic control. Lines of sight would also be better at this location. The existing entrance would be maintained as a service entrance.

Circulation

Currently, Clay Pit SVRA does not have any formal roads or trails to direct internal circulation. While visitors generally appreciate the opportunity for open terrain recreation, OHV

recreationists can unexpectedly cross each other's path. The General Plan addresses internal circulation by establishing designated use areas, by planning access roads to the western terrace and the floor of the pit, and by installing directional signage in any blind areas. Large portions of the SVRA would remain available for open terrain recreation.

Headquarters

Clay Pit SVRA has no on-site administrative or maintenance facilities for park management. SPPOs, maintenance staff, and administrative staff service the SVRA from State Park's Northern Buttes District office in nearby Oroville and from the Prairie City SVRA offices in Rancho Cordova. The absence of administrative and maintenance facilities is a disadvantage for those managing and servicing the SVRA. The General Plan includes new headquarters facilities with an entry kiosk, administrative and maintenance offices, a staff bathroom, and landscaping. The presence of these facilities will enable site managers to better administer and serve the SVRA and provide better visitor and emergency services.

Visitor Facilities

On-site visitor facilities at Clay Pit SVRA are very limited and consist of one vault toilet, a small paved parking area, two picnic tables with shade ramadas, and one three-sided interpretive sign. The picnic tables receive limited use because they are located along the perimeter of the site. Visitors often stage their vehicles in the shade of the cottonwood trees near the eastern boundary of the SVRA. The General Plan envisions additional facilities of various types to better serve current and future visitors. Proposed facilities include new restrooms, interpretive facilities, picnic facilities, roadways, and parking and staging areas.

Utilities

No utilities are available on-site. Electricity, phone, sewer, and water are available across Larkin Road at the Oroville Municipal Airport and could be extended into Clay Pit SVRA. The General Plan includes plans for the drilling of an on-site well to provide water for use at the new entrance station, and for track watering, if sufficient water is available. If additional water is needed for dust control, it could be provided by the local water agency. Sewage from the headquarters facilities would be treated on-site via an engineered septic system near the entry station. The existing vault toilet would remain, and additional vault toilets would be provided for visitor use.

Physical Resources/Topography

The topography at Clay Pit SVRA does not include a lot of variety or challenge to most visitors. Stakeholders have repeatedly expressed a desire for developed facilities such as tracks to provide more recreation options at the SVRA. The native substrate includes clay and cobble, which can make OHV use of the SVRA uncomfortable or dangerous for visitors. The engineered substrate used in developed facilities would provide a more variable and comfortable environment.

Stakeholders also suggested that the OHMVR Division use logs and large rocks in the SVRA to provide obstacles to climb and navigate. The General Plan includes a variety of developed uses that would provide a variety of substrates and challenges to riders of different abilities and experience.

Soil Conservation

Soil conservation is a priority at Clay Pit SVRA. The *2008 Soil Conservation Standard and Guidelines* (State Parks 2008) require assessment, maintenance, and monitoring activities for all projects funded by the OHV Trust Fund. These activities ensure that all OHV facilities are managed for their sustainable prescribed use without generating soil loss that exceeds restorability and without causing erosion or sedimentation that significantly affects resource values beyond the facilities. The General Plan includes goals and guidelines to ensure compliance with this standard.

Habitat Management

Habitat management is a priority at Clay Pit SVRA. The 1988 OHMVR Act requires that the OHMVR Division develop wildlife and habitat monitoring and protection programs. In 1999 the OHMVR Division prepared the Habitat Monitoring System (HMS) which provides guidance and sets overall goals for the entire SVRA system. The system is intended to be adaptive to the needs of the resources at each SVRA, and to changes in scientific knowledge and methods. The General Plan includes goals and guidelines to ensure compliance with this system.

Water Quality

During the wet months Clay Pit SVRA receives runoff from the Oroville Municipal Airport located immediately to the north. Runoff enters the SVRA via an incised drainage, often carrying sediment and other pollutants. OHV use of the SVRA also creates sediment and vehicle-related pollutants. Both are carried off-site to the east into a remnant oxbow of the Feather River. The General Plan addresses water quality issues through coordination with neighboring property owners, proposed on-site treatment of runoff, and management of pollution sources.

Sensitive Biological Resources

Clay Pit SVRA supports vernal pools and other wetlands, and a drainage canal traverses the site. These features are waters of the U.S. subject to U.S. Army Corps of Engineers (USACE) jurisdiction under Section 404 of the federal CWA. Any placement of fill material into waters of the United States would require a CWA Section 404 permit from USACE. The vernal pools at the SVRA are known to support vernal pool fairy shrimp, which is federally listed as threatened. This species has persisted and thrived at the SVRA despite ongoing OHV activity. However, because of its federal listing status, the presence of this species on-site may require specific management actions in some areas known to support this species. Clay Pit SVRA also includes one elderberry shrub. Elderberry shrubs with branches greater than 1 inch in diameter are considered potential habitat

for the valley elderberry longhorn beetle, an invertebrate federally listed as threatened. The planning team is addressing issues related to federally protected wetlands and listed species through informal consultation with USACE and the USFWS (the federal agencies regulating these resources). The General Plan also includes goals and guidelines to protect these resources, including formal consultation with these agencies before construction begins in any areas where these resources are found.

Cultural Resources

Much of the land near Clay Pit SVRA was mined for gold and river substrates, and the "pit" itself was created when the site was mined for clay during construction of the Oroville Dam in the 1950s. While this history is interpreted briefly in the on-site interpretive sign, additional opportunities exist to accentuate the local history via additional interpretive displays. The SVRA has been inventoried for prehistoric and historic resources of potential significance and does not contain any resources that would cause constraints to SVRA management and use.

Educational Opportunities

Interpretation at Clay Pit SVRA is limited to one small three-sided interpretive sign placed near the parking lot. The addition of new facilities, including the headquarters building and constructed OHV facilities, would provide additional opportunities for site interpretation and educational outreach. Interpretation could address the physical, biological, and cultural resources found at the site, local geology and geography, issues related to water quality and treatments, and other topics. Educational outreach could also provide information on safe OHV use. The General Plan includes goals and guidelines related to interpretation and education.

Aesthetic Resources

During the public outreach process conducted in support of the General Plan, some visitors suggested taking measures to beautify the site. Planting trees; enhancing the drainage management area; and restoring some vernal pools and grasslands could improve SVRA aesthetics. Opportunities to enhance the site and restore habitat are addressed in the General Plan. The General Plan also includes provision for the screening and landscaping of newly proposed facilities.

Noise

Noise generated by visitors to Clay Pit SVRA has the potential to adversely affect nearby sensitive receptors. The General Plan addressed this issue through careful site planning to avoid increased noise levels at nearby receptors and by recommending noise barriers (berms) between proposed facilities and a nearby residence. The General Plan also includes guidelines to encourage the supporting organizations that use the SVRA to coordinate periodic and voluntary noise testing for vehicles and education to help maintain acceptable ambient noise levels.

Public Safety

Clay Pit SVRA is patrolled by SPPOs 7 days per week, but includes no staffed entry kiosk. The General Plan includes plans for permanent administration buildings, which would improve park oversight, enhance public safety, and limit opportunities for inappropriate or illegal use of the SVRA.

Relationships with User Groups

During the public outreach process conducted in support of the General Plan, several groups expressed strong support for Clay Pit SVRA and a willingness to help with efforts related to site development and maintenance. The General Plan includes provisions to continue positive relationships with user groups and to foster volunteer stewardship.

Providing Places for Family Gatherings

Clay Pit SVRA is considered a family-friendly park partly because the relatively easy terrain is suitable for inexperienced visitors. However, no specific riding areas exist for children, and no other activities are provided for families and individuals who are not riding OHVs. The General Plan proposes creating a designated youth riding area in the SVRA and providing additional gathering places with recreational facilities for use by groups and/or families. The facilities could include clustered ramadas and picnic tables and facilities for passive recreation, such as horseshoe pits.

Clay Pit is a place for families to recreate

Chapter 4.0 – The Plan

This General Plan establishes the long-range purpose and vision for Clay Pit SVRA. Specific use areas described in this plan clarify the management intent and desired visitor experiences within these areas and within proposed facilities. The goals and guidelines in this General Plan provide guidance on how to achieve the purpose, vision, and management intent for the SVRA. The goals and guidelines were developed to address known planning issues while providing a foundation for resource protection, development, and interpretation of the SVRA. The goals and guidelines also provide a framework for subsequent planning and development for the various elements of the SVRA.

4.1 Purpose and Vision

4.1.1 Declaration of Purpose

The declaration of purpose describes the purpose of Clay Pit SVRA and is the broadest statement of management goals designed to fulfill the vision of the SVRA. A declaration of purpose is required by PRC 5002.2(b). The following declaration of purpose was developed for Clay Pit SVRA during the General Plan process:

> *The purpose of Clay Pit SVRA is to provide effectively managed, responsible off-highway vehicle (OHV) and related recreational opportunities with recognition of the significance of Clay Pit SVRA to the local population. The unit's relatively small size and unique outdoor recreational setting provide opportunities for various forms of OHV use, family and social gathering, and interpretive programs.*

4.1.2 SVRA Vision

The vision for Clay Pit SVRA describes the SVRA in future years, when the OHMVR Division has achieved its General Plan objectives. The following vision was developed for Clay Pit SVRA during the General Plan process:

> *Clay Pit SVRA provides a safe and convenient place for individuals, families, and groups to enjoy an outdoor recreational setting. On any given day, visitors are able to take part in managed OHV recreation and other activities, and to enjoy the unique setting. Clay Pit SVRA's natural and cultural history provides opportunities for education and interpretation. Clay Pit SVRA provides high-quality outdoor experiences for both the local and regional community in the greater Oroville area already known for its extensive recreational activities.*

4.2 Unit Classification

Clay Pit is an SVRA.

4.3 Land Use Management

4.3.1 Planning Alternatives

Several planning alternatives were developed during the planning process. The alternatives explored a range of scenarios in terms of management zones, types of potential facilities, and locations of potential facilities. All alternatives aimed to provide a balance between protecting on-site resources and providing a range of recreational experiences. The plan described in this section presents the preferred alternative, as developed based on a variety of factors, including geographic relationships, resource values, ecological parameters, management issues and goals, types and intensities of land use, visitor use and experience, desired outcomes for staff and visitors, regional recreation trends, and population trends.

4.3.2 Use Areas

Management zones or land use areas (use area) for Clay Pit SVRA have been developed to allow for specialized management by area based on the factors described above in Section 4.3.1. This General Plan defines three use areas: the Developed Use Area, the Open OHV Recreation Area, and the Drainage Management Area.

A brief description of features, primary management intent, intended activities, proposed facilities, and potential facilities in these use areas are listed in Table 4.1 and described in more detail below. Figure 4-1, "Use Areas and Headquarters Facilities", shows the location and extent of each of the three use areas in Clay Pit SVRA, as well as the headquarters facilities proposed for construction within the Developed Use Area.

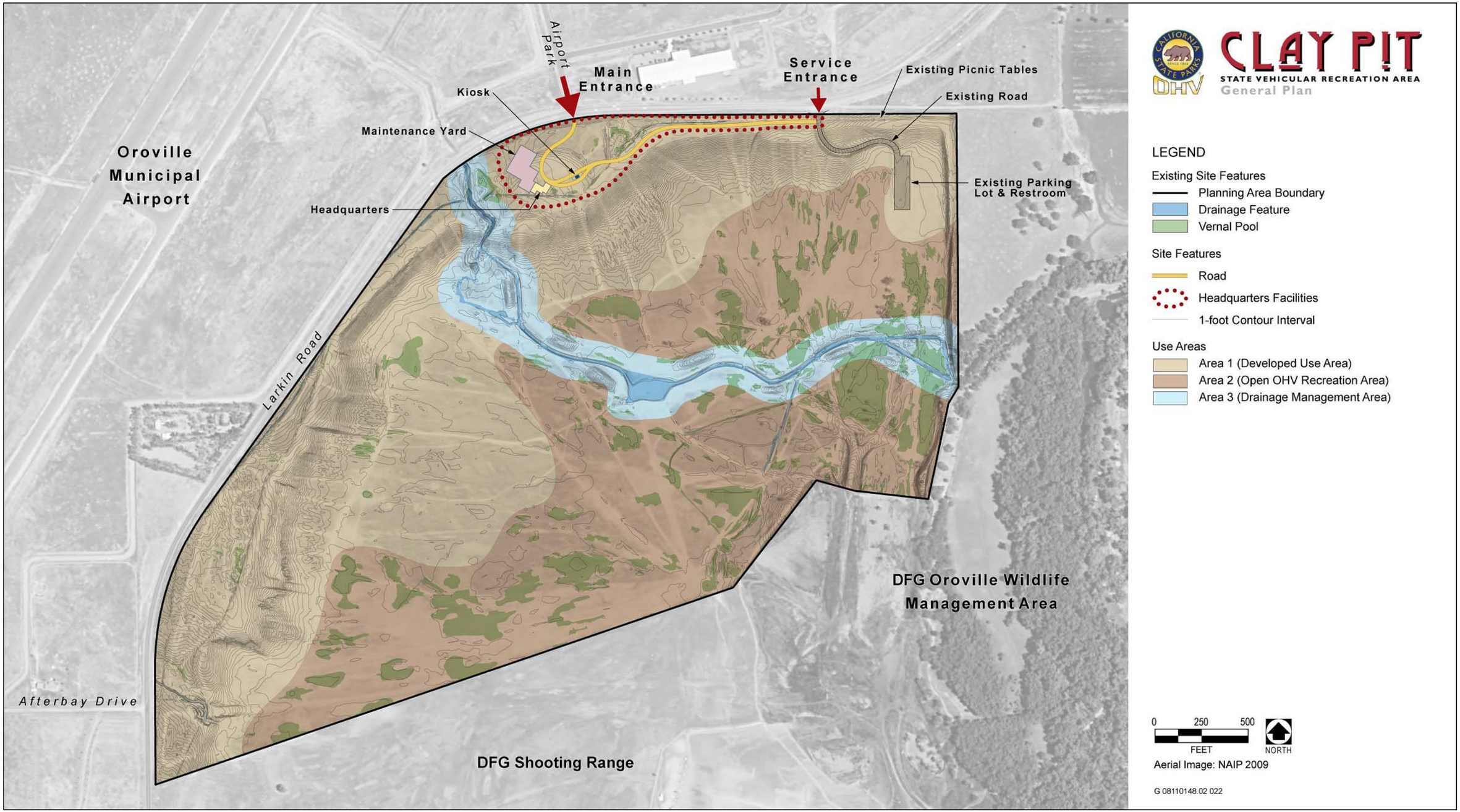
Developed Use Area

The primary management intent of the Developed Use Area is to accommodate the more intense uses and built facilities envisioned at Clay Pit SVRA. The Developed Use Area contains a paved parking lot, two shade ramadas, two picnic tables, one vault toilet, and one interpretive sign. Other types of built facilities such as paved access roads, water tanks, OHV tracks, and 4X4 obstacles could be located within the Developed Use Area.

Headquarters facilities are proposed for construction in the Developed Use Area and will include a new entry off of Larkin Road, a headquarters building with an attached maintenance shop and maintenance yard, an entry kiosk, and an internal roadway connecting the new entry with the existing parking lot. A fuel station for gas and diesel may be installed in the maintenance yard for use by OHMVR Division vehicles, motorcycles, ATVs, and maintenance equipment that will be operated by staff. The proposed headquarters facilities are described in more detail in Section 4.3.3, "Proposed Facilities."

TABLE 4-1: USE AREA MATRIX

TOPICS	DEVELOPED USE AREA	OPEN OHV RECREATION AREA	DRAINAGE MANAGEMENT AREA
Description	The Developed Use Area contains desirable topographic features for OHV use and fewer sensitive natural resources than other parts of Clay Pit SVRA.	The Open OHV Recreation Area has fewer desirable topographic features and a higher density of natural resources.	The Drainage Management Area bisecting Clay Pit SVRA contains a linear drainage and several pond features which dry up during the hot summer months.
Primary Management Intent	The primary management intent for the Developed Use Area is to accommodate the more intense uses and built facilities envisioned at Clay Pit SVRA.	The primary management intent for the Open OHV Recreation Area is to continue to provide informal open OHV recreation and trail use while preserving natural resources.	The primary management intent for the Drainage Management Area is to allow for recreational enjoyment of this feature while preventing water quality degradation and soil loss.
Intended Activities	It is well suited for built facilities such as parking lots, OHV tracks, and 4X4 obstacles.	Generally, this area will be left in its current state and will continue to be used for multi-purpose OHV use.	This use area will be actively managed to address water quality issues related to this drainage.
Facilities (proposed and anticipated)	Facilities suitable in the Developed Use Area include an entry area; a headquarters building; maintenance facilities; developed OHV facilities such as tracks, trails, a 4X4 play area and obstacle course; accompanying staging facilities such as restrooms and picnic areas; and educational facilities such as interpretive displays or an outdoor classroom area.	Facilities suitable in the Open OHV Recreation Area include marked or developed trails, informal trails, unpaved staging areas, accompanying staging facilities such as restrooms and picnic areas, and educational facilities such as interpretive displays or an outdoor classroom area. Developed tracks, paving, and other built facilities are not suitable in this use area.	This use area is not appropriate for developed facilities. Drainage crossings may be constructed, which could include culverts, bridges, or other circulatory management features.
Natural Resources	Sensitive natural resources in this area include a few scattered vernal pools.	Sensitive natural resources in this area include a large number of vernal pools scattered throughout, many of which are known to support special status invertebrate species.	This area contains recreational and natural features that change depending on climatic conditions. During the wet months, this area conveys and ponds large amounts of water. During the dry season, this area does not sustain water.
Typical Visitor Activities	Visitor activities in the Developed Use Area may include the use of MX track(s), ATV track(s), obstacle courses, hill climbs, mud pits, marked and developed trails, informal trails, staging areas, picnicking areas, educational programs and exhibits, and other built facilities. Overnight use is limited to special event permits.	Visitor activities in the Open OHV Recreation Area may include the use of marked and developed trails, informal trails and open OHV use areas, staging areas, picnicking areas, and educational programs and exhibits. Overnight use is limited to special event permits.	Visitor activities in the Drainage Management Area depend upon the season. Use will be managed according to water quality and soil loss management requirements.
Public Access	Visitors will be able to access facilities within the Developed Use Area via roadways that may be constructed between the SVRA entrance and the various developed use facilities. Informal trails or developed trails may be created throughout this use area.	Generally, access to the Open OHV Recreation Areas will be limited to off highway vehicles and pedestrians. From the staging areas where most street vehicles will park, visitors will be able to ride throughout this use area along existing informal trails, potential future marked trails, or in open terrain.	This area will be accessible by two roads and by informal trails. Driving within the drainage will be discouraged.
Source: AECOM 2010			



Source: Topographic information provided by David Evans and Associates 2008, planning data developed by AECOM in 2010

Use Areas and Headquarters Facilities **Figure 4-1**

Additional facilities that could be built in the Developed Use Area include, but are not limited to, OHV tracks (e.g., ATV tracks, motocross tracks, training tracks), a 4X4 and trials play area and obstacle course, trails and internal roadways, parking areas, staging facilities such as restrooms and picnic areas, spectator stands, and educational facilities such as interpretive displays or an outdoor classroom area. Visitor access to facilities within the Developed Use Area will be via an internal roadway and trail system that will be constructed between Clay Pit SVRA entrance and various developed facilities. The anticipated facilities and roadways depicted in Figure 4-2, "Anticipated Facilities", serve as examples of the type and location of facilities that could be built in the Developed Use Area. Future conditions and demands will determine the actual locations and facilities built within this use area. Overnight use will be limited to special events. Anticipated facilities are described in more detail in Section 4.3.4, "Anticipated Facilities and Services."

Open OHV Recreation Area

The primary management intent of the Open OHV Recreation Area is to continue to provide informal open OHV recreation and trail use while preserving natural resources. Generally, this area will be left in its current state and will continue to be used for multipurpose OHV use.

Facilities within the Open OHV Recreation Area could include marked or developed trails, informal trails, unpaved staging areas, accompanying staging facilities such as restrooms and picnic areas, and educational facilities such as interpretive displays or an outdoor classroom area. Developed tracks, paving, and other built facilities will not be located in this use area. Visitor access to this area will be limited to OHVs and pedestrians. From the staging areas where most street vehicles will park, visitors will be able to ride throughout this use area along existing informal trails, potential future marked trails, or in open terrain.

Typical visitor activities in this area will include OHV use of marked and developed trails, informal trails, open areas, and staging areas and visitor use of picnic areas and educational exhibits or facilities. Overnight use will be limited to special events.

Drainage Management Area

The primary management intent of the Drainage Management Area is to prevent water quality degradation and soil loss while allowing for recreational enjoyment of this area as appropriate. This use area will be actively managed to address water quality and soils management issues related to the linear drainage canal that bisects Clay Pit SVRA.

No recreational facilities are proposed for this use area. Drainage crossings will be constructed, which may include culverts, bridges, or other features that will guide circulation through the area. Driving up and down the drainage will be discouraged. Visitor activities will be managed according to the season and site conditions. Visitor use of this area will be managed in accordance with water quality requirements.

4.3.3 Proposed Facilities

Most of the facilities in the headquarters area (Figure 4-1) within the Developed Use Area are estimated to be constructed at Clay Pit SVRA in 2013. The proposed facilities include a headquarters building, septic system, maintenance yard, new entrance and roadway alignment, and an entrance kiosk. These new facilities will play an important role in enabling other proposed facilities and visitor uses in the future. These buildings will include the materials and staff needed to maintain Clay Pit SVRA at a higher intensity of use. State Parks anticipates charging a fee for each car that enters Clay Pit SVRA once these improvements are finalized. Funds obtained from site entrance fees will be used to maintain Clay Pit SVRA and provide funding for future improvements.

Construction of the proposed headquarters facilities is expected to last 3–6 months. Construction will occur between 7:00 a.m. and 7:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturdays. No construction will occur on Sundays or holidays.

Headquarters Building

The headquarters building will include approximately 2,800 square feet of administrative offices, staff restrooms, a maintenance shop and offices, and storage. Visitor services staff will be available to welcome visitors in an entry area. The structure will be single story and will be 15 feet tall at the office roof's ridge and 23 feet tall at the garage's roof ridge. Because the building will be less than 70 feet tall, it will comply with height restrictions related to the Oroville Airport compatibility zones. The building will have gable roofs and be painted in earth tones. Nighttime security lighting, similar to security lighting present at the Oroville Municipal Airport, may be installed at the headquarters building and parking area for safety and security purposes. The building will be constructed in compliance with Federal Aviation Administration requirements to avoid glare or distracting lights that could be mistaken for airport lights. The building will also be constructed to incorporate Leadership in Energy and Environmental Design (LEED®) standards.

Maintenance Yard

The maintenance shop will open to a 0.5-acre maintenance yard to be used for storing maintenance and patrols vehicles, ATVs, and motorcycles. This maintenance yard may include storage sheds for equipment needed for building and maintaining tracks, trails, and other OHV facilities. This equipment could include bulldozers, water trucks, tractors, back hoes, or other similar equipment. Some equipment may be shared with the Prairie City SVRA and may not be stored on-site. Approximately 1,800 cubic yards of material will be excavated to create the maintenance yard, and this material will be stored temporarily for later use in Clay Pit SVRA. It will be stored in upland areas west of the headquarters building in locations that will not obstruct views of the surrounding area, and erosion control measures will be used. The maintenance yard will be surfaced with crushed rock about 6 inches deep.

Roadways

Development of the headquarters facility will include the construction of a new entrance into Clay Pit SVRA at the Airport Park intersection with Larkin Road. Construction of the new entrance will result in a four-way intersection at Airport Park and Larkin Road, and will include left- and right-turn channelization from Larkin Road into the SVRA. This new entrance will be approximately 1,000 feet to the west of the existing entrance. A new access road will join the new entrance with the existing access road leading from the entrance down to the existing parking lot. The existing entrance will be maintained as a service entrance. From the headquarters building to the new kiosk the new access road will be a single two-way road. It will then divide around the new kiosk, and become a single two-way road past the kiosk to the existing parking lot. The existing access road will be used as secondary emergency/service access. A total of approximately 2 acres of new paving will be required for the entrance and internal roadway.

Kiosk

An entry kiosk will be located approximately 250 feet inside the entrance of the park. The 160-square-foot kiosk will be made from materials similar to those at the headquarters building, and will be a maximum of 15 feet tall. Two lanes will be constructed on either side of the kiosk to accommodate visitor check-in and exit.

Utilities and Services

Utilities and services needed to serve the headquarters facilities include water, wastewater disposal, propane, electricity, and solid waste disposal. A new on-site well will be constructed to meet water needs. Because percolation tests indicate that on-site soils likely are not suitable for a standard gravity-fed septic system, an engineered septic system will be used at the headquarters facilities. This engineered septic system will be designed and constructed according to site constraints, and could involve the use of an above-ground leach field, a sand filtration system, or other engineered components. It is anticipated that the leach field will be approximately 100 feet wide, 100 feet long, and 10 feet deep. It is estimated that approximately 3,700 cubic yards of native material will be excavated and stored temporarily for later use in Clay Pit SVRA. The material will be temporarily stored in upland areas west of the headquarters building in locations that will not obstruct views of the surrounding area, and erosion control measures will be used.

An approximately 250-gallon liquefied petroleum (propane) tank will be installed adjacent to the headquarters building for water heating and space heating. Overhead or underground electric lines will be extended to the SVRA from lines at Larkin Road, which currently serve the airport. Solid waste disposal will continue to be provided by Recology and the Neal Road Recycling and Waste Facility.

4.3.4 Anticipated Facilities and Services

As described above, the facilities and roadways depicted in Figure 4-2 serve as examples of the type and location of facilities that are anticipated at Clay Pit SVRA. Future conditions and demands will determine the actual locations and facilities built within the SVRA. These new facilities will be an important part of achieving the purpose of the SVRA to provide effectively managed, responsible OHV and related recreational opportunities with recognition of the significance of the SVRA to the local population. Clay Pit SVRA is underutilized now, partly because of a lack of developed OHV facilities. Constructing these facilities will fulfill an objective of this General Plan to maximize the use of the SVRA as a recreation resource while also protecting natural and cultural resources on-site. Constructing these anticipated facilities will allow the OHMVR Division to maintain the SVRA at a higher intensity of use and help to fulfill the vision of the SVRA as a safe and convenient place for individuals, families, and groups to enjoy the outdoor recreational setting. It will also enable Clay Pit SVRA to host special events.

Facilities

Most of the anticipated facilities are estimated to be built during the 2016/2017 fiscal year (June 2016 through May 2017). Construction of the anticipated facilities will last approximately 12 months. Construction will occur between 7:00 a.m. and 7:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturdays. No construction will occur on Sundays or holidays.

Anticipated facilities could include the following components:

- training track, approximately 620 feet long and covering approximately 1 acre;
- track for 110cc vehicles, approximately 1,200 feet long and covering approximately 2 acres;
- ATV track approximately 1mile long and covering approximately 3–5 acres;
- motocross track approximately 1mile long and covering approximately 3–5 acres;
- 4x4 and trials obstacle course, hill climb, and mud pit covering approximately 10–12 acres;
- sediment traps and basins for the treatment of surface water runoff, covering approximately 1.25 acres;
- marked and developed trails and informal trails;
- one or more staging areas/parking lot(s) covered with road base;
- vault toilets with odor control systems;
- picnic areas with tables and shade ramadas, with no permanent fire pits or barbeque grills;
- spectator stand(s)

- educational facilities such as interpretive displays and/or an outdoor classroom area;
- low water crossings, culverts, and/or bridges across the Drainage Management Area;
- paved roads between the new SVRA entrance and selected OHV facilities;
- one or more wells and two water storage tanks; and
- a fuel station consisting of one aboveground fuel tank with pumps, which will be installed on a concrete slab with concrete berms to provide full containment in case of an accidental spill. The aboveground tank will hold and dispense both gasoline and diesel for use in State Parks vehicles.

Hours of Operation

Clay Pit SVRA is anticipated to be open from 8:00 a.m. to sunset 7 days a week, 365 days per year. The entry kiosk will be staffed during open hours, and the administrative offices will be available to staff during open hours. Overnight usage of the SVRA will be limited to special events. Open hours will vary according to the time of year as follows:

Season	Hours
Winter (November through February)	8 a.m. to 5 p.m.
Summer (May through August)	8 a.m. to 8 p.m.
Spring	
March	8 a.m. to 6 p.m.
April	8 a.m. to 7 p.m.
Fall	
September	8 a.m. to 7 p.m.
October	8 a.m. to 7 p.m.

Operations and Maintenance

The anticipated facilities will require maintenance. Tracks will receive grooming as needed, approximately once per week in the summer months. Grooming may require the use of a dozer, farm disc, and a 4-wheel drive tractor. Tracks will require watering in the summer months to control dust and to minimize soil movement. A 4,000-gallon water truck will run loops around all tracks, as needed, with an estimated water use of 0–240,000 gallons/day. The 4x4 mud drag will require watering in the summer months approximately biweekly, with an estimated water use of 40–60,000 gallons per watering. Based on water use at other similar SVRAs (i.e., similar facilities and climate), water requirements at Clay Pit SVRA are estimated to be approximately 24,500,000

gallons/year. Water could be supplied from onsite well(s), or could be brought to the site from water supply facilities serving the Oroville Municipal Airport.

Dust control products (e.g., Dust Off) will be applied to roads and staging areas as needed, usually once per year in the spring, to control fugitive dust. Approximately once per year, usually in the spring, an imported amendment of sand, rice hulls, chip bark, bark mulch, and/or top soils (approximately 640 cubic yards) will be incorporated into the tracks for texture and to control dust by holding moisture. The 4x4 mud drag will require resurfacing to smooth out ruts and depressions, approximately bi-annually when soils are still damp. Adding amendments and resurfacing may require the use of a dozer, farm disc, and a 4-wheel drive tractor. The rock crawl will require replenishment of boulders very rarely, perhaps every 10 years.

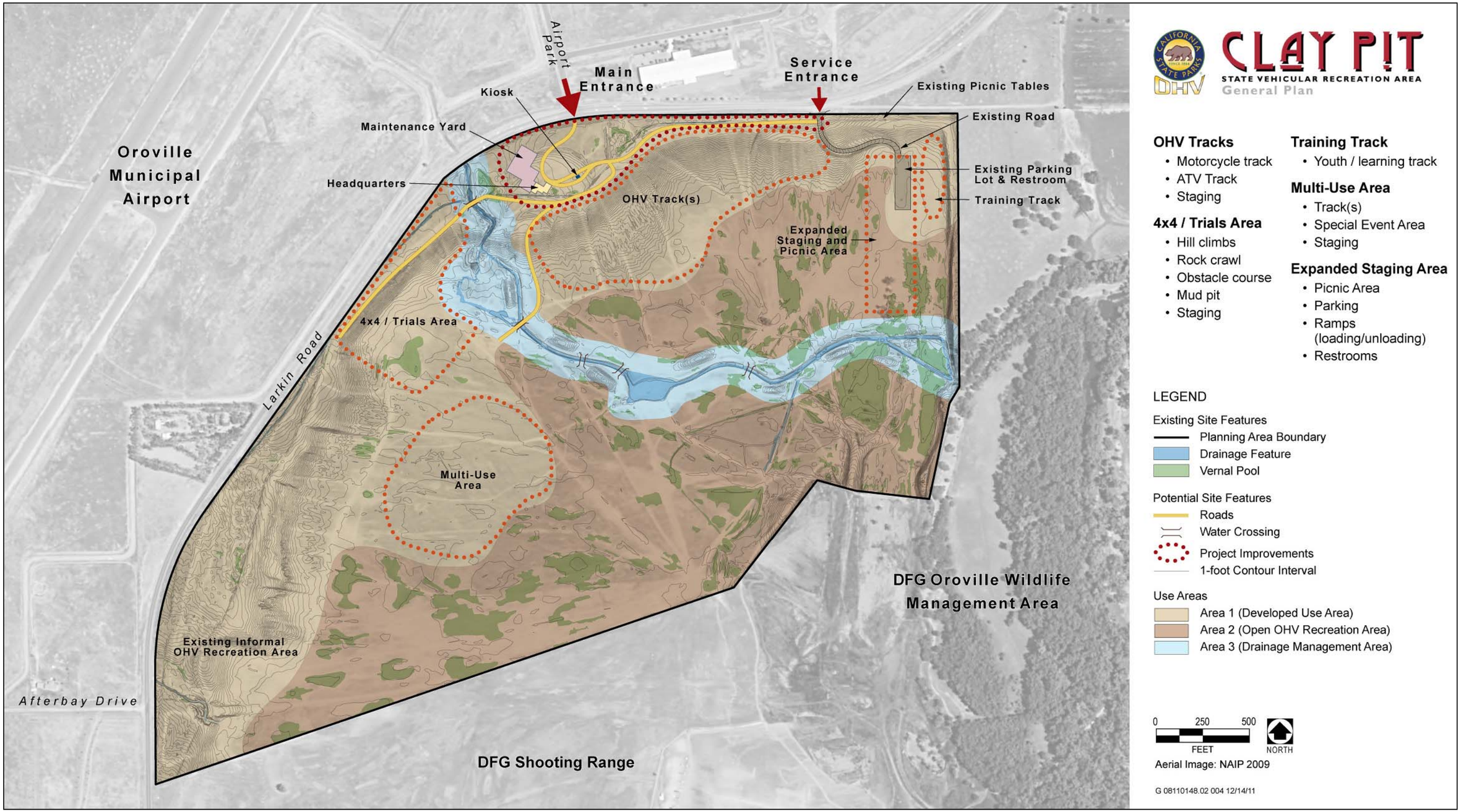
Vendors and concessioners are anticipated only during special events.

Staffing

The OHMVR Division anticipates that Clay Pit SVRA will employ five full-time employees and two to three seasonal employees following construction of all facilities anticipated within this General Plan. This includes SPPOs, maintenance staff, administrative staff, and visitor services staff. SPPOs will patrol the park and use office space within the headquarters building. Maintenance staff will work throughout Clay Pit SVRA and within the headquarters building. Visitor services employees will staff the entry kiosk, provide office support, and work within the headquarters building. It is estimated that no more than five staff will be on-site at a time, on average. Staffing levels will increase as needed during special events, consistent with staffing levels provided at special events currently held at other SVRA facilities.

Visitor Use Estimates

Existing traffic at Clay Pit SVRA is estimated at an average of between 8,900 and 13,800 vehicles per year (Appendix C). Using a ratio of 2.5 people per vehicle generates an estimated range of 22,250–34,500 visitors per year. Constructing the recreation facilities envisioned in the General Plan is expected to result in an estimated 50% increase of visitors. Combining this increase with an estimated local population increase of 2% per year provides a median visitor increase to 49,593 visitors per year in 2030 (Appendix C). Following construction of anticipated facilities, the percentage of various types of OHVs used at Clay Pit SVRA is estimated to be 35% ATVs, 45% motorcycles, 10% utility vehicles, and 10% 4x4s.



Source: Topographic information provided by David Evans and Associates 2008, planning data developed by AECOM in 2011

Anticipated Facilities

Figure 4-2

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4.4 Goals and Guidelines

Goals and guidelines have been developed to address existing issues and to provide ongoing guidance for management of the SVRA. Goals and guidelines can be implemented to achieve the long-term vision for Clay Pit SVRA. The goals establish the purpose and the desired future conditions of the SVRA, while the guidelines provide the direction that the OHMVR Division will consider to achieve these goals. The first set of goals and guidelines applies to the entire Clay Pit SVRA; these are called parkwide goals and guidelines. Additional goals and guidelines were developed for specific use areas to allow for specialized management by zone; these are called use area goals and guidelines. Section 4.4.1 presents parkwide goals and guidelines applicable across the entire SVRA, and Section 4.4.2 presents use area goals and guidelines specific to each use area.

4.4.1 Parkwide Goals and Guidelines

Visitor Experience and Opportunities (VEO)

VEO Goal 1: When planning for recreation opportunities and visitor services, provide a broad range of OHV recreation experiences and opportunities for visitors to enjoy and appreciate.

- **VEO Guideline 1.1:** Anticipate a variety of OHV activities that visitors will engage in, which could include the use of motocross bikes, dirt bikes, trials bikes, ATVs, UTVs (side-by-sides), and 4x4s.
- **VEO Guideline 1.2:** Anticipate a range of age and skill levels from novice through expert OHV recreationists.
- **VEO Guideline 1.3**: Anticipate changes in the percentage of visitors of different types of OHV equipment as technologies, designs, and interests change. (Current estimates of use are 49 percent ATVs, 40 percent motorcycles, 1 percent UTVs, and 10 percent 4x4s. Estimates of use following facilities construction are 35 percent ATVs, 45 percent motorcycles, 10 percent UTVs, and 10 percent 4x4s.)
- **VEO Guideline 1.4**: Anticipate changes in regional demographics and trends.
- **VEO Guideline 1.5**: Ensure that use levels are appropriate to OHMVR Division resource protection guidelines. (See Section 4.5, "Managing Visitor Capacity" and associated Guidelines.)
- **VEO Guideline 1.6**: Incorporate universal access standards wherever feasible.

VEO Goal 2: Provide state of the art visitor serving facilities to enhance the visitor experience.

- **VEO Guideline 2.1:** Develop additional recreation facilities to increase utilization of the SVRA, to meet the recreation needs of the regional and local community, and to attract visitors from outside the region.

- **VEO Guideline 2.2:** Locate facilities for effective and efficient visitor use and to provide opportunities for social interaction between user groups while minimizing potential user conflicts.

- **VEO Guideline 2.3:** When planning to develop new facilities, consider the need for maintenance and public safety personnel, equipment, communications, and emergency vehicle access.

VEO Goal 3: Enhance individual-, family-, and community-centered recreational opportunities.

- **VEO Guideline 3.1:** Provide recreational opportunities that respond to local needs and interests, which could include special events for children new to OHV recreation, events planned to celebrate important local historical events, and events that emphasize safety and responsible OHV recreation.

- **VEO Guideline 3.2:** Seek to provide additional group-oriented recreational opportunities, social gathering opportunities, and facilities that are compatible with OHV use.

- **VEO Guideline 3.3:** Explore opportunities to create partnerships for coordinated educational programming and special events that connect Clay Pit SVRA to the broader region. For example, coordinate with the adjacent Oroville Wildlife Management Area to provide programming about local wildlife. (Also see Interpretation and Education goals and guidelines.)

Natural Resources Management (NRM)

NRM Goal 1: Manage the SVRA for a balance of uses that allow protection of natural resources while maintaining a quality OHV recreational experience.

- **NRM Guideline 1.1:** To the extent feasible, locate visitor-serving facilities in areas already subject to considerable disturbance or in areas of low resource value (e.g., the Developed Use Area) to minimize disturbance to higher value habitat areas.

- **NRM Guideline 1.2:** Avoid sensitive biological resources present within areas that would be affected by construction or operation of facilities envisioned in this General Plan.

- **NRM Guideline 1.3:** In the event that disturbing a sensitive biological resources is unavoidable, identify and implement measures to offset those impacts in consultation with a qualified biologist and the appropriate resource agency (or agencies) (e.g., California Department of Fish and Game [DFG], U.S. Fish and Wildlife Serviced [USFWS], U.S. Army Corps of Engineers [USACE], and the Regional Water Quality Control Board [RWQCB]). Comply with all applicable rules and regulations relating to the protection of special-status species and protected resources (e.g., U.S. Endangered Species Act (ESA), California Endangered Species Act, Clean Water Act [CWA] Section 404, Porter-Cologne Water Quality Control Act). If

required, obtain necessary authorizations/permits from these agencies and abide by all permit conditions. (Also see Wildlife Guidelines 1.1-1.4, Plants Guidelines 1.1 and 1.2, and Water Guideline 1.2.)

- **NRM Guideline 1.4:** Implement the OHMVR Division's Habitat Management System (HMS) consistent with biological provisions in the Off-Highway Motor Vehicle Recreation Act to monitor and manage natural processes of vegetation succession, to control the spread of noxious and invasive weeds, and to protect natural wildlife habitat. Select scientifically accepted techniques and measures appropriate for the unique habitats found within Clay Pit SVRA. Develop protocols for baseline studies, focused studies, monitoring, and surveys. Use the HMS as a tool to aid in the development of park-specific monitoring plans and management techniques.

- **NRM Guideline 1.5:** Concentrate new trail development in areas of low habitat value. Route new trails around the edges of high-quality habitat to avoid habitat fragmentation.

NRM Goal 2: Encourage a balance of uses within Clay Pit SVRA that allow the restoration or enhancement of natural habitats while maintaining a quality OHV recreational experience.

- **NRM Guideline 2.1:** Develop an adaptive management plan for biological resources that combines the results of monitoring implemented through the HMS (NRM Guideline 1.4) and monitoring for soil conservation (Soils Guideline 1.2). Identify and establish Adaptive Management Opportunity Zones in areas of high-quality natural habitat (e.g., remnant vernal pool grassland) and sensitive habitat (e.g., particular vernal pools), around areas showing indications of natural succession toward a desirable natural community type (e.g., volunteer cottonwood seedling growth), or where populations of special-status native wildlife and special-status plant species occur or could occur (e.g., elderberry shrub). Implement management actions to protect these zones from activities that could disturb sensitive resources or to enhance/restore them as part of the adaptive management process, should resource degradation be detected during monitoring.

- **NRM Guideline 2.2:** Consider temporary or rotating closures around Adaptive Management Opportunity Zones and around areas experiencing heavy use to allow for natural regenerative processes to occur before degradation of resources requires more restrictive management actions. Use directional signage to inform visitors of sensitive and closed areas. (See IE Guideline 3.3).

- **NRM Guideline 2.3:** Work with local groups interested in performing noninvasive forms of habitat enhancement activities at the SVRA (e.g., dispersal of native plant seed, removal of nonnative plant and wildlife species). Preclude the intentional introduction of special-status plant or wildlife species that would present a risk of conflict with future OHV activities.

Soils Management (Soils)

Soils Goal 1: Manage the SVRA for a balance of uses that allow protection and conservation of soil while maintaining a quality OHV recreational experience.

- **Soils Guideline 1.1:** Manage Clay Pit SVRA recreation facilities to meet the 2008 Soil Conservation Standard:

  > Off-highway vehicle (OHV) recreation facilities shall be managed for sustainable long-term prescribed use without generating soil loss that exceeds restorability, and without causing erosion or sedimentation which significantly affects resource values beyond the facilities. Management of OHV facilities shall occur in accordance with Public Resources Code, Sections 5090.2, 5090.35, and 5090.53.

- **Soils Guideline 1.2:** Develop an adaptive management plan for soil resources consistent with California Public Resource Code (PRC) Section 5090.35(a) and the *2008 Soil Conservation Standard and Guidelines*. Incorporate the tools and techniques identified in the *2008 Soil Conservation Standard and Guidelines* as appropriate to site conditions at Clay Pit SVRA. Also incorporate other tools and techniques that may apply to specific facility conditions and management structure at the SVRA.

- **Soils Guideline 1.3:** Incorporate the guidance provided in the *OHV BMP Manual for Erosion and Sediment Control* (OHV BMP Manual) (State Parks 2007) when planning for the development of new facilities. Select, implement, and maintain best management practices (BMPs), including those designed for stockpiles, during and following construction activities to avoid soil loss and potential resulting air pollution or degradation of water quality.

- **Soils Guideline 1.4:** To minimize or eliminate risks from expansive soils, follow all recommendations contained in the geotechnical investigation report *Geotechnical Investigation, Clay Pit SVRA, Oroville, Butte County, California* (geotechnical investigation) (Geocon 2010; Appendix D of the General Plan) addressing site grading, foundations, and other surface improvements while planning for and constructing all facilities at Clay Pit SVRA.

- **Soils Guideline 1.5:** Design and construct all facilities proposed and envisioned in the General Plan in compliance with all regulatory requirements related to soil safety and geologic stability and safety, such as those contained in the California Building Standards Code (Title 24).

- **Soils Guideline 1.6:** Conduct an on-site wastewater site evaluation to determine the appropriate system designs for wastewater disposal at Clay Pit SVRA. Develop wastewater disposal facilities consistent with all regulatory requirements and guidelines related to the protection of soils and groundwater, including the Butte County On-Site Wastewater Ordinance (adopted March 16, 2010) and Part 6, Chapter 4.5, of the California Water Code.

Plants and Natural Communities (Plants)

Plants Goal 1: Manage the SVRA for a balance of uses that allow protection of special-status plants and sensitive natural communities while maintaining a quality OHV recreational experience.

- **Plants Guideline 1.1:** Conduct protocol-level surveys for special-status plants at the proposed headquarters area, and all other proposed facilities, before construction begins and during the blooming season for all potentially occurring special-status plant species according to the most current methodology recommended by DFG. Surveys shall be conducted by a qualified botanist familiar with the flora of Butte County. Repeat special-status plant surveys if they have occurred 5 or more years before scheduled construction. If no special-status plants are found during focused surveys, document the findings in a letter report to the appropriate agencies, depending on the listing status of the species.

- **Plants Guideline 1.2:** If special-status plant species are found during preconstruction surveys, map the location and extent of the population, and avoid disturbance of the area to the extent practicable. If special-status plants cannot be avoided, consult with DFG and/or USFWS, as appropriate and depending on listing status of species, to develop mitigation measures for direct and indirect impacts on any special-status plant species that could result from construction of proposed facilities. Mitigation measures may include preserving or enhancing other existing populations on-site, transplantation, and/or restoring or creating suitable habitat on- or off-site in sufficient quantities to achieve no net loss of occupied habitat or individuals.

- **Plants Guideline 1.3:** For landscaping, use drought-tolerant plants, and as feasible, use plants and materials native to the site. Select plants that require little or no irrigation. If irrigation is required for plant establishment, use temporary irrigation methods that allow a gradual tapering of water over a 3–5 year period. Regulate water pressure at a level that applies sufficient water without causing erosion, damage to plants, or runoff.

- **Plant Guideline 1.4:** As part of the annual monitoring efforts (see Guideline NRM 1.4), monitor for existing or incipient populations of invasive weeds. If new invasive weeds are documented, implement actions to prevent their establishment and spread before they become established or occupy large portions of the SVRA. Use control methods based on the best available information for weed management and State Park's operational manual.

Wildlife

Wildlife Goal 1: Manage the SVRA for a balance of uses that allow protection of native wildlife species, including special-status wildlife species, while maintaining a quality OHV recreational experience.

- **Wildlife Guideline 1.1:** If construction activities are proposed within 100 feet of the isolated elderberry shrub that occurs in the arroyo willow habitat near the northern border of Clay Pit

SVRA, consult with USFWS to determine whether the shrub is considered potential habitat for valley elderberry longhorn beetle (VELB). If USFWS determines that the elderberry shrub is considered potential habitat, identify and implement measures, as appropriate for project activities and site constraints, to avoid or mitigate those impacts according to the VELB conservation guidelines recommended by USFWS (USFWS 1996).

- **Wildlife Guideline 1.2:** Consider potential impacts on nesting birds when determining the timing and implementation of activities. To the extent feasible, schedule construction activities that could affect nesting birds outside of the breeding season (March 1–September 15). If construction is scheduled during the breeding season, a qualified wildlife biologist shall conduct a preconstruction survey of proposed construction areas to identify active bird nests. Conduct surveys within 1 week prior to initiating construction, in accordance with standardized protocols. If nesting birds are discovered within or adjacent to the construction area, develop measures to avoid or minimize disturbance to nesting birds in consultation with DFG and/or USFWS as appropriate to the listing status of the species. Protective measures may include using a buffer area around the nest or delaying construction activities until a qualified biologist confirms that the nest is no longer active or the birds are not dependent on it.

- **Wildlife Guideline 1.3:** In concurrence with annual monitoring conducted as part of the HMS (NRM Guideline 1.4), monitor populations of special-status shrimp species and vernal pool vegetation. Assess the effect of anticipated increased OHV use on these natural communities and species, relative to baseline information gathered before implementation of the General Plan. If long-term monitoring (i.e., more than 2 years in a row) documents a decline in the conditions of the resource, develop adaptive management strategies to reverse the trend. For federally listed shrimp species, coordinate with USFWS regarding appropriate management measures. For vernal pool vegetation, develop responsive management strategies internally.

- **Wildlife Guideline 1.4**: To the extent feasible, avoid locating facilities in vernal pool habitat that could support special-status shrimp species. If impacts to such habitat are unavoidable, restore, enhance, or replace, and preserve such habitat consistent with Water Guideline 1.2, and in accordance with Section 7 ESA requirements, including consultation with the USFWS, so that all functions and values of the affected habitat are replaced or enhanced. This may include the restoration or enhancement, and preservation of habitat on-site. Such habitat would be managed to maximize conditions favorable to shrimp occupancy.

Water Quality and Supply (Water)

Water Goal 1: Manage the SVRA for the protection of jurisdictional waters of the United States, including wetlands, while maintaining a quality OHV recreational experience.

- **Water Guideline 1.1:** Avoid or minimize locating facilities in areas delineated as jurisdictional waters of the United States, including wetlands.

- **Water Guideline 1.2:** If impacts on jurisdictional features cannot be fully avoided, determine the acreage of direct impacts (i.e., fill of wetlands) and indirect impacts (i.e., alterations to wetland hydrology) that would result from project implementation. Obtain a CWA Section 404 permit from USACE, CWA Section 401 certification from the Central Valley RWQCB, a Section 1602 Streambed Alteration Agreement from DFG, and hold a Section 7 Consultation with the USFWS, as appropriate. Implement all conditions of these agreements such that the functions and values of all affected wetlands and other waters of the United States are replaced, restored, or enhanced on a "no net loss" basis, in accordance with CWA Sections 404 and 401 requirements, the California Fish and Game Code, and the ESA. Restore, enhance, and/or replace wetland habitat acreage at a location and by methods agreeable to USACE, the Central Valley RWQCB, DFG, and/or USFWS as appropriate and depending on agency jurisdiction.

Water Goal 2: Manage the SVRA for the protection of water quality while maintaining a quality OHV recreational experience.

- **Water Guideline 2.1:** Before, during, and following the construction of facilities proposed and envisioned in this General Plan, implement all water quality control measures required under the National Pollutant Drainage Elimination System (NPDES) Construction General Permit (2009-0009-DWQ). Develop a storm water pollution prevention plan, including the identification of BMPs that must be implemented to reduce water quality degradation of receiving waters during and following construction activities. Incorporate construction BMPs from the OHV BMP Manual as appropriate.

- **Water Guideline 2.2:** When developing detailed plans for facilities proposed and envisioned in this General Plan, incorporate permanent water quality control features, as appropriate. Construct sediment traps or basins, and bioswales as described in *Clay Pit SVRA Watershed Analysis and Action Plan* (State Parks 2011) to treat runoff from developed OHV facilities, such as tracks. Incorporate information from the OHV BMP Manual and the *2008 Soil Conservation Standard and Guidelines* as appropriate to designs. Select water quality control features appropriate to site conditions at Clay Pit SVRA (e.g., relatively impervious soils).

- **Water Guideline 2.3:** To reduce erosion and sedimentation, improve degraded areas that have experienced substantial erosion from surface water runoff (e.g., gullies that concentrate surface water flows toward the central drainage canal). Implement rehabilitation concepts for

these features as described in *Clay Pit SVRA Watershed Analysis and Action Plan* (State Parks 2011).

- **Water Guideline 2.4:** Support the efforts of the Sacramento Valley Water Quality Coalition and the Butte/Yuba/Sutter Water Quality Coalition to implement a BMP program and a program to monitor BMP effectiveness to protect regional water quality (SCRCD 2010a; SWRCB 2008).

- **Water Guideline 2.5:** Restrict temporary disturbances related to construction activities in drainage areas to the dry season.

Water Goal 3: Manage the SVRA to conserve water resources while maintaining a quality OHV recreational experience.

- **Water Guideline 3.1:** When developing detailed plans for facilities envisioned in this General Plan, assess available water sources that will yield sufficient water supplies needed for operation and maintenance of facilities. Possible sources may include groundwater provided by on-site well(s) or Butte County's surplus State Water Project allocation available through municipal water facilities at the Oroville Municipal Airport. Develop water supply as appropriate in compliance with state regulatory requirements.

- **Water Guideline 3.2:** Use recycled water, as available, for dust control and irrigation as allowed by water quality and health regulations and as available at the site or nearby.

- **Water Guideline 3.3:** Manage facilities to accommodate periods of drought or low water supply. Restrict the use of water for dust control, and use alternative dust suppression methods, as necessary.

- **Water Guideline 3.4:** Design and construct all facilities proposed and envisioned in this General Plan in compliance with the water quality conservation requirements in Title 24 of the California Building Standard Code.

Water Goal 4: Anticipate flooding issues when planning for the development of the SVRA.

- **Water Guideline 4.1:** If groundwater is encountered during construction of facilities proposed and envisioned in this General Plan, conduct dewatering activities in compliance with the NPDES Construction General Permit to avoid flooding in excavated areas.

- **Water Guideline 4.2:** When developing detailed plans for facilities envisioned in this General Plan, consider known areas of localized seasonal flooding at the SVRA and avoid locating new facilities in such areas.

- **Water Guideline 4.3:** When designing facilities envisioned in this General Plan, consider the impervious nature of the native clay soils. Design facilities to avoid unwanted ponding and flooding at new facilities as a result of poor drainage and soil infiltration.

- **Water Guideline 4.4:** When designing and locating facilities envisioned in this General Plan, consider that the Department of Water Resources retains the right to inundate the site or remove additional borrow material if necessary for the Oroville Division of the State Water Project (Oroville Dam).

Cultural Resource Management (CR)

CR Goal 1: Preserve and protect significant cultural sites and features.

- **CR Guideline 1.1:** In accordance with Public Resources Code (PRC) Section 5024, determine the historical significance of known cultural resources prior to undertaking any projects or construction at or within the vicinity of each resource that would have the potential to disturb the integrity of the resource. Obtain a Determination of Eligibility from the SHPO for listing the resource on the NRHP/CRHR. If the resource is determined to be eligible for NRHP/CRHR listing, consult with an OHMVR Division archaeologist or other qualified cultural resource professional to develop and implement protection measures consistent with Section 106 of the National Historic Preservation Act, the Secretary of the Interior's Standards for the Treatment of Historic Properties, and CEQA. These measures could include, but would not necessarily be restricted to, project planning designed to avoid the resource, archival research, additional in-field documentation, or interpretive signage. If the resource is determined not to be eligible for NRHP/CRHR listing, then no further investigations or protection measures would be necessary.

- **CR Guideline 1.2**: If significant cultural resources are discovered within or adjacent to areas that will be affected by planned or proposed activities, the activities will be designed to avoid or minimize impacts to the identified resources. If cultural resources are discovered inadvertently during construction activities, cease construction activities within and in the vicinity of the find and consult an OHMVR Division archaeologist or other qualified cultural resource professional to determine the potential significance of the find per NRHP/CRHR criteria. If the find is determined to be significant, develop and implement mitigation measures in consultation with the archaeologist or cultural resource professional consistent with Section 106 of the National Historic Preservation Act, the Secretary of the Interior's Standards for the Treatment of Historic Properties, and CEQA. Mitigation measures could include, but would not necessarily be restricted to, redesign to avoid the resource, archival research, additional in-field documentation, interpretive signage, or subsurface archaeological testing. If the discovery is determined not to be eligible for NRHP/CRHR listing, then no further investigations or mitigation of adverse effects would be necessary.

- **CR Guideline 1.3**: Maintain appropriate confidentiality of all cultural resources in conformance with Government Code 6254, "Restriction of Archaeological Record Disclosure" and 6254.10 "Information Maintained by Department of Parks and Recreation."

- **CR Guideline 1.4:** In the event that human remains are discovered during project activities, all work at that location will be temporarily halted. Any human remains and/or funerary objects

will be left in place. The project proponent and/or construction contractor will immediately contact the State Park representative who will then contact the State Park Sector Superintendent. The State Park Sector Superintendent (or designee) will notify the County coroner, in accordance with Section 7050.5 of the California Health and Safety Code, and the Native American Heritage Commission (NAHC) will be notified within 24 hours of the discovery if the coroner determines that the remains are Native American. The NAHC will designate the most likely descendent (MLD) of the deceased Native American. The MLD will recommend an appropriate disposition of the remains. If a Native American monitor is at the park at the time of the discovery, and that person has been designated the MLD by the NAHC, the monitor will make the recommendation of the appropriate disposition. Work will not resume in the area of the find until proper disposition is complete (PRC Section 5097.98). No human remains or funerary objects will be cleaned, photographed, analyzed, or removed from the site prior to determination. If it is determined the find indicates a sacred or religious site, the site will be avoided to the maximum extent practicable.

Interpretation and Education (IE)

Clay Pit SVRA provides several opportunities for interpretation and educational programming related to the regional and local environment, culture and history, and OHV recreation. Approximately 13 percent of Californians participate in OHV recreation, and most Californians feel that providing areas and facilities for environmental and outdoor education programs is very important (State Parks 2009). Important topics that could be interpreted include:

- historic uses of Clay Pit SVRA, including mining and dam construction;
- the role of the Oroville Dam in the State Water Project and hydro power generation;
- history of the surrounding communities, including the history and agricultural heritage of Butte County;
- natural resources present at the SVRA, including vernal pools and federally listed vernal pool fairy shrimp, including their ecology and sensitivities to human impacts;
- regional and local water quality and supply information, including the importance of implementing good water quality practices at Clay Pit SVRA;
- sustainability programming at Clay Pit SVRA, including efforts related to energy efficiency, greenhouse gas emissions, and alternative energy initiatives;
- safe and responsible practices for OHV recreational use; and
- the extensive regional opportunities that exist for OHV recreation.

SVRA Interpretive Mission

Provide educational opportunities for a broad cross-section of the public, including local communities, that address safe and responsible OHV recreation, natural history, resources, and sustainability programs. Provide OHV training programs for youth and adults.

SVRA Interpretive Vision

High-quality interpretation will enhance safety and resource protection by educating the public in responsible recreation practices, and give participants enjoyment and knowledge of the history and resources of Clay Pit SVRA.

Themes

Interpretive themes encapsulate the central messages for Clay Pit SVRA. The unifying theme for Clay Pit SVRA integrates the SVRA's themes.

- Unifying Theme: Clay Pit SVRA provides an important recreational opportunity for the local community and an opportunity to learn about the natural and cultural resources found within the site, while enjoying safe responsible recreation activities. .
- Primary Themes:
  - The clay pit basin was created by historic uses of the site.
  - Clay Pit SVRA and surrounding communities have a rich history, including the agricultural heritage of Butte County, development of the State Water Project and hydro power, and mining.
  - Responsible recreation through conservation and sustainability practices can prevent future degradation of the environment.

IE Goal 1: Provide interesting and educational interpretive materials that address the SVRA's sense of place and history and meet the needs and interests of the visitor population.

- **IE Guideline 1.1:** Develop interpretive and educational programs/facilities that educate visitors about the creation and regional significance of the clay pit basin and historic resources on-site.
- **IE Guideline 1.2:** Interpret the history of the surrounding communities, including the history and agricultural heritage of Butte County and Oroville.
- **IE Guideline 1.3:** Make interpretation engaging, address multiple learning styles, incorporate modern media, and accommodate people with disabilities by using varied interpretation techniques and media.

- **IE Guideline 1.4:** Involve local community organizations in the creation of natural and cultural interpretive programs that are attractive to SVRA visitors.

IE Goal 2: Increase visitors' knowledge of and appreciation for recreational opportunities at the SVRA and in the region.

- **IE Guideline 2.1:** After facilities envisioned in the General Plan are constructed, educate visitors about the diversity of recreational experiences offered within the SVRA, including opportunities for open riding, a multiuse area, a 4x4 and trials area, OHV tracks, a training track, and other compatible recreational opportunities.
- **IE Guideline 2.2:** Consider providing interpretive information outlining the extensive OHV recreation opportunities in the region, which combine with the opportunities at Clay Pit SVRA to provide a comprehensive recreation experience.

IE Goal 3: Expand understanding of ecological relationships and heighten awareness of and sensitivity to human impacts.

- **IE Guideline 3.1:** Work with interested parties to provide education about the natural ecosystem processes at the SVRA. Seek assistance in developing creative interpretive programming from organizations such as Tread Lightly!®.
- **IE Guideline 3.2:** Provide opportunities for visitors to gain an understanding of the SVRA's natural resources, including vernal pools and grasslands. Interpret vernal pool ecology and explain sensitivities to human impacts.
- **IE Guideline 3.3:** Highlight opportunities for OHV riders to minimize their impacts on natural resources through engaging, creative interpretive programming. Provide information about temporary and rotating closed areas to encourage visitors to allow natural regenerative processes to occur in these areas. (See NRM Guideline 2.2.)
- **IE Guideline 3.4**: Provide directional signage indicating the location of fueling and maintenance sites within the SVRA, and provide educational information regarding the use and need for these facilities. (See DU Guideline 1.4.)
- **IE Guideline 3.5:** Provide opportunities for visitors to gain an understanding of regional and local water quality issues, including the importance of implementing good water quality practices at Clay Pit SVRA. Interpret the on-site surface water drainage system and include information on potential water quality pollution sources, about infiltration properties of the local soils, and about the importance of on-site treatment measures (e.g., sediment basins, vegetative buffers).
- **IE Guideline 3.6:** Provide opportunities for visitors to gain an understanding of regional and local water supply information, including the importance of implementing water conservation

practices at Clay Pit SVRA. Provide information about potential disruptions in facilities and services in times of drought (Water Guideline 3.3) and provide information about water conservation measures that visitors could adopt in their daily lives.

- **IE Guideline 3.7:** Interpret sustainability initiatives (see OM Guideline 1.3) and inspire SVRA visitors to adopt similar measures in their daily lives, including OHV recreation.

IE Goal 4: Promote safe and responsible OHV recreation.

- **IE Guideline 4.1:** Work with interested parties to develop interpretive resources, programs, and opportunities regarding safe and responsible OHV recreation. Seek assistance in developing creative interpretive programming from organizations such as Tread Lightly!®.
- **IE Guideline 4.3:** Use interpretive techniques to deliver SVRA information and public safety messages, such as responsible riding.
- **IE Guideline 4.4**: Continue to expand training programs that lead to ATV Safety Institute (ASI) safety certification for adults and youth.
- **IE Guideline 4.5**: Collaborate with organizations such as the Dirt Bike Safety Foundation to provide additional opportunities for safety certification.
- **IE Guideline 4.6:** Initiate an "Off-Highway PAL" program for youth at the SVRA to teach safe, responsible OHV operation and provide opportunities for positive interactions with law enforcement officers.
- **IE Guideline 4.7**: Provide interpretive information about what to do in case of medical or public emergency, such as who to call, where to go, and the basics of medical assistance.
- **IE Guideline 4.8:** Provide signage and fencing, and work with staff from the adjacent DFG wildlife area to encourage OHV recreationists to use Clay Pit SVRA for OHV recreation rather than the wildlife area where OHV use is not appropriate or allowed.

Operations and Management (OM)

OM Goal 1: Provide visitor services and infrastructure that encourage use of Clay Pit SVRA and meet visitor needs.

- **OM Guideline 1.1** Provide adequate utilities to meet daily needs of staff and visitors following the construction of additional recreation facilities.
- **OM Guideline 1.2:** Investigate and implement the use of solar and other innovative technologies for the provision of electricity to the headquarters facilities and/or to recreation facilities.

- **OM Guideline 1.3:** Promote opportunities to incorporate sustainability into SVRA development, operations, and maintenance. Sustainability initiatives could include supporting and encouraging electric vehicle use, promoting energy efficiency, using reclaimed water, and applying Leadership in Energy and Environmental Design (LEED®) standards to new construction.

- **OM Guideline 1.4:** Following construction of additional recreation facilities, provide adequate funding and staffing to operation the SVRA in a safe and efficient manner.

- **OM Guideline 1.5:** Construct and design vault toilets that provide sufficient capacity to store wastewater to accommodate visitor needs and meet all related wastewater disposal regulatory requirements. Before constructing new vault toilets, confirm with the Sewerage Commission—Oroville Region (SCOR) that adequate treatment capacity still remains at the SCOR wastewater treatment plant at the time that new vault toilets would be built.

- **OM Guideline 1.6**: During the design and construction of vault toilets within the SVRA, incorporate odor control, such as a vent system designed for continuous fresh air flow or other improvement, such that odors from the toilet are not considered a nuisance to the average individual using the facilities.

OM Goal 2: Maintain and enhance the quality of OHV recreational opportunities.

- **OM Guideline 2.1:** To increase recreational opportunities, provide recreation opportunities that expand the use of the SVRA during slow periods (e.g., weekdays and during the summer). Consider extended hours during the summer to allow visitors to enjoy the SVRA in the early morning.

- **OM Guideline 2.2:** Consider partnering with organizations to enhance the OHV recreation experience with activities such as riding events for kids, managed night riding events, education and interpretive activities, and OHV races.

- **OM Guideline 2.3:** Monitor visitation patterns at Clay Pit SVRA and implement management actions that respond to these trends while remaining consistent with Clay Pit SVRA General Plan's vision, goals, and guidelines.

- **OM Guideline 2.4:** Provide SVRA park maps and trail signs that help visitors easily understand the allowable recreational activities within the different use areas.

OM Goal 3: Provide facilities and services that contribute to the safety and convenience of visitors and staff.

- **OM Guideline 3.1:** Provide signage informing visitors of responsible OHV riding practices and extreme temperature precautions.
- **OM Guideline 3.2:** Ensure riding areas are properly maintained and monitor for hazards. Close areas with unsafe conditions until improvements are completed.
- **OM Guideline 3.3**: Provide clear signage and/or fencing as appropriate around areas of known potential hazard, such as deep gullies, drop-offs, or closed areas.
- **OM Guideline 3.4:** Construct, maintain, and operate all facilities, including the propane tank, the fueling station, the maintenance facilities, and the fueling and maintenance sites in compliance with all federal, state, and local regulatory requirements regarding the handling and disposal of hazardous materials for the protection of surface and groundwater, soils, and people.
- **OM Guideline 3.5:** Prevent accidental fire ignition and spread of wildfire to adjacent areas by monitoring OHVs for spark arrestors and by monitoring fuel handling practices.
- **OM Guideline 3.6**: Maintain the existing access road as a secondary access point for use as a service entrance and for use in case of emergency.
- **OM Guideline 3.7**: Provide signage directing visitors to exit points for ease of access in case of emergency.
- **OM Guideline 3.8**: Clearly post the hours of operation, including seasonal changes.
- **OM Guideline 3.9**: Plan and design facilities to allow ease of access for emergency personnel and to allow clear view of visitors by State Park Peace Officers (SPPOs). Locate restroom facilities in visible locations; avoid locating restroom facilities in remote locations.
- **OM Guideline 3.10:** Ensure that supplies of emergency response materials kept on-site are adequate and easily accessible. Ensure that staff is adequately trained in emergency response practices.
- **OM Guideline 3.11**: Promptly clean up and dispose of trash and hazardous spills for the health and safety of the environment and the public and to encourage good visitor stewardship of the SVRA.
- **OM Guideline 3.12**: Use animal-proof trash cans and recycle containers if wildlife becomes a nuisance around these facilities.

- **OM Guideline 3.13**: Continue to coordinate with state and local districts and agencies for emergency response.

OM Goal 4: Coordinate with special event sponsors to ensure special events are well managed and that appropriate visitor services are available.

- **OM Guideline 4.1:** Coordinate with sponsoring organizations regarding scheduling, operations, and management of special events. Issue a special event permit to event coordinators that details sponsor obligations.
- **OM Guideline 4.2:** Design and implement parking management plans to accommodate increased demand during special events.
- **OM Guideline 4.3**: During special events, implement traffic and parking measures, such as clearly defined staging and unloading areas for OHVs, designated parking areas for large vehicles and trailers, defined parking lots for regular-sized vehicles, designated emergency vehicle parking and access routes, barricades to direct vehicles and pedestrians, and travel and parking information on special event publications.
- **OM Guideline 4.4:** If traffic management is required on Larkin Road for special events, require special event coordinators to provide evidence of coordination with Butte County and/or the sheriff's department as appropriate.
- **OM Guideline 4.5**: Anticipate and accommodate an increased need for restroom facilities during special events, according to standard ratios stipulated in the special event permit.
- **OM Guideline 4.6**: Plan and design facilities and utilities to accommodate concessioners at special events.
- **OM Guideline 4.7**: Implement measures to limit concentrations of people that could exceed *Butte County Airport Land Use Compatibility Plan* criteria during special events. Such measures could include limiting entry to particular areas during special events if particular areas approach density limits.

OM Goal 5: Develop and maintain SVRA facilities and monitor OHV activities to ensure compatibility with surrounding land uses.

- **OM Guideline 5.1:** Maintain land use compatibility with the Oroville Municipal Airport by locating staging areas, event areas, and spectator viewing areas to avoid exceeding *Butte County Airport Land Use Compatibility Plan* criteria regarding densities of people near the airport.
- **OM Guideline 5.2:** Employ practices to reduce noise levels during construction of facilities at nearby sensitive receptors. Reduce noise generated during construction and maintenance activities by:

- properly maintaining equipment with noise-reduction devices in accordance with manufacturers specifications (e.g., mufflers, shrouds, filters);
- using quieter than standard equipment when possible (e.g., electrically powered);
- limiting activities to between 8:00 a.m. and 6:00 p.m., Monday through Saturday (excluding emergency work);
- restricting equipment travel within 500 feet of noise-sensitive receptors;
- turning off equipment during prolonged periods of nonuse;
- restricting alarms to warn of safety issues only;
- using noise-attenuating buffers when activities take place within 500 feet of adjacent sensitive receptors (e.g., berms, stationary barriers, noise blankets, shrouds);
- following standard construction practices;
- locating equipment staging areas and material loading and unloading zones greater than 500 feet from the nearest sensitive receptor;
- using rubber tired equipment as much as feasible to minimize ground borne noise; and
- locating any stationary noise sources (e.g. generators) within noise enclosures.

- **OM Guideline 5.3:** Maintain the fencing and berm between Clay Pit SVRA and the adjacent shooting range to minimize conflicts between recreational uses.
- **OM Guideline 5.4**: Maintain fencing between Clay Pit SVRA and other adjacent properties to prevent OHV use where it is not allowed (e.g., the adjacent wildlife area, adjacent farm property).

OM Goal 6: Reduce potential air quality impacts that could result from construction, maintenance, and OHV recreation activities.

- **OM Guideline 6.1**: Implement the following actions to minimize criteria pollutant and fugitive dust emissions during maintenance activities:
  - To minimize ozone precursor (reactive organic gases [ROGs] and oxides of nitrogen [NO_X]) emissions, maintain the engines of all SVRA maintenance equipment according to manufacturers' specifications.
  - To control fugitive dust from moving vehicles and during high winds, cover the surface of the maintenance area and staging areas with road base gravel mixed with dust

suppressants or other surface treatments. Maintain these areas regularly to keep the surfaces hardened and to keep the dust control product activated.

- To control fugitive dust from the maintenance area, dirt roads, and staging areas, apply dust suppressants and/or other surface treatments to these areas each spring, and repeat as necessary throughout the year. Consider hardscape and landscaping to reduce wind erosion.

- **OM Guideline 6.2**: Require that contractors and/or staff implement the following actions to minimize ozone precursor (ROG and NO_X) emissions during construction activities:

  - Post clearly visible signs that no equipment shall be left idling for longer than 5 minutes.
  - Maintain all construction equipment according to manufacturer's specifications.
  - Encourage the use of diesel construction equipment meeting the California Air Resources Board's (CARB) 1996 or newer certification standard for off-road heavy-duty diesel engines.
  - Substitute electric- or gasoline-powered equipment for diesel-powered equipment, when feasible.
  - Use alternatively fueled construction equipment on site, such as compressed natural gas, liquefied natural gas, propane, or biodiesel.
  - Use equipment that has low-emission diesel engines.

- **OM Guideline 6.3**: Require that contractors and/or staff implement the following actions to air quality pollution during construction activities:

  - Maintain speed on unpaved roads at less than 15 miles per hour.
  - Water exposed surfaces twice daily or as often as necessary.
  - Apply soil stabilizers or amendments to inactive areas.
  - Stabilize soil in equipment loading/unloading areas.
  - Replace groundcover in disturbed areas quickly.
  - Manage haul road dust by watering at least twice daily.

- **OM Guideline 6.4**: Require that event sponsors and/or staff implement the following actions to reduce the release of fugitive dust during special events:

  - Prior to each special event, apply best available control measures (BACMs) for dust suppression that are safe for human exposure and ground application to all areas of Clay Pit SVRA that are not paved or covered with gravel and that would be used for parking, foot

traffic, and/or non-mobile activities at special events (e.g., vendors, concert locations, display areas).

- Apply BACMs immediately before setup of a special event and at the end of each special event day, when the majority of visitors have left Clay Pit SVRA. Apply subsequent treatments as needed during the special event if excessive dust is observed. Apply BACMs for dust suppression to control trackout/carryout and sediment where unpaved areas join paved areas.

4.4.2 Use Area Goals and Guidelines

Developed Use Area (DU)

The primary management intent for the Developed Use Area is to accommodate the more intense uses and built facilities envisioned at Clay Pit SVRA.

DU Goal 1: Enhance OHV activities at the SVRA by providing developed recreation facilities and support facilities.

- **DU Guideline 1.1**: Develop recreation facilities to increase use of the SVRA, to meet the recreation needs of the regional and local community, and to attract visitors from outside the region. Consider providing the following types of recreation facilities in the Developed Use Area: a training track, a track for 110cc vehicles or smaller, an ATV track, a motocross track, a 4x4 and trials obstacle course and hill climb, a 4x4 mud pit or mud drag, marked and developed trails, social gathering areas, and educational facilities.

- **DU Guideline 1.2:** Provide adequate utilities to meet the daily needs of staff and visitors following the construction of additional recreation facilities. Two additional restrooms at the headquarters facilities are estimated to be adequate for the needs of staff. Electricity will be provided at the headquarters facilities from lines serving the Oroville Municipal Airport. One well will be constructed to provide water to the headquarters facilities. It is estimated that four or five additional vault toilets will meet visitor needs throughout the Developed Use Areas. The provision of potable water at one location is anticipated to be adequate for the needs of visitors. The need for electricity at developed OHV facilities is only anticipated during special events. A fuel station may be provided near the headquarters area for use by staff. The construction of one or more wells or the extension of municipal water to the SVRA will be required to support the management of additional recreation facilities. One or more water tanks would be required to store water for use on developed OHV tracks.

- **DU Guideline 1.3:** Facilitate traffic circulation along the paved road and trails in the Developed Use Area by developing an expanded internal circulation network to serve developed facilities and by providing clear signage to direct SVRA visitors to defined activity areas appropriate for particular OHV activities.

- **DU Guideline 1.4:** Construct one or more contained fueling and maintenance sites at or near staging area(s) and away from waterways to prevent accidental spills from escaping to the larger environment while refueling and maintaining OHVs; this will protect water quality, soils, and people. Preclude fueling and maintenance activities in all other areas of the SVRA. Keep materials to clean up spills on-site and provide receptacles to dispose of hazardous materials near the fueling and maintenance site(s). Keep these sites free of pollutants and hazards by promptly removing contaminated soils and cleanup materials.

- **DU Guideline 1.5:** Install facilities to support recreational use of the Developed Use Area, such as an entrance station, a headquarters building with welcome area, a maintenance area, additional ramadas and picnic tables, and one or more fueling and maintenance sites.

- **DU Guideline 1.6:** Clearly define the types of OHV recreation intended for each developed facility within the Developed Use Area to minimize potential visitor conflicts, while also providing opportunities for social interaction between user groups.

- **DU Guideline 1.7**: Consider providing a staging area that is central to a variety of types of developed facilities to facilitate camaraderie and interaction between user groups. Consider providing staging areas near individual recreation facilities to facilitate ease of use and viewing by other visitors.

- **DU Guideline 1.8:** Provide a picnic and staging area next to a training track designed for young and novice riders to encourage family use of this area.

- **DU Guideline 1.9**: Provide group-oriented recreational opportunities and facilities that are compatible with OHV use (e.g., group picnic areas, shade structures, horseshoe pits, playground, interpretive amphitheater, and environmental training area).

- **DU Guideline 1.10:** Site additional facilities and passive recreational opportunities to maximize opportunities for shade.

- **DU Guideline 1.11**: Consider providing interpretive opportunities regarding resources specific to the Developed Use Area. Interpretive materials could include information about the historic mining resources located on-site (e.g., ditches, mine tailings), the history of the region, or the history of the creation of the basin within the SVRA. Consider locating interpretive information from a viewpoint along the terrace that offers views of the basin and/or historic resources or near natural or cultural features. (See the IE Guidelines.)

- **DU Guideline 1.12:** If funding or another management constraint precludes developing all desired OHV recreation facilities at one time, prioritize building the types of facilities that will have the highest regional demand and the most involvement by a user group. Anticipate shifts in the types of visitors likely to visit the SVRA.

DU Goal 2: Enhance the appearance of the SVRA and ensure compatibility with adjacent land uses.

- **DU Guideline 2.1:** To minimize unwanted light and avoid flight hazards for aircraft at the Oroville Municipal Airport, limit night illumination at the SVRA from security lighting at the headquarters building and maintenance yard. To limit the dispersal of light, restrict exterior building lighting to entry and exiting areas, select fixtures that direct light downward, do not use sodium vapor lighting, and if parking lot lighting is required, limit the height of the fixtures.
- **DU Guideline: 2.2**: Use building materials and coatings that complement the nearby natural areas. Do not use highly polished or reflective materials (e.g., reflective glass) in any Clay Pit SVRA buildings. Use non-reflective roofing materials to minimize glare. Use storage buildings that are compatible in appearance with the headquarters building.
- **DU Guideline 2.3**: Landscape the entrance area, headquarters building, and maintenance yard using plant materials that are drought-tolerant and, when feasible, native to the site and surrounding areas. Emulate natural plant groupings and avoid linear single-row placement in landscaping design. (See NRM Guideline 1.12.)
- **DU Guideline 2.4:** Maintain land use compatibility with the Oroville Municipal Airport by locating staging areas, event areas, and spectator viewing areas to avoid exceeding B2 criteria regarding densities of people near the airport (Butte County 2000).

DU Goal 3: Protect water quality while developing additional OHV recreation opportunities at the SVRA.

- **DU Guideline 3.1:** Design and construct the on-site septic system at the headquarters facilities to provide sufficient wastewater treatment capacity to accommodate proposed uses at the headquarters facilities and to meet all related septic system regulatory requirements, including the receipt of an On-Site Wastewater System Construction Permit from Butte County as applicable.
- **DU Guideline 3.2**: Implement all of the water quality guidelines that accompany Water Goals 1 and 2.

Open OHV Recreation Area

The primary management intent of the Open OHV Recreation Area is to continue to provide informal open OHV recreation and trail use while preserving natural resources. Generally, this area will be left in its current state and will continue to be used for multipurpose OHV use.

ORA Goal 1: Enhance visitor enjoyment of the SVRA by continuing to provide areas for open riding with support facilities.

- **ORA Guideline 1.1:** Provide clear signage that helps visitors easily understand the boundaries of the Open OHV Recreation Area.

- **ORA Guideline 1.2:** Monitor the area for hazards, provide clear signage, and close areas with unsafe conditions until improvements are completed.

- **ORA Guideline 1.3**: Provide small group- or individual-oriented recreational opportunities and facilities that are compatible with OHV use (e.g., one or two individual picnic areas and shade structures).

- **ORA Guideline 1.4** Consider providing restroom facilities in the Open OHV Recreation Area to meet the daily needs of staff and visitors to this use area. One or two additional vault toilets are estimated to meet visitor needs in this use area. The provision of electricity and water is not anticipated within this use area.

- **ORA Guideline 1.5**: Consider providing interpretive opportunities regarding resources specific to or more appropriately located in the Open OHV Recreation Area. Interpretive materials could include but are not limited to information about the importance of vernal pool habitat, OHV practices that can protect this sensitive resource, and the hydrologic relationship between the SVRA, the adjacent oxbow, and the Feather River system.

- **ORA Guideline 1.6:** Encourage "voluntary closures" around Adaptive Management Opportunity Zones and around areas experiencing heavy use to allow for the area to regenerate naturally, before the degradation of resources requires more restrictive management actions (See NRM Guideline 2.1 and 2.2.). Adaptive Management Opportunity Zones in the Open OHV Recreation Area may include vernal pools, drainage features, and areas indicating a natural succession toward a desirable natural community type. Consider using directional signage to encourage informal trails to develop around these areas and using signage to indicate the location of unfenced areas being voluntarily and temporarily closed. (See IE Guideline 3.3.)

Drainage Management Area (DMA)

Runoff from the upstream and adjacent Oroville Municipal Airport, Larkin Road, Table Mountain Golf Course, the Open OHV Recreation Area, and the Developed Use Area that enters the Drainage Management Area could contain pollutants and sediments that would degrade water quality of the drainage canal, which crosses the SVRA and drains to the remnant Feather River oxbow to the east of the SVRA. BMPs can improve water quality, which is crucial to sustaining healthy aquatic habitats and maintaining safe conditions for visitors.

DMA Goal 1: Develop a parkwide water quality management plan to address the quality of all surface waters entering the SVRA, traveling through the SVRA, and leaving the SVRA through the Drainage Management Area.

- **DMA Guideline 1.1:** Coordinate with the Butte County Division of Environmental Health, State Water Resources Control Board, Central Valley RWQCB, Oroville Municipal Airport, and

Table Mountain Golf Course to identify potential sources of pollutants, including nonpoint sources, entering the SVRA from off-site. Develop management strategies for control of these pollutants, including sediment, lubricants, debris from tire wear, heavy metals, fertilizers, and herbicides related to operations at the airport and the golf course, and runoff from Larkin road.

- **DMA Guideline 1.2:** Identify, design, and implement measures in Clay Pit SVRA that would eliminate or minimize potential impacts on water quality, including erosion and sedimentation. Define or outline all practices to be used parkwide that could affect water quality. These practices could include practices to be used at fueling and maintenance sites; cleanup practices in case of accidental release of pollutants; maintenance practices for sediment traps, basins, and swales; and steps to follow when adaptive management requires voluntary closures or mandatory closures of sensitive areas.

- **DMA Guideline 1.2:** Incorporate practices related to water quality that are developed to satisfy Water Goals 1 and 2 and associated guidelines; Water Guidelines 4.1 and 4.2; DMA Goal 2 and associated guidelines; Plant Guideline 1.3; Soils Guidelines 1.1, 1.2, and 1.3; NRM Guidelines 2.1 and 2.2, OM Guideline 1.5, OM Guideline 4.5, and DU Guideline 3.1.

DMA Goal 2: Implement actions within the Drainage Management Area to improve water quality and to meet water quality standards.

- **DMA Guideline 2.1:** To reduce erosion and sedimentation, rehabilitate degraded areas of the main drainage canal that have experienced substantial erosion from surface water runoff (e.g., the head cut at the beginning of the canal, areas of deep incision). Implement rehabilitation concepts for these features as described in *Clay Pit SVRA Watershed Analysis and Action Plan* (State Parks 2011).

- **DMA Guideline 2.2:** Rehabilitate native vegetation in the Drainage Management Area to serve as a filter of sediment and other pollutants that enter this area.

- **DMA Guideline 2.3:** Construct bridges, culverts, and/or low-flow crossings across the main drainage canal. Restrict OHV use in the Drainage Management Area.

4.5 Managing Visitor Capacity

To comply with PRC Section 5019.5 State Parks must assess carrying capacity issues when drafting General Plans. State Parks defines carrying capacity as a prescribed number and type of visitors that an area will accommodate given the desired natural/cultural resource conditions, visitor experiences, and management programs.

4.5.1 Visitor Capacity

Methodology

State Parks defines Visitor Capacity Management as "A methodology used to determine and maintain the desired resource and social conditions that fulfill the purpose and mission of a park. It includes establishing initial visitor capacities, then monitoring key indicators in order to identify appropriate management actions in response to unacceptable conditions."

An adaptive management process recognizes that management actions will have uncertain outcomes and, thus, that adjusting management and research decisions throughout the process to better achieve management objectives is important. The steps that typically comprise an adaptive management process for State Parks are presented below. Steps 1 through 3 have been completed as part of the General Plan preparation process. Steps 4 through 7 should be implemented over time, as the goals and guidelines identified in this General Plan are implemented.

Step 1. Identify Existing Opportunities and Constraints

Existing opportunities and constraints are documented in Chapters 2.0 and 3.0 of this General Plan.

Step 2. Determine Vision and Desired Conditions

The vision and goals for the General Plan were created based on review of the existing Clay Pit SVRA issues and opportunities, other existing conditions research, OHMVR Division staff input, and public input.

Step 3. Identify Issues and Evaluate Alternatives

The evaluation of planning alternatives was a key step in the decision-making process toward developing this General Plan. Planning alternatives were developed to illustrate different scenarios for how Clay Pit SVRA may evolve over the long term. The planning alternatives were analyzed by OHMVR Division staff and the public to identify which combination of options best serves the Clay Pit SVRA purpose and vision, the OHMVR Division Strategic Plan goals, and the public's interest in Clay Pit SVRA's future.

Step 4. Develop Measurable Indicators

Key indicators that can diagnose whether the desired conditions for an SVRA are being met were developed as part of the General Plan process. These indicators are presented in Table 4.2 below.

Step 5. Establish Initial Visitor Capacities

Initial visitor capacities should be formulated based on an analysis of existing conditions, alternative considerations, desired future conditions, and prescribed goals and objectives. Because the number of visitors that Clay Pit SVRA can support at any given time will depend on a variety of factors, the SVRA can be better managed through an adaptive management process, rather than by assigning a specific, quantifiable visitor capacity threshold. These factors include management actions such as operational decisions, oversight practices of the SPPOs, and natural resource management. Therefore, the visitor capacity of Clay Pit SVRA is addressed in terms of desired outcomes and indicators. For example, visitor attendance could be considered within capacity if Clay Pit SVRA receives successful assessments relative to the indicators provided below. Initial visitor capacity is presented in terms of positive indicators in Table 4.2.

Step 6. Monitor Use and Identify Changing Conditions

The guidelines listed below provide a framework for monitoring potential impacts or changes at Clay Pit SVRA. The indicators identified in this section will be used to determine when an unacceptable condition exists and management actions are necessary.

Step 7. Adjust Environmental or Social Conditions

Guidelines are provided in this section regarding actions to be taken by Clay Pit SVRA management staff in the event that monitoring efforts reveal that environmental or social conditions may be approaching or exceeding thresholds established under Step 4, above.

Visitor Management (VM) Goal and Guidelines

VM Goal 1: Establish and implement an adaptive management process for managing visitor capacity at Clay Pit SVRA in support of the SVRA's purpose and vision.

- **VM Guideline 1.1:** Consider SVRA monitoring data and associated management recommendations before making management and improvement decisions.
- **VM Guideline 1.2:** If monitoring efforts reveal that conditions are approaching or exceeding thresholds, Clay Pit SVRA management staff must consider alternatives and take appropriate action. Adjust management actions to direct resource and visitor experience conditions to the desired state. Potential indicators and actions presented in this plan should be updated as necessary.

The OHMVR Division will respond to changing and future recreation demand

TABLE 4-2: DESIRED OUTCOMES AND INDICATORS FOR VISITOR CAPACITY

Goals and Guidelines	Desired Outcomes	Indicators (Environmental and Social)	Potential Management Actions and Monitoring Activities
VISITOR EXPERIENCE AND OPPORTUNITY			
VEO Goal 1: Provide a broad range of responsible OHV recreation experiences and opportunities for visitors to enjoy and appreciate.	▸ A variety of OHV, recreational, and educational activities that enhance the appreciation and enjoyment of the park's resources while balancing the protection needs of environmental resources.	▸ Presence of returning park visitors. ▸ Diversity of recreation activity throughout the park. ▸ Diversity in park visitation demographics. ▸ Conflict among park visitors and differing recreation activities. ▸ Effects on park resources with increases in park visitation.	▸ Implement the adaptive management process as part of park operations. ▸ Staff should observe park resources and visitor activity during day-to-day operations. ▸ Design facilities for visitor needs. ▸ Conduct Visitor satisfaction surveys. ▸ Evaluate new recreation opportunities, trends, and activities. ▸ Respond to changing visitor demographics. ▸ Implement a facility maintenance plan, as appropriate.

TABLE 4-2: DESIRED OUTCOMES AND INDICATORS FOR VISITOR CAPACITY

Goals and Guidelines	Desired Outcomes	Indicators (Environmental and Social)	Potential Management Actions and Monitoring Activities
NATURAL RESOURCE MANAGEMENT			
NRM Goal 1: Manage the SVRA for a high quality OHV recreational experience and the protection of natural and cultural resources.	▸ Reasonable balance between OHV recreation opportunities and the protection of special-status species and native habitats. ▸ Minimize soil erosion within key/sensitive areas such as drainage areas.	▸ Occurrence of special-status shrimp species. ▸ Presence of suitable wildlife habitat. ▸ Abundance of prey species. ▸ Periodic sightings of plants or wildlife reported. ▸ Presence of healthy plant communities. ▸ Occurrence of special-status plant or wildlife species. ▸ Lack of OHV damage to habitats and species in protected areas. ▸ Change in trail difficulty and/or safety conditions caused by erosion. ▸ Visible water quality sedimentation or pollution.	▸ Establish and enforce OHV use in designated areas that are located outside of known occurrences of special-status species and habitat. ▸ Implement adaptive management measures based on information from the Habitat Monitoring System. ▸ Use interpretive/educational signage and fencing in some areas to inform visitors and protect particularly sensitive areas. ▸ Regularly evaluate the condition of use areas. ▸ Identify all factors contributing to a given area with an erosion problem. ▸ Temporarily or permanently close of portions of the SVRA.

TABLE 4-2: DESIRED OUTCOMES AND INDICATORS FOR VISITOR CAPACITY

Goals and Guidelines	Desired Outcomes	Indicators (Environmental and Social)	Potential Management Actions and Monitoring Activities
CULTURAL RESOURCES			
CR Goal 1: Preserve and protect significant cultural sites and features.	▸ Integrity and value of cultural resources retained.	▸ Disturbance to known cultural resources sites. ▸ Discovery of and disturbance to previously undiscovered cultural resource sites.	▸ Survey, record, and evaluate areas of high probability for prehistoric archaeological sites. ▸ Establish criteria of significance for each class of resource. ▸ Investigate the record and evaluate the known historic sites and areas of historic-period activity. ▸ Staff should observe park resources and visitor activity during day-to-day operations. ▸ Use fencing and signage to prevent damage or loss of cultural resources. ▸ Use adaptive management to ensure preservation and protection of sites.
VISITOR MANAGEMENT			
VM Goal 1: Establish and implement an adaptive management process for managing visitor capacity at Clay Pit SVRA in support of the SVRA's purpose and vision.	▸ Management actions reflect current conditions and management lessons learned.	▸ Updated indicators and actions for adaptive management process.	▸ Create checklist of actions required for a successful adaptive management process. ▸ Review SVRA monitoring data and associated management recommendations before making management and improvement decisions.

Chapter 5.0 – References

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