

# RECLAMATION

*Managing Water in the West*

## **East Park Reservoir Fire Management Plan and Environmental Assessment Finding of No Significant Impact**

**Orland Project  
Colusa County, California**



**U.S. Department of the Interior  
Bureau of Reclamation  
Mid-Pacific Region  
Northern California Area Office**

**April 25, 2007**

## **MISSION STATEMENTS**

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to tribes and our commitments to island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.



**U.S. Department of the Interior  
Bureau of Reclamation  
Mid-Pacific Region  
Northern California Area Office**

**BUREAU OF RECLAMATION  
 NORTHERN CALIFORNIA AREA OFFICE  
 EAST PARK RESERVOIR  
 FIRE MANAGEMENT PLAN  
 2007**

I.	INTRODUCTION .....	1
	A. Purpose.....	1
	B. Relationship to Environmental Compliance .....	3
	C. Agreements.....	3
	D. Authorities.....	4
	E. Description of Area .....	4
II.	RELATIONSHIP TO LAND MANAGEMENT PLANNING/FIRE POLICY .....	5
III.	WILDLAND FIRE MANAGEMENT STRATEGIES .....	9
	A. General Management Considerations .....	9
	B. Wildland Fire Management Goals .....	9
	C. Wildland Fire Management Options .....	10
	D. Description of Wildland Fire Management Strategies by Fire Management Unit .....	23
IV.	EMERGENCY STABILIZATION AND REHABILITATION .....	30
V.	COMMUNITY PROTECTION/COMMUNITY ASSISTANCE .....	34
VI.	FIRE MANAGEMENT COMPONENTS.....	35
	A. Fire Suppression.....	35
	B. Prescribed Fire.....	38
	C. Non-Fire Fuels Treatments.....	41
	D. Post Fire Rehabilitation.....	42
VII.	ORGANIZATION AND BUDGET .....	44
VIII.	MONITORING AND EVALUATION .....	44
IX.	Figures	
	A. Figure 1. General Location Map.....	6
	B. Figure 2. East Park Reservoir Fire Management Unit Map.....	14
	C. Figure 3. Lodoga Fire Management Unit Map .....	45
	D. Figure 4. Middle Ridge Fire Management Unit Map .....	46
	E. Figure 5. Stonyford Fire Management Unit Map .....	47
X.	Tables	
	A. Table 1. East Park Reservoir RMP Goals and Objectives Regarding Fire .....	8
	B. Table 2. Natural Fire Regime Classifications .....	24
	C. Table 3. Description of Condition Classes.....	25
	D. Table 4. Summary of Fire Management Components .....	43

XI. Appendices

- A. Appendix 1. Cooperative Fire Protection Agreement
- B. Appendix 2. Multi-Agency Agreement for the Cooperative Use of Prescribed Fire
- C. Appendix 3. East Park Reservoir Fire History Map
- D. Appendix 4. Wildland Fire Situation Analysis Process
- E. Appendix 5. Interagency Prescribed Fire Reference Guide
- F. Appendix 6. Individual Fire Report Form
- G. Appendix 7. Minimum Impact Suppression Tactics
- H. Appendix 8. East Park Reservoir Fire Management Plan/Environmental Assessment and Finding of No Significant Impact

# East Park Reservoir Fire Management Plan 2007

## *I. Introduction*

The Department of the Interior (DOI) Department Manual (620 DM 1.4B, effective date April 10, 1998, states: “Every area with burnable vegetation must have an approved Fire Management Plan. Fire management plans must be consistent with firefighter and public safety; the identified values to be protected; and land, natural, and cultural resource management plans. They must also address public health issues. Fire management plans must also address all potential wildland fire occurrences and include the full range of wildland fire management actions.” Fire management plans must identify and integrate all wildland fire management and related activities within the context of approved Resource Management Plans.

This Fire Management Plan (FMP) is being developed for the Northern California Area Office (NCAO) to guide a range of fire management activities permitted by policy at East Park Reservoir, Colusa County, California for a 10-year period. The necessity of an FMP was also identified in the 2004 East Park Resource Management Plan/Environmental Assessment. The RMP was prepared with the input from stakeholders; a public working group consisting of local landowners; business people and other local, county, state, and Federal agencies; the Orland Unit Water Users' Association; and the general public.

The FMP emphasizes a program using nondiscretionary fire suppression and discretionary prescribed fire activities. The FMP's prescribed fire activities are intended to reduce hazards on the Bureau of Reclamation's East Park Reservoir lands and to provide resource management benefits as described in, and tiered off of, the East Park Reservoir Resource Management Plan (RMP)/Environmental Assessment (EA), budget dependent. With the completion of the FMP, East Park Reservoir's fire management program would employ a variety of activities with the assistance of the California Department of Forestry and Fire Protection (CAL FIRE) to accomplish land and resource management objectives and to reduce the risk of unwanted fire in and adjacent to East Park.

Reclamation has followed the 2001 Federal Wildland Fire Management Policy and the January 2001 Secretary of the Interior's policy letter in the preparation of this FMP.

### **A. Purpose**

The FMP is being developed to balance the diverse goals of reducing fire hazards for the public's protection, conducting safe prescribed burns to reduce fuel load and enhance wildlife habitat, enhancing biological diversity, enhancing sensitive species habitat, suppressing wildfires, and interacting with other fire management agencies

by providing annual operating plans to agencies with firefighting authority which describe specific contact, restriction, and access information for firefighter safety.

The specific purposes of the FMP are to:

- Reduce the risk of catastrophic wildfire, including the wildland/urban interface (communities and other developed areas), while continuing to mitigate the adverse effects from past fire exclusion policies in fire-dependent ecosystems.
- Execute a fire management program that provides a safe environment for firefighters and the public, including safe operations and fire-suppression-related facilities, e.g., helibases, fire camps, and fire stations.
- Provide a plan that is consistent with the Department and Reclamation's wildland fire management policy and which adheres to the guiding principles from the 2001 Federal Wildland Fire Management Policy, which recognizes that:
  - Firefighter and public safety is the first priority in every fire management activity.
  - Wildland fire is an essential natural process which must be controlled for public safety purposes.
  - Fire management plans, programs, and activities support land and resource management plans and their implementation.
  - Sound risk management is a foundation for all fire management activities.
  - Fire management programs and activities are economically viable, based on values to be protected, costs, and land and resource management objectives.
  - Fire-related plans and activities should be based upon the best available science.
  - Fire management plans and activities incorporate public health and environmental quality considerations.
  - Federal, state, Tribal, local, and interagency coordination and cooperation are essential.
  - Standardization of policies and procedures with other agencies is an ongoing objective.

- Identify and implement methods to restore and maintain East Park Reservoir ecosystems and ecosystem processes, which in the past have depended upon wildland fire as a natural rejuvenating influence.

The FMP will assist in achieving land management objectives that are defined in the 2004 East Park Reservoir RMP. With the completion of the FMP, East Park Reservoir's fire management program would employ a variety of activities to accomplish land and resource management objectives and to reduce the risk of unwanted fire in and adjacent to East Park. Depending on the area needing attention, different methods or treatments would be used to manage fire and to reduce accumulations of burnable vegetation and woody debris (dead and dry wood, leaves, and invasive species). Under fire management, lightning-caused fires and other unwanted fires will be suppressed, and prescribed fires may be planned by Reclamation managers.

Policies for dealing with all prescribed fires and wildfires (including lightning-ignited and accidental fires) will provide information about control methods, necessary safety equipment, crew training, fire breaks, fuels management and will include archiving fire data that will be useful in future amendments to this FMP.

## **B. Relationship to Environmental Compliance**

The FMP compiles land use decisions related to fire management from the East Park Reservoir RMP under the RMP category of *East Park Management/Fire Management*, and *Natural Resources/Water Quality/Vegetation Management* where implementation strategies include the creation and implementation of a fire prevention and management plan. Effects of implementing the FMP and fire suppression will be described in an Environmental Assessment with appropriate public involvement. Individual prescribed burns will be conducted under approved burn plans and are categorically excluded under 516 DM 2, Appendix 1.12 from further National Environmental Policy Act analysis. Burn plans will be prepared in conformance with the Federal burn plan template.

## **C. Agreements**

The following agreements provide for initial attack fire protection (mutual aid) for Federal lands within state-direct protection areas (DPA) and for recognition of CAL FIRE qualifications to conduct prescribed fire operations on Federal lands in California.

- Multi-Agency Cooperative Fire Protection Agreement (Appendix 1)
- Multi-Agency Agreement for the Cooperative Use of Prescribed Fire; Contract No. 8CA02011 (Appendix 2)

Reclamation entered into a cooperative agreement (No. 02-FC-20-0079 (2002-2005) 99FC201769 (1999-2001), 8-FC-20-06380 (1988-1997), 0-07-20-X0123

(1979-1987)) with CAL FIRE initially in 1979 for the purpose of reimbursing the state for expenses incurred in suppressing fires on Reclamation land. The current Agreement No. 06-FC-20-4050 expires September 30, 2008.

## D. Authorities

This plan is implemented under authorities of the:

- Soil and Water Resources Conservation Act
- Federal Water Project Recreation Act 16 U.S.C. 4601-12 to 4601-21 July 9, 1965, as amended 1974, 1976, and 1992
- Federal Fire Prevention and Control Act of October 29, 1974 (88 Stat. 1535;15 U.S.C. 2201)
- Wildfire Suppression Assistance Act of 1989 (P.L. 101-11, April 7, 1989)
- PL 102-575 Section 2805(b), (c), (d) provides authority to Reclamation to make and maintain inventories of land resources and uses; develop, maintain, and revise RMPs; and conduct these activities on a non-reimbursable basis.
- Reciprocal Fire Protection Act of May 27, 1995 (42 U.S.C. 1856), as amended, provides the Secretary of the Interior the authority to enter into reciprocal fire agreements with other Federal, state, and local entities.

## E. Description of Area

East Park Reservoir is located in Colusa County on the west side of the Sacramento Valley, approximately 22 miles west of Maxwell. Reclamation manages 2,468 acres of the Stony Creek watershed as part of the Orland Project/East Park Dam and Reservoir (see Figure 1). Originally authorized by Congress under the Reclamation Act of 1902, East Park Dam was constructed in 1910, and the reservoir and surrounding area runs adjacent to the towns of Stonyford and Lodoga, along with other residential developments and area ranches.

Recent temperature data describe an annual rainfall of 21 inches and an average high temperature of 92 degrees from June through September (Colusa County, 2006).

	<b>Average</b>	<b>High</b>	<b>Low</b>
<b>PRECIPITATION, in.</b>	21 (annual)	9.67 (December)	0.00 (June-Oct)
<b>TEMPERATURE, °F</b>	92 average high (June-Sep)	97 (July)	40 (January)

An 1891 area description of the East Park area described similar conditions with average summer temperatures at 90°F and average winter temperatures at 60°F, with temperatures reaching a high of 115°F and lows of 29°F, and an average annual rainfall of about 20 inches (Colusa County, 1891).

The lands surrounding East Park Reservoir can be described as containing two habitat communities: oak woodland/grassland and chamise chaparral. The oak-chaparral environment within this area can be highly combustible under certain dry conditions, and the risk of wildland fires is a concern as residential and recreational activities continue to increase. Because of this concern, the management agreement with CAL FIRE for wildfire suppression is current. Reclamation is also developing a comprehensive FMP for the Orland Project lands at East Park. This plan will address future fire management concerns for both fire suppression and the use of prescribed burns to reduce the risk of wildland fires, while enhancing the habitat of designated wildlife species and controlling invasive weeds.

## ***II. Relationship to Land Management Planning/Fire Policy***

Reclamation's fire policy follows the Federal Wildland Fire Management Policy and Program Review which was chartered in 1994 by the Secretaries of the Interior and Agriculture to ensure that Federal policies are uniform and programs are cooperative and cohesive. The resulting 2001 report presents fundamental principles of fire management and recommends a set of Federal wildland fire policies. Though the different missions of the agencies sometimes result in differences in operations, a cohesive set of Federal fire policies improves the effectiveness and efficiency of fire management and our ability to meet modern challenges posed by seasonal wildland fire conditions.



Some of the key points in the policy include:

- Protection of human life is the first priority in wildland fire management. Once firefighters are committed to an incident, their well being is the number one priority. Property and resource values are the second priority, with management decisions based on values to be protected.
- Where wildland fire cannot be safely reintroduced because of hazardous fuel buildups, some form of pretreatment must be considered, particularly in wildland/urban interface areas.
- The role of Federal agencies in the wildland/urban interface includes wildland firefighting, hazard fuels reduction, cooperative prevention and education, and technical assistance. Primary responsibility rests at the state and local levels.
- The Western Governors' Association will serve as a catalyst to involve state and local agencies and private stakeholders in achieving a cooperative approach to fire prevention and protection in the wildland/urban interface.
- Wildland fire, as a critical natural process, must be reintroduced into the ecosystem. Fire will be allowed to function as nearly as possible in its natural role to achieve the long-term goals of ecosystem health.
- Wildland fire management decisions and resource management decisions go hand in hand and are based on approved fire management and land and resource management plans. Fire (resource) managers also have the ability to choose from the full spectrum of fire management options, from prompt suppression to allowing fire to function in its natural ecological role.
- Structural fire protection in the wildland/urban interface is the responsibility of Tribal, state, and local governments.
- Federal agencies must place more emphasis on educating internal and external audiences about how and why we use and manage wildland fire.

### **East Park RMP/Fire Management**

The 2004 East Park RMP/EA identified management measures, goals, objectives, and implementation strategies for fire management under the following categories described in Table 1.

**Table 1. Excerpts from the 2004 East Park Reservoir RMP Goals and Objectives Regarding Fire**

<b>Management Measure as Described in the RMP</b>	<b>Goal</b>	<b>Objective</b>	<b>Implementation Strategies</b>
A. East Park Management A-5. Fire Management	A-5-1 Maintain adequate agreements for immediate fire protection	Enhance public safety and natural resource protection	<ol style="list-style-type: none"> <li>1. Contract with CAL FIRE to provide fire management services.</li> <li>2. Consider creating and implementing a fire prevention and management plan that would, at a minimum, address: environmental conditions and effects of fires; pre-suppression actions such as fuels management; use of prescribed fire by an authorized entity; planning water resources and firebreaks; fire suppression actions such as protection of biological and cultural resources and infrastructure; fire detection and reporting; initial and extended attack; communication with CAL FIRE; post-fire actions such as revegetation, restrictions on access to hikers and grazing animals; preparing and logging fire reports; and post-fire analysis and monitoring.</li> </ol>
C. Natural Resources C-1. Sedimentation and Water Quality	C-1 -1 Protect and improve water quality of East Park Reservoir	Develop an integrated water quality monitoring program.	Periodically burn the Indian Creek marsh to control and rejuvenate the decaying vegetation.
C-3. Vegetation Management	<p>C-3-1 Develop and implement a burn plan to help manage tule growth.</p> <p>C-3-2 Protect and enhance important vegetation and fish and wildlife habitat values.</p>	<p>Promote the health of tule habitats while controlling decaying vegetation.</p> <p>Develop a program to control noxious weeds and to promote the controlled growth of native species.</p>	<ol style="list-style-type: none"> <li>1. Consider creating and implementing a burn plan to control dead and decaying vegetation in the Indian Creek marsh.</li> <li>2. Consider implementing a program to educate the public on the importance of periodic burning of wetlands in general and especially to East Park's native tricolored blackbirds and other marsh-dependent species.</li> <li>3. Investigate adaptive grazing and burning management techniques to promote the growth of native perennial grasses.</li> </ol>

The FMP will meet the goals of the RMP by describing management options with regard to the use of prescribed burns and the suppression of wildfires.

### ***III. Wildland Fire Management Strategies***

#### **A. General Management Considerations**

The objective of the FMP is to develop an integrated program where prescribed fire is used to benefit the ecosystem and wildfires are suppressed in a manner to protect the public and government facilities. Fire management activities must be developed in cooperation with adjacent government agencies and must be designed to avoid economic losses to adjacent landowners. East Park has adopted a policy of full suppression of all wildfires. Prescribed fire and mechanical treatments will be used for habitat enhancement, weed control, and the reduction of hazardous fuels.

#### **B. Wildland Fire Management Goals**

Increased application of prescribed fire is desired by Reclamation to promote a healthy ecosystem and for hazard fuel reduction.

An East Park FMP is needed because:

- Refinements to the fire management program are needed that will promote ecosystem sustainability.
- Adjacent communities, cultural resources, i.e., historic structures, campgrounds, and other developments in East Park need protection from unwanted, high-intensity wildland fires. Fire treatments and pretreatments, e.g., prescribed fire, mechanical thinning of understory vegetation, pile burning, chipping, are needed that will reduce the risk of catastrophic fire and ensuing property loss and begin to reverse the fuel accumulation and ecosystem changes that have created these risks.
- Fire can help restore and maintain cultural and traditional landscapes valued by visitors and descendants of culturally associated American Indians.
- Management of wildland fires, prescribed burning, and fuel reduction treatments require up-to-date planning and preparation.
- Fire management activities require collaboration with Federal, state, county, Tribal, and local agencies, and a fire management plan provides a basis for communication, coordination, and project planning with partner agencies.
- East Park must comply with the 2001 Federal Fire Policy and to ensure that no prescribed burns will be conducted on Federal land without approved burn plans

and that only trained and qualified personnel will conduct fire management activities.

- Safety is paramount to all fire management operations.

## **C. Wildland Fire Management Options**

### **1. Wildland Fire Suppression**

#### **a. Fire Planning Unit Fire History**

The Patwin Indians, which lived in this area prior to European settlement, like many other California native groups, used fire to facilitate hunting and to entice game (via the fresh green shoots that followed a burn). Intentional fire stimulated the growth of important native grasses such as blue wild rye (*Elymus glaucus*) that were harvested and roasted for consumption. Fire also helped eradicate pests such as grasshoppers (U.C. Davis, 2005).

East Park Reservoir's lands contains predominantly chaparral/oak woodland habitat. Chaparral mountainsides were avoided by early peoples, though they were exploited for hunting. A number of the early Spanish explorers noted the extent of smoke and fires in chaparral mountains. They commented that certain Native American groups set the hillsides on fire to aid them in a hunt or to encourage nutritious new growth, both for their favored game species and for their own direct consumption. A Spanish governor, de Arrillaga, issued a proclamation in 1798 forbidding Native Americans to continue firing the hillsides. There is some evidence that the residents following Indian occupation continued the indigenous practice of fire setting, but for the purpose of increasing cattle forage (Rodrigue, 1993).

The steady accumulation of fuel is the mechanism by which chaparral creates a condition on which it depends. As a result of this accumulation, the longer the period since a fire, the greater are both the probability and the magnitude of the next fire. In such a fire-dependent vegetation system, residential construction and occupation necessarily expose certain people to the destructive potential of a natural event, which is thereby transformed into a natural hazard or even outright disaster (Rodrigue, 1993).

Since 1979, Reclamation has held agreements with CAL FIRE to suppress wildland fires on Reclamation lands. The CAL FIRE recorded fire history of the East Park area can be seen in Appendix 3. There have been five reported fires on or directly adjacent to East Park Reclamation land from 1954 to 2005, with the most recent fire occurring in July 2005 on the east side of the reservoir amounting to 1 acre. The fires that have occurred were 10 acres or less in size; therefore, not much fuel load has been removed in

the past several decades. Because of the accumulation of fuel since that time, a wildfire could seriously impact the area. Invasive species such as the highly combustible giant reed (*Arundo donax*) and salt cedar (*Tamarix ramosissima*) were discovered around the reservoir in 2005; their presence and continual spread is contributing to the fuel load.

CAL FIRE participated in one prescribed burn of the Indian Creek marsh in 1999 to reduce the vegetation mass and to enhance tricolored blackbird habitat.

**b. Suppression/Preparedness Actions**

East Park Reservoir falls within CAL FIRE's DPA for fire suppression described in the 2001 Cooperative Fire Protection Agreement, which was developed for agencies to assist each other with the suppression of wildland fires using the closest forces concept. The closest forces concept involves dispatching the closest fire suppression resources, regardless of agency affiliation. In this way, agencies are efficiently and cost effectively able to maintain suppression protection of their lands even when they may not have fire stations or other suppression resources close to the fire.

According to the terms of the agreement, fires occurring within an agency's DPA are covered for initial attack action for the first 24 hours. If incident (fire) duration extends beyond 24 hours, CAL FIRE will bill Reclamation for actual suppression and support costs associated with the incident.

East Park Reservoir's DPA is under the direction of the north division of the CAL FIRE Sonoma-Lake-Napa Unit, Battalion 1419. The dispatch center is located in St. Helena, California.

- **Suppression Planning/Operating Plan.** In order to guide the suppression tactics used by CAL FIRE in response to fires at East Park, an annual Operating Plan will be provided to CAL FIRE by Reclamation each year. The Operating Plan is an agreement between CAL FIRE and Reclamation which describes potential risks and constraints to the responding resources. These are things that CAL FIRE needs to be aware of before a fire occurs, such as locations of locked gates, locations of hydrants, underground lines, propane tanks, and structures that contain combustibles such as pesticides, paints, etc. The Operating Plan also identifies sensitive areas such as riparian areas that would be restricted from heavy equipment use, if possible, locations of eagle nests or other sensitive species, and locations of roads and recreation areas. Current contact information would be provided regarding official contacts for decision making for each agency with current phone numbers, addresses, and e-mail addresses.

- **Suppression Actions.** Should a fire be reported to 911, the call would be put through to the St. Helena dispatch center where a determination would be made as to whether the incident rated as a low priority dispatch situation or a high priority dispatch situation. The severity of the dispatch rating would be dependent on time of year, temperature, humidity, wind, etc. A low dispatch rating would generally result in the dispatch of three engines, one hand crew, a Battalion Chief, and an investigator. A high dispatch rating could result in the dispatch of six engines, two dozers, two air tankers, one helicopter, three hand crews, a Battalion Chief, and an investigator. The equipment would be dispatched from the closest available sources by the CAL FIRE dispatch center.

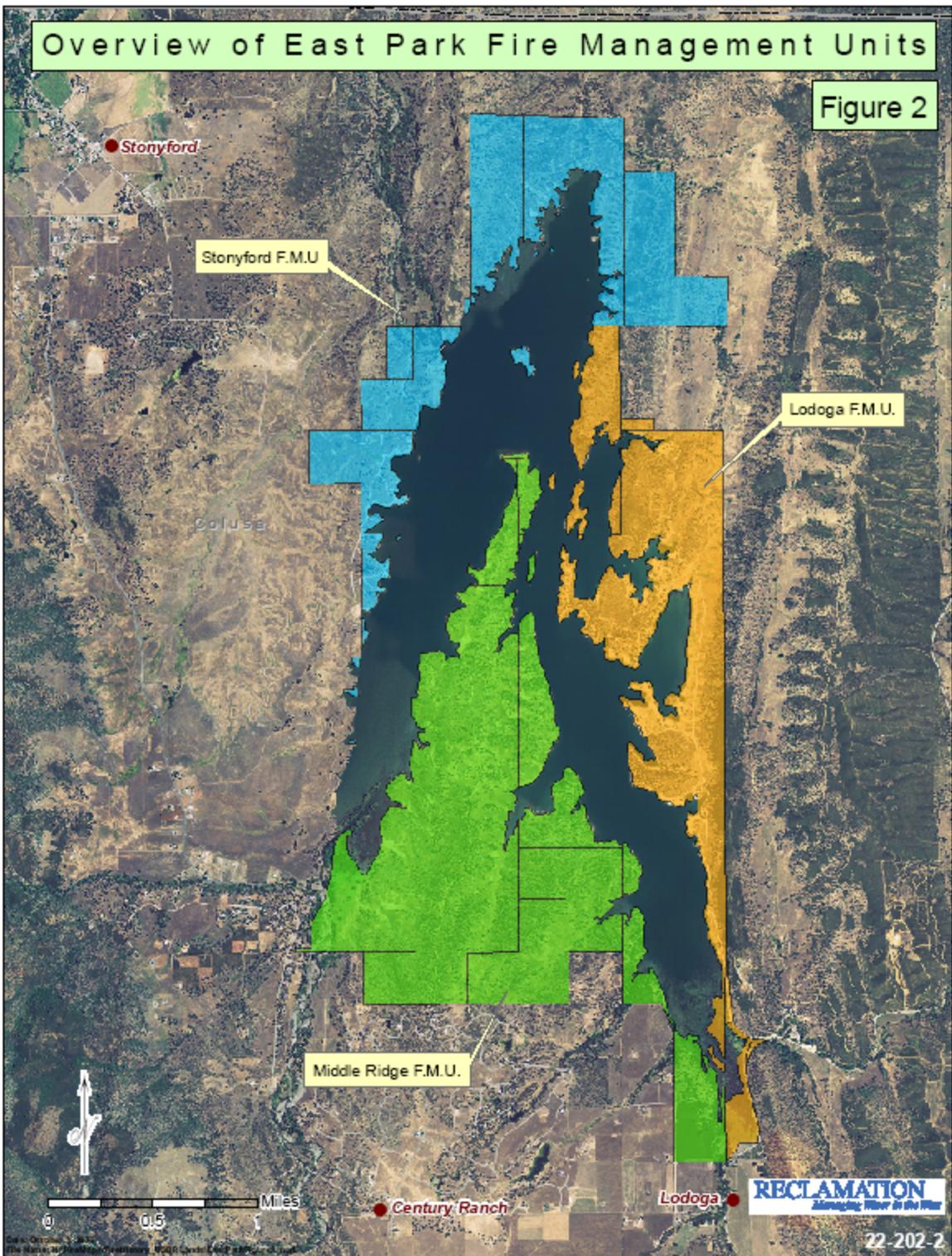
The complexity of the incident command (IC) structure would be commensurate with the size, potential, values at risk, and fire behavior of the incident. The CAL FIRE IC may request additional resources from the local Mendocino National Forest or U.S. Fish and Wildlife Service fire crews from the Sacramento National Wildlife Refuge to assist in initial or extended attack, if they are available. The closest sources to East Park for engines are in the Elk Creek (Tehama-Glenn Unit) or Leesville (Sonoma-Lake-Napa Unit) stations. The closest hand crews are in the Alder Springs Valley View Camp (Tehama-Glenn Unit), the closest helicopter is in Tehama-Glenn Unit in Tehama County (near Vina), and the closest air tanker is in either Redding (Shasta-Trinity Unit) or Chico (Butte Unit). Reclamation would reimburse CAL FIRE for any costs incurred as identified in the cost share agreement.

- **Suppression Strategy.** East Park Reservoir is an area used by the public for recreation and provides habitat for many species of wildlife. The desired strategy is immediate fire suppression of human and naturally caused fires using minimum impact suppression tactics (MIST). Restrictions on use of heavy equipment in riparian areas and use of retardants in the spring will be acknowledged unless there is imminent threat to human life and property. Heavy equipment in riparian areas will be restricted to protect the habitat and will be used only upon approval by an appointed Resource Advisor on a case-by-case basis. Retardant use should be restricted from February through June, which is the time period of nesting seasons for the bald eagle and tricolored blackbird, birthing seasons of elk and deer, and flowering season for sensitive plants.

The East Park Reservoir lands are divided into three fire management units (FMUs): Lodoga FMU (770 acres), Middle Ridge FMU (1,329 acres), and Stonyford FMU (369 acres). See Figure 2.

Reclamation's fire suppression strategy for the Lodoga FMU (Figure 3) is to contain wildfires to 10 acres or less within 24 hours with an aggressive initial attack. This area contains a combination of oak woodland/grassland habitat and invasive species such as giant reed and salt cedar near the reservoir, chamise chaparral habitat in the upland area, and is heavily used by the public from approximately April to October. There is only one road in and out of the area so public safety is a critical concern should a fire occur when people are present. No listed species occur within this FMU although there are several sensitive flower species that occur throughout. A bald eagle (*Haliaeetus leucocephalus*) nest has been observed north of the unit on private land. The closest structures are located east of the FMU near the town of Lodoga, less than 1 mile to the east.

Reclamation's fire suppression strategy for the Middle Ridge FMU (Figure 4) is to contain wildfires to 100 acres or less within 24 hours. This area sees little human presence and mostly contains oak woodland/grassland habitat and invasive species such as giant reed and salt cedar around the reservoir edge. Bald eagle nests have been observed in this unit, and it contains breeding habitat for tule elk (*Cervus elaphus nannodes*) and blacktail deer (*Odocoileus hemionus columbianus*), as well as sites of sensitive flowers. The closest structures are individual ranchette residences directly south of the unit.



Reclamation's fire suppression strategy for the Stonyford FMU (Figure 5) is to contain wildfires to 10 acres or less within 24 hours as this area contains a high degree of chamise chaparral habitat. This unit is used by the public for camping and/or day use year-round, but not heavily so, and is the unit that contains the East Park Dam, spillway, and maintenance yard. Residences are adjacent to the unit in the southern portion of the unit on Little Stony Creek.

**c. Wildland Fire Situation Analysis (WFSA)**

A Wildland Fire Situation Analysis (Appendix 4) will be prepared whenever a wildfire escapes initial action, is expected to exceed initial action, or when a prescribed fire exceeds its prescription parameters and is declared a wildfire.

The purpose for completing a WFSA is to convey to an Incident Management Team (IMT) the critical objectives and priorities as defined by an Agency Administrator for a given incident. An IMT needs sufficient information to get an implementable incident action plan formulated and order the needed resources to support it. This requires clear and measurable objectives that consider all the current and potential issues of wildland fire suppression.

It also can serve as a tool to share with the public and cooperators the approved strategy related to the fire. It is intended to be a dynamic process: it likely will require updates and modifications throughout the management of an incident. As the complexity of a wildland fire escalates so should the WFSA documentation and the underlying analysis that supports the decision.

**d. Fire Prevention, Community Education, Community Risk Assessment, and Other Community Assistance Activities (Firewise)**

- **Prevention Program** – Reclamation provides ranger patrols for fire prevention and visitor contact to provide fire restriction information concerning campfires and prohibited use of fireworks. A lease for cattle grazing has been issued yearly to use cattle as a tool to reduce fuel load. Mechanical and chemical control of invasive weeds is desirable.
- **Special Orders and Closures** – Under high fire danger (red flag warning) restrictions may be put into effect by Reclamation that could close the park to the public or would prohibit the use of campfires, charcoal barbecues, or other sources of fire. Signs would be posted at entrances to the visitor use areas that would provide the fire danger intensity (high, moderate, low) based on current weather information provided on such sites as the Climate, Ecosystem and Fire Applications

(CEFA) site/Experimental Climate Prediction Center (ECPC): (<http://ecpc.ucsd.edu/projects/fire.html>) which provides products and information related to climate, weather, fire, and natural resources. Extreme fire danger would be determined by weather conditions and fuel condition as described by the National Weather Service and CAL FIRE.

Should a fire occur that requires erosion control practices and reseeding, areas may be closed to rejuvenate native plant growth during the revegetation process.

**e. Training and Qualifications**

Reclamation's NCAO Area Manager (Area Manager) is responsible for ensuring that all divisions involved in land management and fire suppression activities or prescribed burns (including burning of debris piles) will follow individually approved burn plans. Only properly trained and qualified personnel will conduct fire management activities on Reclamation lands. Only fire suppression qualified and red-carded individuals will participate directly in wildfire suppression activities. Resource Advisors will be trained and certified in the Incident Qualifications and Certification System (IQCS).

**f. Detection**

Reclamation has no official fire detection program and relies on direct observances or reports of fires from employees and/or the public to contact emergency services (911). Rangers patrol the area on occasion to identify fuel load concerns.

There are no fire lookouts in the East Park area, and on occasion, CAL FIRE may use aerial surveillance should lightning strikes occur. CAL FIRE predominantly relies on fires reported to 911 to begin the response procedure.

**g. Fire Weather and Fire Danger**

Current weather information is found on such sites as the Remote Automated Weather Station (RAWS)/Real-time Observation Monitor and Analysis Network (ROMAN) at <http://raws.wrh.noaa.gov/roman>. The National Weather Service (<http://fire.boi.noaa.gov/>) has hourly fire danger maps (<http://www.cefa.dri.edu/HourlyFD/>) that describe the locations of low to extreme fire danger areas. Reclamation relies on CAL FIRE and other agencies to calculate and report fire danger. The CAL FIRE dispatch center in St. Helena calculates fire danger twice a day in-house based on current temperature, wind, humidity, fuel load, etc.

#### **h. Aviation Management**

Reclamation does not maintain aviation resources in the Mid-Pacific Region. CAL FIRE has no aviation management program in Colusa County; however, they may use other air resources to patrol the area on occasion. CAL FIRE has air tankers located in Redding and Chico and helicopters in Vina, California.

Reclamation abides by the regulations and standards established by the DOI's Aviation Management Directorate (AMD). This office provides oversight and certification of aviation resources including aircraft, pilots, and maintenance schedules. AMD provides aircraft source lists which contain the Federal Aviation Administration registration numbers of aircraft and the names of certified (carded) vendors and pilots for use by all DOI agencies. CAL FIRE's aviation resources and standards are recognized as adequate by the AMD.

Reclamation currently does not contract for any fire-related aviation services in the Mid-Pacific Region.

#### **i. Initial Attack**

Initial attack (first response) will generally originate out of the Sonoma-Lake-Napa Unit (Battalion 1419). Because East Park is located within a CAL FIRE DPA, CAL FIRE should suppress fires with no cost to Reclamation within the first 24 hours, unless other arrangements are made. CAL FIRE has the right to cross any property and use any means necessary (such as using water in private ponds or Reclamation reservoirs) to combat an emergency fire situation. CAL FIRE is required to compensate any private landowners for damage of roads, use of water from private ponds, etc. Initial attack will be aggressive when needed to protect life or property in imminent danger; however, minimum impact suppression tactics are desired to protect the environment in certain locations. These are outlined in the Operating Plan prepared by Reclamation and provided to CAL FIRE.

#### **j. Extended Attack and Large Fire Suppression**

Extended fire suppression operations by CAL FIRE which exceed 24 hours will be guided by Reclamation's current agreement with CAL FIRE outlining the procedures and billing arrangements in cases of "assistance for hire."

All large fires will be organized according to the incident command system (ICS) structure, an emergency response and operations management system which describes the coordination and communication with the community emergency operations center and and/or central dispatch center. The ICS

philosophy and concepts of effective emergency operations include community emergency management; response management by the IC; awareness of the organization response plan; procedures for first notice, situation analysis, and determining urgency; on-scene management, role of the emergency operations center; legal issues; dealing with the media; and relevant Federal legislation, rules, and standards.

#### **k. Fire Reporting**

All fires will be reported on form DI-1202 (Individual Fire Report) and input to the Fire Reporting Module of the Wildland Fire Management Information System (WFMI). The WFMI is a Bureau of Land Management (BLM)-administered system, which includes fire occurrence data archiving and storage. The system is used by the Bureau of Indian Affairs and the National Park Service (NPS) as well as BLM for archiving fire occurrence data. Currently, Reclamation has no official system of its own for archiving such data. It is important to record fire occurrence data on Reclamation lands in order to better plan, budget for, and respond to future challenges and needs in the fire management environment.

#### **l. Other Fire Suppression Considerations**

East Park is a relatively small unit with little complexity and has experienced a low fire occurrence over the past 45 years. No Reclamation employees will perform fire suppression activities unless they are properly trained for the position held and hold certification in the IQCS to that effect. The cooperative agreement Reclamation holds with CAL FIRE is currently the only means used to achieve fire suppression and prescribed fire goals. Other means for hazardous fuels reduction or habitat improvement such as mechanical, chemical, or biological control methods may be employed by Reclamation independently of CAL FIRE.

### **2. Prescribed Fire**

Prescribed fires are desired to (1) enhance habitat by removing excess plant litter, (2) reduce the fuel load for pre-fire protection, and (3) control invasive weeds such as giant reed, salt cedar, and yellow starthistle to encourage native perennial grass growth. Prescribed burns will be conducted in accordance with the Multi-Agency Agreement for the Cooperative Use of Prescribed Fire; Contract No. 8CA02011, and the September 2006 Interagency Prescribed Fire Guide (Appendix 5).

#### **a. Planning and Documentation**

Reclamation will prepare and provide two documents for any prescribed burn; the Prescribed Burning Project Standard Agreement (RM-70) and an

approved prescribed burn plan. Individual approved burn plans will follow the Federal template and will be prepared for each prescribed burn. Examples of prescribed burns at East Park may include: (1) 3-year rotational burns of portions of Indian Creek/Squaw Creek (approximately 40 acres), Little Stony Creek (approximately 50 acres), and Chisolm Cove (less than 1 acre) marshes to reduce decadent vegetation and enhance the habitat for sensitive species; (2) burning giant reed and salt cedar stalks that have been cut for removal (estimated at less than 5 acres total, but individual piles are less than 1/8 acre); (3) burning stands of invasive weeds such as yellow starthistle (infestation estimated at several hundred acres) for their removal and preparation for revegetation activities as needed for adequate control; and (4) burning of wood and other burnable debris piles as needed.

In addition to working with CAL FIRE, prescribed fire (Rx) assistance may be requested and obtained by ordering Rx fire resources from other Federal agencies on a case-by-case basis or through future interagency agreements. Fire Use Module units may be available to conduct prescribed fires. The Fire Use Module (FUM) Program has developed teams of experienced and specialized fire personnel whose mission is to develop and provide national self-sufficient, multi-skilled fire professionals with a primary commitment to fire use operations and planning.

Planning of Prescribed Burns. The Area Manager will assign a Resource Manager/Advisor to plan each prescribed burn to ensure that prescribed burns are in compliance with any approved resource management plan and fire management plan. Burn plans will be prepared by the Resource Advisor or by contract. In-depth familiarity with the fire unit and the Interagency Prescribed Planning and Implementation Procedures Reference Guide are required to successfully prepare the burn plan.

Burn plans will be reviewed by the Regional Wildland Fire Management Coordinator and approved by the Area Manager at least 30 days prior to the burn.

The burn plan is a field document that describes the details for conducting a particular burn treatment at a particular burn unit. The burn plan is much more specific than the Fire Management Plan. It is also a legal document that details prescription parameters, safety considerations, and professional standards to be used in conducting the burn. It will clearly document the planned sequence of the project and the responsibility of any participating agency for activities to meet the project objectives. All prescribed fires that escape control parameters will be treated as a wildland fire.

All burn plans must be signed and dated by the preparer, burn boss, and, if CAL FIRE is conducting the burn, by CAL FIRE's Registered Professional Forester (RPF) before the burn is executed. The signature of the RPF

signifies his/her approval of the content and technical details of the written plan. The burn boss/IC is responsible for abiding by the terms of the plan in conducting the burn.

Final approval for the burn plan is given by Reclamation's Area Manager. Those approving the plan are responsible for its content. A technical review shall be conducted by someone familiar with the fuel type. The technical reviewer must sign the signature page of the plan. The format for a burn plan may be customized, but should contain the following burn plan elements:

- Signature Page. Signatures are required by the Federal technical reviewer (MP-450), the Area Manager (NC-100), and the IC/burn boss.
- Geographic/Project location.
- Sources of emergency assistance.
- Description of the prescribed burn area (vegetation type and fuel models by percent of unit, narrative description of unit).
- Goals and objectives.
- Fuel and weather prescription.
- Type of prescribe burn and desired fire behavior to meet objectives (narrative description).
- Smoke management.
- Crew (number and organization).
- Equipment.
- Day of burn operations/site preparation plan (firebreak preparation, ignition plan, holding plan, communications, mop-up standards, public relations).
- Contingency plan (predicted fire behavior for free-running fire, both inside and outside the unit; location, type, and response time of emergency resources; secondary control lines).
- Backup source of water delivery.
- Safety and medical information.

- Public information plan.
- Appropriate ICS documentation (confirmation of required planning, exemptions, and justifications).
- Technical review.
- Job Hazard Analysis.
- Post-burn activities.
- Maps.
- Go/No Go Checklist on day of burn—with separate Area Manager/burn boss signature.

Contacts to be made. Reclamation’s Resource Advisor will contact CAL FIRE and provide CAL FIRE with a copy of the approved burn plan during the planning phase. An individual cooperative agreement/letter of understanding or other document required by CAL FIRE specifying the location, desired dates, maps, and other details of the specific burn may be prepared by the Resource Advisor, if necessary. This document will include the details of any payment or equipment reimbursement, etc. The Resource Advisor will also prepare any required environmental documentation (Categorical Exclusion Checklist), press releases, flyers posted at local businesses, and other public notification including contact with the Regional archeologist, local sheriff’s office, State Department of Fish and Game, the Orland Unit Water Users' Association, the Mendocino National Forest, and the Stonyford Resource Conservation District. The Colusa County Air Pollution Control District will be notified verbally, and any requirements they have will be met in advance of the burn.

Permits/Forms. No encroachment permits are required for CAL FIRE to enter upon Reclamation land for the purpose of conducting a prescribed burn at Reclamation’s request. Prescribed burns will be documented and reported to the Regional Office (MP-450) who will enter the information into the WFMI on the DI-1202 Individual Fire Report template (Appendix 6). The Resource Advisor will ensure pre-burn, burn, and post-burn monitoring and will prepare a follow-up report stating whether the burn met the burn plan objectives. No permits are required from the county, but county regulations regarding burn, no-burn days must be followed.

Qualified Personnel. Only CAL FIRE and/or other Federal personnel that are trained and qualified will conduct prescribed burns. No Reclamation employees will be involved directly in the prescribed burn activities unless they are properly trained and certified.

## b. Air Quality and Smoke Management

According to the Colusa County Air Pollution Control District there are no pertinent air quality issues in Colusa County unless a major fire occurs. Smoke-sensitive areas are the communities of Lodoga and Stonyford and adjacent ranches that have year-round residents. There are no Class I airsheds or corridors in the East Park area. Colusa County is classified as a non-attainment area regarding California air quality restrictions and an attainment area for Federal air quality restrictions. A non-attainment area is any area that does not meet the Federal or state air quality standard because of exceedances of any of the National Ambient Air Quality Standards for the six criteria pollutants. An attainment area meets the national primary or secondary ambient air quality standard for the pollutant.

Local and regional smoke management restrictions are defined in Title 17 of the California Code of Regulations and the Sacramento Valley Agricultural Burn Plan.

## 3. Non-Fire Fuel Treatments

**Biological control.** Approximately 1,980 acres have been grazed annually by cattle through a lease issued by Reclamation on all three units. Grazing has been administered since the 1980s. The acreage for cattle grazing could increase to approximately 2,600 acres if an additional tract of land located in the north end of the reservoir is grazed. The primary purpose of the leases is to use cattle as a tool to reduce the fuel load and weed biomass. A range technician began initial monitoring of the lease effects in 2005/2006. A report was prepared in 2006 with recommendations to revise the lease terms to increase the efficiency of the cattle use to meet specific resource goals. These goals include reducing yellow starthistle and other invasive weeds at appropriate times of the year and reducing the fuel load in upland areas where cattle do not prefer to graze.

**Mechanical/chemical control.** CAL FIRE hand crews may be available for such mechanical or manual labor activities such as construction of safety lines, wind breaks, and prescribed burn area preparation. This may include construction of containment lines around project perimeters and cutting and piling of invasive weed species in preparation for future burning of piles, etc. Federal fire use modules, if available, are another potential source of conducting prescribed burns.

Approximately 1 acre of giant reed located in approximately 30 stands around the reservoir was mechanically treated by Reclamation employees in 2006. The mechanical treatment is planned to be followed up by a chemical application. Giant reed has been known to grow up to 2 feet per week under optimal conditions. It also spreads by seed and rhizome so must be vigorously

controlled to avoid becoming a fire hazard around the reservoir. In addition, approximately 20 stands of salt cedar are present around the reservoir and mechanical/chemical treatments must be used to eradicate this highly invasive and highly flammable fuel. Without immediate treatment these invasive weeds will increase rapidly within the next few years.

Approximately 20 acres of land around the recreation areas is treated by chemical means by Reclamation certified applicators for weed control each spring.

## **D. Description of Wildland Fire Management Strategies by Fire Management Unit**

East Park has been divided into three FMUs, identified on the basis of geographic location: the Stonyford Unit to the north and west, the Middle Ridge Unit to the south, and the Lodoga Unit to the east (see Figure 2). All units are on Reclamation land. This 10-year plan is proposing the use of a combination of fire suppression, prescribed burning, biological and mechanical reduction of fuels, and fire effects monitoring where needed. Air quality issues will be addressed for all fires.

### **1. FMU Descriptions**

#### **STONYFORD FMU**

##### Characteristics:

The Stonyford FMU is on the west side of East Park Reservoir and extends from the mouth of Little Stony Creek to the northeast portion of the reservoir. Access is from a Colusa County road that is narrow and semi-paved and extends east from the town of Stonyford. Another locked access exists from the Stonyford/Lodoga Road at the southwest end of the reservoir and by private road on the north end of the reservoir. This area is open year-round to the public on weekends and full-time during dry weather.

The FMU contains primitive camp areas and a day-use area with vault toilets and an unpaved boat launch, along with East Park Dam and spillway. An overview of habitat types includes Little Stony Creek marsh on the south end, seasonal grassland and disturbed woodland adjacent to the water, and chaparral in the upland areas north of the dam and spillway. Riparian bottomland exists in the northern section of the FMU, and the north and northeast sections are oak woodland/grassland habitat. Dispersed local residences and ranches occur to the south, and private rangeland is adjacent to the Mendocino National Forest to the west and north of this FMU.

Elevations of the FMU range from 1,198 to 1,421 feet, and the East Park Department of Water Resources weather station is at elevation 1,205 feet. From

the south, the FMU contains freshwater marshes with cattail (*Typha spp.*) and bulrush (*Scirpus cyperinus*), ideal habitat for the tricolored blackbird and other marsh species which culminate at the reservoir. Going north from the marshes are the camp and day-use areas which have sparse vegetation due to overuse by the public. Terrain is hilly with some level ground in the vicinity of the shoreline; the areas next to the reservoir are mostly bare soil, with weeds such as yellow starthistle (*Centaurea solstitialis*) and cocklebur (*Xanthium strumarium*), and annual grasses such as medusa head (*Taeniatherum caput-medusae*) and brome (*Bromus spp.*). Native forbs are present in high diversity and abundance from March through early June in the low use portions of this area. Chamise chaparral/northern mixed chaparral/juniper scrub/oak-woodland communities occur in the upland areas. The chamise chaparral north of the dam is composed of dense stands of chamise (*Adenostoma fasciculatum*), scrub oak (*Quercus ilicifolia*), buckbrush (*Ceanothus cuneatus*), gum plant (*Grindelia robusta*), yerba santa (*Eriodictyon angustifolium*) and manzanita (*Arctostaphylos spp*) with an open to sparsely vegetated under story, mainly of native annual and perennial forbs in low abundance and diversity. Sensitive plants such as red-flowered lotus (*Lotus rubriflorus*), Colusa layia (*Layia septentrionalis*), and adobe lily (*Fritillaria pluriflora*) are located in this FMU. A seasonal swale extends from the vicinity of the service yard gate down to Little Stony Creek, opposite the spillway. The wetland supports a number of marsh, wet grassland, and vernal pool plants. A second shallow basin seasonal wetland occurs in the Diversion Flat camping area. Several stands of cocklebur, tamarisk, and giant reed have been identified along the shoreline, especially north of the dam.

#### Fire Regime/Condition Class:

There are five natural fire regimes classifications (Table 2) which are described based on the average number of years between fires, combined with the severity of the fire on the dominant vegetation.

**Table 2. Natural Fire Regime Classifications**

<b>Natural Fire Regime</b>	<b>Frequency of fires and severity to vegetation.</b>
I	0-35 year frequency and low-to-mixed severity (less than 75% of the dominant overstory vegetation replaced).
II	0-35 year frequency with high severity (greater than 75% of the dominant overstory vegetation replaced).
III	35-100+ year frequency and mixed severity.
IV	35-100+ year frequency with high severity.
V	200+ year frequency and high severity.

A fire regime condition class describes how the role of fire may depart from a natural regime (absence of modern human intervention). There are three condition classes (Table 3): low, moderate, and high.

**Table 3. Description of Condition Classes**

Condition Class	Departure of fire from natural state.
1	Low departure of the role of fire from natural state and within the natural range of variability with regard to the vegetation characteristics (species composition, structural stages, stabs age, canopy closure, mosaic pattern). Risk of losing key ecosystem components is low.
2	Moderate departure from natural regime. Moderate changes may result to one or more of the following: fire size, intensity and severity, and landscape pattern.
3	High departure from natural regime where fire regimes have been substantially altered. Dramatic changes can occur to key ecosystem components.

With a fire frequency of less than one in 35 years, it has been determined by Reclamation according to the interagency fire regime condition class guide that the chamise/chaparral habitat of this unit falls into fire regime two and condition class two. The following link contains the guidebook for the interagency fire regime condition classes:

[http://www.frcc.gov/docs/1.2.2.2/Complete\\_Guidebook\\_V1.2.pdf](http://www.frcc.gov/docs/1.2.2.2/Complete_Guidebook_V1.2.pdf) Put in link

#### Values at Risk:

**Wildlife.** Should unwanted fires occur, or should fires occur at a time when wildlife are breeding/nesting, then long-term damage can occur to the tricolored blackbird (*Agelaius tricolor*) population and other sensitive bird species that breed in the area. The tricolored blackbird habitat must not be disturbed between mid-March through July. Breeding success depends on the abundance of insects which make up a large percentage of breeding forage. Dominant nest substrate species are cattails (*Typha spp.*), bulrushes (*Scirpus cyperinus*), and Himalayan blackberry (*Rubus spp.*). A variety of other plant species are used as nesting substrate, all either flooded or otherwise defended against easy access by mammalian predators. In marshes, dense vegetation is preferred, but heavily lodged cattails not burned in recent years may preclude settlement. Biennial burning is a preferred management strategy. Tricolors often settle in cattails burned the same season. Tricolors will not settle without access to open water. Strips of emergent vegetation along canals are avoided as nest sites unless they are about 30 feet wide but in some ponds, especially where associated with Himalayan blackberries and deep water, settlement may be in narrower bunches of cattails. If sites are hard for an observer to reach, the site is relatively suitable.

To promote tricolored blackbird habitat, prescribed burning of the marshes should occur on at least a biennial rotational frequency, outside of the breeding season, preferably before March.

**Visitors.** In the recreation season, which is typically April/May through September, any fire would be considered a danger to the public and would be immediately suppressed.

**Cattle.** From November through mid-April, cattle have grazed the southern portion of the FMU from Little Stony Creek marsh to the spillway area. Any fires would need to be suppressed during this time should cattle be present.

**Landowners.** Some residences occur west and south of the Little Stony Creek marsh. Ranch land occurs to the west, north, and northeast of this FMU.

**Communities at Risk.** There are no communities within the FMU; however, several communities occur nearby in the wildland/urban interface. The community of Century Ranch is located southeast of the FMU. The community of Stonyford is located several miles to the west of the FMU. Directly south along Stony Creek are a few local residences and ranches.

### **MIDDLE RIDGE FMU**

#### **Characteristics:**

The Middle Ridge FMU is on the south side of East Park Reservoir and extends from the boundary with the community of Century Ranch to the “Catholic Point” peninsula. The only road access is through a locked gate from a paved county road onto a poorly maintained single lane road which extends north from the community of Century Ranch. In rainy weather access would be difficult for any equipment other than a 4x4 truck. Access is also available by boat. This area is closed year-round to the public, except for boat access.

The FMU contains no facilities. It consists mostly of non-native annual grassland adjacent to oak woodland with native annual forbs. Blue oak woodland is common on rolling uplands and north- and east-facing slopes, especially on the upper slopes of the main ridge with scattered small stands of gray pine. This FMU is bordered by freshwater seasonal and riparian marshes with cattails and bulrushes to the east and west, the reservoir to the north with some shoreline vegetation, and the community of Century Ranch to the south. A few scattered stands of chamise chaparral, northern mixed chaparral, and blue oak woodland occur on the main ridge. Stands of salt cedar and giant reed have been observed in the east side of the FMU along the shoreline. Once salt cedar establishes it is easily spread to other areas via windblown seeds. Giant reed is highly flammable, even when green. The dense growth of giant reed can more than double the available fuel for wildfires compared to native vegetation. After a fire giant reed can grow back rapidly from its roots without competition from other plants, often bigger than before the fire.

This area is used by tule elk (*Cervus elaphus nannodes*), wild pig (*Sus scrofa*), blacktail deer (*Odocoileus hemionus columbianus*), whitetail deer (*Odocoileus virginianus*), nesting bald eagles (*Haliaeetus leucocephalus*), and other animals, as well as by some sensitive plants such as the red-flowered lotus and Colusa

layia. There are two bald eagle nests in this FMU, one which showed activity in the 2006 season.

Fire Regime/Condition Class:

With a fire frequency of less than one in 35 years, it has been determined the predominant oak woodland habitat of this unit falls into fire regime one and condition class two.

Values at Risk:

**Wildlife.** Should unwanted fires occur, or should fires occur at a time when wildlife are breeding/nesting, then long-term damage can occur to the tricolored blackbird population and other sensitive bird species that breed in the area. The tricolored blackbird habitat must not be disturbed between mid-March through July. Breeding success depends on the abundance of insects which make up a large percentage of breeding forage. Dominant nest substrate species are cattails, bulrushes, and Himalayan blackberries. A variety of other plant species are used as nesting substrate, all either flooded or otherwise defended against easy access by mammalian predators. In marshes dense vegetation is preferred, but heavily lodged cattails not burned in recent years may preclude settlement. Biennial burning is a preferred management strategy. Tricolors often settle in cattails burned the same season. Tricolors will not settle without access to open water. Strips of emergent vegetation along canals are avoided as nest sites unless they are about 30 feet wide, but in some ponds, especially where associated with Himalayan blackberries and deep water, settlement may be in narrower clumps of cattails. If sites are hard for an observer to reach, the site is relatively suitable.

To promote tricolored blackbird habitat, prescribed burning of the marshes should occur on a biennial rotational frequency outside of the breeding season, preferably before March.

This FMU also contains bald eagle nests and habitat for elk, deer, wild pig, and other mammal breeding. To protect the breeding season for mammals prescribed fires should never occur during from mid-March through at least June.

**Visitors.** Since this FMU is not used or accessible to the public other than to an occasional boater, the only danger an unwanted fire may present would be to the adjacent Century Ranch community to the south.

**Cattle.** From November through mid-April, cattle have grazed the entire portion of the FMU. Any fires would need to be suppressed during this time should cattle be present.

**Landowners.** Some residences occur south of the FMU, as well as the community of Century Ranch.

**Communities at Risk.** The community of Century Ranch is located directly south and adjacent to this FMU.

### **LODOGA FMU**

#### **Characteristics:**

The Lodoga FMU is on the east side of East Park Reservoir and extends from the mouth of Squaw and Indian Creeks to the northeast portion of the reservoir. Access is only from a two-lane county road adjacent to Lodoga. A private road on the north end of the reservoir provides access to the northern portion of the FMU, and two dirt roads across private lands on the east side of the FMU through locked gates also provide access to eastern and southeastern portions of the FMU. This area is open seasonally, usually April to October.

The FMU contains primitive camp areas and vault toilets. Dispersed local residences occur to the south and east along with private rangeland adjacent to the Lodoga area.

Elevations range from 1,198 to 1,421 feet. From the south, the FMU contains approximately 50 acres of riparian and seasonal freshwater marshes which contain bulrushes and cattails, along with riparian woodland along Squaw Creek, which culminate at the reservoir. The shoreline is vegetated and contains dense carpets of bur clover (*Medicago spp.*) and lippia (*Phyla nodiflora*) in areas of shallow soil where the shore slope gradually transitions to annual grassland. Shallow water areas along the shoreline are dominated by rooted emergent forbs such as smartweed (*Polygonum spp.*). Going north from the marshes are the camp and day-use areas which have sparse vegetation due to overuse by the public. Terrain is hilly with some level ground in the vicinity of the shoreline; the areas next to the reservoir are mostly bare soil, with weeds such as yellow starthistle and cocklebur and annual grasses such as medusa head and brome. Native forbs are present in high diversity and abundance from March through early June in the low use portions of this area. Blue oak woodland and juniper scrub are common on rolling uplands and north- and east-facing slopes, with scattered small stands of gray pine (*Pinus sabiniana*).

Chamise chaparral occupies the southern half of the peninsula directly southwest of Chisolm Cove group camp. Scattered small stands of northern mixed chaparral occur, as well as juniper scrub. Sensitive plants such as red-flowered lotus, Colusa layia, adobe lily, Jepson's navarretia (*Navarretia jepsonii*), and Brandegee's woolly star (*Eriastrum brandegeae*) are located in this FMU. A bald eagle nest is located on private property just north of Chisolm Cove, and upland areas are heavily used by deer.

Fire regime/condition class:

With a fire frequency of less than one in 35 years, it has been determined the chamise/chaparral habitat of this unit falls into fire regime two and condition class two.

Values at Risk:

**Wildlife.** Should unwanted fires occur, or should fires occur at a time when wildlife are breeding/nesting, then long-term damage can occur to the tricolored blackbird population and other sensitive bird species that breed in the area. The tricolored blackbird habitat must not be disturbed between mid-March through July. Breeding success depends on the abundance of insects which make up a large percentage of breeding forage. Dominant nest substrate species are cattails, bulrushes, and Himalayan blackberry. A variety of other plant species are used as nesting substrate, all either flooded or otherwise defended against easy access by mammalian predators. In marshes, dense vegetation is preferred, but heavily lodged cattails not burned in recent years may preclude settlement. Biennial burning is a preferred management strategy. Tricolors often settle in cattails burned the same season. Tricolors will not settle without access to open water. Strips of emergent vegetation along canals are avoided as nest sites unless they are about 30 feet wide, but in some ponds, especially where associated with Himalayan blackberries and deep water, settlement may be in narrower fetches of cattails. If sites are hard for an observer to reach, the site is relatively suitable.

To promote tricolored blackbird habitat, prescribed burning of the marshes on a rotational frequency of a biennial basis should occur outside of the breeding season, preferably before March. The National Park Service/Whiskeytown FUM may be available to conduct prescribed burns at this time of year. The FUM has engines available year-round while CAL FIRE has limited availability of engines outside of the normal fire season. CAL FIRE hand crews could be available outside of the normal fire season.

This FMU also contains bald eagle nests and habitat for deer, wild pig, and other mammal breeding. To protect the breeding season for mammals, fires should never occur from mid-March through at least June.

**Visitors.** In the recreation season, which is typically May through September, any fires would be considered a danger to the public and would be required to be immediately suppressed.

**Cattle.** From November through mid-April, cattle have grazed the southern portion of the FMU, from Indian Creek marsh in the southern portion to Chisolm Cove. Any fires would need to be suppressed during this time should cattle be present.

**Landowners.** Some residences occur south and southeast of the FMU in the Lodoga area. Ranchland occurs to the east and north, and the reservoir is to the west.

**Communities at Risk.** The community of Century Ranch is located directly southwest of this FMU. The town of Lodoga and several residences/ranchettes are located approximately 1 mile southeast.

Reclamation's Regional office personnel prepared the programmatic agreements with CAL FIRE. Area offices will administer repayment for fire suppression and prescribed burning, oversight of fire prevention, suppression, and prescribed burning operational plans.

Reclamation will direct that MIST be used in all fire management activities where applicable. An operating plan discussing MIST objectives will be provided to the CAL FIRE office annually. Reclamation will also dispatch a trained Resource Advisor or other agency representative to any fire larger than 10 acres to consult and negotiate on-site with the initial attack IC to discuss MIST practices. MIST is defined as the application of techniques that effectively accomplish wildland fire management objectives while minimizing the impacts to cultural and natural resources commensurate with ensuring public and firefighter safety and effective wildland fire control. Examples of MIST include using existing natural or constructed barriers to contain wildland fires, mowing firebreaks in grassland, and using pumps and hoses to apply water to suppress fire activity and reduce fire spread. See Appendix 7 for MIST Guidelines.

#### ***IV. Emergency Stabilization and Rehabilitation***

In the case of an extreme fire occurrence where little to no vegetation remains, erosion control activities will be implemented. Use of water bars or other appropriate erosion control methods, reseeding with native plants, and necessary area closures will occur as budget permits and according to the Emergency Stabilization and Rehabilitation (ESR) Policy outlined in the DOI Department Manual 620 DM 3, as follows:

##### **A. Emergency Stabilization**

1. Emergency stabilization actions will be based on an ESR Plan developed immediately post-fire or in a supplement plan, except where programmatic plans are already in place. The programmatic plans are generally written by a field office unit and include an environmental assessment and are developed at the landscape level, with public input. The decision to develop the programmatic plan is based on the size and diversity of the ecosystems involved, fire history, resource values, and resource management objectives and decisions in land use plans. For multi-agency fires, joint planning is

encouraged. The development and implementation of an ESR Plan and its associated treatments are the responsibility of the local agency administrator.

2. The costs and magnitude of emergency stabilization actions should be commensurate with threats to life, property, or resources as documented by a cost-risk analysis.
3. Emergency stabilization projects are unpredictable, requiring funding on short notice. Allowable actions are those required to:
  - a. Prevent or mitigate threats to human health and safety or property, including roads and trails.
  - b. Stabilize soil to prevent or mitigate loss or degradation of productivity.
  - c. Stabilize watersheds to prevent unacceptable downstream damage on and off site, including significant erosion or mass wasting.
  - d. Minimize unacceptable deterioration of water quality.
  - e. Protect emergency stabilization treatments, utilizing fencing, patrolling, or other measures.
  - f. Stabilize and prevent unacceptable degradation of historic properties listed on or potentially eligible for the National Register of Historic Places or federally- and state-listed threatened or endangered species or their habitat.
  - g. Establish or reestablish native species to prevent or minimize the establishment of non-native invasive species and facilitate long-term ecosystem restoration goals stated in land management plans. Such actions will be specified in the emergency stabilization section of the ESR Plans only when immediate action is required or when there are clear precedents and such actions are a routine element of all ESR Plans within similar vegetation types. Otherwise, ESR Plans may contain a rehabilitation section that outlines the general need for such actions, but defers specific actions until post-fire rehabilitation needs assessments are completed. Treatment specifications developed from these assessments may be funded as a supplement to the ESR Plan for up to two growing seasons after fire control.
4. Emergency stabilization activities must be compatible and generally consistent with approved land use plans and can include:
  - a. Replacing or repairing facilities essential to public health and safety, and replacing or constructing fences or other structures necessary to protect emergency stabilization projects or to prevent further degradation of natural and cultural resources during the project period.

- b. Physical structures and devices to slow the movement of soil and water downslope, such as check dams, culverts, silt fences, log erosion barriers and straw wattles, erosion cloth, and soil netting, etc. These treatments are primarily temporary measures that do not generally require maintenance or are removed after objectives have been met.
  - c. Conducting habitat damage assessments for threatened, endangered, and other special status species to identify mitigation requirements. Damage assessments and treatments are limited to species that are known to be detrimentally impacted by wildland fire or those for which there is reasonable expectation of detrimental impacts. Also, there must be reasonable expectation that the detrimental impacts can be mitigated. The scope and cost of mitigation should be the minimum necessary to alleviate significant threats.
  - d. Seeding or planting of shrubs, forbs, and grasses to prevent critical habitat for federally-listed threatened or endangered species, or other special status species from being permanently impaired or to prevent erosion or mass wasting.
  - e. Seeding or planting of shrubs, forbs, and grasses to facilitate the natural succession of vegetative communities that were largely composed of native species before the fire, but which would likely be subject to immediate and aggressive invasion of non-native invasive species after the fire.
  - f. Seeding or planting trees, only if such actions have been demonstrated to be cost-effective in meeting project objectives of stabilizing watersheds to prevent downstream damage on and off site.
  - g. Use chemical, biological, or mechanical treatments necessary to minimize the establishment or reestablishment of non-native invasive species within the burned area.
  - h. Monitoring and patrolling necessary for public safety and natural and cultural resource protection, if such activities cannot be accomplished within existing capabilities and by shifting priorities.
  - i. Covering, camouflaging, cleaning, burying, or reinforcing historic properties to prevent erosion, weathering, movement, and looting.
  - j. Assessments may be conducted to assess damage to documented historic properties or those discovered in the course of treating known properties.
5. ESR planning team activities are an integral part of wildland fire incidents. They are governed and supported by the same wildland fire incident

mobilization, resource availability, training, qualifications, and incident business management procedures as other aspects of the incident.

## **B. Rehabilitation**

1. Post-fire rehabilitation projects implement the types of long-term actions that have already been identified in approved land management plans. The purpose of rehabilitation is either to emulate historical or pre-fire ecosystem structure, function, diversity, and dynamics consistent with approved land management plans, or if that is infeasible, then to restore or establish a healthy, stable ecosystem in which native species are well represented. Rehabilitation actions must be related to damage or changes caused by a wildland fire and cannot include constructing facilities or implementing desired conditions that are unrelated to the wildland fire event. Rehabilitation cannot be funded for prescribed fire projects in which fire behavior was within prescription. Rehabilitation actions may be planned and funded only for projects that were declared wildland fires because fire behavior exceeded prescription. Rehabilitation may include actions to:
  - a. Repair or improve lands unlikely to recover naturally from wildland fire damage by emulating historical or pre-fire ecosystem structure, function, diversity, and dynamics consistent with existing land management plans.
  - b. Restore or establish a healthy, stable ecosystem even if this ecosystem cannot fully emulate historical or pre-fire conditions.
  - c. Tree planting is limited to:
    - (i) Facilitating the succession and stabilization of forest ecosystems.
    - (ii) Reestablishing habitat for federally-listed threatened or endangered species or other special status species.
    - (iii) Reintroducing or reestablishing native tree species and seed sources lost in stand replacement fire.
    - (iv) Regenerating Indian trust commercial timberland identified in an approved Forest Management Plan and that a certified silviculturalist has determined will not naturally regenerate for more than 10 years after the fire.
  - d. Repair or replace fire damage to minor operating facilities, e.g., campgrounds, interpretive signs and exhibits, shade shelters, grazing fences, wildlife guzzlers, etc. Rehabilitation may not include the planning or replacement of major infrastructure, such as visitor centers, residential structures, administration offices, work centers, and similar facilities.

Rehabilitation does not include the construction of new facilities that did not exist before the fire, except for temporary and minor facilities necessary to implement burned area emergency stabilization and rehabilitation efforts.

2. The rehabilitation section of the ESR Plan must contain:
  - a. A discussion demonstrating how the specifications are consistent and compatible with approved land use plans and how the proposed actions are related to damage or changes caused by the wildland fire.
  - b. Provisions for monitoring and evaluation of treatments and techniques and a procedure for collecting, archiving, and disseminating results.
  - c. Clear delineation of funding and responsibilities for implementation, operation, maintenance, monitoring, and evaluation throughout the entire life of the project, including ESR actions and follow-up actions beyond 3 years that may be necessary to ensure the effectiveness of initial investments.

#### Burned Area Emergency Stabilization and Rehabilitation Assistance.

The current Federal fire policy states that "...there will be no billing or reimbursement between bureaus of the DOI and the Department of Agriculture for personnel and other resources involved in burned area emergency stabilization and rehabilitation team deployment..." however, Reclamation receives its appropriations differently than the other DOI fire agencies and the U.S. Forest Service. Reclamation cannot access the project-specific cost codes established for incident responses, including BAER (burned area emergency response); therefore, Reclamation will receive reimbursement for Reclamation employees assisting other agencies on BAER assignments and pay assisting agencies for personnel time and supplies expended on Reclamation BAER projects.

## ***V. Community Protection/Community Assistance***

Currently, Reclamation is not involved in the planning or funding of any community assistance projects or programs and relies on CAL FIRE to assess the risks to Wildland Urban Interface communities in the area as well as providing them information on current fire management or prevention plans and hazard assessments.

A copy of this FMP will be available to the public by request.

## ***VI. Fire Management Components***

### **A. Fire Suppression**

#### **1. Stonyford FMU**

All wildland fires, regardless of ignition source, will receive prompt suppression action commensurate with human safety and need. Minimum impact suppression tactics will be used except when human life or property is in imminent danger.

Constrictions to suppression actions include non-use of heavy equipment in riparian areas and non-use of retardant in lake, riparian zones, or areas of sensitive habitat identified in the annual Operating Plan as no-drop zones, unless approved by the Resource Advisor on a case-by-case basis or unless human life or residential structures are in danger.

The landscape supports a complex pattern of open areas, marshes, grasslands, chamise chaparral, and oak woodlands. There is not a large accumulation of understory debris; however, this may increase in the future. The presence of highly combustible plants such as chamise, manzanita, and giant reed may result in a highly intensive and fast spreading wildfire, should one occur.

#### **Constraints for Stonyford FMU**

Vehicular access to the terrain north of East Park Dam and south of Diversion Flats camp area may be difficult as the main access road does not connect to these areas.

#### Procedures for Stonyford FMU:

- All fire-management-related activities will be based on safety of personnel and the public as the highest priority.
- Dozers and other heavy equipment are allowed with a Resource Advisor's permission when life, property, and/or historic properties are at risk.
- Low-level aircraft use, including application of retardant, will be employed for protection of life, property, or vulnerable cultural resources, or at the discretion of the IC after consultation with the Area Manager or Reclamation's Resource Advisor.
- All fire suppression personnel operating within the FMU will be briefed regarding known hazards, LCES (Lookouts, Communications, Escape routes, Safety zones), current and predicted weather, and current fire behavior by the IC.

- MIST will be employed to ensure protection of cultural sites and features. A map of "special areas of concern," if appropriate, will be made readily available in the respective agency resource offices for use of suppression resources.
- Mechanical hazard reduction will be applied to create defensible space and reduce potential intensities.

## 2. Middle Ridge FMU

All wildland fires, regardless of ignition source, will receive prompt suppression action commensurate with human safety and need. Minimum impact suppression tactics will be used except when human life or property is in imminent danger and then an aggressive approach will be taken.

Constrictions to suppression actions include the non-use of using heavy equipment in riparian areas unless approved by the Resource Advisor on a case-by-case basis.

Retardants should not be used February through June to protect the sensitive wildlife areas such as the bald eagle nest area on the east side of the unit and the marshes in the southeast portion of the unit that contains tricolored blackbird habitat. The entire unit is a breeding and birthing area for elk and deer. Care will be taken to protect the bald eagle nesting tree located on the eastern portion of the FMU near the reservoir.

The landscape supports a complex pattern of open areas, marshes to the east and west, grasslands, some chamise chaparral, and predominantly oak woodlands. There is a moderate amount of understory debris, especially near the southern end; however, this may increase in the future.

### **Constraints for Middle Ridge FMU**

Vehicular access to the terrain is only through a locked gate located on the southern portion of the FMU. Use of helitak and bucket drops is advisable in this area.

### Procedures for Middle Ridge FMU:

- All fire-management-related activities will be based on safety of personnel and the public as the highest priority.
- Dozers and other heavy equipment are allowed with a Resource Advisor's permission when life, property, and/or historic properties are at risk.
- Low-level aircraft use, including application of retardant, will be employed

for protection of life, property, or vulnerable cultural resources, or at the discretion of the IC after consultation with the Area Manager or Reclamation's Resource Advisor.

- All fire suppression personnel operating within the FMU will be briefed regarding known hazards, LCES, current and predicted weather, and current fire behavior by the IC.
- MIST will be employed to ensure protection of cultural sites and features. A map of "special areas of concern," if appropriate, will be made readily available in the respective agency resource offices for use of suppression resources.
- Mechanical hazard reduction will be applied to create defensible space and reduce potential intensities.

### **3. Lodoga FMU**

All wildland fires, regardless of ignition source, will receive prompt suppression action commensurate with human safety and need. Minimum impact suppression tactics will be used except when human life or property is in imminent danger and then an aggressive approach will be pursued.

Constrictions to suppression include the non-use of using heavy equipment in riparian areas and retardants in other sensitive areas unless approved by the Resource Advisor on a case-by-case basis.

The landscape supports a complex pattern of open areas, marshes to the north and south, grasslands, chamise chaparral, and oak woodlands. There is not a large accumulation of understory debris; however, this may increase in the future. The presence of highly combustible plants such as chamise, manzanita, giant reed, and tamarisk may result in a highly intensive and fast spreading wildfire, should one occur.

#### **Constraints for Lodoga FMU**

Access to the terrain north of Chisolm Cove is difficult as the main access road does not connect to this area. Use of helitak and bucket drops is advisable in the north end of the FMU.

#### **Procedures for Lodoga FMU:**

- All fire-management-related activities will be based on safety of personnel and the public as the highest priority.

- Dozers and other heavy equipment are allowed with a Resource Advisor's permission when life, property, and/or historic properties are at risk.
- Low-level aircraft use, including application of retardant, will be employed for protection of life, property, or vulnerable cultural resources, or at the discretion of the IC after consultation with the Area Manager or Reclamation's Resource Advisor.
- All fire suppression personnel operating within the FMU will be briefed regarding known hazards, LCES, current and predicted weather, and current fire behavior by the IC.
- MIST will be employed to ensure protection of cultural sites and features. A map of "special areas of concern," if appropriate, will be made readily available in the respective agency resource offices for use of suppression resources.
- Mechanical hazard reduction will be applied to create defensible space and reduce potential intensities.

**B. Prescribed Fire—any prescribed fires will be conducted following specific measures outlined in individual burn plans. See Section II.**

**1. Stonyford FMU**

Prescribed fires are not expected to occur in this FMU except for pile burning of invasive weed stalks that have been cut prior to herbicide application.

Procedures for Stonyford FMU:

- All fire-management-related activities will be based on safety of personnel and the public as the highest priority. Only trained and qualified personnel will participate in the actual fire treatment.
- Apply best available management measures when mitigating for smoke impacts from prescribed fire.
- Dozers and other heavy equipment are allowed with a Resource Advisor's permission when life, property, and/or historic properties are at risk.
- The Regional archeologist will be kept informed on non-fire project(s) where on-site mitigation may be required and for fires and prescribed burns.
- Low-level aircraft use, including application of retardant, will be employed for protection of life, property, or vulnerable cultural resources, or at the

discretion of the IC after consultation with the Area Manager or Reclamation's Resource Advisor.

- All fire suppression personnel operating within the FMU will be briefed regarding known hazards, LCES, current and predicted weather, and current fire behavior by the IC.
- MIST will be employed to ensure protection of cultural sites and features. A map of "special areas of concern," if appropriate, will be made readily available in the respective agency resource offices for use of suppression resources.
- Mechanical hazard reduction will be applied to create defensible space and reduce potential intensities.

## 2. Middle Ridge FMU

Prescribed fires may be conducted in the Little Stony Creek marsh on a 3-year rotational basis or as needed to reduce the cattail/bulrush population and to enhance the habitat for the tricolored blackbird. Pile burning of invasive weed stalks that have been cut prior to herbicide application may also occur as needed for control.

### **Constraints**

Prescribed fires will be contained so they do not affect the non-project riparian areas. No prescribed fires will occur during the bald eagle or tricolored blackbird nesting season. The desired time to burn would be December through February.

### Procedures for Middle Ridge FMU:

- All fire-management-related activities will be based on safety of personnel and the public as the highest priority. Only trained and qualified personnel will participate in the actual fire treatment.
- Apply best available management measures when mitigating for smoke impacts from prescribed fire.
- Dozers and other heavy equipment are allowed with a Resource Advisor's permission when life, property, and/or historic properties are at risk.
- The Regional archeologist will be kept informed on non-fire project(s) where on-site mitigation may be required and for fires and prescribed burns.

- Low-level aircraft use, including application of retardant, will be employed for protection of life, property, or vulnerable cultural resources, or at the discretion of the IC after consultation with the Area Manager or Reclamation's Resource Advisor.
- All fire suppression personnel operating within the FMU will be briefed regarding known hazards, LCES, current and predicted weather, and current fire behavior by the IC.
- MIST will be employed to ensure protection of cultural sites and features. A map of "special areas of concern," if appropriate, will be made readily available in the respective agency resource offices for use of suppression resources.
- Mechanical hazard reduction will be applied to create defensible space and reduce potential intensities.

### **3. Lodoga FMU**

Prescribed fires may be conducted in the Indian Creek/Squaw Creek marsh on a 3-year rotational basis or as needed to reduce the cattail/bulrush population and to enhance the habitat for the tricolored blackbird. Pile burning of invasive weed stalks that have been cut prior to herbicide application may also occur as needed for control.

#### **Constraints**

Prescribed fires will be contained so they do not affect the non-project riparian areas. No prescribed fires will occur during the bald eagle or tricolored blackbird nesting season. The desired time to burn would be December through February.

#### Procedures for Lodoga FMU:

- All fire-management-related activities will be based on safety of personnel and the public as the highest priority. Only trained and qualified personnel will participate in the actual fire treatment.
- Apply best available management measures when mitigating for smoke impacts from prescribed fire.
- Dozers and other heavy equipment are allowed with a Resource Advisor's permission when life, property, and/or historic properties are at risk.

- The Regional archeologist will be kept informed on non-fire project(s) where on-site mitigation may be required and for fires and prescribed burns.
- Low-level aircraft use, including application of retardant, will be employed for protection of life, property, or vulnerable cultural resources, or at the discretion of the IC after consultation with the Area Manager or Reclamation's Resource Advisor.
- All fire suppression personnel operating within the FMU will be briefed regarding known hazards, LCES, current and predicted weather, and current fire behavior by the IC.
- MIST will be employed to ensure protection of cultural sites and features. A map of "special areas of concern," if appropriate, will be made readily available in the respective agency resource offices for use of suppression resources.
- Mechanical hazard reduction will be applied to create defensible space and reduce potential intensities.

## **C. Non-Fire Fuels Treatments**

### **1. Stonyford FMU**

- Biological. Cattle grazing can occur in this FMU on approximately 125 acres from November 1 through April 15 according to an annual lease for grazing issued by Reclamation. Cattle have been used as a tool to reduce weed mass and fuel load.
- Mechanical/Chemical. Manual cutting of invasive weed species such as giant reed and tamarisk can occur. Giant reed should be cut during the growing season for herbicide application in the fall prior to its dormancy period. Tamarisk should be cut in the fall and immediately have a concentrated herbicide applied to the trunk, followed by follow-up spraying in the spring and as necessary. Weeds are sprayed on approximately 10 acres in the campground areas each spring.

### **2. Middle Ridge FMU**

- Biological. Cattle grazing can occur in this FMU on approximately 1,329 acres from November 1 through April 15 according to an annual lease for grazing issued by Reclamation. Cattle have been used as a tool to reduce weed mass and fuel load.

- Mechanical/Chemical. Manual cutting of invasive weed species such as giant reed and tamarisk can occur. Giant reed should be cut during the growing season for herbicide application by a certified applicator in the fall prior to its dormancy period. Tamarisk should be cut in the fall and immediately have a concentrated herbicide applied by a certified applicator to the trunk, followed by follow-up spraying in the spring and as necessary.

### **3. Lodoga FMU**

- Biological. Cattle grazing can occur in this FMU on approximately 531 acres from November 1 through April 15 according to an annual lease for grazing issued by Reclamation. Cattle have been used as a tool to reduce weed mass and fuel load.
- Mechanical/Chemical. Manual cutting of invasive weed species such as giant reed and tamarisk can occur. Giant reed should be cut during the growing season for herbicide application by a certified applicator in the fall prior to its dormancy period. Tamarisk should be cut in the fall and immediately have a concentrated herbicide applied by a certified applicator to the trunk, followed by follow-up spraying in the spring and as necessary. Weeds are sprayed on approximately 20 acres in the campground areas each spring.

## **D. Post Fire Rehabilitation**

Should habitat rehabilitation be necessary following a fire occurrence, appropriate erosion control/reseeding efforts will be pursued on the advice of the Resource Advisor, pending availability of funds.

A summary of the fire management components is summarized in Table 4.

**Table 4. Summary of Fire Management Components**

<b>Objectives for the East Park Reservoir Fire Management Units</b>		
<b>Stonyford FMU</b>	<b>Middle Ridge FMU</b>	<b>Lodoga FMU</b>
<p><b>@75 acres of wetland and riparian areas</b> <b>@294 acres of upland</b></p>	<p><b>@1,329 acres of upland</b></p>	<p><b>@75 acres of wetlands and riparian</b> <b>@695 acres of upland</b></p>
<p><b>1. Fire Suppression</b></p> <p>Suppression on all acres of any natural or human caused wildfires as quickly as possible by CAL FIRE, using Minimum Impact Suppression Tactics (MIST). No heavy equipment or use of retardant in lake or riparian areas unless life and property are threatened or approved on-site by a Resource Advisor.</p> <p><b>2. Prescribed Burns*</b></p> <p>Planned burns to rejuvenate and control Little Stony Creek marsh vegetation for the benefit of marsh species and to reduce the fuel load, control invasive weeds around the reservoir, and in the upland areas.</p> <p><b>3. Non-Fire Fuel Treatments</b></p> <p>a. <u>Biological Control</u> Annual cattle grazing</p> <p>b. <u>Mechanical/Chemical Treatment</u> Cut species such as giant reed and tamarisk. Treat with herbicides.</p> <p><b>4. Post-Fire Rehabilitation</b></p> <p>Emergency Stabilization and Rehabilitation Policy will be used as outlined in the DOI Department Manual 620 DM 3.</p>	<p><b>1. Fire Suppression</b></p> <p>Suppression on all acres of any natural or human caused wildfires as quickly as possible by CAL FIRE, using MIST. No retardants in sensitive areas unless approved on-site by a Resource Advisor.</p> <p><b>2. Prescribed Burns*</b></p> <p>Planned burns to reduce the fuel load and control invasive weeds.</p> <p><b>3. Non-Fire Fuel Treatments</b></p> <p>a. <u>Biological Control</u> Annual cattle grazing</p> <p>b. <u>Mechanical/Chemical Treatment</u> Cut species such as giant reed and tamarisk. Treat with herbicides.</p> <p><b>4. Post-fire Rehabilitation</b></p> <p>Emergency Stabilization and Rehabilitation Policy will be used as outlined in the DOI Department Manual 620 DM 3.</p>	<p><b>1. Fire Suppression</b></p> <p>Suppression on all acres of any natural or human caused wildfires as quickly as possible by CAL FIRE using MIST. No heavy equipment or use of retardant in lake or riparian areas or in sensitive areas unless life and property are threatened, or approved on-site by a Resource Advisor.</p> <p><b>2. Prescribed Burns*</b></p> <p>Planned burns to rejuvenate and control Indian Creek and Squaw Creek marshes to reduce the fuel load, control invasive weeds around the reservoir and in the upland areas.</p> <p><b>3. Non-Fire Fuel Treatments</b></p> <p>a. <u>Biological Control</u> Annual cattle grazing</p> <p>b. <u>Mechanical/Chemical Treatment</u> Cut species such as giant reed and tamarisk. Treat with herbicides.</p> <p><b>4. Post-Fire Rehabilitation</b></p> <p>Emergency Stabilization and Rehabilitation Policy will be used as outlined in the DOI Department Manual 620 DM 3.</p>

\* Any burns or mechanical treatment will be conducted at the time of year and in a manner as to not disturb bald eagle and tricolored blackbird nesting and deer and elk calving. Any burn treatments will take into account any special hunt that is occurring in the area.

## ***VII. Organization and Budget***

Due to appropriation differences from most other DOI agencies, Reclamation currently has no specific wildland fire or fuels budget. Fire suppression and prescribed fire or other fuels treatment activities are funded by the area offices' operating budgets.

Reclamation currently has one full-time fire management position in the Mid-Pacific Region. This is the Regional Wildland Fire Management Coordinator based in the Regional Office in Sacramento. Currently, no full-time fire management positions are staffed in the area offices. Collateral positions such as Fire Manager, Fire Coordinator, or Resource Advisor may be staffed as needed by qualified individuals at the area office level. CAL FIRE provides the wildland fire suppression organization by agreement with Reclamation.

## ***VIII. Monitoring and Evaluation***

The area office manager is responsible for ensuring that this FMP is being implemented as planned and whether fire-related goals and objectives are being achieved. The area office manager will assign staff responsible for monitoring and evaluating the FMP for periodic updates.

