

Prescribed Fire Plan

San Luis National Wildlife Refuge Complex San Luis NWR - Elk Pasture/Yellow Star Thistle Control

Approved By: _____ Date:
Refuge Manager

Prepared By: _____ Date:
Prescribed Fire Burn Boss

Reviewed By: _____ Date:
Fire Management Officer

Reviewed By: _____ Date:
Assistant Refuge Manager

Reviewed By: _____ Date:
Refuge Biologist

Reviewed By: _____ Date:
Prescribed Fire Specialist
(If not Burn Boss)

The approved Prescribed Fire Plan constitutes the authority to burn, pending approval of Section 7 Consultations, Environmental Assessments, or other required documents. No one has the authority to burn without an approved plan or in a manner not in compliance with the approved plan. Prescribed burning conditions established in the plan are firm limits. Actions taken in compliance with the approved Prescribed Fire Plan will be fully supported, but personnel will be held accountable for actions taken which are not in compliance with the approved plan.

Refuge: San Luis NWR **Name of Area:** Elk Pasture

Acres To Be Burned: Unit 1 B 35 acres; Unit 2 - 140 acres

Legal Description:

State: California **County:** Merced

Latitude: **Longitude:**

Township: T9S **Range:** R11E **Sections:** 6

Quad Map: USGS - Los Banos **Series:** 7.5" **Scale:** 1:24000

Is a Section 7 Consultation being forwarded to Fish and Wildlife Enhancement for review? **YES / NO** (Programmatic section 7 is in place for this activity, on file)

Prescribed Fire Burn Boss/Specialist participated in the development of this plan? **YES / NO**

I. GENERAL DESCRIPTION OF BURN UNIT

Physical Features and Vegetation Cover Types (Species, height, density, etc.):

Elevation: 85' to 90' **Slope:** 0-2% **Aspect:** Flat

Unit Description: Unit is flat upland field composed primarily of annual grasses and yellow star thistle (YST). Heavy to sandy soils. Flat topography with no aspect. Average standing vegetation is 1-3 feet. Riparian forest on the south side of unit.

Vegetation: See above

Primary Resource Goals of Unit:

Provide grazing forage/hiding cover for introduced elk.

Objectives of Fire and Acceptable Range of Results:

General Objectives:

- 1) Provide for Firefighter and Public Safety.
- 2) Minimize smoke impacts.

Resource Objectives:

- 1) Reduce or consume 1 hr fuels (grass and YST); 60 - 100%

II. PRE-BURN MONITORING

Vegetation Type	Acres	%	FBPS Fuel Model
<u>Grass / vernal pool</u>	<u>160</u>	<u>100%</u>	<u>Model 1</u>

Total 160 100%

Habitat Conditions: Alkali Meadows and vernal pools (transects not numbered)

Type of Transects: Transects and monitoring photo points established by Tim Keldson. Metal stakes temporarily fixed into ground/

III. PLANNING AND ACTIONS

Complexity Analysis Results: LOW (see attached complexity sheet)

Site Preparation:

Who: Field crew **Time:** 2 weeks prior to burn

What to be done: Disc fireline perimeter around elk enclosure.

Who: Field crew **Time:** 1-2 weeks prior to burn

What to be done: Mow standing YST to be burned, leaving unmowed lanes to separate units for blackline burning.

Who: Fire crew **Time:** 1-2 days prior to burn

What to be done: Blackline burn unit perimeter on south side and east side of Unit 2 to separate Units 1 and 2.

Who: Fire crew **Time:** 1-2 days prior to burn

What is to be done: Remove vegetation down to bare mineral soil around telephone poles in Unit 1.

Weather information required:

Instrument Location and Elevation (s): On site (wx kit)

Data Collected and Sampling Period: Temp, RH, Wind Speed and direction(mid flame). On site will be 1 day prior to burn.

Forecasts: Weather forecasts(general) will be recorded 2 - 3 days prior to burning. A spot weather forecast will be requested for the day of the burn or as needed. Forecast obtained from the local Fire Weather Unit:

San Joaquin Valley Fire Weather Office (FAT)
900 Foggy Bottom Road
Hanford CA 93230
VOICE: (559) 584-9505
FAX: (530)246-5287

Cindy Bean
Troy Lindquist

SAFETY CONSIDERATIONS:

General: Unit is flat and has no major hazards.

Public safety: The unit is along the Auto Tour Route. Signs to be posted along the route warning public of smoke and limited visibility.

Safety Zones and Escape Routes: All areas will be identified in the pre-fire briefing.

Special Safety Precautions Needing Attention: Gates need to be left partially opened for quick escape.

Medical Facility: Minor injuries will be handled at the scene. Major injuries - call 911 from cell phone (burn Boss). At least 1 First aid trained person will be on scene.

Adjacent Lands: Totally surrounded by Refuge property and encircled by Auto Tour Route.

Facilities: None

PROTECTION OF ENDANGERED, THREATENED, AND SENSITIVE FEATURES:

Endangered, Threatened, or Listed Species:

VEGETATION: None identified.

PROTECTION ACTIONS: n/a

ANIMAL: None identified.

PROTECTION ACTIONS: n/a

Sensitive or Species of Concern:

VEGETATION: Riparian Forest

PROTECTION ACTIONS: Prevent creeping fire from getting into down and decaying logs.

ANIMAL: Northwestern pond turtle (*Clemmys marmorata*).

PROTECTION ACTIONS: Same as above.

Archeological, Historical, or Cultural Areas: None identified.

PROTECTION ACTIONS:n/a

Media Contacts (Radio stations, newspaper, etc., list with telephone numbers):Burning is a common activity in the Los Banos area so no media contacts are needed. Burn information is available by request(in person or by phone)from the San Luis National Wildlife Refuge Complex Headquarters.

San Luis National Wildlife Refuge Complex
947 West Pacheco Blvd.
Los Banos Ca 93635
Hrs: Mon - Fri 8:00 am to 4:30 pm

(see Contact list)

Communication and Coordination on the Burn (Who will have radios, frequencies to be used, who will coordinate various activities.):

All crews will have at least 1 radio or be teamed with a person with a radio. Tactical channel NIFC 2 (168.200)will be used. Cell phone will be on site and with the Burn Boss.

IV. IGNITION, BURNING AND CONTROL

Prescribed Fire Organization: Type IV

Minimum staffing; Burn Boss, 2 lighters and ATV, 2 engine (min type 6 w/foam) w/2 for holding and lighting as needed; 1500 gallon CAFS water tender available on site

Ignition Technique:

Hand firing. Use of backing, flanking and as needed strip head firing. Use ATV torch as needed.

Prescription monitoring: Fire behavior, weather, smoke, and effects will be monitored during the burn. Duration will be a min of every 1 hour or sooner if needed or conditions start to change.

Burn Prescription

Scheduling: Spring 2000 (no later than July 1)

Duration: 1-2 days

Acceptable Range

FBPS Fuel Model <u>3</u>	MIN	MAX	OPT
Temperature (degrees F)	35	85	45-70
Relative Humidity (%)	25	60	30-45
20' Wind Speed (mph)	5	30	8-15
MF Wind Speed (mph)	4	12	6-9
Gusts	10	25	
Cloud Cover (%)	0	100	0-20
ENVIRONMENTAL CONDITIONS			
1 hr. Fuel Moisture	5	17	7-12
10 hr. FM	4	20	
100 hr. FM	N/A		
Woody Live Fuel Moisture	N/A		
Herb. Live Fuel Moisture	N/A		
FIRE BEHAVIOR			
Rate of Spread (mph):			
Head fire	0.8	5.0	
Backing fire	0.1	0.9	
Flame Length(feet)			
Head fire	7.3	25.0	
Backing fire	0.5	10.0	

Cumulative effects of weather and drought on fire behavior: None

upland / vernal pool) - Burn Prescription

Scheduling: early spring 2000 (June 1-July 1)

Duration: 1-2 days

Acceptable Range

FBPS Fuel Model_1	MIN	MAX	OPT
Temperature (degrees F)	35	95	45-85
Relative Humidity (%)	18	60	25-45
20' Wind Speed (mph)	2	25	
MF Wind Speed (mph) Gusts	0 10	8 15	2-6
Cloud Cover (%)	0	100	0-20
ENVIRONMENTAL CONDITIONS			
1 hr. Fuel Moisture	3	10	4-8
10 hr. FM	4	12	6-10
100 hr. FM	N/A		
Woody Live Fuel Moisture	N/A		
Herb. Live Fuel Moisture	N/A		
FIRE BEHAVIOR			
Rate of Spread (mph): Head fire Backing fire	0.5 0.1	5.0 0.5	
Flame Length(feet) Head fire	1.0	10.0	

Backing fire	0.5	2.0	
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Cumulative effects of weather and drought on fire behavior: None

V. SMOKE MANAGEMENT

Smoke Management Plan is attached.

Permits required: San Joaquin Valley Unified Air Pollution Control District B Permit Number 4479RN
(yearly fee - paid for 2000)

Burn will be conducted on a declared Aburn day@. A call will be placed at 08:30 am the day of the burn to the Air Quality District for Burn Day status and to register the acres for the day.

Total Particulate Emissions Estimate(Tons/# of acres): FOFEM

upland grass -
PM 10: 2.5 t/160 ac
PM 2.5: 2 t/160 ac
Total 9 t/160 ac

Distance and Direction from Smoke Sensitive Area(s):

Auto Tour Route B 600 yards
Highway 165 - 5 miles W
County Rd - 2 miles S
Norman Rd. - 2 miles S
City of Los Banos - 8 miles SE
Los Banoss Airport - 10 miles SE

Visibility Hazard(s) (Roads, airports, etc.): Roads listed above may incur some smoke impacts. Minor to no impacts on area airports.

Actions to Reduce Visibility Hazard(s): Monitor smoke and place signs as needed. Advise visiting public of smoke hazards and visibility.

Residual Smoke Problems: 100% mop-up of the unit after ignition and burn down is completed. No more than 24 hours for any smoke in unit.

VI. FUNDING

Activity Code: 11650-9263-XXXX

Est Costs:

\$2000

VII. BURN-DAY ACTIVITIES

Public/Media Contacts on Burn Day: (List with telephone numbers):

Crew & Equipment Assignments: (See attached ICS 214 and briefing organization)

Crew Briefing Points: Area / unit overview, burn objectives, safety including escape and safety zones, weather, fire behavior, crew assignments, communication, and contingency actions and responsibilities.

Firing Procedures:

ground ignition: 2 ignition crew, 4 drip torches, 20 gal torch mix, ATV with torch (full), veri pistol w/ rounds.

Go-No-Go Checklist:(see Attached)

Holding Actions:

2 engine w/2 (min type 6), Hold the blackline as needed. Follow burning and assist as needed.

Critical Control Problems: None

Water Refill Points: Deadman Slough with Mark 3 pump as needed. 1500 gallon water tender standing by. Refill at shop if needed. Pumps will be available to allow for a refill.

Contingency Plan:

In the event of an escape or conditions become unfavorable(smoke, weather, fire behavior, and/or objectives not being achieved)the Burn Boss will declare the fire out of prescription or escaped (which ever is the situation) and will assume IC of the fire (until relieved by a higher rated IC). All new burning will stop unless needed to contain the RX or escaped fire. The holding crew will begin attacking the escape and the ignition crew will hold and work the RX fire until the RX fire is contained or is deemed as no threat.

If the fire exceeds the capability of the crews on hand a call will be placed for assistance from local resources through the Sierrea National Forest Dispatch. The contingency plan activation and responsibilities will be discussed in the pre burn briefing. A list of the available resources is posted with the Sierra NF Dispatch which will be the ordering point for the incident. If the fire lasts more than 12 hours a Wildland Fire Situation Analysis(WFSA) will be completed for the fire.

Mop Up and Patrol: Mop-up will be 100% due to the fuel load. Smoldering heavy fuels will be extinguished. The area will be patrolled by at least 1 crew through the evening and the following days as needed.

VIII. CRITIQUE OF BURN

Were burn objectives within acceptable range of results? (Refer to Section I):

What would be done differently to obtain results or get better results?

Was there any deviation from plan? If so, why?

Problems and general comments:

IX. POST-BURN MONITORING

Date: _____ Refuge Burn Number:

Length of Time after Burn:

Vegetative Transects:

Comments on Habitat Conditions, etc.:

Photo Documentation:

X. FOLLOW-UP EVALUATION

Date: _____ Refuge Burn Number:

Length of Time after Burn:

Vegetative Transects:

Comments on Habitat Conditions, etc.:

Photo Documentation:

GO-NO-GO CHECKLIST

Elk Pasture Unit 1
Unit

- Is burn plan complete and approved?
- Are all fire prescriptions specifications met?
- Are all smoke management prescriptions met?
- Is the current and projected fire weather forecast favorable?
- Have all air quality considerations and smoke requirements been met?
- Are all personnel required in the prescribed burn plan on-site?
- Have all personnel been briefed on the prescribed burn plan requirements?
- Have all personnel been briefed on safety hazards, escape routes, and safety zones?
- Is all of the required equipment in place and in working order?
- Are available (including back-up) resources adequate for containment of escapes under the worse-case conditions?
- Are answers to all of the above questions "YES"?
- In your opinion, can the burn be carried out according to the plan and will the burn meet planned objectives?
- Is there an adequate contingency plan developed and proofed?

I have read and concur with the conditions indicated in the approved burn plan for this unit, and all of the above questions have been answered "YES."

Burn Boss

Date

GO-NO-GO CHECKLIST

Elk Pasture - Unit 2 Unit

- ___ Is burn plan complete and approved?
- ___ Are all fire prescriptions specifications met?
- ___ Are all smoke management prescriptions met?
- ___ Is the current and projected fire weather forecast favorable?
- ___ Have all air quality considerations and smoke requirements been met?
- ___ Are all personnel required in the prescribed burn plan on-site?
- ___ Have all personnel been briefed on the prescribed burn plan requirements?
- ___ Have all personnel been briefed on safety hazards, escape routes, and safety zones?
- ___ Is all of the required equipment in place and in working order?
- ___ Are available (including back-up) resources adequate for containment of escapes under the worse-case conditions?
- ___ Are answers to all of the above questions "YES"?
- ___ In your opinion, can the burn be carried out according to the plan and will the burn meet planned objectives?
- ___ Is there an adequate contingency plan developed and proofed?

I have read and concur with the conditions indicated in the approved burn plan for this unit, and all of the above questions have been answered "YES."

Burn Boss

Date