

# **WILDCAT CANYON WC005 - ALVARADO FUELS MANAGEMENT PRESCRIPTION**

## **SITE DESCRIPTION AND LOCATION:**

This 44 acre site is primarily eucalyptus on steep slopes near homes, and picnic areas and trails within Wildcat Canyon Regional Park. Other vegetation mixed with the eucalyptus includes planted redwoods, Monterey pine, and acacia on the uplands, and oaks and bays on the lower sites and along Wildcat Creek. Initial treatment brush removal and eucalyptus thinning occurred in 2006. Annual maintenance includes goat grazing and reduction of French broom through repeated pulling/piling/burning efforts.

## **VEGETATION MANAGEMENT GOALS:**

Thinned eucalyptus stand with increased proportion of native grasses, establish patches of north coastal scrub that have no overstory.

## **FUELS MANAGEMENT OBJECTIVES:**

1 - Reduce fuel volume and the intensity of wildland fires in the area above the homes and other structures, and along heavily-used trails.

2 - Thin the eucalyptus stands to reduce the potential for crown fires and ember dissemination, leaving a shaded fuel break.

3 - Continue to maintain previously treated areas to minimize regrowth of eucalyptus, brush, and exotics, using hand labor, herbicides, and grazing.

## **RESOURCE OBJECTIVES AND CONSIDERATIONS:**

- Conduct all initial work during the period from July 31<sup>st</sup> to Jan. 31<sup>st</sup> to avoid disturbance to nesting raptors and song birds, as recommended by the District's biologist. If work will occur during nesting season, Stewardship will conduct a pre-work nesting survey within 15-days of work beginning and flag any buffer sites around identified nests.
- Conduct surveys and treatment activities in a manner that will minimize potential adverse effects to Alameda whipsnakes. At rocky outcrops, or within grasslands, work may occur between Oct. 31<sup>st</sup> and April 1<sup>st</sup>. If work occurs outside this window, a biological monitor must be present for all activities on site.
- Conduct surveys and treatment activities in oak and bay habitat to identify and avoid dusky-footed woodrat nests. Any nest will have a buffer zone described by the current protocol developed by Stewardship.
- Install erosion control measures if needed in areas where duff has been removed.
- Stream buffer considerations for areas marked in blue on the map (buffer is 50 feet on each side of stream course):
  - No raking of duff in stream buffer zones.
  - Hand removal of downed woody debris in buffer zones may be conducted if material is not embedded in the ground and does not over hang the stream. No embedded material can be removed.

- No downed woody debris can be removed or limbed up if it overhangs the active channel. Removing downed material over a stream will require permits.
- Trees within the buffer zones can be limbed up, although no limbing up of trees adjacent (i.e. limbs overhanging channel, tree roots part of bank structure) to the stream channel can occur without acquiring permits.
- No trees adjacent to stream channels (i.e. limbs overhanging channel, tree roots part of bank structure) shall be removed without permits.
- Trees within the buffer zones can be cut but will need to be approved by Stewardship prior to removal.
- If ground disturbance occurs in the buffer zones during fuel reduction activity, erosion control BMPs will need to be applied.
- Eucalyptus thinning in small grove uphill from the creek buffer area on the westernmost portion of site shall occur between April and October to avoid the rainy season.
- Trees targeted for removal that are close to or inside the Wildcat Creek buffer area will be felled away from the creek.

## **FUELS TREATMENT PRESCRIPTION:**

### Initial Treatment

Within the eucalyptus, redwood, pine, and acacia groves, surface fuels and ladder fuels up to approximately 8 feet from the forest floor will be removed, chipped onsite to a depth not to exceed 3 inches, or piled and burned. Work includes pruning low hanging branches (eucs, pine, acacia, redwood, bays, and oaks), cutting brush, raking up accumulated dead and down materials, and reducing jackpots of dead fuel. All eucalyptus trees up to 12" dbh will be removed, including sprouts and seedlings that contribute to ladder fuels and lead to extension of the current stand into adjacent grassland or brush areas. Understory pine and acacia will also be removed. Stumps will be cut horizontally as close as possible to ground level. Mastication or other mechanical treatments may be used on slopes less than 30%; hand labor techniques can be used everywhere. Per the District's Integrated Pest Management pest control recommendation, eucalyptus and acacia stumps will be treated with herbicides by a certified applicator within one hour of cutting to prevent re-sprouting.

The small eucalyptus grove uphill from the creek buffer area on the westernmost portion of site as marked on the map is located within the Casino Ave. path property owned by the City of Richmond. If the responsibility for managing this property in the future is required of the District, fuels treatment will be consistent with this prescription.

Eucalyptus trees within the steep 2 acre "Restoration Area" (as shown on the map) do not pose an immediate fire hazard, but may create a falling hazard to the visitor parking area below the slope in the future as the trees mature and grow taller. A Stewardship and Operations Department joint eucalyptus removal/shrub planting project on this portion of the site would be effective in minimizing soil disturbance and erosion. Currently, the understory and surface/ladder fuels under this eucalyptus grove are treated annually with hand crews as part of the existing fuel break and will continue to be maintained.

### Maintenance

Removal of French broom by hand pulling will continue throughout the entire site. Goats will continue to graze annually in grassland areas until a sufficient amount of vegetation is removed to significantly reduce the threat of fires. Herbicides will also be used to help control French broom and poison oak.

Periodic (every 3 to 5 years) broadcast and pile prescribed burning will be applied to help reduce eucalyptus litter buildup and poison oak and French broom populations, as long as fire behavior and timing are managed to prevent weed species seed germination. Smoke will be managed to minimize impacts to the nearby homes.

Hazard Trees

Though not necessarily posing a significant fuels management problem, hazardous pines and eucalyptus trees along trails, near homes, developed park areas, or overhanging Wildcat Creek should be assessed by park staff and treated appropriately.

Follow-up/Maintenance (Note: if initial treatment is spread over more than one year, adjust the maintenance schedule as needed to accommodate)

YEAR	FUELS TREATMENT
01	Initial Treatment.
02-03	Remove eucalyptus seedlings and treat eucalyptus resprouts with herbicide. Control grass and weed invasion in critical areas using a combination of mowing, weedeating, grazing, and herbicides.
04	Use applied fire to reduce eucalyptus litter buildup and poison oak and French broom populations. Control grass, brush, and weed invasion in critical areas using a combination of mowing, weedeating, grazing, hand labor, and herbicides.
05-07	Control grass, brush, and weed invasion in critical areas using a combination of mowing, weedeating, grazing, hand labor, and herbicides.
08	Use applied fire to reduce eucalyptus litter buildup and poison oak and French broom populations. Control grass, brush, and weed invasion in critical areas using a combination of mowing, weedeating, grazing, hand labor, and herbicides.
09-11	Control grass, brush, and weed invasion in critical areas using a combination of mowing, weedeating, grazing, hand labor, and herbicides.
12	Use applied fire to reduce eucalyptus litter buildup and poison oak and French broom populations. Control grass, brush, and weed invasion in critical areas using a combination of mowing, weedeating, grazing, hand labor, and herbicides.
13-15	Control grass, brush, and weed invasion in critical areas using a combination of mowing, weedeating, grazing, hand labor, and herbicides.
16	Use applied fire to reduce eucalyptus litter buildup and poison oak and French broom populations. Control grass, brush, and weed invasion in critical areas using a combination of mowing, weedeating, grazing, hand labor, and herbicides.
17-19	Control grass, brush, and weed invasion in critical areas using a combination of mowing, weedeating, grazing, hand labor, and herbicides.
20	Use applied fire to reduce eucalyptus litter buildup and poison oak and French broom populations. Control grass, brush, and weed invasion in critical areas using a combination of mowing, weedeating, grazing, hand labor, and herbicides.
21-23	Control grass, brush, and weed invasion in critical areas using a combination of mowing, weedeating, grazing, hand labor, and herbicides.
24	Use applied fire to reduce eucalyptus litter buildup and poison oak and French broom populations. Control grass, brush, and weed invasion in critical areas using a combination of mowing, weedeating, grazing, hand labor, and herbicides.
25-27	Control grass, brush, and weed invasion in critical areas using a combination of mowing, weedeating, grazing, hand labor, and herbicides.

**MONITORING:**

Staff from the District's Fire Department, Planning/Stewardship, and Operations will evaluate the success and efficacy of the initial and follow-up fuels treatments. Monitoring results will be documented.

**PRESCRIPTION PREPARED BY:**

Brad Gallop  
Fire Captain, EBRPD

[Signature]  
Signature

8/21/12  
Date

**REVIEW AND APPROVAL:**

This prescription meets the District's standards for fuels management, natural resource protection and achievement of Best Management Practices according to the Wildfire Hazard Reduction and Resource Management Plan and is consistent with the mitigation measures contained in the EIR:

JOHN R. SWANSON  
Fire Chief, EBRPD

[Signature]  
08.21.2012

[Signature]  
Signature

08.23.2012  
Date

NEAL FULTA  
Stewardship Manager, EBRPD

[Signature]  
Signature

8/23/12  
Date

