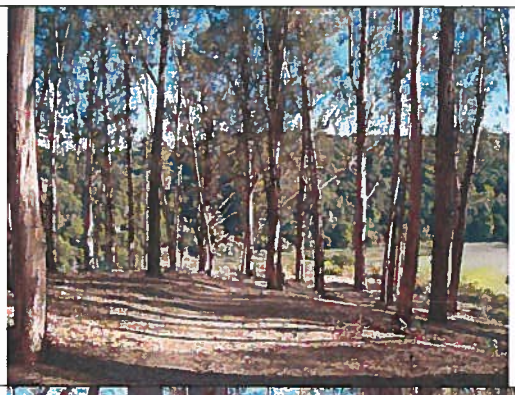
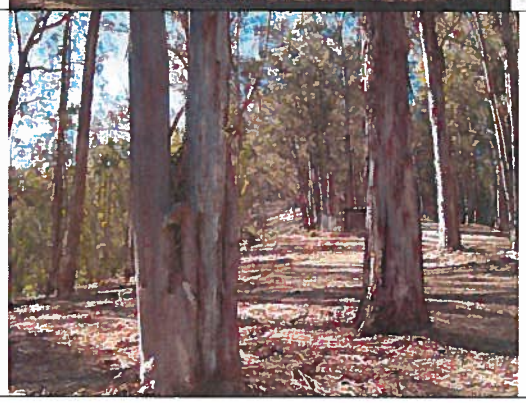
TILDEN TI004 – ALONG WILDCAT CANYON ROAD FUELS MANAGEMENT PRESCRIPTION

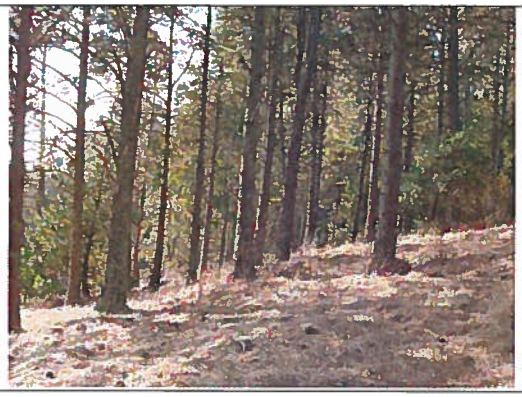
SITE DESCRIPTION AND LOCATION:

This 49 acre RTA (Recommended Treatment Area) within Tilden Park is primarily eucalyptus mixed with bays, oaks, coyote brush, and conifers along Wildcat Canyon Road from the Botanic Garden boundary to Inspiration Point, including several picnic areas and trail heads in the park. The north-facing slope where Seaview Trail descends to meet Wildcat Canyon Road is also included. Because of the diversity of vegetation, site conditions, and fuels management concerns, the RTA is subdivided into 11 subunits with corresponding site-specific treatment prescriptions. The attached map shows the subunit boundaries.

VEGETATION MANAGEMENT GOAL:

Thinned eucalyptus (from the Wildfire Hazard Reduction and Resource Management Plan). Eucalyptus in nearly dense stands or mixed with oak/bay will be managed to increase the spacing between residual eucalyptus and to significantly reduce the accumulations of forest litter, stringy bark, and other surface and ladder fuels. In relatively open stands of eucalyptus or conifers with a mix of grassland and brush, the management goal is to thin the eucalyptus/conifers, and expand and promote the more desirable grassland fuel type as the primary cover and carrier of wildland fires.

Existing Site Description	Current Condition	Desired Condition
Dense Eucalyptus Stand		
Heavy accumulations of bark		

Pine stand		

FUELS MANAGEMENT OBJECTIVES:

1 - Reduce fuel volume and the intensity of wildland fires in the area along Wildcat Canyon Road.

2 - Thin the eucalyptus and conifer stands to reduce surface and ladder fuels and the potential for crown fires and ember dissemination.

FUELS TREATMENT PRESCRIPTION:

Common prescription elements for all subunits:

Initial Treatment:

- Thin eucalyptus and conifer stands and reduce surface and ladder fuels. When removing eucalyptus, multi-stemmed trees should either be completely removed or left completely uncut. If the majority of stems in any multi-stemmed eucalyptus meet the criteria for removal as described for each subunit, remove all of the stems. Otherwise leave all stems uncut. (Note that if some stems from a multi-stemmed tree are cut and herbicide is applied to the stumps, the remaining standing stems may die, creating a hazard).
- Remove low hanging eucalyptus limbs where they are considered significant ladder fuels.
- Reduce heavy accumulations of stringy eucalyptus bark strips that have collected near the base of trees or are hanging down to ground level.
- Remove surface fuels such as down logs and limbs. Reduce ladder fuels by removing brush, understory oaks, bays, and eucalyptus, and pruning up low hanging limbs of all trees. Low hanging limbs should be limbed up higher on steeper slopes.
- Mastication or other mechanical treatments may be used to treat surface fuels and brush on slopes less than 30%; hand labor techniques can be used everywhere.
- Per the District's Integrated Pest Management pest control recommendation, eucalyptus stumps will be cut flush and treated with herbicides by a certified applicator within one hour of cutting to prevent re-sprouting.
- All material will be removed, chipped or masticated onsite to a depth not to exceed an average of 3 inches over the entire site. The maximum allowable chip depth in any given location shall not exceed 6". Material may also be piled and burned.
- Fuels work near District trails and picnic sites will be coordinated with park staff.
- Periodic 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 and unacceptable smoke impacts

along Wildcat Canyon Road. Fire intensity will be managed to reduce the potential for sprouting from live eucalyptus.

- Though not necessarily posing a significant fuels management problem, hazardous trees, including pines and eucalyptus, along Wildcat Canyon Road, District trails, and developed park areas should be assessed by park staff and treated appropriately through the District's hazardous tree program. Cut material shall be handled consistently with the disposal methods outlined above.

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.
02-11	For any stumps where herbicide was applied in the previous two years, follow-up with stump sprout herbicide treatment. Continue ladder and surface fuel reduction as needed using the *Common Prescription Elements*.
12	Conduct second eucalyptus stand thinning in sub-units 1, 6, and 7. For any stumps where herbicide was applied in the previous two years, follow-up with stump sprout herbicide treatment. Continue ladder and surface fuel reduction as needed using the *Common Prescription Elements*.
13-30	For any stumps where herbicide was applied in the previous two years, follow-up with stump sprout herbicide treatment. Continue ladder and surface fuel reduction as needed using the *Common Prescription Elements*.

Subunit Descriptions and Prescriptions:

Sub-unit	Site location	Acres	Existing Fuels Description	Initial Fuels Treatment
1	Steep slopes below (west of) Wildcat Canyon Road.	5 acres	• Large single and multi-stemmed eucalyptus trees spaced 10 to 20 feet apart, mixed with widely spaced mature oak and bay. • Occasional pine and redwood trees.	• Increase spacing between eucalyptus trees to approximately 25 feet by removing the understory, suppressed, and intermediate trees (low thinning) where crowns create a ladder fuel effect into the dominant and overstory trees. (In year 12, increase spacing between eucalyptus trees to approx. 35 feet within 100 feet of Wildcat Canyon Road.) • Remove eucalyptus and pine that have oak and bay ladder fuels below or within their canopies. • Refer to the stream buffer considerations in the Resource Objectives section. • Apply all *Common Prescription Elements*.
2	Just north of Subunit 1. Power lines run along the	1 acre	• Approximately 10 very large eucalyptus trees (> 24 inch dbh) and associated	• Remove all eucalyptus under 16 inch dbh. • Remove the entire grove of pines.

	eastern boundary.		regeneration within the drip lines. • A few scattered medium size eucalyptus. • One small grove of pines, small oaks/bays. • Occasional large jackpots of downed fuel.	• Refer to the stream buffer considerations in the Resource Objectives section. • Apply all *Common Prescription Elements*.
3	Just south of the Equestrian Camp entrance off Wildcat Canyon Road. Power lines run along the eastern boundary.	1 acre	• Primarily pine trees spaced 5 to 20 feet apart and ranging from 6 inch to 20 inch dbh. • Understory mostly grassland with some small scattered oak, bay, and eucalyptus.	• Thin out the pine stand to create an approximate spacing of 15 to 20 feet between residual trees, retaining the healthier larger trees and targeting for removal any diseased trees (sanitation cut) or those adjacent to healthy oaks and bays. • Remove all eucalyptus. • Refer to the stream buffer considerations in the Resource Objectives section. • Apply all *Common Prescription Elements*.
4	Flat terrain just south of Mineral Springs Picnic Area.	2 acres	• Primarily eucalyptus trees ranging from very small diameter (1 inch dbh) to large diameter (36 inch +).	• Remove all eucalyptus up to 16 inch dbh, leaving large trees for a shaded fuel break. • Apply all *Common Prescription Elements*.
5	Just north of the Equestrian Camp entrance off Wildcat Canyon Road. Power lines run along the eastern boundary and cut through the site towards the north end.	3 acres	• Dense single stem eucalyptus trees ranging from 1 inch dbh up to 72 inch dbh. • A few scattered small diameter pines and bays. • Willows and blackberry growing in the drainage along the north boundary.	• Remove all eucalyptus under 12 inch dbh. • Remove all pines. • Refer to the stream buffer considerations in the Resource Objectives section. • Apply all *Common Prescription Elements*.
6	South of Lakeview Picnic Area and north of Mineral Springs Picnic Area. Power line cuts through the center.	5 acres	• Mostly very large single stem eucalyptus (24 inch to 60 inch dbh) spaced 10 to 20 feet apart. • Occasional intermediate eucalyptus trees up to 16 inch dbh. • Very little eucalyptus regeneration. • Mature and understory bays are common. • Patches of blackberry, coyote brush, and poison oak occur in the sunnier	• Remove all eucalyptus under 16 inch dbh not to exceed a residual spacing of 15 feet. (In year 12, increase spacing between eucalyptus trees to approx. 35 feet within 100 feet of Wildcat Canyon Road.) • Refer to the stream buffer considerations in the Resource Objectives section. • Apply all *Common Prescription Elements*.

			openings.	
7	Primarily north facing on steep slopes below Wildcat Canyon Road, between Lake View Picnic Area and where Seaview Trail crosses the road.	6 acres	• Moderately dense single and multi-stemmed eucalyptus spaced from 5 to 30 feet apart, intermixed with large bay trees, occasional oak seedlings, and blackberry brambles. • Considerable amounts of accumulated surface fuels, stringy bark, and ladder fuels throughout the site.	• Remove all eucalyptus under 10 inch dbh not to exceed a residual spacing of 15 feet. (In year 12, increase spacing between eucalyptus trees to approx. 35 feet within 100 feet of Wildcat Canyon Road.) • Highest priority for fuels treatment within this site should be the areas closest to Wildcat Canyon Road and the fire trails. • Apply all *Common Prescription Elements*.
8	Facing north and gently sloping down from Wildcat Canyon Road from Inspiration Point to where Seaview Trail crosses the road.	7 acres	• Moderately dense, primarily single stemmed eucalyptus ranging up to 36 inch dbh. • French broom, coyote brush, pine seedlings. • Several large pockets of down large pine branches.	• Remove all eucalyptus under 10 inch dbh. • Apply all *Common Prescription Elements*.
9	Very steep north facing slope above Wildcat Canyon Road from Inspiration Point to Lake View Picnic Area.	11 acres	• Mature oak/bay woodland intermixed with widely spaced large single stemmed eucalyptus. • Large accumulations of dead fuel create ladder fuels into the bay trees.	• Focus on removing surface and ladder fuels under the bays, but with minimal soil disturbance. • Parts of the bank directly above the road have eroded and further vegetation removal there should be minimal. • Apply all *Common Prescription Elements*, with necessary precautions for the steep slopes.
10	Exposed site northeast of Quarry Picnic Area.	4 acres	• Widely-spaced very large eucalyptus trees. • Dense thickets of smaller diameter eucalyptus regeneration. • Pines, redwoods, and French broom occupy the western-most edge bordering the picnic area. • Minimal native oaks and bays. • Moderate amounts of surface fuels.	• Remove all eucalyptus under 16 inch dbh not to exceed a residual spacing of 15 feet. • Remove French broom and low hanging pine and redwood limbs along west edge and trails. • Apply all *Common Prescription Elements*.
11	Highest elevations of the entire RTA along Seaview Trail on relatively flat slopes.	4 acres	• Pine, grassland, and coyote brush.	• Limb up low hanging pines along Seaview Trail. • Apply all *Common Prescription Elements*.

RESOURCE OBJECTIVES AND CONSIDERATIONS:

- Conduct all initial work during the period from July 31st to Jan. 31st 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. 31st and April 1st. 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 35 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.

MONITORING:

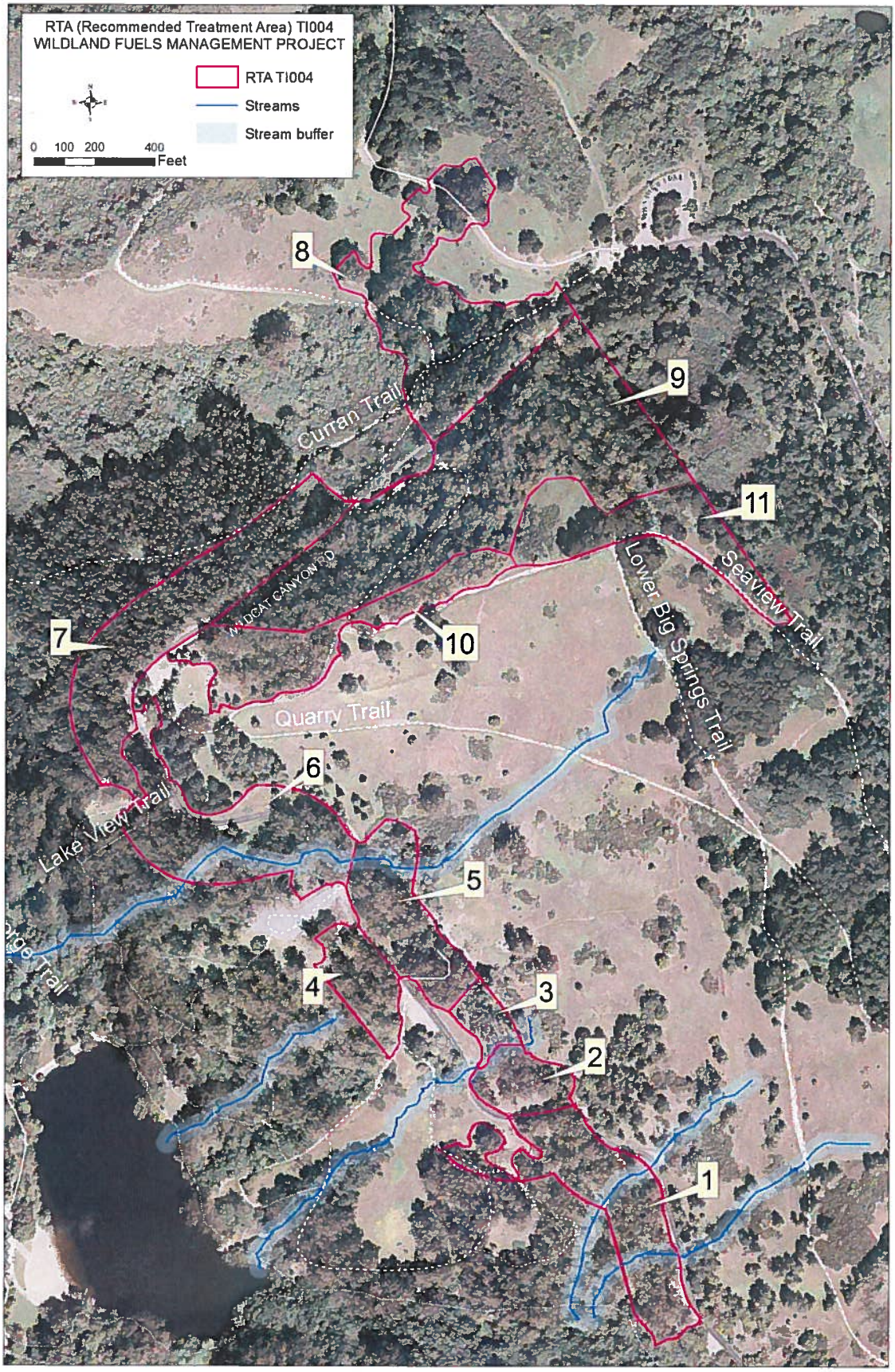
Staff from the District's Fire Department, Planning/Stewardship, and Operations will evaluate the success and efficacy of the initial and follow-up fuels treatments. Monitoring results will be documented.

PRESCRIPTION PREPARED BY:

Brad Gallup		1/27/13
Fire Captain, EBRPD	Signature	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:

Brad Gallup, Acting Ass. Chief BKG Acting Ass. Chief		1/31/13
Fire Chief, EBRPD	Signature	Date
MATTHEW GRAUL	Matthew Graul	1/31/13
Stewardship Manager, EBRPD acting Chief of Stewardship	Signature	Date


RTA (Recommended Treatment Area) TI004
WILDLAND FUELS MANAGEMENT PROJECT
RTA TI004
Streams
Stream buffer
0 100 200 400
Feet
8
9
11
7
10
6
5
4
3
2
1
Curran Trail
Wildcat Canyon Rd
Lower Big Springs Trail
Seaview Trail
Quarry Trail
Lake View Trail