III. WILDFIRE HAZARD ASSESSMENT AND PRELIMINARY RECOMMENDATIONS

This chapter provides location-specific information and recommendations for preliminary vegetation treatment goals and guidelines to be used by EBRPD staff when selecting and implementing fuel reduction treatment actions and best management practices (BMPs) for reducing wildfire hazards while protecting environmental resources in the Study Area. Preliminary vegetation management goals and proposed treatment methods and considerations are identified in this chapter for specific recommended treatment areas that are located within each Study Area park. These recommended treatment areas have been identified as a result of a wildfire hazard assessment process that was conducted by the consultant team and EBRPD staff as part of the preparation of this Plan. A summary of the wildfire hazard assessment that determined and confirmed wildfire hazard levels for all park lands within the Study Area is also provided in this chapter.

The information and preliminary recommendations provided in this chapter are intended to serve as a foundation to support the District as it prioritizes, identifies, and plans for the specific fuel reduction actions to be undertaken to implement this Plan, per the implementation program described in Chapter VI, Plan Implementation and Cost Considerations. To assist the District in this effort, the summary data provided in the following text, tables and figures represent the most current available information and mapping regarding known conditions (e.g., previously treated areas, vegetation types, cultural resources, steep slopes, etc.) within the Study Area.

Additionally, another important tool provided in this chapter is a recommended treatment areas summary table that identifies for each recommended treatment area mapped in the GIS Plan database: the proposed treatment, the presence of habitat and known occurrences of special-status species, the presence of water features (e.g., creeks and lakes), slope conditions, presence of known cultural resources, existing vegetation types, fuel management goals, and treatment considerations. This information will assist the District in selecting and prioritizing the ultimate treatment actions that will be included in annual Fuels Treatment Plans and in identifying and mitigating potential adverse environmental effects. It is important to note that the tables, figures, and information presented in this chapter represent a starting point, and that ongoing and future treatment actions and other information learned since and as a result of the preparation of this Plan will be included in updated figures and tables as part of the District's GIS database for the Plan.

Information within this section is based on available information including the EBRPD GIS database as augmented by information provided by the consultants as part of this planning process, the wildfire hazard assessment, site reconnaissance visits conducted by the consultant team from 2005 through 2008, staff reports, meetings with EBRPD staff, published reports, and the professional knowledge of the consultant team and the EBRPD Fire, Stewardship and Operations staff. Appendix C[1] includes the Wildfire Hazard Assessment report that provides detailed information concerning the methods used to assess wildfire hazards, a description of identified wildfire hazards within the Study Area, and the process used to determine the recommended treatment areas discussed throughout the Plan and upon which fuel reduction treatment actions are focused.

A. WILDFIRE HAZARD ASSESSMENT SUMMARY

A resource inventory and wildfire hazard assessment (WHA) was conducted to identify wildfire hazards existing in the 17 Study Area parks and to serve as the basis for delineating treatment areas and the recommended fuel reduction and vegetation management goals. As part of the wildfire hazard assessment process, EBRPD and its consultant team inventoried and mapped baseline conditions based primarily on the EBRPD GIS database and on site reconnaissance visits that were focused on identified areas at greatest risk along the wildland-urban interface and in the vicinity of strategic fire routes and District facilities at risk, as described below. Potential sensitive natural and cultural resources (e.g., special status species and known cultural resources) within these areas were also identified, assessed, and are identified, if present, within each recommended treatment area listed in Table III-2 in this section. Existing and ongoing EBRPD fuel management areas (e.g., the areas currently maintained by the District as a "fuel break" along the western boundary of the East Bay Hills parks[2]), and areas previously identified and addressed under the FEMA Environmental Assessment are denoted on Table III-2 as well.[3]

The FlamMap fire behavior prediction model was used to identify hazards according to predicted flame length, spotting potential, and the relative position of spotting hazards on slopes.[4,5] All fire behavior predictions were assumed to be under Diablo wind conditions with

[1] Also provided in Appendix C is a Polygon Justification section which details specific reasons why each recommended treatment area was selected, as well as a table displaying vegetation types and acreage amounts for each vegetation type by recommended treatment area.

[2] Based on information and mapping provided by EBRPD staff and on as noted in the Hills EIR Working Group unpublished report: The East Bay Hills Wildfire Problem Statement, revised in 2005.

[3] URS Corporation, 2003. Final Environmental Assessment for the East Bay Regional Park District Vegetation Management Projects, Alameda and Contra Costa Counties, California. HMGP #919-515-24. Prepared for the Federal Emergency Management Agency. April.

[4] FlamMap is a computerized fuel and fire behavior prediction model developed by the USDA Forest Service at the Intermountain Forest Fire Research Laboratory. Additional information regarding FlamMap can be found at the following website: http://www.firemodels.org/content/view/14/28/

extremely hot, dry weather to assess worst-case hazards (see Appendix C for a discussion of fire behavior prediction assumptions). Specifically the following areas were given greater emphasis in assessing wildfire hazards due to the need to protect life and property and the elevated hazard potential resulting from these factors:

- Parklands within 200 feet of homes and other structures,
- Areas of vegetation with the potential to produce greater than 8-foot flame lengths,
- Areas containing fuels prone to torching and ember production.

While the wildfire hazard assessment primarily identified areas of high fire hazard that needed priority, intensive or "initial" treatment, additional considerations also were incorporated into the process of selecting and mapping recommended treatment areas for fuel reduction and vegetation management activities. These considerations include whether an area may be rated as lower in relative hazard but is expected to become a high hazard area without continuing action or initial treatment, or "maintenance" areas where ongoing District activities to reduce fuel loads would need to continue to maintain the area in a low hazard condition. In other areas, existing vegetative fuels may not warrant ranking as a high hazard area, but the Fire Department has identified an immediate need for strategic defensible space during a wildfire, or the District has identified facilities that are deemed to be "irreplaceable" and the surrounding vegetation would need to be managed and maintained in order to protect these facilities at risk.

As noted above, the wildfire hazard assessment also considered "facilities at risk" that were identified by the District as well as the location of strategic fire routes as factors in determining an area's need for fuel reduction treatment. These two factors are discussed in further detail below. The results of the wildfire hazard assessment are displayed graphically in Figure III-1: Wildfire Hazard Assessment Areas. The following areas are identified on the wildfire hazard assessment map:

- Parklands within 200 feet of homes and other structures
- Locations of eucalyptus stands that represent significant threats from torching and crown fires that can cause ember flight
- Areas of vegetation with the potential to produce greater than 8-foot flame lengths
- Lands within 200 feet of EBRPD Facilities at Risk.

As part of the wildfire hazard assessment EBRPD and its consultant team also conducted a thorough delineation and decision process to identify and characterize recommended

[5] Inputs to the FlamMap model include USGS National Elevation Dataset 1/3-second elevation layer (1999), EBHil_06.shp (February 7, 2007), Point Pinole vegtypes.shp (June 2007), and Miller-Knox_Veg.shp (October 2007).

treatment areas as either an “Initial Treatment Area” or a “Maintenance Area” as further discussed and mapped in this Plan. The decision process used to identify the recommended treatment areas is shown in Figure III-2. The recommended treatment areas are those at-risk areas for which fuel modification activities have been recommended and will be focused.

1. Facilities at Risk

EBRPD identified a number of “facilities at risk” that were evaluated as part of the wildfire hazard assessment and included, as necessary in recommended treatment areas. For the purposes of this Plan, facilities at risk are facilities located on EBRPD parklands that are considered highly valuable, including structures and other physical improvements; natural and cultural resources; community infrastructure; and economic, environmental, and social values for which the wildland fire protection system is created and funded to protect. Some of these facilities are considered to be “irreplaceable”, for example the Tilden Merry-Go-Round, the Temescal bath house, and the Chabot Equestrian Center. Many of the facilities at risk lie within the wildland-urban interface, which for this Plan includes EBRPD land within 200 feet of a structure.

Table III-1 displays those facilities at risk identified by EBRPD staff, their respective park locations, and the treatment area in which they are located, if applicable. Park facilities outside of treatment areas are also identified in Table III-1, and these park facilities are typically located in developed areas where ongoing landscaping and vegetation maintenance actions occur under the direction of EBRPD Operations staff (e.g., the Redwood Regional Park office/garage and service yard). Therefore, the park facilities shown on Table III-1 that are not included in treatment areas have not been evaluated as part of this Plan. If, in the future, vegetation or wildfire hazard conditions surrounding those developed park facilities change, and the District determines the area should be included in a recommended treatment area, the District will assess the area to define the extent of the new treatment, and identify treatment prescriptions for fuel reduction, vegetation management and environmental protection, following the objectives, guidelines and best management practices identified in this Plan.

2. Strategic Fire Routes

For the purposes of this Plan, EBRPD staff identified and mapped strategic fire routes to facilitate and support wildfire response and emergency access as well as evacuation during an emergency incident. Strategic fire routes primarily include those roadways and trails on District lands including unpaved roads and trails within the parks as well as some paved roads that connect and pass through parks.

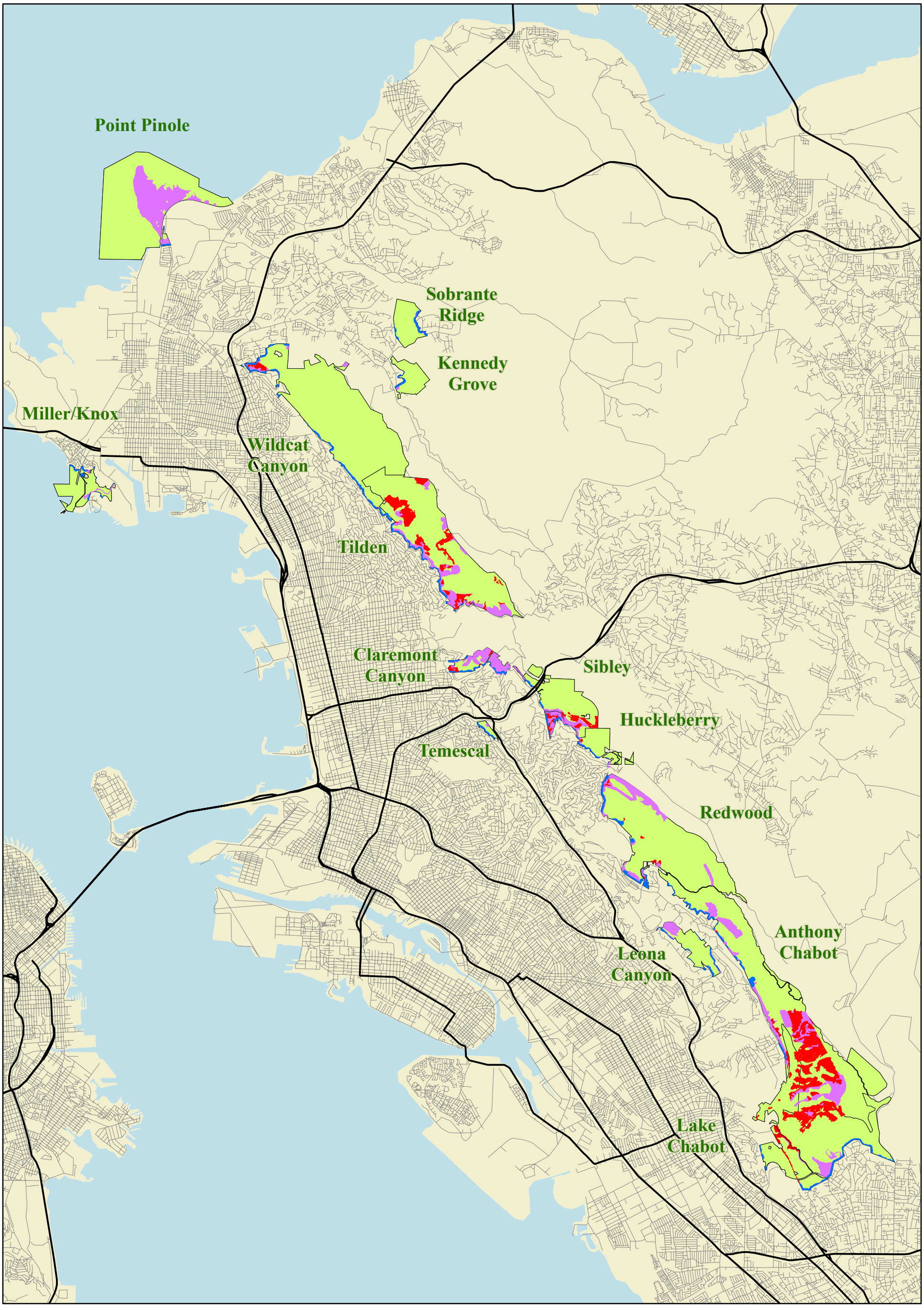

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FIGURE III-1

EBRPD Wildfire Hazard Reduction and Resource Management Plan

Wildfire Hazard Assessment Areas

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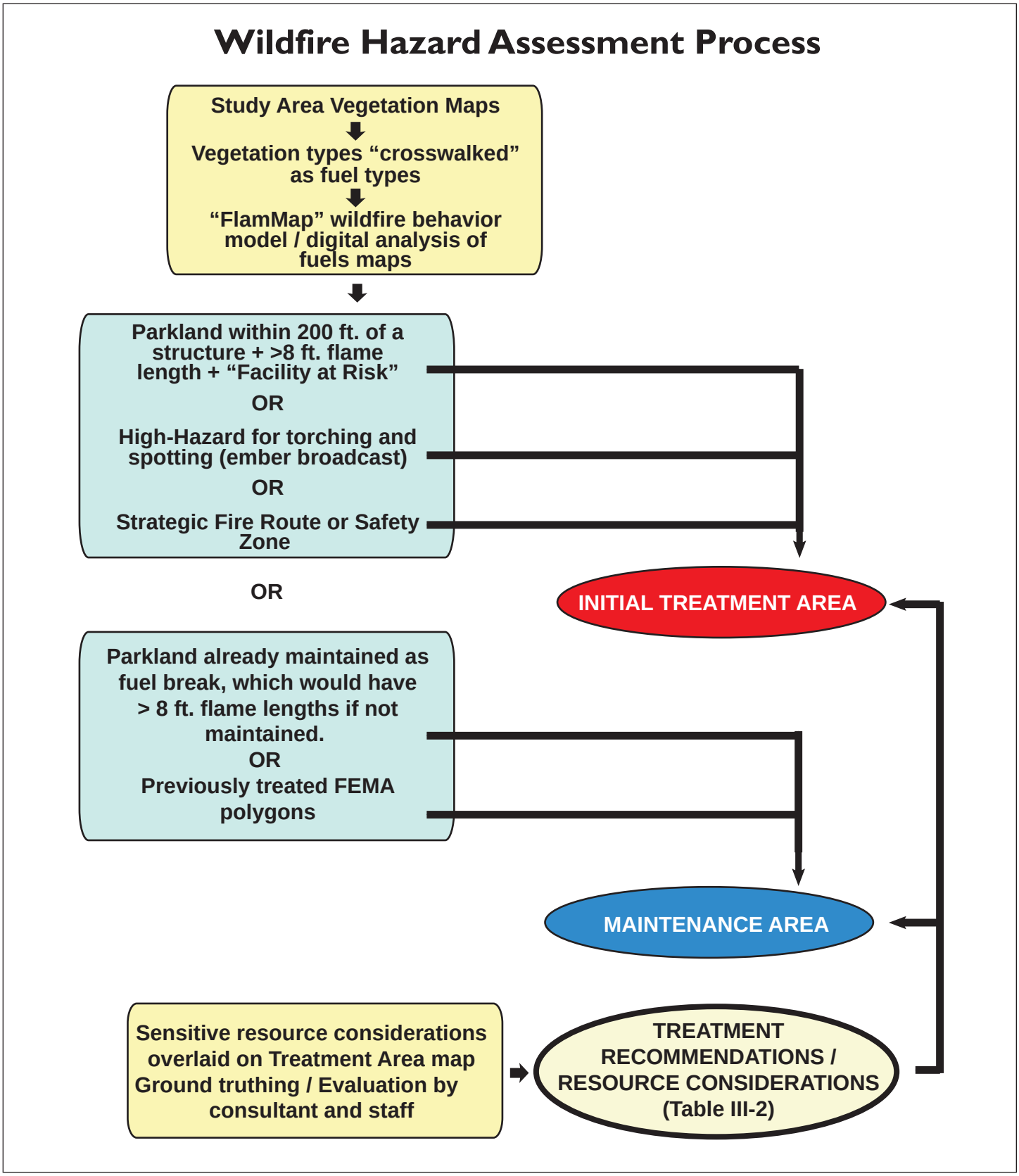

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FIGURE III-2

EBRPD Wildfire Hazard Reduction and Resource Management Plan
Wildfire Hazard Assessment Process

SOURCE: EAST BAY REGIONAL PARKS DISTRICT, 2009

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Table III-1: Developed Facilities in the Study Area[a]

Map Number[b]	Facility	Facility Type	Treatment Area
	Kennedy Grove Regional Recreation Area		
1	Fern Cottage	Building	KG003
2	Kennedy Grove Park Office & Service Yard	Building	KG003
	Wildcat Canyon Regional Park		
3	Alvarado Office/Service Yard	Building	WC005
	Tilden Regional Park		
4	Wildcat View Group Shelter (WCC)	Camp	TI002a
5	EEC Complex and Residence	Building	TI002a
6	New Woodland Camp Shelter	Camp	TI002a
7	Merry-Go-Round Complex/Residence & MGR Bathroom	Building	TI008b
8	Tilden Corp Yard and Residence	Building	TI015
9	GGLS Clubhouse/Train Facilities	Building	TI015
10	Steam Trains Bathroom/Roundhouse & Facilities	Building	TI015
11	Botanic Garden	Garden	TI021
12	Pony Ride Complex	Equestrian	
13	Lake Anza Complex/Concession/Residence	Building	
14	Brazil Building and Residence	Building	
15	Tilden Golf Course Facility	Building	
16	Tilden Golf Course Maintenance Structures	Building	
17	Gillespie Group Camp	Camp	
	Claremont Canyon Regional Preserve		
18	Gelston Street Field Offices/Park Office	Building	CC008
	Temescal Regional Recreation Area		
19	Temescal Bathing Facility	Bath House	TM001
20	Temescal Park Office and Restrooms	Building	
	Sibley Volcanic Regional Preserve		
21	Park Residence	Building	SR005
22	Sibley Visitors Center	Building	SR005
23	Sibley Office/Shop/Park Residence	Building	
	Redwood Regional Park		
24	Redwood Skyline Gate Residence	Building	RD001
25	Girls' Camp Shelter & Picnic Area	Camp	RD003
26	Archery Range	Building	RD005b
27	Redwood Bowl Residence	Building	RD005b
28	Park Residence	Building	RD006
29	Park Office	Building	RD006
30	Concession, Swim Complex	Building	RD006
31	Trudeau Center	Building	RD008
32	Stable	Equestrian	RD009
33	Redwood Stables Residence	Building	RD009
34	Redwood Schoolhouse	Building	RD010
35	Fire Station #2	Building	RD010
36	Chabot Space and Science Center	Building	
37	Redwood Park Entrance Residence	Building	
38	Office/Garage/Service Yard	Building	
	Anthony Chabot Regional Park		
39	Chabot Equestrian Center	Equestrian	AC007
40	Marksmanship Water Tank	Water Tank	AC010
41	Group Camp - Hawk Ridge Shelter	Camp	AC011
42	Skyline Ranch Stables	Equestrian	
43	Marksman Range, Residence, Office	Building	
44	Service Yard, Park Residence, Kiosk	Building	

Table III-1 *Continued*

Map Number[b]	Facility	Facility Type	Treatment Area
45	Willow Park Golf Course Structure	Building	
	Anthony Chabot Regional Park		
46	Public Safety HQ, Nike Classroom and Park Office	Building	
47	Lake Chabot Residence/Marina/Cafe	Building	
48	South County Yard	Building	
	Point Pinole Regional Shoreline		
49	Point Pinole Park Office & Corporate Yard	Building	
	Miller/Know Regional Shoreline		
50	Golden State Railroad Museum & Park Office	Building	

[a] Facilities outside of recommended treatment areas have not been further evaluated in this Plan.

[b] Map numbers are keyed to Figures III-4 through III-16

Source: East Bay Regional Park District, 2008. Various GIS files, October.

The District's determination of the strategic fire route system included in this Plan was based on the professional knowledge and field review and validation of Park Supervisors, Park Unit Managers, the EBRPD Fire Chief, and Chief of Park Operations. As part of preparing the annual Fuels Treatment Plan (see Chapter VI. Plan Implementation as well as Plan Guideline 1.9), District staff will review and revise the strategic fire routes map as necessary in response to changing conditions. If new strategic fire routes need to be added or modified in the future, or vegetation or wildfire hazard conditions surrounding the identified routes change, District staff will assess the existing or proposed route to define the area of potential new treatment, and will identify treatment prescriptions for vegetation clearance and management, and any additional environmental protection or clearance required under CEQA following the objectives, guidelines and best management practices identified in this Plan and the EIR.

The goal of fuel treatment along the strategic fire routes is to manage fuels alongside the route to ensure that wildfire personnel and vehicles can access the route during wildfire conditions. Within the strategic fire route's fuel treatment area, the District will generally apply the performance standards based on the vegetation type provided in Chapter V. Vegetation Management Plan.

The following guideline (from Chapter II) is included in this Plan to direct vegetation management actions along the District's identified Strategic Fire Routes:

Guideline 1.9 Establish and maintain a system of Strategic Fire Routes throughout the parks, based on existing roads and trails, to facilitate and support emergency vehicle access, evacuation, and strategic firefighting response; to reduce roadside ignition potential; to support the development of fire management units; and to reduce the fuel load in critical locations adjacent to roads to provide time for successful initial wildfire attack. When accomplishing the

following roadside vegetation management standards for the designated Strategic Fire Routes, follow the performance standards for each vegetation type established in this Plan (see Chapter V):

- Road Width: Maintain a minimum clearance of 10 feet and maximum clearance of 20 feet from the edge of Strategic Fire Routes to allow for varied clearance distances. Varying the clearance distances will preserve aesthetic values along these routes by eliminating the potential for clearance to create a "hedgerow" effect.
- Vertical Clearance: Maintain a minimum vertical clearance of 13.5 feet for all Strategic Fire Routes to allow fire apparatus access.

B. PLAN RECOMMENDATIONS

This section of the Plan provides summary data and recommendations for each recommended treatment area identified as a result of the wildfire hazard assessment and an evaluation of the baseline environmental conditions present in the Study Area. In concert with the Vegetation Management Program contained in Chapter V of this Plan, this information is intended to provide EBRPD with the needed information (e.g., recommended treatment areas, vegetation mapping, locations of known sensitive resources, etc.) and preliminary recommendations to guide decision-making on single- and multi-year District actions as the resources to undertake fuel reduction activities become available.

A recommended treatment areas summary table (Table III-2) is provided at the end of this chapter. The summary information provided in Table III-2, and described in detail below, is the result of the potential resource conflicts analysis of the treatment areas undertaken as part of the wildlife hazard assessment. Providing this summary information in this Plan is intended to act as a "notification" to alert District staff to collect additional information (especially GIS data) for treatment area conditions prior to initiating pre-assessment site surveys and identifying and including appropriate BMPs, protective measures, resource management, and native plant restoration and enhancement activities into the treatment prescriptions.

Each of the treatment areas identified through the wildfire hazard assessment process contain high hazard fuel conditions that require initial treatment or maintenance activities to modify the vegetation and achieve or maintain fire-resistant or low hazard and otherwise desirable plant communities. The locations of treatment areas within the Study Area are shown in Figure III-3. The treatment areas, Strategic Fire Routes and developed facilities within the Study Area for each park are shown in greater detail in Figures III-4 through III-16. Table III-2, at the end of this chapter, provides summary information from the Plan's GIS

database that will be updated over time by the District following the completion of treatment actions to include current information for each recommended treatment area.

The information provided in the figures and the summary table will assist the District in selecting and prioritizing the ultimate treatment actions that will be included in annual Fuels Treatment Plans and identifying and mitigating potential adverse environmental effects.

Table III-2 includes the following information:

- **The park in which the treatment area is located.** Parks are listed according to their location from north to south within the Study Area.
- **Corresponding EBRPD and FEMA Polygons.** EBRPD has conducted fuel treatment actions for many years prior to the creation of the Plan, and these units/polygons were used by the Fire Department to identify existing EBRPD Fuel Management Areas including the treatment areas identified in the FEMA Environmental Assessment.[6] This column serves as a crosswalk between these previous location identifiers and the treatment area designations provided in the Plan. This information was provided by EBRPD from its existing fuel management area database.
- **Whether recommendations are for Initial Treatment or Maintenance Actions.** As treatment actions are conducted over the course of coming years, most of these actions will progress from priority, intensive or Initial Treatment to Maintenance. Areas noted for maintenance actions in this table typically are part of the existing EBRPD "fuelbreak" or have already received initial treatments conducted previously by EBRPD and covered under the FEMA Environmental Assessment. Determinations for initial treatments versus maintenance actions were informed by the recommended treatment areas' fuel treatment history, current site conditions identified during site reconnaissance, and the professional judgment of EBRPD and consultant team personnel.
- **Whether potential Alameda whipsnake habitat exists within the treatment area.** Treatment areas with a "yes" designation do not necessarily have confirmed Alameda whipsnakes present, but do include habitat where Alameda whipsnakes could occur. Treatment actions in these treatment areas would require a pre-treatment assessment and inclusion of the guidelines regarding Alameda whipsnakes discussed in Chapter V. Vegetation Management Program (North Coastal Scrub). The determination of the presence or absence of potential Alameda whipsnake habitat was informed by a GIS

[6] URS Corporation, 2003. Final Environmental Assessment for the East Bay Regional Park District Vegetation Management Projects, Alameda and Contra Costa Counties, California. HMGP #919-515-24. Prepared for the Federal Emergency Management Agency. April.

analysis of vegetation types conducted by EBRPD[7] and the professional judgment of EBRPD staff and consultant team biologists.

- **Known special-status plant and animal species.** Known special-status species present in treatment areas are listed in the table, but not all treatment areas have been fully surveyed. As a result, unknown occurrences of special-status species may occur and will be incorporated into future iterations of this table and annual Fuels Treatment Plans as their presence is discovered. The presence of special-status species was determined according to searches of the California Natural Diversity Data Base (CNDDB) and the California Native Plant Society's electronic inventory,[8] a review of the Federal Emergency Management Agency (FEMA) Environmental Assessment for EBRPD[9] and lists of uncommon species,[10] and the professional knowledge and judgment of EBRPD staff and consultant team biologists.
- **Presence of hydrologic resources.** Where hydrologic resources are present, BMPs may be necessary to reduce potential impacts on these resources from some fuel treatment methods. These BMPs are discussed in detail in Chapter IV. Fuel Reduction Methods. The presence of hydrologic resources was determined through GIS analysis and according to the professional judgment of EBRPD staff and consultant team hydrogeologists.[11]
- **Presence of USGS-mapped landslide areas.** Where landslide areas exist, BMPs may be necessary to reduce potential impacts from some fuel treatment methods that could contribute to increased landslide risks. These BMPs are discussed in detail in Chapter IV. Fuel Reduction Methods. The presence of landslide areas was determined through GIS analysis and review of current USGS maps of landslide areas.[12]
- **Percentage of the treatment area with slopes greater than 30 percent.** Ground slope can significantly affect the types and severity of wildfire hazards. In addition, areas of high slope may be limited in the types or effectiveness of particular fuel treatment methods. These limitations and guidelines for various treatment methods on areas of high slope are discussed in detail in Chapter IV. Fuel Reduction Methods. Slopes were

[7] GIS analysis used EBRPD vegetation layer EBHill_06.shp and was performed by Joe DiDonato, Stewardship Manager, EBRPD, 2008.

[8] California Native Plant Society (CNPS). 2006. Electronic Inventory of Rare and Endangered Plants of California (online edition, v7-06b). CNPS, Sacramento, CA. Accessed on Wed. Jun.10, 2006, from http://www.cnps.org/inventory.

[9] URS Corporation, 2003. Final Environmental Assessment for the East Bay Regional Park District Vegetation Management Projects, Alameda and Contra Costa Counties, California. HMGP #919-515-24. Prepared for the Federal Emergency Management Agency. April.

[10] Lake, D. 2004. Unusual and Significant Plants of Alameda and Contra Costa Counties. California Native Plant Society, East Bay Chapter, Oakland, CA.

[11] GIS analysis the USGS National Hydrography Dataset-High Definition (NHD1805), 2006.

[12] GIS analysis used USGS Open-File Report 97-745C, Summary Distribution of Slides and Earth Flows in the San Francisco Bay Region, California. 1997.

determined using available GIS data from EBRPD, current USGS maps, and professional judgment by EBRPD staff and consultant team geologists.[13]

- **Presence of known cultural resources.** Some fuel treatment methods, including prescribed burning, could potentially have negative impacts to cultural resources. As a result, additional considerations regarding fuel treatment actions and BMPs to reduce potential impacts on cultural resources will be included in selecting and implementing treatment actions in treatment areas where cultural resources are known to exist. Considerations, guidelines, and BMPs pertaining to fuel treatment methods and cultural resources are provided in Chapter IV. Fuel Reduction Methods. The presence of cultural resources was determined through record searches of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California; a review of the *California Inventory of Historic Resources,*[14] the Office of Historic Preservation's *Five Views: An Ethnic Historic Site Survey for California,*[15] *California Historical Landmarks,*[16] *California Points of Historical Interest,*[17] the *Directory of Properties in the Historic Property Data File,*[18] GIS cultural resources data and resource tables for the Study Area provided by EBRPD; literature reviews of cultural and archaeological resources within the Study Area; and fossil locality searches conducted by consultant team cultural resources experts.
- **Vegetation types present (greater than 0.1 acres).** The vegetation types identified in this Plan for treatment were aggregated from approximately 300 vegetation types identified and mapped by EBRPD in 2006. These vegetation types were translated (or "crosswalked") and organized by their fuel characteristics for the purposes of running the fire behavior prediction software (called FlamMap see Appendix C) to assess wildfire hazards as part of the Plan process. In some treatment areas, high hazard vegetation requiring treatment may not be the dominant vegetation type. Vegetation will be treated to affect the structure, volume, and arrangement of fuels within treatment areas to reduce overall fire hazards; however, not all vegetation in a treatment area would necessarily require or undergo treatment. Vegetation types were determined according to available GIS data provided by EBRPD as well as the professional judgment of EBRPD staff and consultant team personnel, based on field verification.[19]

[13] GIS analysis used USGS National Elevation Dataset 1/3-second elevation layer (1999) and USGS Open-File Report 97-745C, Summary Distribution of Slides and Earth Flows in the San Francisco Bay Region, California. 1997.

[14] California Department of Parks and Recreation, 1976. California Department of Parks and Recreation, Sacramento.

[15] California Office of Historic Preservation, 1988. California Department of Parks and Recreation. Sacramento.

[16] California Office of Historic Preservation, 1990. California Department of Parks and Recreation. Sacramento.

[17] California Office of Historic Preservation, 1992. California Department of Parks and Recreation. Sacramento.

[18] California Office of Historic Preservation, April 6, 2006. California Department of Parks and Recreation. Sacramento.

[19] GIS analysis used EBRPD vegetation layer EBHill_06.shp and was performed by J. DiDonato, 2008.

- **Suggested vegetation management goal.** This column identifies the desired end state of vegetation types in the recommended treatment area. In many cases the vegetation type's end state would not change; in other circumstances, the determination made as a result of the wildfire hazard assessment and applied professional judgment is to gradually change an area's vegetation types to lower-hazard, native vegetation. The suggested vegetation management goals were determined by EBRPD staff and consultant team personnel according to current vegetation types and hazards identified during site reconnaissance, known hazards previously identified by EBRPD and recorded in its database, applicable Land Use-Development Plans for the respective parks, and Plan goals and objectives. Vegetation management goals for each area identified for treatment will be finalized as part of the annual Fuels Treatment Plan.
- **Considerations and guidelines**. This column includes the preliminary treatment recommendations for fuel reduction and vegetation management actions for each recommended treatment area. These recommendations are composed of specific considerations and guidelines for identifying and conducting those actions necessary to reduce wildfire hazards and manage vegetation within each treatment area. Preliminary recommendations were determined by EBRPD staff and consultant team personnel according to current vegetation types and hazards identified during site reconnaissance, known hazards previously identified by EBRPD and recorded in its database, applicable Land Use-Development Plans for the respective parks, and Plan goals and objectives. As part of the annual Fuels Treatment Plan, the ultimate treatment prescriptions and actions will be identified for each area to be treated on the basis of additional information that has been collected, pre-assessment site surveys, and the identification of appropriate BMPs, protective measures, resource management, and native plant restoration and enhancement activities as determined by the District. See also Chapter VI. Plan Implementation.

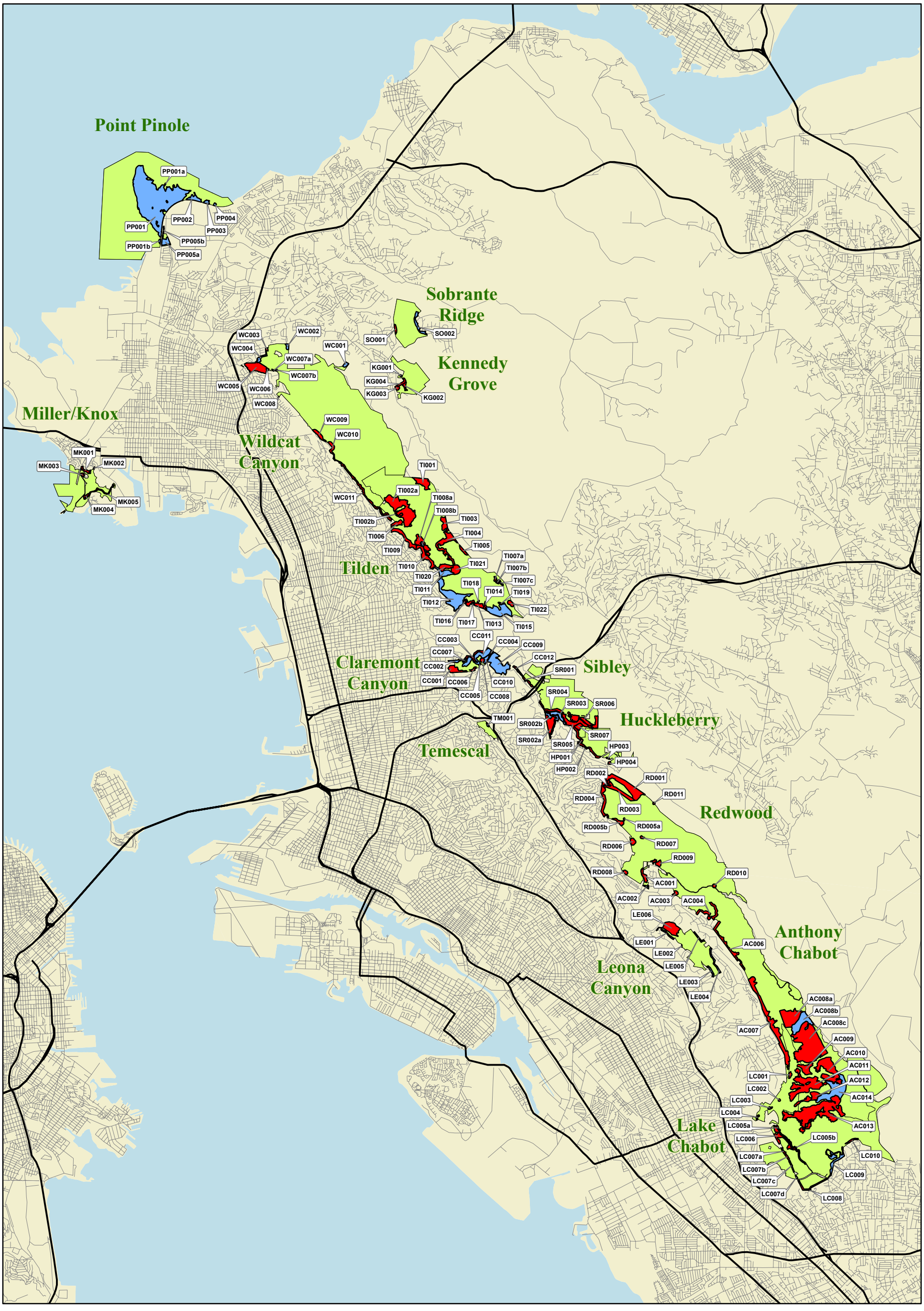

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FIGURE III-3

Recommended Treatment Areas

Initial Treatment Area

Maintenance Area

N

0 5,000 10,000

FEET

EBRPD Wildfire Hazard Reduction and Resource Management Plan

Recommended Treatment Areas

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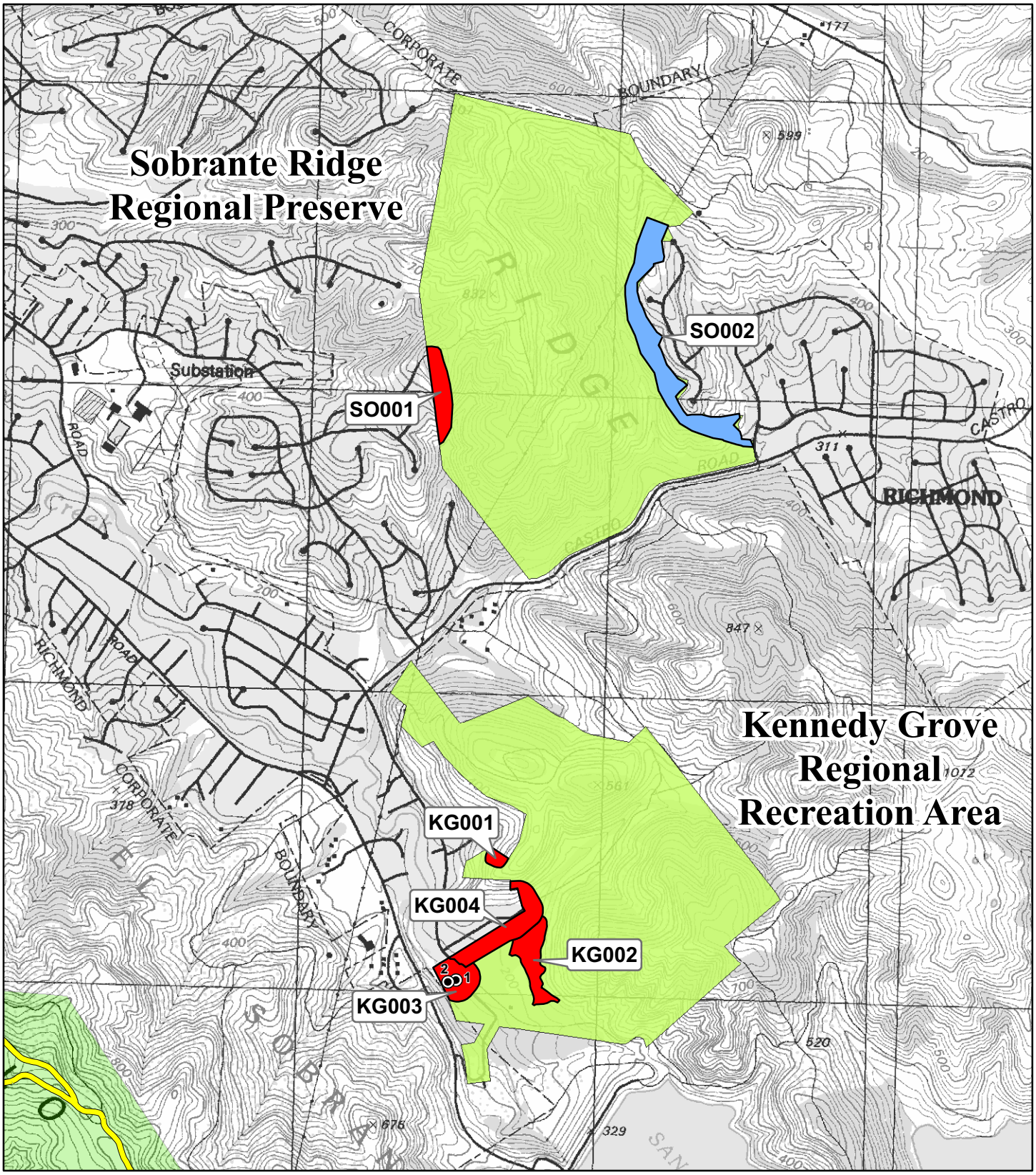

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N

0 750 1,500
FEET

Recommended Treatment Areas

- Initial Treatment Area
- Maintenance Area
- Strategic Fire Routes
- Developed Facilities (1)

FIGURE III-4

EBRPD Wildfire Hazard Reduction and Resource Management Plan

Recommended Treatment Areas in Sobrante Ridge Regional Preserve and Kennedy Grove Regional Recreation Area

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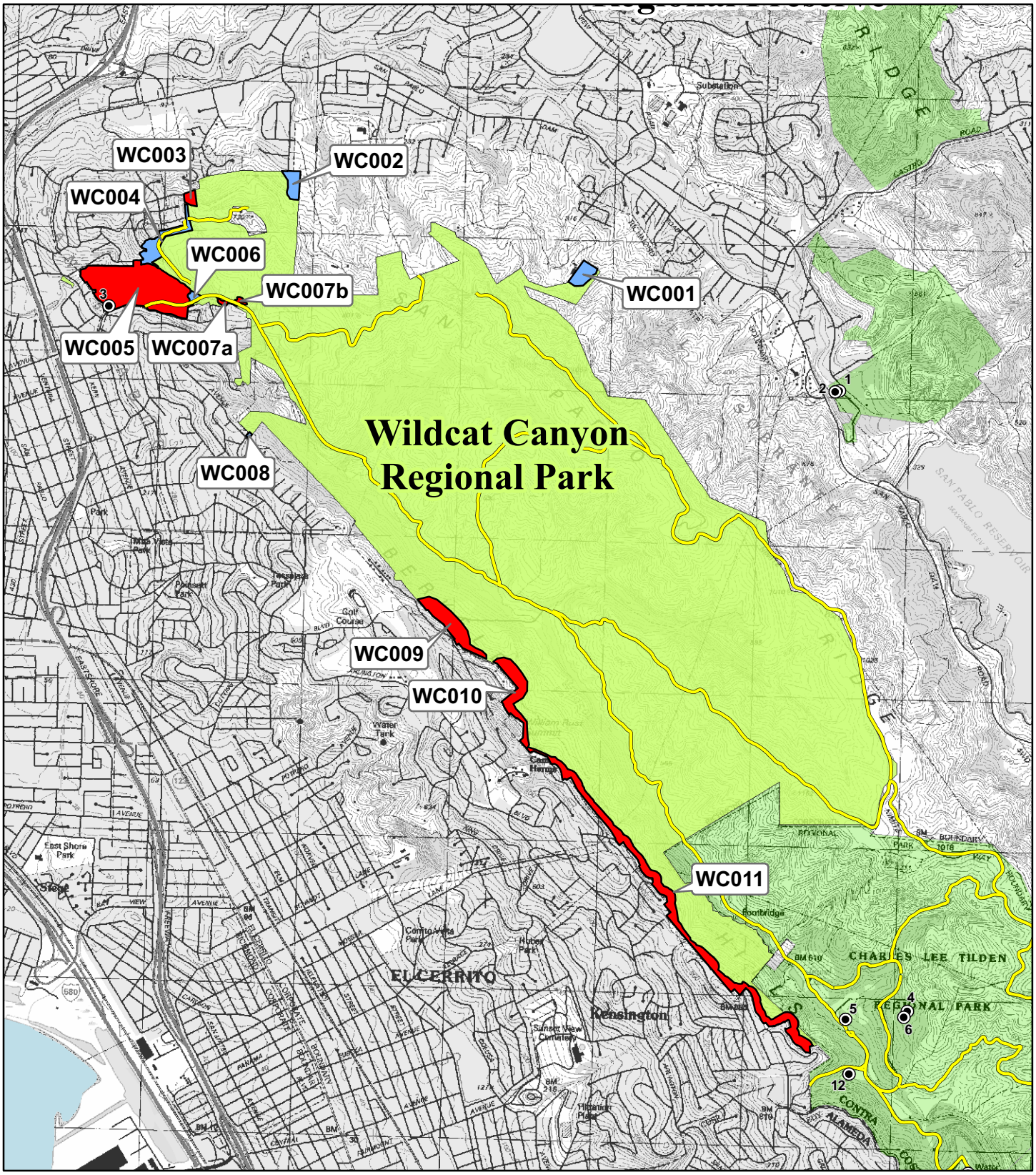

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N

0 1,500 3,000
FEET

Recommended Treatment Areas

- Initial Treatment Area
- Maintenance Area
- Strategic Fire Routes
- 1 Developed Facilities

FIGURE III-5

EBRPD Wildfire Hazard Reduction and Resource Management Plan

Recommended Treatment Areas in Wildcat Canyon Regional Park

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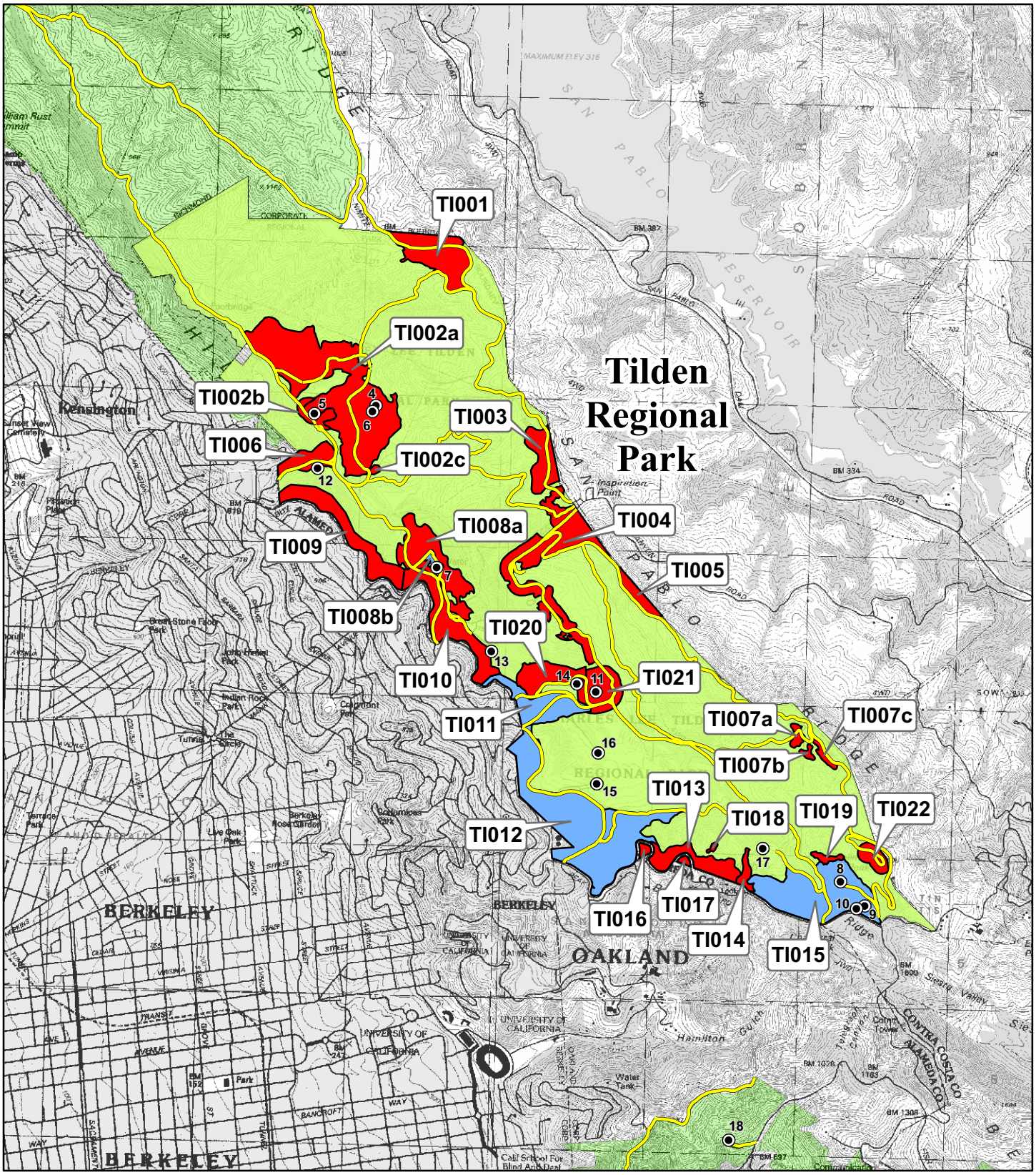

FIGURE III-6

EBRPD Wildfire Hazard Reduction and Resource Management Plan

Recommended Treatment Areas in Tilden Regional Park

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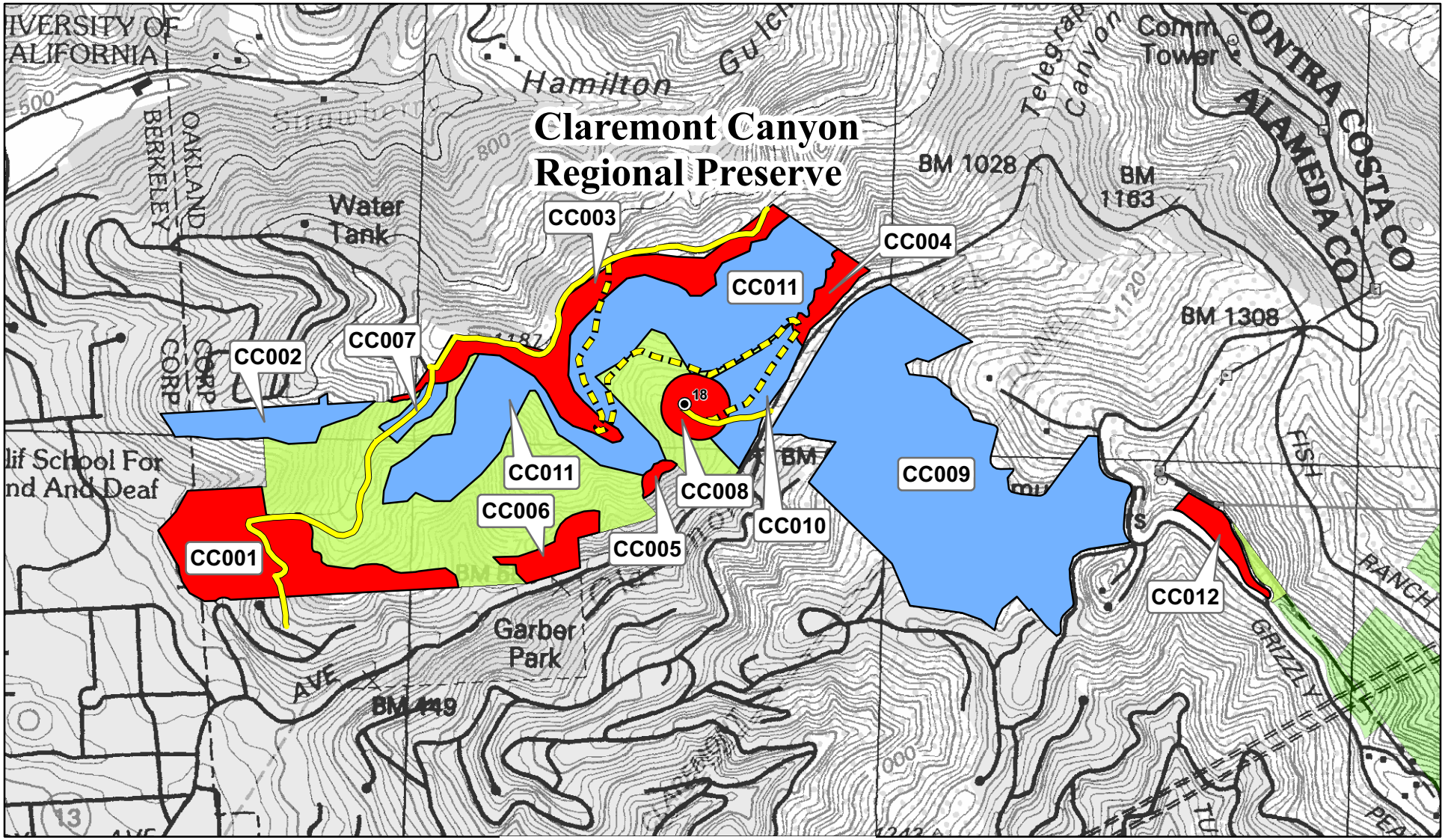

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Recommended Treatment Areas

- Initial Treatment Area
- Maintenance Area
- Strategic Fire Routes
- Proposed Strategic Fire Routes
- Developed Facilities

N

0 500 1,000
FEET

FIGURE III-7

EBRPD Wildfire Hazard Reduction and Resource Management Plan

Recommended Treatment Areas in Claremont Canyon Regional Preserve

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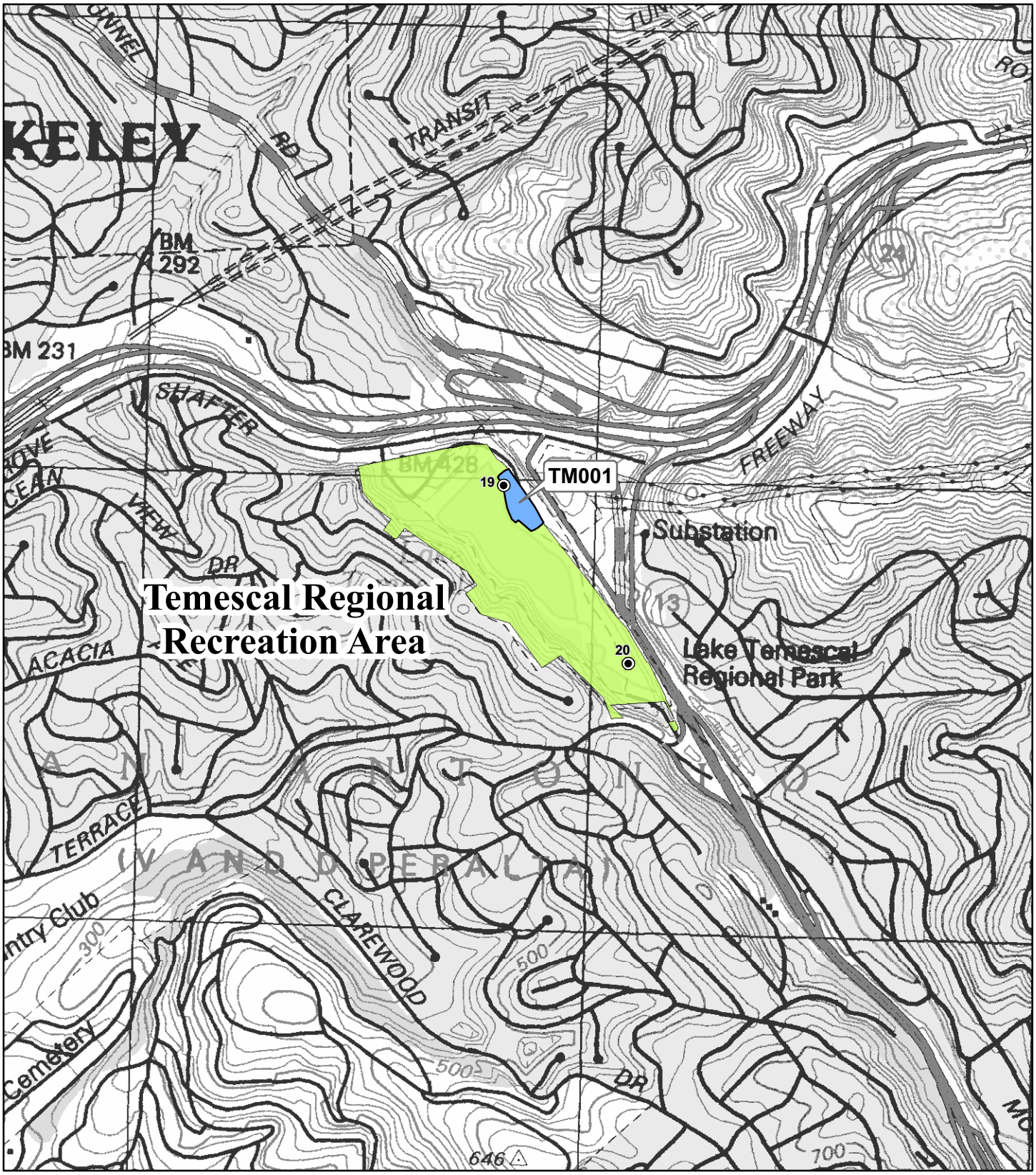


LSA

N

0 500 1,000
FEET

Recommended Treatment Areas

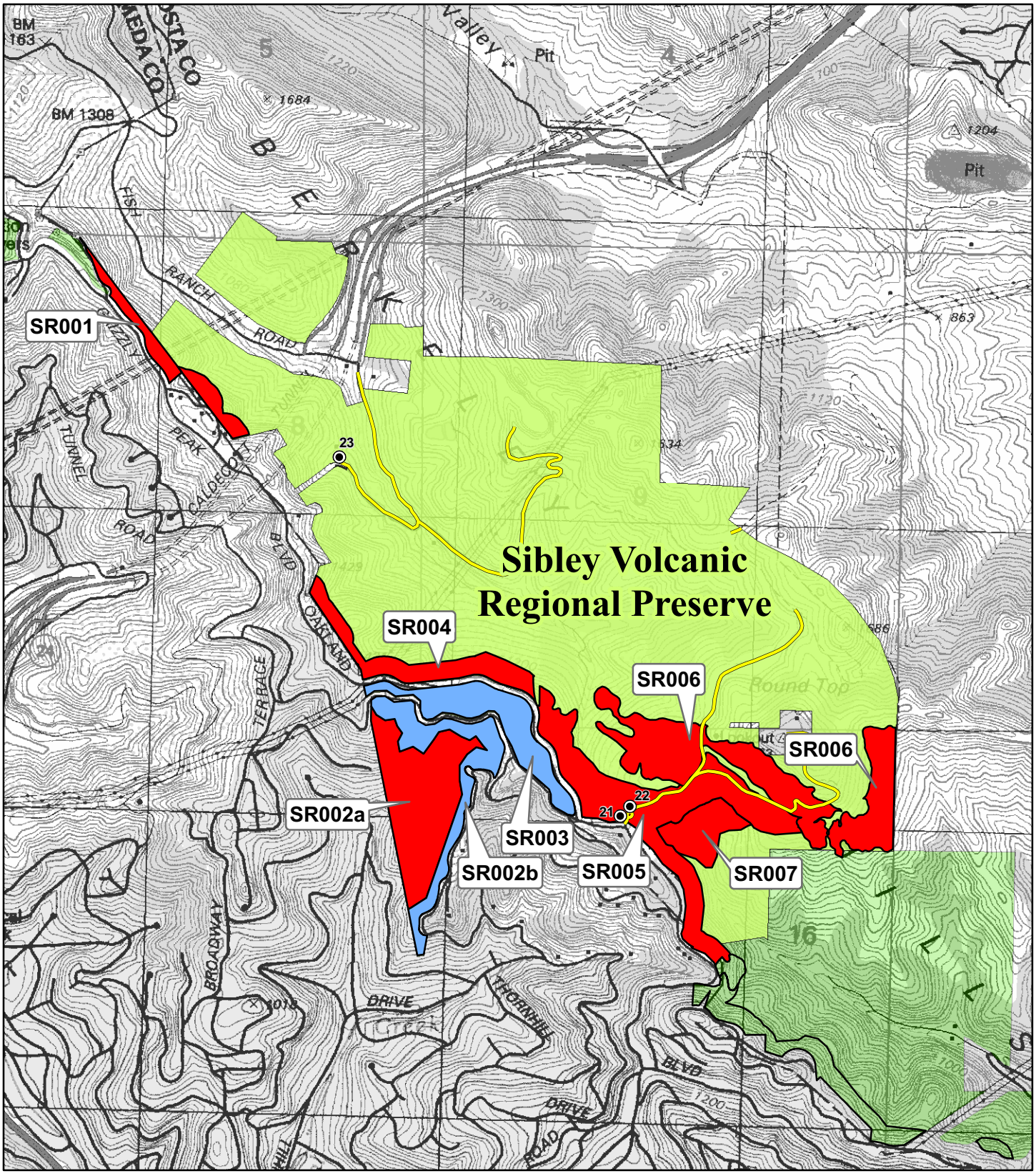
- Initial Treatment Area
- Maintenance Area
- Strategic Fire Routes
- 1 Developed Facilities

FIGURE III-8

EBRPD Wildfire Hazard Reduction and Resource Management Plan

Recommended Treatment Areas in Temescal Regional Recreation Area

I:\EBR0601\GIS\Maps\Fire Plan\FigureIII-8_RTAs_Tem.mxd (02/05/2009)



LSA

N

0 750 1,500
FEET

Recommended Treatment Areas

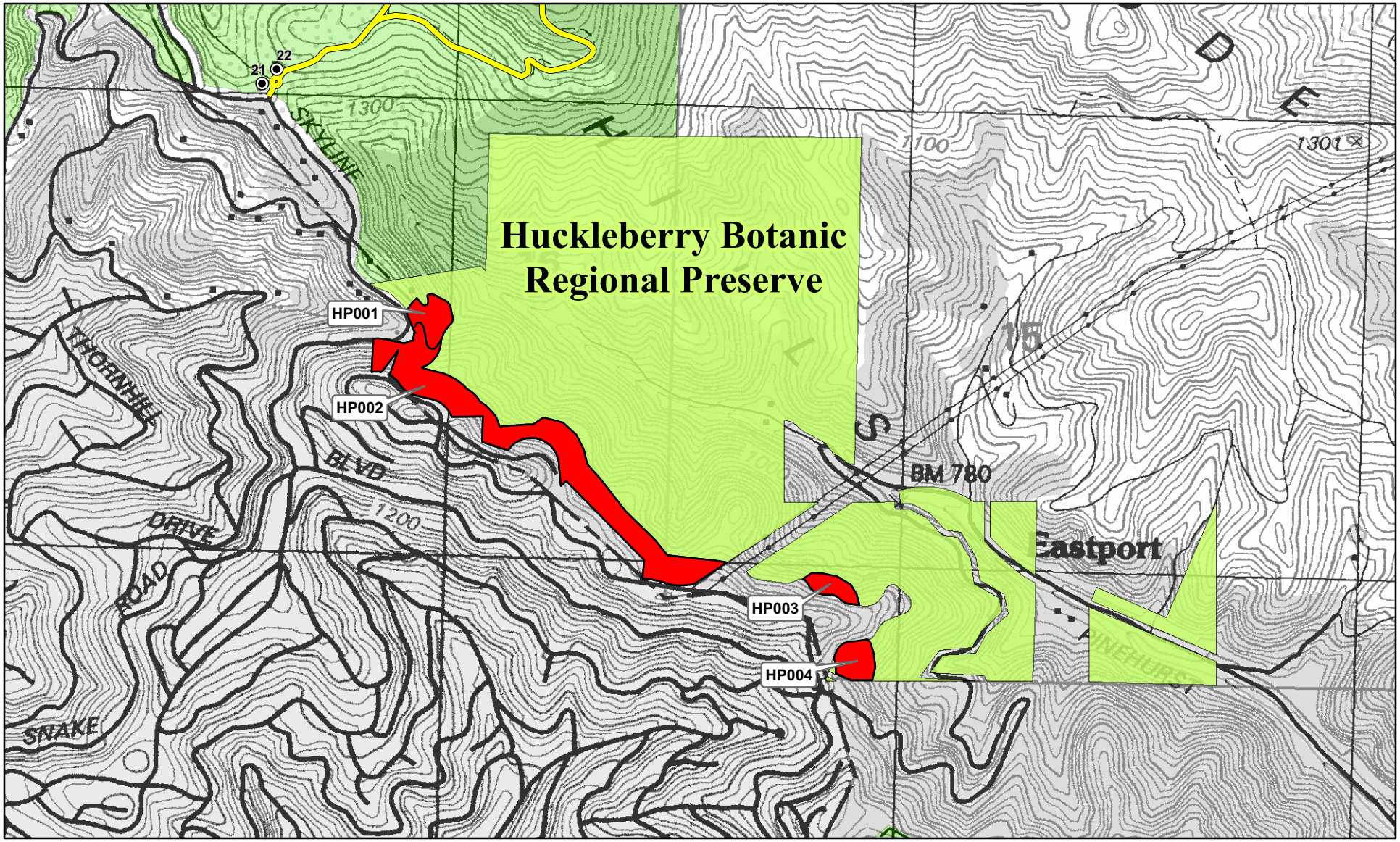
- Initial Treatment Area
- Maintenance Area
- Strategic Fire Routes
- Developed Facilities

FIGURE III-9

EBRPD Wildfire Hazard Reduction and Resource Management Plan

Recommended Treatment Areas in Sibley Volcanic Regional Preserve

I:\EBR0601\GIS\Maps\Fire Plan\FigureIII-9_RTAs_Sibley.mxd (02/05/2009)



LSA

N

0 500 1,000
FEET

Recommended Treatment Areas

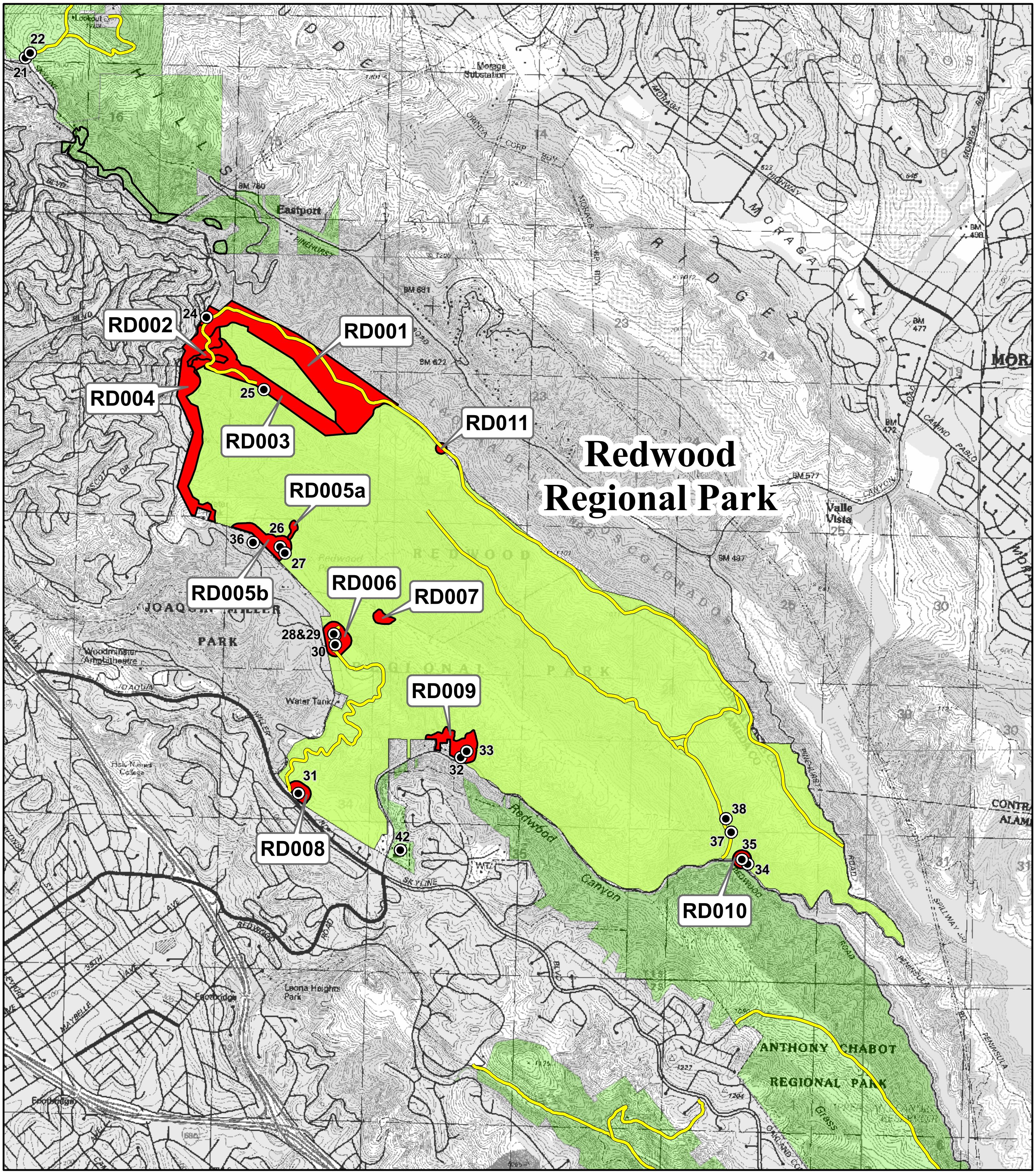
- Initial Treatment Area
- Maintenance Area
- Strategic Fire Routes
- Developed Facilities

FIGURE III-10

EBRPD Wildfire Hazard Reduction and Resource Management Plan

Recommended Treatment Areas in Huckleberry Botanic Regional Preserve

I:\EBR0601\GIS\Maps\Fire Plan\FigureIII-10_RTAs_HP.mxd (02/05/2009)



LSA

FIGURE III-11

Recommended Treatment Areas

Initial Treatment Area

Maintenance Area

Strategic Fire Routes

Developed Facilities

N

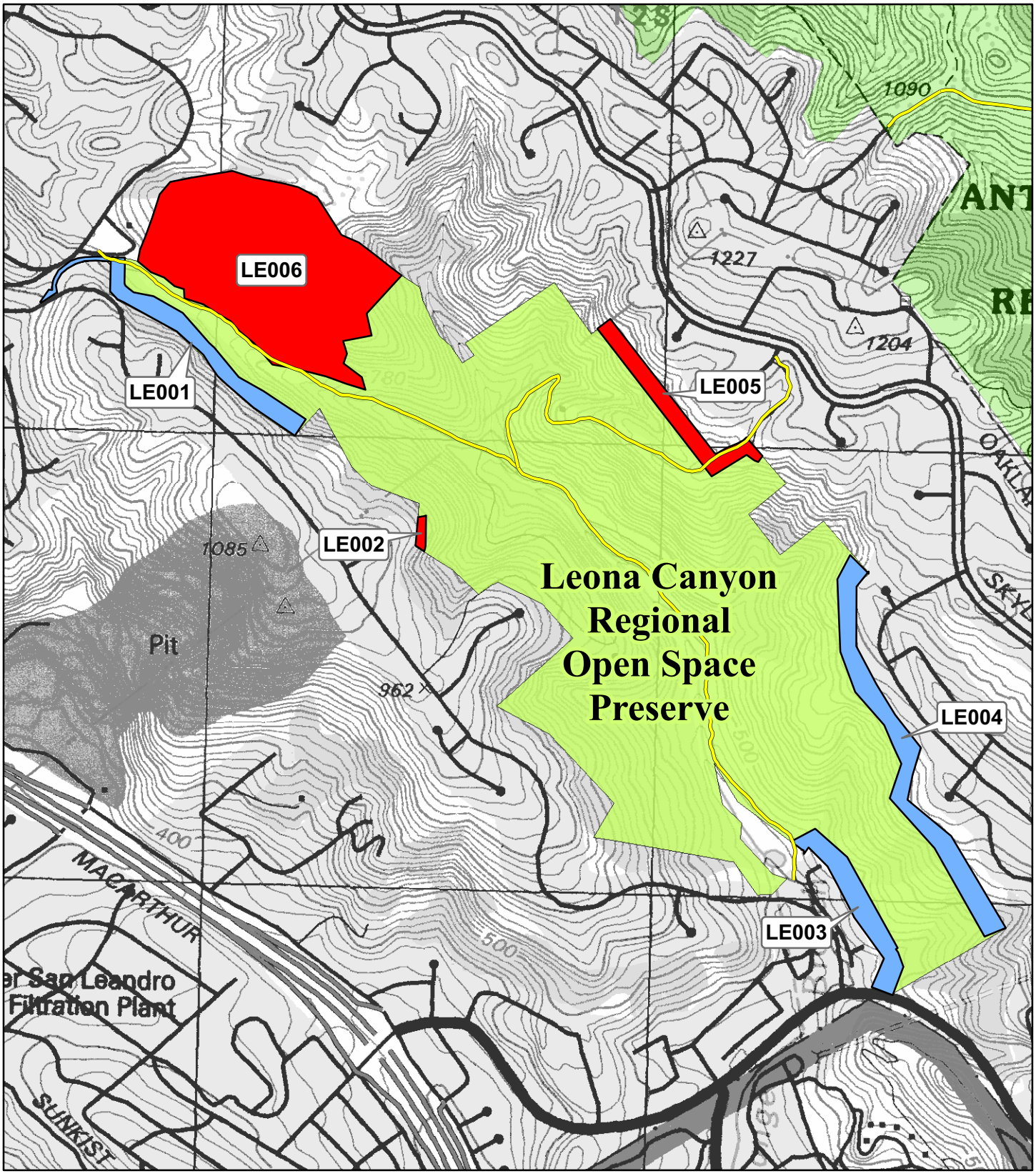
0 1,500 3,000

FEET

EBRPD Wildfire Hazard Reduction and Resource Management Plan

Recommended Treatment Areas in Redwood Regional Park

I:\EBR0601\GIS\Maps\Fire Plan\FigureIII-11_RTAs_RD.mxd (02/05/2009)



LSA

N

0 500 1,000
FEET

Recommended Treatment Areas

Initial Treatment Area

Maintenance Area

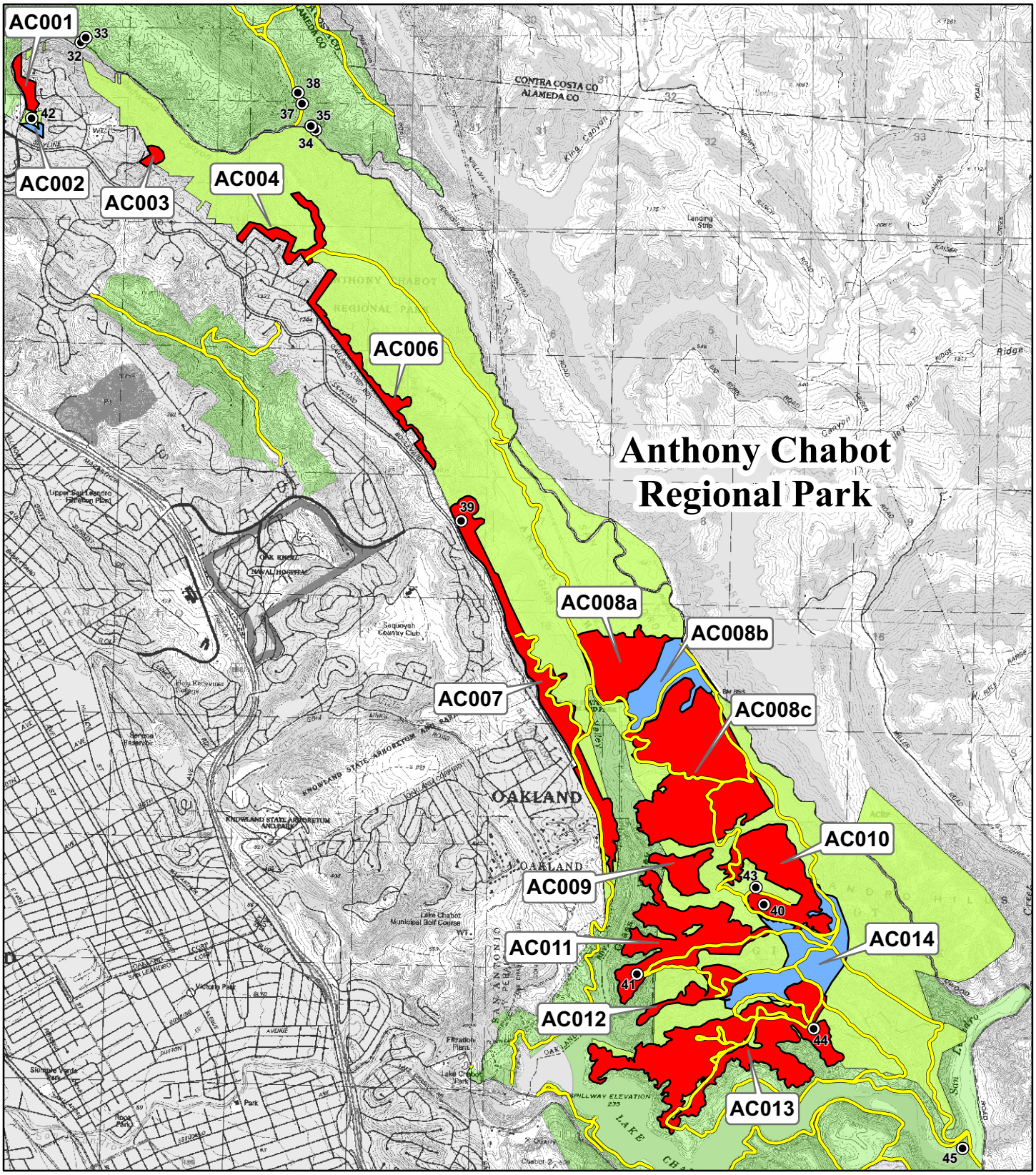
Strategic Fire Routes

FIGURE III-12

EBRPD Wildfire Hazard Reduction and Resource Management Plan

Recommended Treatment Areas in Leona Canyon Regional Open Space Preserve

I:\EBR0601\GIS\Maps\Fire Plan\FigureIII-12_RTAs_Leona.mxd (02/05/2009)



LSA

N

0 1,800 3,600
FEET

Recommended Treatment Areas

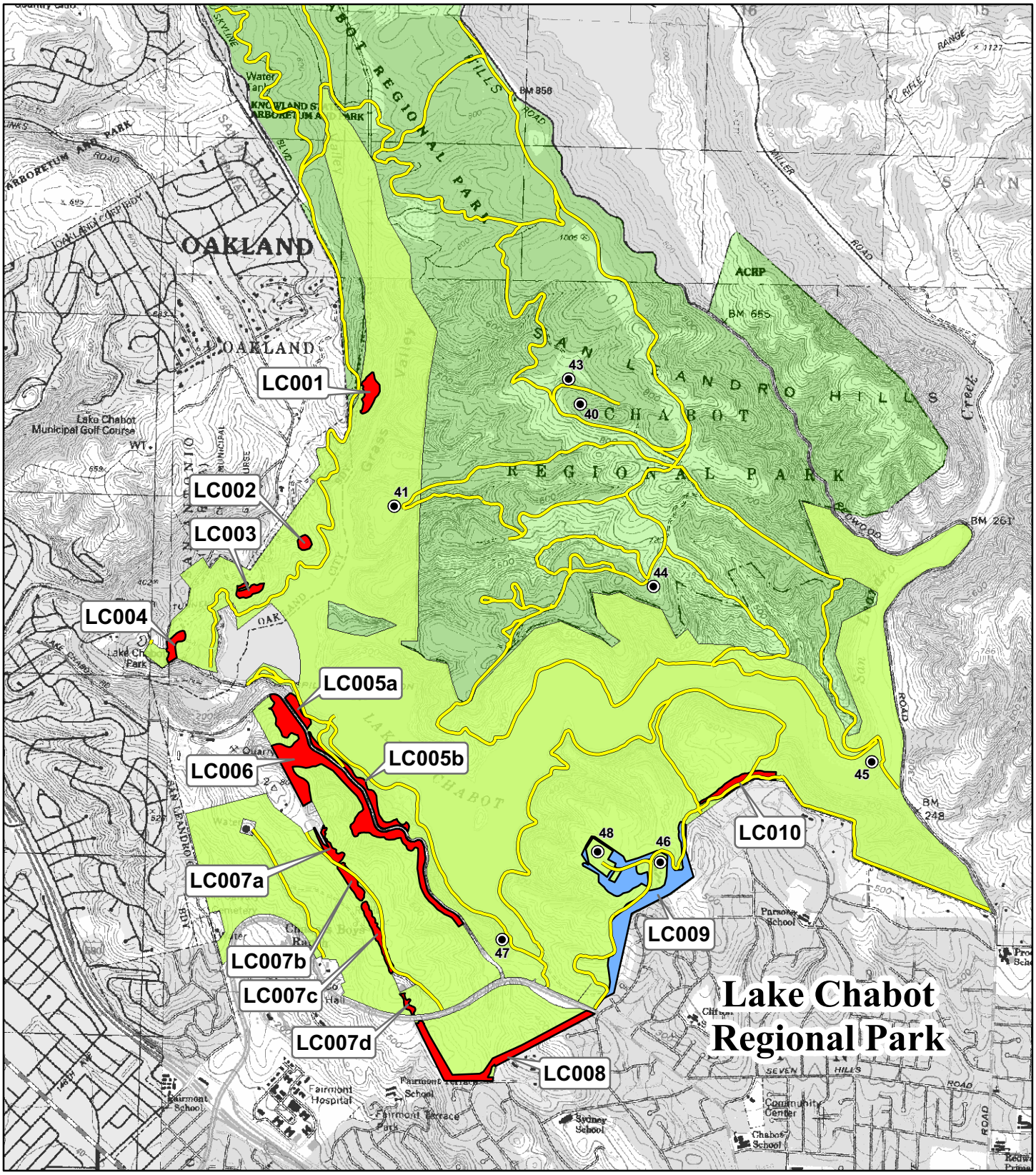
- Initial Treatment Area
- Maintenance Area
- Strategic Fire Routes
- 1 Developed Facilities

FIGURE III-13

EBRPD Wildfire Hazard Reduction and Resource Management Plan

Recommended Treatment Areas in Anthony Chabot Regional Park

I:\EBR0601\GIS\Maps\Fire Plan\FigureIII-13_RTAs_AC.mxd (02/05/2009)



LSA

N

0 1,250 2,500
FEET

Recommended Treatment Areas

- Initial Treatment Area
- Maintenance Area
- Strategic Fire Routes
- 1 Developed Facilities

FIGURE III-14

EBRPD Wildfire Hazard Reduction and Resource Management Plan

Recommended Treatment Areas in Lake Chabot Regional Park

I:\EBR0601\GIS\Maps\Fire Plan\FigureIII-14_RTAs_LC.mxd (02/05/2009)

LSA

N

0 1,000 2,000
FEET

Recommended Treatment Areas

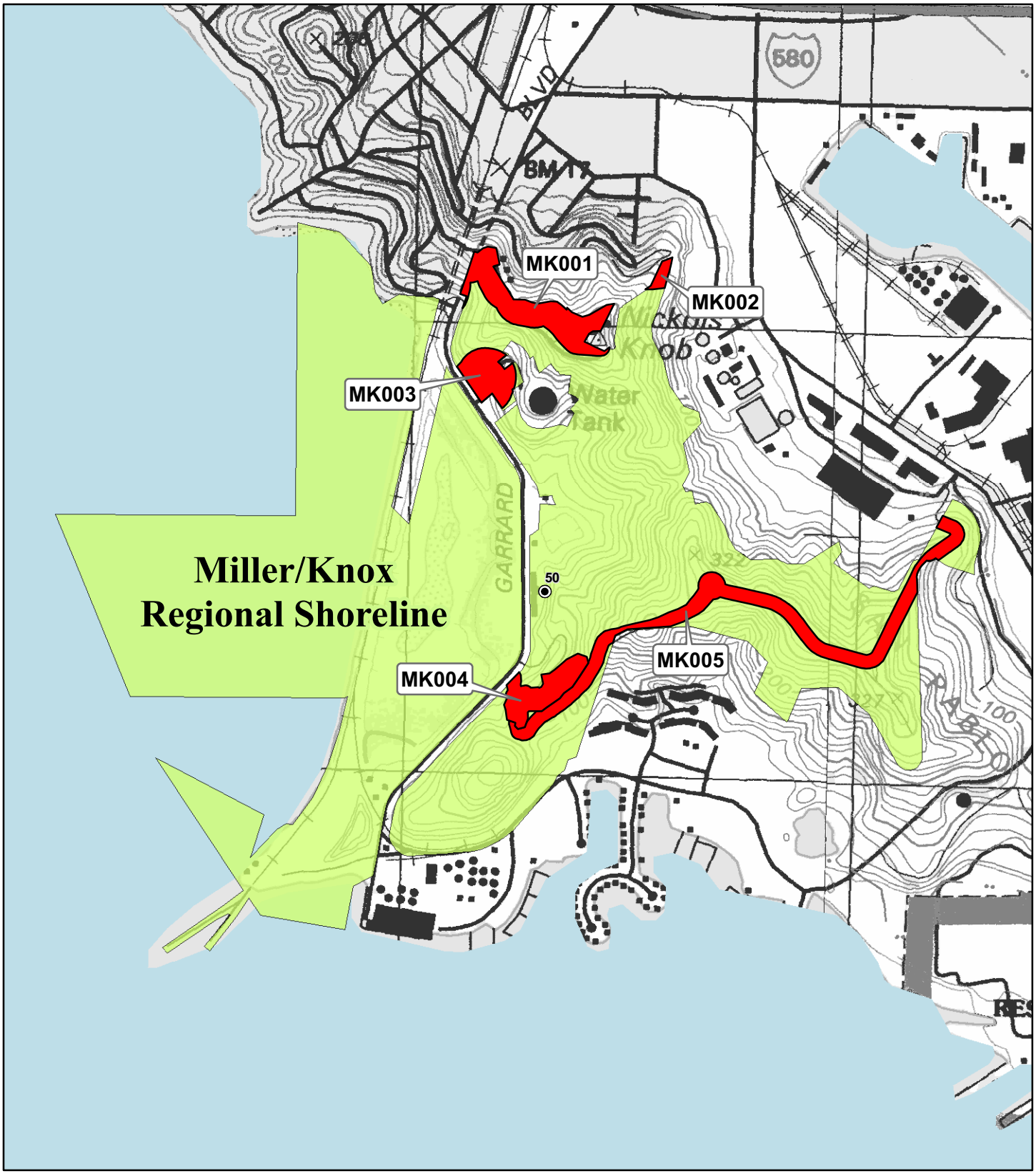
- Initial Treatment Area
- Maintenance Area
- Strategic Fire Routes
- Developed Facilities

FIGURE III-15

EBRPD Wildfire Hazard Reduction and Resource Management Plan

Recommended Treatment Areas in Point Pinole Regional Shoreline

I:\EBR0601\GIS\Maps\Fire Plan\FigureIII-15_RTAs_PP.mxd (02/05/2009)



LSA

N

0 500 1,000
FEET

Recommended Treatment Areas

Initial Treatment Area

Maintenance Area

Strategic Fire Routes

1 Developed Facilities

FIGURE III-16

EBRPD Wildfire Hazard Reduction and Resource Management Plan

Recommended Treatment Areas in Miller/Knox Regional Shoreline

I:\EBR0601\GIS\Maps\Fire Plan\FigureIII-16_RTAs_MK.mxd (02/05/2009)

Back of III-16

Table III-2 Recommended Treatment Areas (RTA) – Sensitive Resources and Preliminary Considerations and Guidelines

RTA	Acres[a]	EBRPD Fireplan Units/ Polygons	2008 Treatment Category	Potential Alameda Whipsnake Habitat	Known Special-Status Plants and Animals (Excluding Whipsnake)[b]	Hydrologic Resources	USGS Mapped Landslides	Percentage of RTA With Slopes over 30%	Known Cultural Resources	Vegetation Types (> 0.1 acre present)[c]	Vegetation Management Goal[d]	Considerations and Guidelines
Sobrante Ridge Regional Preserve												
SO001	4.1		Initial Treatment	yes	Pallid manzanita (*Arctostaphylos pallida*)	yes		80%		Northern Maritime Chaparral Oak-Bay Woodland/Forest Pallid Manzanita	Oak woodland, annual grassland, enhanced growing conditions for pallid manzanita	Pallid manzanita occurs in the polygon. Retain healthy pallid manzanita plants. Prune trees of lower branches and prune or remove shrubs around the pallid manzanita to allow it to grow unimpeded. Using hand labor in areas of pallid manzanita limits ground disturbance and prevents mature oak canopy from being affected. Eliminate dead standing trees, dead branches, remove small pines. Remove the cut material to be burned later, possibly in piles. Maintain defensible space adjacent to private land.
SO002	14.3	910	Maintenance	yes		yes	yes	79%		Oak-Bay Woodland/Forest California Annual Grassland Riparian Woodland	Oak woodland, annual grassland, enhanced growing conditions for pallid manzanita	Pallid manzanita occurs in the polygon. Retain healthy pallid manzanita plants. Prune trees and other plants around the pallid manzanita to allow it to grow unimpeded. Using hand labor in areas of pallid manzanita limits ground disturbance and prevents mature oak canopy from being affected.
Kennedy Grove Regional Recreation Area												
KG001	0.8		Initial Treatment	yes			yes	92%		Coastal Scrub (xeric)	Annual grassland, oak woodland, small patches of short shrubs	Polygon's small size and steep slopes hinder the use of mechanical treatments. Goat grazing can both reduce shrub volume and raise height of lower branches. Combining treatment actions with those in KG004 could reduce costs due to proximity and similarity of vegetation.
KG002	4.5		Initial Treatment	yes		yes	yes	25%		Eucalyptus Forest/Plantation	Eucalyptus overstory	Remove bay trees and eucalyptus smaller than 8 inches to prevent fire spread to eucalyptus canopies; also remove accumulation of forest litter including dead and downed logs, branches, bark, and leaves. Remove hazard trees along Laurel Loop Trail. Mechanical treatment may be effective to masticate bay trees and grind up eucalyptus debris; hand labor is another option for cutting bay and eucalyptus trees where needed to reduce potential for ground disturbance. All techniques are options for maintenance.
KG003	3.7		Initial Treatment			yes		0%	yes	Developed/Disturbed/Landscaped Eucalyptus Forest/Plantation California Annual Grassland Oak-Bay Woodland/Forest	Landscaping, exotic trees, oaks	Maintain spacing between shrubs and trees, and tree branches and ground per defensible space performance standards.
KG004	6.1		Initial Treatment			yes	yes	13%	yes	Oak-Bay Woodland/Forest Eucalyptus Forest/Plantation California Annual Grassland	Eucalyptus trees with no understory except leaf litter closest to Prater Rd.; oak woodland with ferns or herbaceous understory closer to creek; landscaped areas and annual grassland	Riparian corridor on southern boundary of polygon. Remove hazardous pines adjacent to the homes, dead and downed material, eucalyptus and bay understory, and invasive plant species such as Himalayan blackberry, and ivy. Limit treatments to hand labor if cost effective and feasible; establish any haul routes for debris removal away from creek as needed to protect riparian corridor. Combining treatment with those in KG001 will reduce costs due to proximity and similarity of vegetation. Treatment of this RTA is a high priority because of its adjacency to structures. Grazing and/or hand labor are viable options for maintenance.
Wildcat Canyon Regional Park												
WC001	4.4	813	Maintenance			yes	yes	2%		California Annual Grassland Oak-Bay Woodland/Forest	Annual grassland, with existing oak/bay forest	The perimeter treatment is the priority for this polygon; all treatment methods are possible at this time due to site conditions.
WC002	4.0	802	Maintenance	yes			yes	4%		California Annual Grassland	Annual grassland	The perimeter treatment is the priority for this polygon; all treatment methods are possible at this time due to site conditions.
WC003	1.7		Initial Treatment	yes			yes	97%		Coyote Brush Scrub	Speed succession to oak woodland by removing shrubs that limit growing conditions for trees	Riparian plants (willow) are present, assess RTA for possible riparian/wetland located in this area. Remove all deadwood in willows and prune lower branches to retain willow thickets. Retain coffeeberry and prune shrubs similar to trees; create defensible space on EBRPD land according to performance standards. Limb up all trees to 8 feet above ground and thin out smaller trees. Scatter cut material outside of site, and/or chip on site or pile for subsequent burning. Use herbicide and/or hand labor to reduce brush. Grazing and/or hand labor are viable techniques for maintenance.
WC004	8.0	801 815	Maintenance	yes			yes	33%	yes	California Annual Grassland Oak-Bay Woodland/Forest Coastal Scrub (xeric)	Annual grassland and north coastal scrub, scattered oaks and eucalyptus	Willows exist on eastern edge of southern portion of polygon; except for debris removal and pruning, treatments should be avoided in these willows. To the east of nearby homes, annually graze or mow grasslands to performance standards. South of the water tank, mowing should continue as a treatment option, as should pruning all trees and removing short pines and small eucalyptus. Prune all trees on site to 8-ft height, consider chip debris and spread near trail. Remove selected native trees to attain vegetation goal.
WC005	44.3	801 812 814	Initial Treatment	yes		yes	yes	52%	yes	Eucalyptus Forest/Plantation Oak-Bay Woodland/Forest Developed/Disturbed/Landscaped Non-native Coniferous Forest California Annual Grassland Redwood Forest	Thinned eucalyptus stand with increased proportion of native grasses, establish patches of north coastal scrub that have no overstory	Purple needle grass and other native grasses can be re-established using plugs or seeds. Remove French broom. Thin eucalyptus trees in patches to promote native grasses and scrub, with an emphasis on removing small or unhealthy trees or those with multiple stalks. Remove all decadent or hazardous pines, as well as large or leaning eucalyptus near homes. Spray seedlings/sprouts with an appropriate herbicide. Select individual eucalyptus trees to be retained on both sides of the paved road. For eucalyptus trees and shrubs to be removed consider using mechanical or hand labor treatments. Prescribed fire can be effective to control broom seedlings, as long as fire behavior is managed to prevent seed germination. All maintenance options in the Plan are appropriate.
WC006	1.2	814	Maintenance	yes			yes	88%	yes	California Annual Grassland Coastal Scrub (xeric) Oak-Bay Woodland/Forest	Oak-bay woodland and purple needle grass, no shrubs in understory	Remove understory shrubs, remove black acacia. The small size of the polygon limits the potential for mechanical treatment. Limbing and acacia removal would preferably be done using hand labor, if cost-effective, to limit the potential for ground disturbance. Limbs can be chipped and scattered on-site; larger boles can be left or hauled from under the tree canopy and located and oriented to minimize the potential for erosion and for rolling downhill.
WC007a	0.7		Initial Treatment	yes			yes	7%		Eucalyptus Forest/Plantation	Blue gum eucalyptus with no shrubs in understory	Access to RTA is good for using mechanical equipment to thin trees. Conduct nest surveys when appropriate to avoid potential adverse effects on nesting raptors. Limb eucalyptus trees and remove understory shrubs as part of creating defensible space.
WC007b	0.5		Initial Treatment	yes			yes	41%		Eucalyptus Forest/Plantation	Red gum eucalyptus and purple needle grass, no shrubs in understory	Potential for enhancement and incorporation of native grass restoration activities with fuel reduction activities is high in this RTA. Limb eucalyptus trees and remove understory shrubs as part of creating defensible space.
WC008	0.2		Maintenance					0%		Oak-Bay Woodland/Forest	Oak-bay woodland with no shrubs in understory	Suggest using hand labor as treatment method as the RTA's small size makes mechanical treatments and grazing potentially inefficient. Prune lower branches to maintain defensible space.
WC009	11.5	803	Initial Treatment	yes			yes	71%		Oak-Bay Woodland/Forest Coastal Scrub (mesic) Riparian Woodland Coastal Scrub (xeric)	Emerging oak woodland with ferns, oak litter, no understory shrubs; patches of north coastal scrub	Riparian plants (willow) are present, assess RTA for possible wetlands. Remove all deadwood in willows and prune lower branches of willows according to performance standards. Prevent establishment of French broom by chipping and spreading of cut material. Remove patches of north coastal scrub with hand-labor as needed to attain vegetation goal. Prune trees according to performance standards. Grazing and/or hand labor are viable techniques for maintenance.
WC010	10.8		Initial Treatment	yes			yes	70%		Oak-Bay Woodland/Forest Coastal Scrub (mesic) Coastal Scrub (xeric)	Oak woodland with willows, emerging oak woodland	Due to presence of steep topography and mapped landslides, potential for soil movement may preclude use of heavy machinery. Consider keeping deep-rooted plants onsite where feasible to stabilize soil. Potential for spread of French broom is high if ground disturbance occurs due to existing seedbed. Consider removing north coastal scrub to speed succession to oak woodland, and prune trees according to oak woodland performance standards. Thin isolated stands of eucalyptus and pine trees. Grazing and/or hand labor are viable techniques to maintain the site.

Table III-2 Recommended Treatment Areas (RTA) – Sensitive Resources and Preliminary Considerations and Guidelines

RTA	Acres[a]	EBRPD Fireplan Units/ Polygons	2008 Treatment Category	Potential Alameda Whipsnake Habitat	Known Special-Status Plants and Animals (Excluding Whipsnake)[b]	Hydrologic Resources	USGS Mapped Landslides	Percentage of RTA With Slopes over 30%	Known Cultural Resources	Vegetation Types (> 0.1 acre present)[c]	Vegetation Management Goal[d]	Considerations and Guidelines
WC011	34.8	804 805 807-811	Initial Treatment	yes			yes	71%		Coastal Scrub (mesic) Oak-Bay Woodland/Forest Riparian Woodland California Annual Grassland Eucalyptus Forest/Plantation Developed/Disturbed/Landscaped Coastal Scrub (xeric)	Emerging and established oak woodland, grasslands where no trees exist	Steep slopes, high soil moisture and landslide history may preclude use of heavy machinery; keep deep-rooted plants where feasible to stabilize soil. Potential for French broom spread is high if ground disturbance occurs due to existing seedbed. Consider removing north coastal scrub to speed succession to oak woodland, and prune trees according to oak woodlands performance standards, or remove dead material and shrubs and prune willows to promote a shift to grassland (which lends itself to mowing as future maintenance action). Thin isolated stands of eucalyptus and pine trees. Grazing and/or hand labor are viable techniques to maintain the site.
Tilden Regional Park												
TI001	28.6		Initial Treatment	yes			yes	11%		Eucalyptus Forest/Plantation Coyote Brush Scrub Coastal Scrub (xeric) Non-native Coniferous Forest Riparian Woodland Pallid Manzanita	Thinned eucalyptus, annual grassland, oak-bay woodland, north coastal scrub, pallid manzanita	Pallid Manzanita occurs in the polygon. Retain healthy Pallid Manzanita plants. Prune trees and other plants around the Pallid Manzanita to allow it to grow unimpeded. Using hand labor in areas of Pallid Manzanita limits ground disturbance and prevents mature oak canopy from being affected. Conduct nest surveys when appropriate to avoid potential adverse effects on nesting raptors. Remove eucalyptus above Fire Trail 3 and thin eucalyptus below. Access to RTA suggests good opportunities for mechanical treatment; prescribed burning may be especially suitable as a maintenance action in the late fall.
TI002a	109.0		Initial Treatment	yes		yes	yes	21%	yes	Eucalyptus Forest/Plantation Developed/Disturbed/Landscaped Non-native Coniferous Forest California Annual Grassland Coastal Scrub (xeric) Riparian Woodland	Thinned eucalyptus, annual grassland, developing and existing oak woodland	Conduct nest surveys when appropriate to avoid potential adverse effects on nesting raptors. Consider views of treated areas from residences to the west of RTA when prescribing treatments. Remove eucalyptus to 100 feet below elevation of residences to the west; also thin the remaining stand, selecting for removal eucalyptus in areas where oak-bay woodland is developing, and smaller eucalyptus trees in other areas. Reduce and maintain low volume of understory fuels in both oak-bay woodland and eucalyptus. Grazing is among the viable techniques for treatment and maintenance.
TI002b	5.2		Initial Treatment	yes		yes	yes	0%	yes	Developed/Disturbed/Landscaped Riparian Woodland Coastal Scrub (xeric) Oak-Bay Woodland/Forest Non-native Coniferous Forest	Oak-bay woodland, annual grassland, specimen eucalyptus, landscaping	Consider aesthetics of treatment around facility at risk; thin eucalyptus to approximately 35-foot spacing, prune branches, and create/maintain defensible space. Grazing is among the viable techniques to maintain open areas.
TI002c	0.8	118	Initial Treatment			yes	yes	85%		Non-native Coniferous Forest Developed/Disturbed/Landscaped	Non-native coniferous forest, developed and landscaped area	Continue Fire Department actions identified for this RTA.
TI003	15.6		Initial Treatment	yes			yes	37%		Non-native Coniferous Forest Coastal Scrub (xeric) California Annual Grassland Coyote Brush Scrub	Annual grassland, oak-bay woodland	Remove ridgetop conifers to prevent ember production and spread. Consider aesthetics and visual resources during removal, as pines are prominent on ridgetop. Consider grazing to maintain open areas
TI004	48.5		Initial Treatment	yes		yes	yes	53%		Eucalyptus Forest/Plantation Non-native Coniferous Forest Coyote Brush Scrub	Thinned eucalyptus	Reduce understory fuels and remove selected eucalyptus to improve travel along the designated strategic fire route; removal of trees nearest the road should be highest priority. Develop a 35-foot average spacing in thinned eucalyptus stand within 100 feet of the road, 25-foot spacing otherwise, with an emphasis on removing small or unhealthy trees or those with multiple stalks. Consider grazing to maintain open areas.
TI005	6.4		Initial Treatment	yes				60%		Coastal Scrub (xeric) Non-native Coniferous Forest	Emerging oak-bay woodland, annual grassland, coyote brush	Remove pines to prevent ember production and distribution. Consider grazing to maintain open areas.
TI006	10.7	101 102	Initial Treatment	yes	Western leatherwood (*Dirca occidentalis*)	yes	yes	52%		Oak-Bay Woodland/Forest Eucalyptus Forest/Plantation Broom Scrub Developed/Disturbed/Landscaped Coyote Brush Scrub	Emerging oak-bay woodland	Due to presence of steep topography and mapped landslides, potential for soil movement may preclude use of heavy machinery. Keep deep-rooted plants where feasible to stabilize soil. Potential for French broom spread is high if ground disturbance occurs. Remove French broom, eucalyptus trees and sprouts as well as north coastal scrub to speed succession to oak woodland; prune trees according to oak woodland performance standards. Retain any willows, but remove deadwood and prune lower branches. Enhance conditions for western leatherwood.
TI007a	2.4	116	Initial Treatment	yes		yes		66%		Eucalyptus Forest/Plantation	Annual grassland, north coastal scrub, developing oak-bay woodland	Conduct nest surveys when appropriate to avoid potential adverse effects on nesting raptors. Consider removing eucalyptus and pine trees where feasible to prevent ember production and distribution. Consider grazing to maintain open areas.
TI007b	1.3		Initial Treatment	yes		yes		63%		Eucalyptus Forest/Plantation	Annual grassland, north coastal scrub, developing oak-bay woodland	Conduct nest surveys when appropriate to avoid potential adverse effects on nesting raptors. Consider removing eucalyptus and pine trees where feasible to prevent ember production and distribution. Consider grazing to maintain open areas.
TI007c	2.2		Initial Treatment	yes		yes		98%		Eucalyptus Forest/Plantation	Annual grassland, north coastal scrub, developing oak-bay woodland	Conduct nest surveys when appropriate to avoid potential adverse effects on nesting raptors. Consider removing eucalyptus and pine trees where feasible to prevent ember production and distribution. Consider grazing to maintain open areas.
TI008a	28.8	115	Initial Treatment		Western leatherwood (*Dirca occidentalis*)	yes	yes	28%	yes	Eucalyptus Forest/Plantation	Thinned eucalyptus, patches of developing oak-bay woodland	Conduct nest surveys when appropriate to avoid potential adverse effects on nesting raptors. Reduce surface fuel volumes by removing forest litter, dead bark and branches, and understory shrubs. Thin eucalyptus to 25-foot spacing, selecting for removal trees around developing oak-bay woodlands. Prune lower branches of all retained trees. Enhance conditions for western leatherwood.
TI008b	2.6	115	Maintenance				yes	14%	yes	Developed/Disturbed/Landscaped Oak-Bay Woodland/Forest	Oak bay woodland, landscaping, with specimen eucalyptus	Create defensible space around historic carousel; reduce surface volumes by removing forest litter, dead bark and branches, and understory shrubs. Thin eucalyptus to 25-foot spacing, selecting for removal trees around developed oak-bay woodlands; and elsewhere emphasize removal of small or unhealthy trees, or those with multiple stalks.
TI009	26.0	108 111 112	Initial Treatment	yes			yes	56%		Oak-Bay Woodland/Forest California Annual Grassland Coastal Scrub (xeric) Redwood Forest Riparian Woodland Eucalyptus Forest/Plantation	Existing and emerging oak-bay woodland, redwood, scattered north coastal scrub, native grassland	All treatment methods can be considered, but the potential spread of French broom and other invasive species is high if ground disturbance occurs due to existing seedbed. Remove shrubs under emerging hardwoods; elsewhere maintain shrub cover to greater than 30 percent overall. Shorten grass.

Table III-2 Recommended Treatment Areas (RTA) – Sensitive Resources and Preliminary Considerations and Guidelines

RTA	Acres[a]	EBRPD Fireplan Units/ Polygons	2008 Treatment Category	Potential Alameda Whipsnake Habitat	Known Special-Status Plants and Animals (Excluding Whipsnake)[b]	Hydrologic Resources	USGS Mapped Landslides	Percentage of RTA With Slopes over 30%	Known Cultural Resources	Vegetation Types (> 0.1 acre present)[c]	Vegetation Management Goal[d]	Considerations and Guidelines
TI010	27.9	111 112 119	Initial Treatment	yes			yes	53%		Non-native Coniferous Forest California Annual Grassland Oak-Bay Woodland/Forest Developed/Disturbed/Landscaped Redwood Forest Eucalyptus Forest/Plantation	Oak-bay woodland, scattered eucalyptus and pine trees, native grassland	Conduct nest surveys when appropriate to avoid potential adverse effects on nesting raptors. Reduce surface fuel volumes by removing forest litter, dead bark and branches, and understory shrubs. Prune lower tree branches.
TI011	22.2	103 104 110	Maintenance	yes	Pallid manzanita (*Arctostaphylos pallida*); Western leatherwood (*Dirca occidentalis*)	yes		27%	yes	Oak-Bay Woodland/Forest Developed/Disturbed/Landscaped Coastal Scrub (xeric) Non-native Coniferous Forest Redwood Forest Riparian Woodland	Oak-bay woodland, scattered eucalyptus and redwood trees	Conduct nest surveys when appropriate to avoid potential adverse effects on nesting raptors. Reduce surface fuel volumes by removing forest litter, dead bark and branches, and understory shrubs. Prune lower tree branches. Prune trees and other plants around Pallid Manzanita and western leatherwood to allow it to grow unimpeded.
TI012	90.8	105 107	Maintenance	yes				42%	yes	Eucalyptus Forest/Plantation California Annual Grassland Non-native Coniferous Forest Oak-Bay Woodland/Forest Coastal Scrub (xeric) Coyote Brush Scrub Redwood Forest Developed/Disturbed/Landscaped Coastal Scrub (mesic)	Thinned eucalyptus, redwood, oak-bay woodland, annual grassland, north coastal scrub	Reduce surface fuel volumes by removing forest litter, dead bark, small diameter trees and branches, and understory shrubs. Thin eucalyptus to approximately 25-foot spacing, selecting for removal those eucalyptus around developed oak-bay woodlands and elsewhere emphasize removal of small or unhealthy trees, or those with multiple stalks. Prune branches. Prune branches from pine, oak, eucalyptus, and fir to remove ladder fuels. All treatment methods are suitable to manage and maintain the vegetation on this site. Continue to mow behind homes.
TI013	15.7		Initial Treatment	yes				87%		Oak-Bay Woodland/Forest Coastal Scrub (xeric) Non-native Coniferous Forest Eucalyptus Forest/Plantation California Annual Grassland Riparian Woodland Coyote Brush Scrub	Existing forest canopy, including oak-bay woodland, scattered north coastal scrub	Reduce surface fuel volumes by removing forest litter, dead bark and branches, and understory shrubs. Thin eucalyptus to 25-foot spacing, selecting for removal those eucalyptus around developed oak-bay woodlands and elsewhere emphasize removal of small or unhealthy trees, or those with multiple stalks. Prune lower branches of trees. All treatment methods are possible.
TI014	3.5		Initial Treatment	yes				71%		Eucalyptus Forest/Plantation	Oak-bay woodland, scattered north coastal scrub	Conduct nest surveys when appropriate to avoid potential adverse effects on nesting raptors. Consider removing eucalyptus within 100 feet of ridgeline. Mechanical treatments are possible, but others may be less disruptive due to slope conditions.
TI015	54.0	106 114 117	Maintenance	yes	Western leatherwood (*Dirca occidentalis*)	yes	yes	37%	yes	Oak-Bay Woodland/Forest Coyote Brush Scrub Developed/Disturbed/Landscaped Redwood Forest Coastal Scrub (xeric) Non-native Coniferous Forest California Annual Grassland	Oak-bay woodland, redwood, scattered north coastal scrub	Consider aesthetic resources and screening for Little Steam Train area. Enhance, create, and maintain defensible space in and around Little Steam Train and Corporation Yard. Thin pine and fir in and around the tracks of the steam trains. Remove all ladder fuels around the tracks and structures at the steam trains. Prescribed burns may be facilitated by trails surrounding the RTA. All treatment methods are suitable (including for maintenance) when protective measures for Little Steam Train and Corporation Yard are included. Enhance conditions for western leatherwood.
TI016	1.4		Initial Treatment					75%		Eucalyptus Forest/Plantation	Emerging oak-bay woodland, north coastal scrub, annual grass	Conduct nest surveys when appropriate to avoid potential adverse effects on nesting raptors. Remove eucalyptus and pine within 100 feet of ridgeline. Mechanical treatments likely precluded due to steep slopes and small size of RTA. Based on GIS mapping provided by the District, this polygon was included because it was part of the historic fuel break; however it may not be land owned by the District. Further study is needed.
TI017	0.9		Initial Treatment					51%		Non-native Coniferous Forest	Emerging oak-bay woodland, north coastal scrub, annual grass	Conduct nest surveys when appropriate to avoid potential adverse effects on nesting raptors. Remove eucalyptus and pine within 100 feet of ridgeline. Mechanical treatments likely precluded due to steep slopes and small size of RTA.
TI018	0.6		Initial Treatment	yes				85%		Eucalyptus Forest/Plantation	Emerging oak-bay woodland, north coastal scrub, annual grass	Conduct nest surveys when appropriate to avoid potential adverse effects on nesting raptors. Remove eucalyptus and pine within 100 feet of ridgeline. Mechanical treatments likely precluded due to steep slopes and small size of RTA.
TI019	2.0		Initial Treatment	yes			yes	77%		Eucalyptus Forest/Plantation	annual grassland, scattered north coastal scrub, or thinned eucalyptus	Conduct nest surveys when appropriate to avoid potential adverse effects on nesting raptors. Remove eucalyptus, or thin and maintain with prescribed burns those grassy fuels under trees where lower branches have been limbed.
TI020	15.8		Initial Treatment		Western leatherwood (*Dirca occidentalis*)	yes	yes	39%	yes	Eucalyptus Forest/Plantation Oak-Bay Woodland/Forest Riparian Woodland Developed/Disturbed/Landscaped	Thinned eucalyptus, existing and developing oak-bay woodland	Conduct nest surveys when appropriate to avoid potential adverse effects on nesting raptors. Emphasize surface fuel volume reduction by removing dead branches, bark, and forest litter under eucalyptus trees. Thin eucalyptus trees and those above developed oak-bay woodland. Prune lower branches of all retained trees. All treatment methods are possible. Prescribed burns (potentially in early spring or late fall when grass is green) are especially suitable in this RTA because of the trails throughout and around treatment area. Enhance conditions for western leatherwood.
TI021	17.8	116	Initial Treatment		Pallid manzanita (*Arctostaphylos pallida*)	yes	yes	23%	yes	Developed/Disturbed/Landscaped Oak-Bay Woodland/Forest Non-native Coniferous Forest	Landscaping, oak-bay woodland	Consider visual resources and historic Brazil Room when conducting treatments. Enhance and maintain defensible space according to performance standards. Hand labor likely most suitable near buildings; other treatment methods may be more suitable further away from buildings. Prune trees and other plants around Pallid Manzanita to allow it to grow unimpeded.
TI022	6.4	113	Initial Treatment	yes				60%	yes	Coyote Brush Scrub Non-native Coniferous Forest Developed/Disturbed/Landscaped California Annual Grassland California Annual Grassland Non-native Coniferous Forest	Annual grassland, scattered pines	Communication tower located in RTA is vital infrastructure; consider the screening value of the pines for the tower. Prune lower pine branches up to 10 feet and remove small diameter pine, oak, and bay trees. Create and maintain low fuel volume surface fuels, such as grasses by removing baccharis and French broom. Prescribed burning, masticating, and mowing are suitable to manage the vegetation on this site.

Table III-2 Recommended Treatment Areas (RTA) – Sensitive Resources and Preliminary Considerations and Guidelines

RTA	Acres[a]	EBRPD Fireplan Units/ Polygons	2008 Treatment Category	Potential Alameda Whipsnake Habitat	Known Special-Status Plants and Animals (Excluding Whipsnake)[b]	Hydrologic Resources	USGS Mapped Landslides	Percentage of RTA With Slopes over 30%	Known Cultural Resources	Vegetation Types (> 0.1 acre present)[c]	Vegetation Management Goal[d]	Considerations and Guidelines
Claremont Canyon Regional Preserve												
CC001	19.0	203 210	Initial Treatment	yes		yes	yes	91%		Eucalyptus Forest/Plantation Oak-Bay Woodland/Forest Coastal Scrub (xeric) California Annual Grassland Coyote Brush Scrub	Open eucalyptus stand with minimal understory, oak-bay woodland, patches of north coastal scrub away from structures. Create a fire safe buffer of grass without eucalyptus above homes.	This RTA has a history of fire above structures. Maintain grassland buffer in low fuel condition above the homes. Remove dead and downed debris smaller than 8 inches in diameter, limb up or remove small oak and bay trees, remove all young pines on the slope, leaving remnants of large, burned dead pines to provide for moisture retention and wildlife habitat. Maintain absence of understory in eucalyptus stand. Create a buffer of 200 feet of grass above homes by removing north coastal scrub. Rremove pittosporum.
CC002	6.2	204	Maintenance	yes			yes	97%		California Annual Grassland Oak-Bay Woodland/Forest Coyote Brush Scrub	Annual grassland, north coastal scrub, oak-bay woodland	Continue to graze and/or mow grass annually or as feasible.
CC003	13.8	205	Initial Treatment	yes			yes	80%	yes	Coastal Scrub (xeric) California Annual Grassland Broom Scrub Coyote Brush Scrub Eucalyptus Forest/Plantation	Perennial and annual grasslands, oak-bay woodland	Invasive plant species of high concern at this RTA. Mow in spring to create a safety zone along the East-West fire trail. Consider grazing. Remove pine trees on ridgeline to prevent widespread distribution of embers. Chemical treatment and prescribed burning (including pile burning) may also be considered. Otherwise, use hand labor to cut and arrange brush in preparation for prescribed burning. Successful treatment requires a commitment to carefully-timed rotation of mechanical treatments-hand labor-burning-grazing to control or reduce broom and or brush invasion.
CC004	2.6	209	Initial Treatment	yes		yes	yes	96%		Eucalyptus Forest/Plantation	On eastern portion of RTA, grassland and emerging oak-bay. On western portion of RTA, closed canopy oak-bay woodland 10-year+ in future	Entire RTA steeply sloped. Potential for broom invasion after surface disturbance is high. Clean machinery before moving to site. Repair depressions and bare soil per erosion control best practices. Thin eucalyptus canopy to 50 percent over time and eventually remove all eucalyptus in subsequent treatments. Remove eucalyptus with healthy vigorous native understory first. Remove all eucalyptus next to road, keeping oaks and thinning understory plants. Remove two-thirds of small bay trees.
CC005	0.6		Initial Treatment	yes		yes	yes	100%		Eucalyptus Forest/Plantation	North coastal scrub, emerging oaks	Emphasize surface fuel volume reduction by removing understory shrubs, dead branches, bark, and forest litter under eucalyptus trees. Remove shrubs under hardwoods as well. Prune lower branches of all trees.
CC006	3.3		Initial Treatment	yes		yes	yes	93%		Oak-Bay Woodland/Forest Coastal Scrub (xeric)	Oak woodland with understory of oak little and/or herbs/ferns, grasses with short, scattered, or low-volume scrub	Potential whipsnake habitat present. Suggest grazing during appropriate seasons to remove brush and avoid impacts to snakes. Limb up mature oaks after grazing. Mechanical treatment likely precluded due to steep slopes.
CC007	1.7	205	Maintenance	yes			yes	83%		Coastal Scrub (xeric) California Annual Grassland	Perennial and annual grasslands	Invasives are a concern at this RTA due to existing seedbed. Mow in spring to create a safety zone along the East-West fire trail. Consider grazing. Chemical treatment and prescribed burning (including pile burning) may also be considered. Otherwise, use hand labor to reduce brush/grass, and arrange brush in preparation for prescribed burning. Successful treatment requires a commitment to carefully-timed rotation of mechanical treatments-hand labor-mowing-burning-grazing to control or reduce broom and or brush invasion.
CC008	4.0	207 209	Initial Treatment	yes		yes	yes	72%		Oak-Bay Woodland/Forest Developed/Disturbed/Landscaped Coyote Brush Scrub Coastal Scrub (xeric) Eucalyptus Forest/Plantation	Landscaping, scrub and oak woodlands, reduced proportion of bays in understory	Consider hand labor treatments to create and maintain spacing between shrubs, and prune lower tree branches according to defensible space performance standards. Suggest mowing grasses, and removal of two-thirds of small (less than 4 inches) bay trees in understory, if feasible. Use grazing and/or hand labor to maintain the site.
CC009	65.6	208 216	Maintenance	yes		yes	yes	90%		Coastal Scrub (xeric) Oak-Bay Woodland/Forest Coyote Brush Scrub California Annual Grassland Non-native Coniferous Forest	Young north coastal scrub, oak woodland, annual grassland, non-native coniferous forest, north coastal scrub	Consider and study whether traditional annual mowing regime degrades assembly of native plants below homes, adjust maintenance activities accordingly. Selectively mow only the plants that cure, balancing the overall volume of fuel. Select for retention low-volume species that do not cure. Consider conducting broadcast prescribed burn from trail up to road to the east at regular intervals and mowing at pullout on Grizzly Peak Blvd. Consider landscaping with low-growing plants that do not cure and can be easily managed at regular intervals to remove dead material. Suggest annual maintenance, if feasible, below homes to south to mow grasses but avoid native grasses and forbs. Hand labor should be considered because of specific plants to retain.
CC010	6.2	207 209	Maintenance	yes		yes	yes	79%		Oak-Bay Woodland/Forest Coyote Brush Scrub Eucalyptus Forest/Plantation Coastal Scrub (xeric)	North coastal scrub, oak woodland, eucalyptus forest	French broom and invasive plant species a concern. Consider goat grazing, mechanical treatment, or hand labor to remove woodland understory and reduce scrub between woodlands. Recommend limbing up oak woodlands and removing two-thirds of small bay trees and one-third of medium-sized (4-8 inches diameter) bay trees. Thin eucalyptus.
CC011	40.2		Maintenance	yes		yes	yes	99%	yes	Coastal Scrub (xeric) Coyote Brush Scrub Oak-Bay Woodland/Forest	Grass, with minor component of invasive non-native weeds. Shrubs could grow to 30 percent cover before re-treatment is needed. Existing oak-bay woodland	Treating this RTA is generally a lower priority. Concern for the spread of broom into RTA from CC003. Use of prescribed fire would be appropriate because broom seed would only be germinating, not flowering or producing seed in CC003, but likely requires a commitment to carefully-timed rotation of mowing-burning-grazing broom in CC003. North coastal scrub present offers habitat for bird species. Steep slopes and potential whipsnake habitat present. Recommend prescribed burn only after broom in CC003 is determined to be under control.
CC012	2.4		Initial Treatment	yes			yes	77%		Coyote Brush Scrub Non-native Coniferous Forest	Immature scrub (no broom and no pines), short-stature trees with low ember producing potential	Spread of broom into disturbed ground is a concern. Consider spreading pine chips onsite to cover bare patches; remove eucalyptus resprouts and broom before seed set. Mechanical or hand labor treatments can remove pines; machinery could be used to grind smaller pines and leave material onsite. If removed using hand labor, haul offsite whole trees. Maintain fuelbreak adjacent to private land around communication tower and access road.
Temescal Regional Recreation Area												
TM001	1.5		Maintenance					0%		Developed/Disturbed/Landscaped Oak-Bay Woodland/Forest California Annual Grassland Eucalyptus Forest/Plantation Oak-Bay Woodland/Forest	Landscaping immediately around Beach House, oak woodland with herbaceous understory to south	Primary vegetation management goal is to create defensible space around Beach House. Recommend enhancing defensible space according to performance standards. Consider hand labor as a preferred treatment option, where feasible, but all treatment methods (except prescribed burns) are suitable.
Sibley Volcanic Regional Preserve												
SR001	7.9		Initial Treatment	yes			yes	78%		Oak-Bay Woodland/Forest Non-native Coniferous Forest Coyote Brush Scrub	Oak-bay woodland, Monterey pine with sparse understory	Invasives are a concern at this polygon due to existing seedbed. Remove understory shrubs and young pine and low hanging branches beneath mature pines; also remove all hazardous and structurally-weak mature pines. Small RTA size limits mechanical treatment unless combined with other areas; all other treatment methods are suitable. Maintain fuelbreak adjacent to private land around communication tower, access road, and behind the homes. Use goat grazing and/or hand labor to maintain the site.

Table III-2 Recommended Treatment Areas (RTA) – Sensitive Resources and Preliminary Considerations and Guidelines

RTA	Acres[a]	EBRPD Fireplan Units/ Polygons	2008 Treatment Category	Potential Alameda Whipsnake Habitat	Known Special-Status Plants and Animals (Excluding Whipsnake)[b]	Hydrologic Resources	USGS Mapped Landslides	Percentage of RTA With Slopes over 30%	Known Cultural Resources	Vegetation Types (> 0.1 acre present)[c]	Vegetation Management Goal[d]	Considerations and Guidelines
SR002a	28.3		Initial Treatment	yes			yes	93%		Eucalyptus Forest/Plantation Oak-Bay Woodland/Forest Coastal Scrub (xeric) Coastal Scrub (mesic) Broom Scrub Coyote Brush Scrub	Oak-bay woodland, scattered north coastal scrub	Steep slopes and invasive weeds are a concern. Remove all eucalyptus trees. Reduce shrubby fuels. All treatment methods (including grazing) are possible for surface fuel management, but steep slopes may require additional measures if mechanical treatments are used. Where necessary, consider employing cable yarding systems or other methods suitable for steep slopes.
SR002b	15.9	301 308	Maintenance	yes			yes	88%		Eucalyptus Forest/Plantation Broom Scrub California Annual Grassland Oak-Bay Woodland/Forest Coastal Scrub (mesic) Coastal Scrub (xeric)	Oak-bay woodland, scattered north coastal scrub	Steep slopes and invasive plant species (broom) are a concern. Remove all eucalyptus trees. Reduce shrubby fuels. All treatment methods (including grazing) are possible for surface fuel management, but steep slopes may require additional measures if mechanical treatments are used. Where necessary, consider employing cable yarding systems or other methods suitable for steep slopes.
SR003	16.5	303	Maintenance	yes			yes	50%		California Annual Grassland	annual grassland, scattered north coastal scrub	Emphasize reduction of surface fuels by shortening grass and keeping shrubs at less than 3% cover or 2.5 feet in height, per performance standards. All treatment methods are suitable.
SR004	12.9		Initial Treatment	yes			yes	75%		Oak-Bay Woodland/Forest Coastal Scrub (xeric) California Annual Grassland	Oak-bay woodland, scattered north coastal scrub, annual grassland	Presence of steep slopes likely preclude off-road mechanical treatments. Remove shrubs near emerging oak-bay trees to speed succession to oak-bay woodland within 100 feet of road. Remove broom, prune up low hanging branches, and remove dead and downed material. Use grazing and/or hand labor to maintain the site.
SR005	37.4	306 351	Initial Treatment	yes	Pallid manzanita (*Arctostaphylos pallida*)	yes	yes	58%	yes	Oak-Bay Woodland/Forest Non-native Coniferous Forest Coyote Brush Scrub Coastal Scrub (mesic) California Annual Grassland Riparian Woodland Developed/Disturbed/Landscaped Coastal Scrub (xeric)	Oak-bay woodland, scattered north coastal scrub, annual grassland, riparian woodland	Conduct nest surveys when appropriate to avoid potential adverse effects on nesting raptors. Remove eucalyptus and pines within 100 feet of ridgeline and remove hazard trees along roads and trails. Prune trees and other plants around Pallid Manzanita to allow it to grow unimpeded. Create defensible space adjacent to private land.
SR006	38.4		Initial Treatment	yes	Golden eagle (*Aquila chrysaetos*)	yes	yes	63%		Eucalyptus Forest/Plantation	Thinned eucalyptus, Monterey pine, oak-bay woodland and scattered north coastal scrub	Communication tower within RTA is vital infrastructure. Consider that pines provide visual screening for tower as it is located on prominent ridgeline. Create defensible space around communication tower. Above trail, thin eucalyptus and pines to 25-foot spacing, selecting for removal those trees located above well-developed oak-bay woodlands, and elsewhere, remove those trees that are smaller, unhealthy or have multiple trunks. Emphasize surface fuel reduction under retained trees, prune trees to 8-foot height in thinned areas. Mechanical treatments are most suitable for tree removal, but all treatment methods are suitable for surface fuel treatment. Conduct nest surveys when appropriate to avoid impacts to nesting raptors.
SR007	8.7		Initial Treatment	yes		yes	yes	80%		Eucalyptus Forest/Plantation	Red-gum eucalyptus with sparse understory	Reduce shrubs beneath eucalyptus trees through grazing, if feasible. Close tree spacing likely precludes mechanical treatment, and the large size of the RTA may make hand labor unsuitable as well.
Huckleberry Botanic Regional Preserve												
HP001	1.7		Initial Treatment	yes		yes		99%		Eucalyptus Forest/Plantation	Oak-bay woodland near road, thinned eucalyptus below	Conduct nest surveys when appropriate to avoid potential adverse effects on nesting raptors. Steep slopes require erosion control measures for mechanical treatments. Remove eucalyptus within 100 feet of ridgeline, thin trees below ridgeline to 25-foot spacing, selecting for removal smaller trees, unhealthy trees or those with multiple trunks. Prune all retained trees to 8 feet. Emphasize surface fuel reduction in follow-on treatments. Mechanical treatment is suitable for tree removal, all methods are suitable for surface fuel reduction.
HP002	13.6	403 404	Initial Treatment	yes	Pallid manzanita (*Arctostaphylos pallida*)		yes	97%		Oak-Bay Woodland/Forest Northern Maritime Chaparral Pallid Manzanita	Oak-bay woodland, pallid manzanita, scattered north coastal scrub	Presence of Pallid Manzanita requires hand labor treatments to avoid impacts. Remove non-manzanita shrubs to reduce fuel volume, and prune retained trees. Consider pile burning to reduce fuel load.
HP003	1.1		Initial Treatment	yes	Pallid manzanita (*Arctostaphylos pallida*)			100%		Northern Maritime Chaparral Pallid Manzanita	Oak-bay woodland, pallid manzanita, scattered north coastal scrub	Presence of Pallid Manzanita likely requires hand labor treatment to avoid impacts. Remove non-manzanita shrubs to reduce fuel volume, and prune retained trees. Consider pile burning to reduce fuel load.
HP004	1.6	402	Initial Treatment	yes				100%		Oak-Bay Woodland/Forest Coastal Scrub (mesic) Pallid Manzanita	Oak-bay woodland, pallid manzanita, scattered north coastal scrub	Potential presence of Pallid Manzanita likely requires hand labor treatment to avoid impacts. Remove non-manzanita shrubs to reduce fuel volume, and prune retained trees. Consider pile burning to reduce fuel load.
Redwood Regional Park												
RD001	66.1	503 507 552	Initial Treatment	yes	Oakland star tulip (*Calochortus umbellatus*)		yes	42%	yes	Non-native Coniferous Forest Eucalyptus Forest/Plantation California Annual Grassland Oak-Bay Woodland/Forest Coastal Scrub (xeric) Broom Scrub Developed/Disturbed/Landscaped	Open Monterey pine stands with understory of pine litter, grassland and scattered low shrubs, annual grass	Long history of fuel management in this RTA. Installation of firefighter safety zone is a high priority. Remove small and unhealthy pines and those with poor structural stability. Maintain low fuel volume under Monterey pines above Phillips Loop Trail by reducing coastal scrub and removing broom. All treatment methods are suitable in this area; prescribed burning is practical due to trail locations within and around the treatment area, but the safety zone may best be created using mechanical treatment, if feasible. In 2008, the Fire Department conducted some treatment activities in this RTA that may change some portions of RD001 from Initial Treatment to Maintenance. Changes in the designation and vegetation types will be reflected in future Fuels Treatment Plans. Enhance conditions for Oakland Star tulip where appropriate.
RD002	5.0	504	Initial Treatment	yes		yes	yes	74%		Eucalyptus Forest/Plantation	Oak-bay woodland near road, thinned red gum below	Conduct nest surveys when appropriate to avoid potential adverse effects on nesting raptors. Steep slopes likely require additional mitigation measures for treatments using heavy machinery. Remove eucalyptus within 100 feet of ridgeline, thin trees below ridgeline to 25-foot spacing selecting for removal those eucalyptus around developed oak-bay woodlands. Elsewhere emphasize removal of small or unhealthy trees, or those with multiple stalks. Prune limbs of all retained trees up to 8 feet. Emphasize surface fuel reduction following initial treatment by removing forest litter, dead bark and branches, and understory shrubs. Mechanical treatments are suitable for tree removal, and all methods are suitable for surface fuel reduction.

Table III-2 Recommended Treatment Areas (RTA) – Sensitive Resources and Preliminary Considerations and Guidelines

RTA	Acres[a]	EBRPD Fireplan Units/ Polygons	2008 Treatment Category	Potential Alameda Whipsnake Habitat	Known Special-Status Plants and Animals (Excluding Whipsnake)[b]	Hydrologic Resources	USGS Mapped Landslides	Percentage of RTA With Slopes over 30%	Known Cultural Resources	Vegetation Types (> 0.1 acre present)[c]	Vegetation Management Goal[d]	Considerations and Guidelines
RD003	27.6	504	Initial Treatment	yes		yes	yes	38%		Eucalyptus Forest/Plantation Riparian Woodland Coyote Brush Scrub Oak-Bay Woodland/Forest Redwood Forest Developed/Disturbed/Landscaped	Red gum eucalyptus with sparse understory, oak-bay woodland with willows	Treatment of this RTA is a low priority. Reduce shrubs beneath eucalyptus trees through grazing except in riparian areas. Dense tree spacing not conducive to mechanical treatment, and hand labor not likely suitable due to the large size of the treatment area. Avoid treatments in all willow areas.
RD004	28.4	504 505 506	Initial Treatment	yes	Oakland star tulip (*Calochortus umbellatus*); Western leatherwood (*Dirca occidentalis*)		yes	62%		Non-native Coniferous Forest Oak-Bay Woodland/Forest California Annual Grassland Coyote Brush Scrub Developed/Disturbed/Landscaped Eucalyptus Forest/Plantation	Annual grassland, scattered Monterey pine, oak-bay woodland	Long history of treatments in this RTA. Emphasize understory and surface fuel treatments by removing forest litter, dead bark and branches, and understory shrubs. All treatment methods are suitable. Remove eucalyptus sprouts, re-sprouts, and broom. Enhance conditions for Oakland Star tulip and western leatherwood where appropriate.
RD005a	1.1		Initial Treatment	yes			yes	65%		Eucalyptus Forest/Plantation	Annual grassland safety zone	Installation of firefighter safety zone is a high priority; installation of safety zone would require removal of all eucalyptus trees within the RTA; Use of mechanical methods or hand labor best for tree and brush removal.
RD005b	8.4		Initial Treatment	yes				9%	yes	Non-native Coniferous Forest Developed/Disturbed/Landscaped Redwood Forest Coyote Brush Scrub California Annual Grassland Oak-Bay Woodland/Forest	Scattered Monterey pine, oak-bay woodland, annual grassland, redwoods landscaping	High priority is to create and maintain defensible space around Chabot Space and Science Center. Remove structurally-unsound mature pine trees and those above well-developed oak-bay woodlands. Prune all retained trees and emphasize surface fuel treatments by removing shrubs under trees. Also consider removing young pines and keeping shrub cover to less than 30 percent.
RD006	7.6		Initial Treatment			yes		22%		Oak-Bay Woodland/Forest Redwood Forest Developed/Disturbed/Landscaped	Redwood forest, oak-bay woodland, landscaping	Recommend creating and maintaining defensible space around recreational facility; consider hand labor if cost-effective and feasible.
RD007	2.1		Initial Treatment	yes				65%		Eucalyptus Forest/Plantation	Safety zone of annual grassland	Installation of firefighter safety zone is a high priority; installation would require removal of all eucalyptus trees and other large fuels within the RTA; mechanical treatments best method.
RD008	3.7	502 551	Initial Treatment	yes	Presidio clarkia (*Clarkia franciscana*)	yes	yes	28%	yes	Coyote Brush Scrub Developed/Disturbed/Landscaped Non-native Coniferous Forest Serpentine Bunchgrass Prairie	Perennial grassland, landscaping, scattered north coastal scrub, pines, restored serpentine bunchgrass prairie	Creating and maintaining defensible space around Trudeau Center is a high priority. Coordinate treatments with Serpentine Prairie Restoration Project in this area. Recommend using hand labor to maintain low-fuel landscaping as defensible space. Consider removing trees incompatible with serpentine prairie association and implement prescribed burning as feasible. Enhance conditions for Presidio Clarkia where appropriate.
RD009	9.6		Initial Treatment	yes		yes	yes	68%	yes	Eucalyptus Forest/Plantation Developed/Disturbed/Landscaped Coastal Scrub (xeric) Oak-Bay Woodland/Forest	Oak-bay woodland near road, perennial grassland, annual grasslands under eucalyptus located further up hill	Creating and maintaining defensible space around fire station and Piedmont Stables is a high priority. Remove coyote brush to restore annual grasslands within 200 feet of structures, or where feasible. Remove all shrubs and small trees under eucalyptus and oak-bay trees, and prune trees to 8 feet. Thin eucalyptus groves of smaller trees.
RD010	2.9		Initial Treatment			yes	yes	38%		Oak-Bay Woodland/Forest Non-native Coniferous Forest Developed/Disturbed/Landscaped Eucalyptus Forest/Plantation Redwood Forest	Annual grassland	Installation of firefighter safety zone is a high priority and likely best installed using mechanical treatment.
RD011	1.0	507	Initial Treatment	yes				24%		Coastal Scrub (xeric)	Annual grassland	Installation of firefighter safety zone is a high priority and likely best installed using mechanical treatment. Broom control also should be considered for this RTA.
Leona Canyon Regional Open Space Preserve												
LE001	5.8	703	Maintenance					88%		Oak-Bay Woodland/Forest	Live oak woodland	Steep slopes and dense trees stands may preclude mechanical treatments; use hand labor or goat grazing to reduce understory shrubs and around/beneath structures.
LE002	0.4		Initial Treatment	yes				100%		Coyote Brush Scrub	Live oak woodland, annual grassland	Steep slopes and dense tree stands may preclude mechanical treatments; consider using hand labor or goat grazing to reduce understory shrubs and around/beneath structures. This RTA should extend to area beneath all homes on the east side of Campus Drive.
LE003	4.8	704	Maintenance	yes		yes	yes	29%		Oak-Bay Woodland/Forest Coastal Scrub (xeric) California Annual Grassland	Live oak woodland, annual grassland	Consider using hand labor, mechanical treatments, or goat grazing to reduce understory shrubs beneath structures.
LE004	9.7	702	Maintenance	yes			yes	94%		Oak-Bay Woodland/Forest Coyote Brush Scrub Coastal Scrub (xeric) California Annual Grassland	Perennial grasses, scattered coastal scrub, oak-bay woodland	Steep slopes and lack of access behind homes limits use of mechanical equipment; reduce shrub volume and dead material according to performance standards.
LE005	4.6		Initial Treatment	yes			yes	75%		Coastal Scrub (xeric) California Annual Grassland Non-native Coniferous Forest Oak-Bay Woodland/Forest	Perennial grasses, scattered coastal scrub, oak-bay woodland	Steep slopes and lack of access behind homes limits use of mechanical equipment. Access off Lexford Place is possible, but riparian corridor limits travel to south. Reduce shrub volume and dead material according to performance standards. Remove broom. Use grazing and/or hand labor to maintain the site.
LE006	39.8		Initial Treatment	yes		yes	yes	86%		Coastal Scrub (xeric) California Annual Grassland Oak-Bay Woodland/Forest Broom Scrub	Young north coastal scrub, annual grassland	Consider conducting a prescribed burn to reduce amount of dead material in stands. Treatment of this RTA is a lower priority

Table III-2 Recommended Treatment Areas (RTA) – Sensitive Resources and Preliminary Considerations and Guidelines

RTA	Acres[a]	EBRPD Fireplan Units/ Polygons	2008 Treatment Category	Potential Alameda Whipsnake Habitat	Known Special-Status Plants and Animals (Excluding Whipsnake)[b]	Hydrologic Resources	USGS Mapped Landslides	Percentage of RTA With Slopes over 30%	Known Cultural Resources	Vegetation Types (> 0.1 acre present)[c]	Vegetation Management Goal[d]	Considerations and Guidelines
Anthony Chabot Regional Park[e]												
AC001	9.6	606	Initial Treatment	yes		yes		88%		Oak-Bay Woodland/Forest California Annual Grassland Eucalyptus Forest/Plantation Coastal Scrub (xeric) Developed/Disturbed/Landscaped Non-native Coniferous Forest	Oak woodland with herbaceous understory, patches of shrubs, occasional eucalyptus trees and pines	Steep slopes may preclude use of machinery. Use hand labor or goat grazing to remove understory shrubs for oak woodlands and create grassy openings in shrub patches to reduce fuel volumes. Remove broom. Create defensible space adjacent to private land according to performance standards.
AC002	2.5		Maintenance	yes				63%		California Annual Grassland Non-native Coniferous Forest Developed/Disturbed/Landscaped	Mowed grass on west, landscaping, oak woodland to south	Consider visual resources when treating, as RTA is adjacent to intersection of Redwood Road and Skyline Boulevard. Consider landscaping with fire-resistant plants. Create defensible space according to performance standards. Steep slopes may preclude use of machinery. Use hand labor or grazing to remove understory shrubs for oak woodlands and create grassy openings in shrub patches to reduce fuel volumes. Remove broom.
AC003	4.7		Initial Treatment	yes			yes	97%		Coastal Scrub (xeric) Oak-Bay Woodland/Forest	Oak woodland with herbaceous understory, patches of shrubs in open grassland	Remove understory shrubs from oak woodland to limit torching potential and provide more growing space for emerging trees. Also create grassy openings in shrub patches and prune trees 100-150 feet below property boundaries to reduce total fuel volume. Thin isolated groves of eucalyptus and pine and remove broom. Behind the high school, use of CDC crews is excluded. All treatment methods are acceptable due to wide range of terrain, access, and species distribution/composition.
AC004	23.5	603 604	Initial Treatment	yes		yes	yes	71%		Coastal Scrub (xeric) Oak-Bay Woodland/Forest Coyote Brush Scrub Non-native Coniferous Forest	Oak savanna with grassland on east, oak woodland on western slope below houses, scattered north coastal scrub	Invasive species present (especially hemlock); control and monitor annually for species composition. On eastern slope, maintain patches of shrubs and isolated trees with a combination of goat grazing and prescribed burns. Recommend mowing hemlock and managing for invasives. On western slope, use hand labor or goat grazing to reduce shrub volume and provide growing space for emerging trees. Prune all trees of lower branches. Consider burn piles on western slope to remove dead material.
AC006	30.8	605 611	Initial Treatment	yes		yes	yes	54%	yes	Coyote Brush Scrub Oak-Bay Woodland/Forest Coastal Scrub (xeric) Non-native Coniferous Forest Eucalyptus Forest/Plantation California Annual Grassland	Oak-bay woodlands, scattered pines and eucalyptus, all with minimal understory vegetation	Steep slopes and lack of access behind homes limit treatment access. Prune mature trees and cut debris into depressions on slope away from homes. Also create grassy openings in shrub patches. Thin smaller trees within isolated groves of eucalyptus and pine. Remove broom. All treatment methods are acceptable due to wide range of terrain, access, and species distribution/composition.
AC007	97.6	652	Initial Treatment	yes			yes	31%	yes	Coyote Brush Scrub Eucalyptus Forest/Plantation Coastal Scrub (xeric) California Annual Grassland Non-native Coniferous Forest Oak-Bay Woodland/Forest Developed/Disturbed/Landscaped Redwood Forest Broom Scrub	In south and west areas, annual grassland. On east and north area, oak woodland with understory of herbs and scattered north coastal scrub, redwood forest	Steep slopes on east side of RTA limit the types of tree cutting and removal operations possible. Consider annual control and monitoring of invasive species; proximity to homes limits herbicide application to hand-applied methods. On eastern edge, remove eucalyptus to minimize ember production and distribution. Prune all trees retained. On western side of RTA, graze to limit shrub encroachment and apply herbicides to invasives. Remove understory shrubs from oak woodland to limit torching potential and provide more growing space for emerging trees. Also create grassy openings in shrub patches. Remove broom. All treatment methods are acceptable due to wide range of terrain, access, and species distribution/composition.
AC008a	70.1		Initial Treatment	yes		yes	yes	44%	yes	Eucalyptus Forest/Plantation Coyote Brush Scrub Oak-Bay Woodland/Forest Coastal Scrub (xeric) California Annual Grassland	Mature eucalyptus stands, grassland with scattered shrubs in fuelbreaks, oak-bay woodlands	Maintain fuelbreaks and thin eucalyptus stand using prescribed burns and mechanical treatments according to performance standards; remove eucalyptus from overstory in areas of well-developed native understory. Elsewhere select for removal smaller or unhealthy trees, or those with multiple trunks. Steep slopes may limit use of machinery. Use hand labor or goat grazing to reduce understory.
AC008b	55.1	610	Maintenance	yes				20%		Coastal Scrub (xeric) Eucalyptus Forest/Plantation Coyote Brush Scrub Oak-Bay Woodland/Forest	Mature eucalyptus stands, grassland with scattered shrubs in fuelbreaks, oak-bay woodlands	Maintain fuelbreaks and thin eucalyptus stand using prescribed burns and mechanical treatments according to performance standards; remove eucalyptus from overstory in areas of well-developed native understory. Elsewhere select for removal smaller or unhealthy trees, or those with multiple trunks. Steep slopes may limit use of machinery. Use hand labor or goat grazing to reduce understory.
AC008c	231.1		Initial Treatment	yes	Oakland star tulip (*Calochortus umbellatus*)	yes		54%		Eucalyptus Forest/Plantation Oak-Bay Woodland/Forest Coastal Scrub (xeric) Coyote Brush Scrub California Annual Grassland	Mature eucalyptus stands, grassland with scattered shrubs in fuelbreaks, oak-bay woodlands	Maintain fuelbreaks and thin eucalyptus stand using prescribed burns and mechanical treatments according to performance standards; remove eucalyptus from overstory in areas of well-developed native understory. Elsewhere select for removal smaller or unhealthy trees, or those with multiple trunks. Steep slopes may preclude use of machinery. Use hand labor or goat grazing to reduce understory. Enhance conditions for Oakland Star tulip where appropriate.
AC009	24.8		Initial Treatment	yes		yes		92%		Eucalyptus Forest/Plantation	Mature eucalyptus stands with minimal surface fuels	Consider that thick eucalyptus stand currently buffers noise from rifle range when prescribing treatments. Consider using prescribed burns on southwest area to reduce surface fuels; remove eucalyptus smaller than 10 inches in diameter east of the rifle range. Recommend using fire-resistant landscaping plants where feasible.
AC010	90.1	602	Initial Treatment	yes		yes		39%	yes	Eucalyptus Forest/Plantation	Oak woodland on top of ridgeline, mixed red-gum eucalyptus/oak woodland below	Steep slopes may preclude use of machinery. Consider removing tall trees along ridgeline to the east to limit ember distribution; prune retained trees, where feasible.
AC011	112.1		Initial Treatment	yes		yes		45%		Eucalyptus Forest/Plantation Coyote Brush Scrub Oak-Bay Woodland/Forest Developed/Disturbed/Landscaped California Annual Grassland	Mature eucalyptus stands, grassland with scattered shrubs in fuelbreaks, oak-bay woodlands	Steep slopes may preclude machinery or require specific logging techniques to minimize soil disturbance. Maintain and expand fuelbreaks by thinning, prescribed burning, and mechanical treatments according to performance standards; in areas of well-developed native understory, consider removing eucalyptus from overstory.
AC012	28.4	602	Initial Treatment	yes		yes		42%		Coyote Brush Scrub Eucalyptus Forest/Plantation	Oak bay woodland, mature eucalyptus stands	Steep slopes may preclude machinery or require specific logging techniques to minimize soil disturbance. Consider thinning eucalyptus and brush to expand fuelbreak and remove all eucalyptus where oak-bay woodland understory is well developed. Use grazing and/or hand labor to maintain the site.
AC013	209.4		Initial Treatment	yes	Great blue heron (*Ardea herodias*)	yes		49%		Eucalyptus Forest/Plantation California Annual Grassland Coyote Brush Scrub Developed/Disturbed/Landscaped	Mature eucalyptus, mowed grass, shrubs nearest campgrounds, landscaping	Manage vegetation to allow screening for privacy in campground. Ensuring public safety and ability to evacuate campers and visitors in an emergency is top priority. Thin selected areas of eucalyptus to reduce fuel volume and retain screening around campground by establishing shrubs between campgrounds. Select for removal those that provide screening and still avoid creation of ladder fuels. Protect trees and areas used by great blue heron for rookery. Consider grazing for those areas not within the campground.

Table III-2 Recommended Treatment Areas (RTA) – Sensitive Resources and Preliminary Considerations and Guidelines

RTA	Acres[a]	EBRPD Fireplan Units/ Polygons	2008 Treatment Category	Potential Alameda Whipsnake Habitat	Known Special-Status Plants and Animals (Excluding Whipsnake)[b]	Hydrologic Resources	USGS Mapped Landslides	Percentage of RTA With Slopes over 30%	Known Cultural Resources	Vegetation Types (> 0.1 acre present)[c]	Vegetation Management Goal[d]	Considerations and Guidelines
AC014	93.0	602	Maintenance	yes		yes		32%		Coyote Brush Scrub California Annual Grassland Oak-Bay Woodland/Forest Coastal Scrub (xeric) Eucalyptus Forest/Plantation Riparian Woodland	Short grass	Potential Alameda Whipsnake habitat. Install safety zone for campers by alternating between grazing and mowing shrubs. Size of wildfire "refuge" or shelter in place area needs to be large to accommodate all park visitors/campers.
Lake Chabot Regional Park												
LC001	3.5		Initial Treatment	yes		yes		100%		Eucalyptus Forest/Plantation	Developing oak-Bay woodlands with minimal understory vegetation	Consider visual effects because eucalyptus are prominent ridgeline feature. Recommend removing eucalyptus to minimize ember production and distribution. All treatment methods for removal are suitable.
LC002	1.2		Initial Treatment	yes				19%		Eucalyptus Forest/Plantation	Developing oak-Bay woodlands with minimal understory vegetation	Consider visual effects because eucalyptus are prominent ridgeline feature. Recommend removing eucalyptus to minimize ember production and distribution. All treatment methods for removal are suitable.
LC003	1.9		Initial Treatment	yes				35%		Eucalyptus Forest/Plantation	Developing oak-Bay woodlands with minimal understory vegetation	Consider visual effects because eucalyptus are prominent ridgeline feature. Recommend removing eucalyptus to minimize ember production and distribution. All treatment methods for removal are suitable.
LC004	2.1		Initial Treatment	yes				24%		Eucalyptus Forest/Plantation	Developing oak-Bay woodlands with minimal understory vegetation	Consider visual effects because eucalyptus are prominent ridgeline feature. Recommend removing eucalyptus to minimize ember production and distribution. All treatment methods for removal are suitable.
LC005a	2.1		Initial Treatment					70%		Eucalyptus Forest/Plantation	Thinned eucalyptus with minimal understory	Steep slopes likely limit off-road mechanical treatments, but access for on-road treatments is good. High potential for roadside ignitions. Reduce understory fuels and remove selected eucalyptus to enhance travel along the designated strategic fire route, selecting for removal a greater number of eucalyptus trees nearest the road.
LC005b	5.2		Initial Treatment	yes			yes	54%		Eucalyptus Forest/Plantation	Oak-Bay woodlands with minimal understory vegetation	Steep slopes likely limit off-road mechanical treatments, but access for on-road treatments is good. High potential for roadside ignitions. Reduce understory fuels and remove selected eucalyptus to enhance travel along the designated strategic fire route, selecting for removal a greater number of eucalyptus trees nearest the road.
LC006	30.9		Initial Treatment	yes			yes	79%		Eucalyptus Forest/Plantation Oak-Bay Woodland/Forest Coyote Brush Scrub California Annual Grassland	Thinned eucalyptus with minimal understory vegetation, oak-bay woodlands with minimal understory vegetation, or grasslands	Steep slopes likely limit off-road mechanical treatments, but access for on-road treatments is good. High potential for roadside ignitions. Reduce understory fuels and remove selected eucalyptus to enhance travel along the designated strategic fire route. Select for removal a greater number of eucalyptus trees nearest the road and in areas where oak-bay woodland understory is developing. Develop a 35 foot average spacing in thinned eucalyptus stand within 100 feet of the road, 25 foot spacing otherwise, with an emphasis on removing small or unhealthy trees or those with multiple stalks.
LC007a	2.4		Initial Treatment	yes				36%		Eucalyptus Forest/Plantation	Grassland	Consider visual effects because eucalyptus are prominent ridgeline feature. Conduct nest surveys when appropriate to avoid potential adverse effects on nesting raptors. Remove eucalyptus to minimize ember production and distribution. All removal techniques are possible, but large tree diameters may limit the use of feller-bunchers.
LC007b	2.7		Initial Treatment	yes				0%		Eucalyptus Forest/Plantation	Grassland	Consider visual effects because eucalyptus are prominent ridgeline feature. Nesting sites for raptors possible. Remove eucalyptus to minimize ember production and distribution. All removal techniques are possible, but large tree diameters may limit the use of feller-bunchers.
LC007c	3.5		Initial Treatment	yes				3%		Eucalyptus Forest/Plantation	Grassland	Consider visual effects because eucalyptus are prominent ridgeline feature. Conduct nest surveys when appropriate to avoid potential adverse effects on nesting raptors. Remove eucalyptus to minimize ember production and distribution. All removal techniques are possible, but large tree diameters may limit the use of feller-bunchers.
LC007d	0.8		Initial Treatment					26%		Eucalyptus Forest/Plantation	Grassland	Consider visual effects because eucalyptus are prominent ridgeline feature. Conduct nest surveys when appropriate to avoid potential adverse effects on nesting raptors. Remove eucalyptus to minimize ember production and distribution. All removal techniques are possible, but large tree diameters may limit the use of feller-bunchers.
LC008	12.3	955 974	Initial Treatment				yes	15%		California Annual Grassland Eucalyptus Forest/Plantation Oak-Bay Woodland/Forest	Grassland, oak-bay woodland	Consider visual effects because eucalyptus are prominent ridgeline feature. Conduct nest surveys when appropriate to avoid potential adverse effects on nesting raptors. Consider removing eucalyptus to minimize ember production and distribution. All removal techniques are possible, but large tree diameters may limit the use of feller-bunchers.
LC009	28.1	936 944 973 975	Maintenance	yes				9%	yes	California Annual Grassland Coastal Scrub (xeric) Coyote Brush Scrub Developed/Disturbed/Landscaped Oak-Bay Woodland/Forest	Grassland, oak-bay woodland	Maintain short grass height through grazing, mowing, or prescribed burning. In 2008, the Fire Department conducted some treatment activities in this RTA that may change some portions of RD001 from Initial Treatment to Maintenance. Changes in the designation and vegetation types will be reflected in future Fire Action Plans.
LC010	4.8		Initial Treatment	yes				6%		California Annual Grassland Coastal Scrub (xeric) Oak-Bay Woodland/Forest	Oak-Bay woodlands with minimal understory vegetation	Maintain minimal understory through grazing or hand labor treatments. Create defensible space adjacent to private property according to performance standards (in particular, prune lower branches of existing oak and bay trees, remove eucalyptus and pine, mow grass, and create spaces between shrubs.)

Table III-2 Recommended Treatment Areas (RTA) – Sensitive Resources and Preliminary Considerations and Guidelines

RTA	Acres[a]	EBRPD Fireplan Units/ Polygons	2008 Treatment Category	Potential Alameda Whipsnake Habitat	Known Special-Status Plants and Animals (Excluding Whipsnake)[b]	Hydrologic Resources	USGS Mapped Landslides	Percentage of RTA With Slopes over 30%	Known Cultural Resources	Vegetation Types (> 0.1 acre present)[c]	Vegetation Management Goal[d]	Considerations and Guidelines
Point Pinole Regional Shoreline												
PP001	443.5	901 902 954 965 966-72	Maintenance		Monarch butterfly (*Danaus plexippus*)			1%		Eucalyptus Forest/Plantation Coastal Prairie Non-native Grassland Coyote Brush Scrub Ruderal Coastal Scrub (xeric) Developed/Disturbed/Landscaped Salt Marsh Coastal Scrub (mesic) Oak-Bay Woodland/Forest Non-native Perennial Grassland Fresh Water Marsh Aquatic/Open Water Riparian Woodland	Mature eucalyptus with grass understory, oak with herbaceous understory, perennial grass with scattered shrubs, oak-bay woodland, north coastal scrub, marsh	Continue prescribed burns in eucalyptus understory and open grassland areas and re-vegetating with perennial shrub/grass mixes. All treatment methods are suitable and could be rotated in various locations, as needed. Consider timing of treatments and protection of monarch butterfly when roosting. Limb mature trees, and maintain leaf litter/bark debris according to performance standards.
PP001a	0.3		Maintenance					0%		California Annual Grassland	Annual grassland	Recommend continuing 2008 EBRPD treatments in this RTA.
PP001b	1.7		Maintenance					0%		Coyote Brush Scrub	Coyote brush scrub	Recommend continuing 2008 EBRPD treatments in this RTA.
PP002	14.1		Maintenance					0%		Eucalyptus Forest/Plantation Coyote Brush Scrub Non-native Grassland	Mature eucalyptus with grass understory	Treatment goal is to minimize torching potential. Limb mature trees, remove eucalyptus trees smaller than 8 inches in diameter, and maintain leaf litter/bark debris according to performance standards.
PP003	4.2		Maintenance					0%		Eucalyptus Forest/Plantation Non-native Grassland	Mature eucalyptus with grass understory	Treatment goal is to minimize torching potential. Limb mature trees, remove eucalyptus trees smaller than 12 inches in diameter, and maintain leaf litter/bark debris according to performance standards.
PP004	1.6		Maintenance					0%		Coyote Brush Scrub	Coyote brush scrub	Recommend continuing 2008 EBRPD treatments in this RTA.
PP005a	13.6	954	Maintenance		San Pablo vole (*Microtus californicus sanpabloensis*)			0%		Coastal Prairie Developed/Disturbed/Landscaped	Short perennial grassland, small stands of mature eucalyptus with grass understory	Vegetation management favoring an increase of creeping wildrye or other water and salt-tolerant plants would decrease ignitability of site. Mow grass to a distance of 30 feet from structures, limb mature trees, and remove smaller eucalyptus and shrubs under trees to minimize potential flame lengths.
PP005b	1.0		Maintenance		San Pablo vole (*Microtus californicus sanpabloensis*)			0%		Coastal Prairie	Mature eucalyptus with grass understory, oak with herbaceous understory	Treatment of this RTA is a low priority as a 125-foot paved area currently exists between structure and fuels. Limb mature trees, and remove smaller eucalyptus and shrubs under trees to minimize potential flame lengths.
Miller/Knox Regional Shoreline												
MK001	5.9		Initial Treatment				yes	70%		Broom Scrub Coastal Prairie / Non-native Grassland Eucalyptus Forest/Plantation Developed/Disturbed/Landscaped	Same types as currently there with increasing proportion of oak-bay woodland and grass, less scrub and pine. Grass with scattered shrubs on south aspect of hillside, scattered north coastal scrub on north aspect of hillside. Manage area to stop pine seedling growth.	Consider visual resources as there is a view from top of hill; consider maintaining pine trees that frame the view. High levels of recreation use in this area. Consider mechanical treatments to reduce shrubs and hand labor treatments to limb up trees of lower branches, if feasible. Remove all pines smaller than 12 inches in diameter to approximately 20-foot minimum spacing. Remove all dead pines, and selectively remove shrubs on north aspect. Retain all oaks and bays on north aspect. Retain pines which screen antennas on top of Nicholl Knob.
MK002	0.4		Initial Treatment					89%		Coyote Brush Scrub Non-native Coniferous Forest	North coastal scrub, scattered pines	Lack of access and small size of polygon likely limits treatment options to hand labor. Remove dead materials, limb up tall shrubs, and cut to ground short shrubs. No access exists for chipper or other machinery; consider cutting material into pieces and leaving onsite according to performance standards for shrubs.
MK003	2.7		Initial Treatment					56%		Coastal Prairie / Non-native Grassland	Landscaping, annual grassland, scattered shrubs, pruned oaks and pines	Create and maintain spacing according to defensible space performance standards. Consider using hand labor.
MK004	3.2		Initial Treatment				yes	72%	yes	Non-native Coniferous Forest Coastal Scrub (xeric)	Open pine stand	Thin pine stand to 50 percent canopy closure using mechanical treatment. Select for removal smaller, unhealthy pine trees, and remove all trees below the ridgeline for a distance equal to the height of the tree to prevent ember spread across the ridgeline under a westerly wind. Remove all understory.
MK005	10.0		Initial Treatment				yes	41%		Coastal Prairie / Non-native Grassland Coastal Scrub (mesic) Coastal Scrub (xeric) Non-native Coniferous Forest	Scattered scrub and grass within 50 feet of road. No pines within 40 feet of ridgetop. Lower on north-facing slope, north coastal scrub on north aspect, incipient oak-bay woodland, emerging pine stand	Need to coordinate with private property owner at entry of trail to manage fuels. Removal of invasive weeds will likely necessitate continued management; Cut French broom and then manage with subsequent chemical treatment, if feasible. Control measures for other invasive weed species (e.g., sourgrass, ivy) will likely require a specific plan. Thin shrubs and prune trees according to scrub vegetation performance standards. Suggest treatments extend 50 feet on both sides of the road to create a fuelbreak. Recommend avoiding thinning or pruning buckeye trees. Cut pines within 50 feet of the ridgetop and scatter cut branch pieces onsite; boles should be located and oriented to minimize erosion and prevent their rolling downhill.

Source: LSA Associates Inc. and Wildland Resource Management, Inc. 2010; EBRPD Vegetation Data file EBHill_06.shp, 2008.

[a] When implementing this Plan and updating this table and associated GIS files, EBRPD will consider combining recommended treatment areas located in close proximity to one another that contain similar vegetation types and require similar fuel treatment and maintenance activities to increase locational efficiencies and reduce program management costs, where appropriate.

[b] Not all polygons have been surveyed. Potential for unknown occurrences exists.

[c] These are generalized vegetation types of mixed species identified for the purposes of this Plan (see Chapter V) based on the EBRPD 2004 GIS database and site reconnaissance visits to each recommended treatment area. Actual vegetation types present to be determined during site assessments of each recommended treatment area prior to undertaking treatment actions.

[d] Existing vegetation types will generally be maintained unless otherwise noted.

[e] AC005 was an area covered by EBRPD's FEMA EA to install fencing. Since its creation, the project has not been completed and has been removed for consideration by the District (personal communication to LSA from Fire Department). As a result, this recommended treatment area was initially considered and then deleted from the Plan.