

**APPENDIX C**

**FINAL WILDFIRE HAZARD ASSESSMENT  
AND TREATMENT AREAS**

**FINAL  
WILDFIRE HAZARD  
ASSESSMENT  
AND  
TREATMENT AREAS**

**Prepared for LSA Associates, Inc.  
by  
Wildland Resource Management, Inc.**

**October, 2008**

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# WILDFIRE HAZARD ASSESSMENT AND TREATMENT AREAS

This Wildfire Hazard Assessment report was prepared by Carol Rice, Wildland Resource Management Inc., and LSA Associates Inc. This report describes the methods used to determine and confirm wildfire hazard levels for park lands within the Study Area for the Wildfire Hazard Reduction and Resource Management Plan (Plan), a general description of identified wildfire hazards in the Study Area, and the methods used to identify the recommended treatment areas (RTAs) discussed later in the Plan. The first assessment, completed in 2006, addressed the following Hillside parks: Wildcat Canyon Regional Park, Tilden Regional Park, Claremont Canyon Regional Preserve, Robert Sibley Volcanic Regional Preserve, Huckleberry Botanic Regional Preserve, Redwood Regional Park, Leona Canyon Regional Open Space and Preserve, Anthony Chabot Regional Park, and Lake Chabot Regional Park. A second assessment was conducted in 2007 to address the remaining parks: Sobrante Ridge Regional Preserve, Kennedy Grove Regional Recreation Area, Temescal Regional Recreation Area, Roberts Regional Recreation Area, Pt. Pinole Regional Shoreline, and Miller/Knox Regional Shoreline. Based on these initial assessments, five shoreline parks within the Study Area were excluded for detailed assessment because the level of wildfire hazard posed by vegetation in those parks was not considered to be high due to their proximity to the San Francisco Bay, the lack of wildland vegetation, and/or the developed nature of the parks. The parks not included for further study are: Brooks Island Regional Shoreline, Eastshore State Park, Middle Harbor Shoreline Park, Robert W. Crown Memorial State Beach, and Martin Luther King, Jr., Regional Shoreline.

The results of these wildfire hazard assessments are displayed graphically in Figure 1: Wildfire Hazard Assessment (WHA) Map. The purpose of the WHA Map is to identify at-risk areas for further assessment and fuel modification recommendations. Many of these areas lie within the wildland-urban interface, which for this Plan includes EBRPD land within 200 feet of a private structure under Diablo wind conditions for Hillside parks, and under a condition in which winds blow to the east for Shoreline parks. The size and boundaries of the wildland-urban interface area vary, depending on such site-specific conditions as property slope and types of vegetation present. Based on these assessments, the following areas are identified on the WHA Map:

- Lands within 200 feet of high-value (irreplaceable) EBRPD facilities and park residences.
- Locations of Eucalyptus stands that represent significant threats from torching and crown fires that can cause ember flight.

- Other wildfire hazard assessment areas with identified high hazards for wildfires.

The wildfire hazard assessments provided the basis for determining RTAs. There are approximately 3,000 acres identified as having high wildfire hazards and potentially requiring treatment out of approximately 15,800 total acres included in the Study Area. Generally, areas requiring treatment are located along the western boundaries of Hillside parks in the Study Area and in tall tree stand stands on ridgetops within these parks.

#### **A. METHODS USED TO ASSESS WILDFIRE HAZARDS**

Based on available information, including aerial photographs, published reports, and site-specific data collected through site reconnaissance, the following process was used to determine what areas are identified on the WHA Map:

- Execute the FlamMap model using severe weather conditions to identify and evaluate areas where there is potential for greater than 8-foot flame lengths to be created as well as crowning and torching potential;
- Evaluate all areas with the potential for crown fires, torching, and ember production and throw (typically eucalyptus and pine groves);
- Identify locations of values-at-risk and high-value facilities within the Study Area;
- Identify Strategic Fire Routes;
- Coordinate and verify RTAs through site visits conducted in conjunction with EBRPD Fire Department, Stewardship, and Operations staff and the project team.

Criteria used in the fire behavior models to identify and designate high-hazard areas consisted of the following:

- Predicted flame length
- Spotting potential
- Proximity to structures both inside and outside the District boundaries
- Position of spotting hazards on slopes.

All fire behavior predictions are assumed to be under Diablo wind conditions with extremely hot, dry weather. Proximity to major evacuation routes was an additional consideration. Figure 1 shows how the wildfire assessment methodology was applied to evaluate and identify areas of high fire hazards.

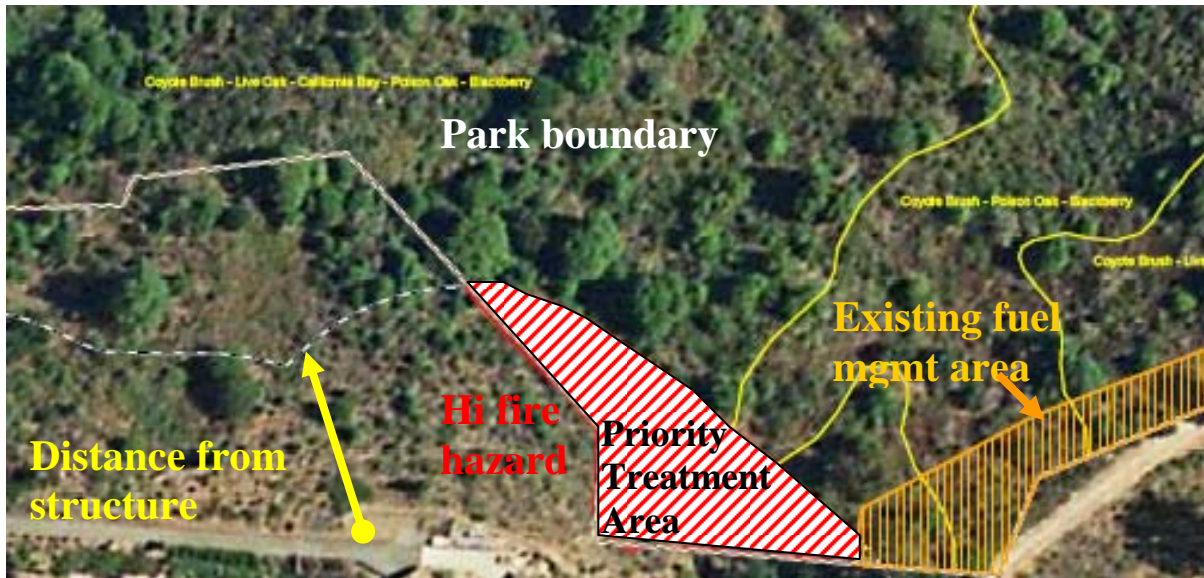


Figure 1: Application of Methodology Identifying High Fire Hazard

## 1. Fire Behavior Modeling

Most fire hazard assessments center on three main factors—fuels, weather, and topography—although elevation and fire history can also be included. Fire behavior results from the combination of these three factors, and predictions of fire behavior can use these factors to identify where containment areas may be most effective and where access may be precluded during a fire. Fire behavior outputs also can warn where natural resources may be unduly harmed by a wildfire and where it may be inconsequential to natural resources.

The FlamMap fire behavior prediction model was used for this wildfire hazard assessment. FlamMap is an updated version of the BEHAVE-type model outputs of the fire behavior prediction system and was used to assess current relative hazards throughout the Study Area.

### FlamMap Development, Inputs and Assumptions

FlamMap is a computerized fuel and fire behavior prediction model developed by the USDA Forest Service at the Intermountain Forest Fire Research Laboratory. Heat transfer formulae in FlamMap are based on the software program BEHAVE, used in wildfire behavior prediction since the 1970s.

FlamMap allows prediction of fire behavior on a spatial basis, portraying the locations of various flame lengths, heat release, and rates of spread along with predicted types of fire (e.g., crown fire, surface fire, or a fire that torches trees).

FlamMap uses known data to describe the terrain, weather, and fuels on the site. In order to correctly model a fire, a number of data themes must be developed for the FlamMap program, including slope,

elevation, aspect, fuel model, tree height, height to live tree canopy base, tree crown density, weather, and wind speed and direction. Information in Appendix A includes the FlamMap input files and assumptions: units of measurement, sources of information, and effects of each input on fire behavior prediction. Burning characteristics associated with each fuel model are also described, including the general rate of fire spread, range of fire intensity, and the strata in which the fire burns. Weather inputs used for the fire behavior modeling include values for the temperature and relative humidity as well as the time of day in which the minimum and maximum values of both measurements occur. Hourly observations of wind speed and direction are presented, as are the fuel characteristics assigned to each vegetation type. The surface fuel model number, along with estimates for tree height, height to live crown base, and canopy cover are also presented. Appendices B and C include descriptions of fire behavior for the fuel models used in this WHA and the weather inputs used for the WHA's FlamMap simulations, respectively.

### **FlamMap Outputs**

Two factors—flame length and crowning activity—are particularly important for prioritizing locations of high fire hazard. Flame length is often correlated to the ability to control a fire. A flame length of eight feet is typically used as a cut-off point for strategic firefighting decisions on whether to attack the fire directly or to attempt control through indirect methods. Attacking the fire directly involves efforts to slow the flaming front at its head – where it is advancing fastest. Indirect attack involves fire control methods on the fire's flank or well ahead of the fire (i.e., using backfires or retardants).

High flame lengths bear significant correlation to structural damage. Fire intensity, as determined by flame length, was determined to be the most important factor in many studies of structural damage from fire. Flame lengths are often used as a proxy for fire intensity because they are highly correlated to fire intensity.

Crowning activity indicates locations where fire is expected to travel into and possibly consume tree crowns. When a fire burns through tree crowns, countless embers are produced and are distributed, sometimes at long distances. These embers can start new fires, which can each grow and confound fire suppression activities. Hot fires can also create embers that loft ahead of the flaming front, igniting new fires called “spot fires”. “Spotting potential” and “crowning potential” describe the propensity of vegetation to create and disburse embers that have the potential to start numerous new fires well in advance of the main fire.

Flame lengths that are greater than eight feet are especially important when nearer to high values at risk. Fire control is likely to be attempted nearest the structures, so a flame length below eight feet can be most effective in aiding fire control attempts. Additionally, reducing fire intensity nearest the structure also increases chances the structure will escape damage from fire. By contrast, areas further away from values at risk and away from strategic control locations may experience higher flame



lengths with lesser impact because the vegetation itself is adapted to fire of similar intensity, and less potential for damage to values at risk exists. It should be noted that not all areas with the potential for high flame lengths can be cost-effectively treated with minimal effects to the environment.

Within the Study Area's Hillside parks, approximately 357 acres of park land are located within 200 feet of structures outside EBRPD's jurisdiction; locations within this 357 acres in which flame lengths are predicted to have flames longer than eight feet were determined to be of high hazard.

## **2. Ember-Production Risk Assessment**

Hazard assessment within pine and eucalyptus groves focused on ember production and distribution of these firebrands to values at risk – particularly structures along the western edges of park lands. The assessment considered the position of these pine and eucalyptus groves on slopes, their distance from structures, their elevation in relation to structures, and those groves larger than ½-acre in size. Figure 2 illustrates factors used to evaluate ember-producing tree stands.

- **Ridgetop/Valley**: Because it is much easier for crown fires to loft embers a long distance when the fire occurs at the top of a hill rather than down in a valley, ember-producing stands such as pine and eucalyptus were examined to determine whether they stood within 100 feet in elevation from ridgetops. By contrast, such stands in valley bottoms are less hazardous with respect to ember production and distribution.
- **Torching**: FlamMap outputs for crown fire prediction were used as the basis of for considering torching potential. The proportion of the stand predicted to torch was used as a factor in the determination of wildfire hazard. Overall, approximately 20 percent of RTAs in areas predominated by eucalyptus stands were predicted to torch.
- **Proximity to Homes**: While eucalyptus—and to a lesser extent, pine trees—have been known to deposit burning embers miles away, the closer the structure is to any ember producer, the greater the risk of starting fires. Stands within 500 feet of structures were determined to be more hazardous than those further away.

As with areas of high flame length, not all the areas of high ember production or spotting potential can reasonably be treated without significant cost or environmental concerns. For those areas of high spotting potential, position on the slope greatly influences how far embers can be cast; therefore, this aspect factors into prioritizing treatment areas. Embers originating on the top of a slope can travel farther than embers lofted from a valley floor. Approximately 1,115 acres were considered to have a high potential for crown fire production and ember throw in the Study Area.



These two photographs illustrate factors considered in the analysis of eucalyptus groves. The peak of Round Top (left, and right rear) is covered with eucalyptus stands several hundred feet above homes west of Skyline Blvd. and would be vulnerable to ignition from embers under Diablo wind conditions.

### **3. Fire Professional Judgment**

Fire behavior models are best used in conjunction with professional expertise. This different perspective buffers any faulty assumptions or biases the model might resulting from variations in model inputs, and offers a level of ground-truthing to the assessment of potential fire hazards. As part of this assessment EBRPD staff and local vegetation and fire protection experts were consulted regarding the values to be used when defining fuel characteristics based on the structure and growth patterns of various vegetation types present.

### **4. Strategic Fire Routes**

Strategic Fire Routes to facilitate and support emergency access as well as evacuation during an emergency incident were determined based on the professional knowledge, expertise, and field review and validation of Park Supervisors, Park Unit Managers, the EBRPD Fire Chief, and the Chief of Park Operations. As part of the annual review and update of the Plan, EBRPD staff will continuously review and revise the strategic fire routes map as necessary in response to changing conditions.

### **5. Site Confirmation**

Areas of potential high fire hazard in each park were visited to confirm information included on the WHA Map; photographs of each location were taken to document existing conditions. Based on site-specific conditions seen during these site visits, the information displayed on the WHA Map was either verified or updated to reflect existing conditions, and boundaries of hazard areas were further delineated. Confirmation of the hazard assessment was performed by EBRPD staff and local fire protection and vegetation experts; as the planning process for this Plan was executed, additional confirmation of existing conditions onsite and the corollary information displayed on the WHA Map was conducted.

## **B. DESCRIPTION OF WILDFIRE HAZARDS IN THE STUDY AREA**

This section describes the potential wildfire hazards found within the Study Area that were used to determine RTAs for the Plan. The Draft WHA Map, as shown in Figure 3, displays the spatial distribution of locations that were assessed for potential flame lengths and crown fire activity. As noted previously, flame lengths are closely related to the vegetation types.

### **1. Vegetation Types with High Hazard Areas**

The longest flame lengths are found in areas of north coastal scrub; the lowest are found in oak woodlands where no understory is present. Flame lengths in grasslands are high, but with regular treatment flame lengths are dramatically reduced. However, serpentine grasslands are assumed to produce low flame lengths even without treatment.

### **2. Locations of Crown Fire Activity and Torching**

There are many locations where the potential for crown fire activity is significant; these areas generally have dense canopies of eucalyptus or pines with concentrations of understory vegetation. Each patch of vegetation with the potential for active crown fires is less than 10 acres.

Areas of possible torching, where flames involve the tree crown but fire does not spread from crown to crown, are more common and generally result from an accumulation of understory vegetation and low-hanging branches. By contrast, crown fires spread from tree canopy to tree canopy and require dense overstory vegetation to perpetuate the fire.

### **3. Areal Extent of High Fire Hazard Areas**

Only 7.5 percent of vegetated areas within the Hillside parks are predicted to produce flame lengths longer than 8 feet, with the majority of the Hillside parks predicted to generate flames less than 8 feet in length. In the Shoreline parks only 13 percent of the total vegetated areas are expected to produce flames of 8 feet or longer.

The total area where active crown fire potential exists was less than one percent in the Hillside parks, and slightly more than one percent for the Shoreline parks. However, the acres covered by vegetation expected to torch during wildfires that occur under high fire danger conditions is considerably greater, covering approximately 20 percent of the Hillside parks and 13 percent of the Shoreline parks.

#### 4. Characteristics of Ember-Producing Areas

A total of 1,507 acres of eucalyptus and pine stands were determined to be of high hazard, based on a variety of characteristics, including crown fire potential, distance from structures, and position on the slope. Of the 1,507 acres, approximately 74 percent were predicted to have a high crown fire potential, and 82 percent were located on ridgetops. Some of these areas are also located within 200 feet of structures and/or have the potential to produce flame lengths greater than 8 feet. Areas with a high potential for long-range ember production and distribution were located in all of the parks with the exception of Temescal, Pt. Pinole, and Sobrante Ridge. Tables 1 and 2 list the distance and distribution, respectively, of high hazard ember-producing stands in the Study Area as well as the approximate total acreages of these areas in each park.

**Table 1: Distribution of High-Hazard Ember Producing Tree Stands**

| Park             | Acres |
|------------------|-------|
| Chabot           | 805   |
| Claremont Canyon | 17    |
| Huckleberry      | 3     |
| Kennedy Grove    | 5     |
| Lake Chabot      | 58    |
| Leona            | 0     |
| Miller-Knox      | 3     |
| Pt. Pinole       | 0     |
| Redwood          | 105   |
| Sibley           | 84    |
| Sobrante Ridge   | 0     |
| Temescal         | 0     |
| Tilden           | 396   |
| Wildcat          | 38    |

Source: East Bay Regional Park District. 2007. File "Ebhil\_06.dbf" dated 11-1-07.

Firebrands have been known to ignite new fires well over one mile from their source. More firebrands are distributed in shorter distances from the source, making the distance from an ember-producing stand an important factor in hazard identification. Approximately 25 percent of the high hazard ember-producing areas are within 500 feet of structures outside EBRPD lands; approximately 75 percent of the areas are within ½ mile of structures outside EBRPD lands.

**Table 2: Distance of High-Hazard Ember Producing Tree Stands from Structures**

| Distance of Stands to Structures Acres  |     |
|---|-----|
| Stand w/in 500 ft of structures         | 410 |
| Stand 500 - 1000 ft of structures       | 86  |
| Stand 1000 – ¼ mile of structures       | 189 |
| Stand ¼ - ½ mile of structures          | 438 |
| Stand ½ - 1 mile of structures          | 198 |
| Stand great than 1 mile from structures | 186 |

Source: Wildland Resource Management, Inc. 2007. East Bay Regional Park District. 2007. File "Ebhil\_06.dbf" dated 11-1-07.

#### 5. Discontinuity of High Fire Hazard Areas

Areas of long flame length are not continuous along the western borders of the Hillside parks because of previous maintenance work undertaken by EBRPD and because some areas, such as oak/bay woodlands with sparse understory or irrigated landscapes such as golf courses, are inherently low hazard. Areas of predicted crown fire activity are predominantly discontinuous and positioned inside areas of increased torching potential and where flame lengths are greater than 8 feet. The greatest concentration of predicted active crown fire occurs in the eucalyptus groves in Lake Chabot Park. Other areas of predicted active crown fire are located along Inspiration Point, north and east of the Nature Center in Tilden Park, and on the western slope of Miller Knox south of the Corporation Yard.

Areas of torching are more widespread, but are located in the same vicinity as areas of predicted crown fire spread. Areas predicted to produce long flame lengths were also discontinuous in nature.

### **C. METHODS USED TO DETERMINE RECOMMENDED TREATMENT AREAS**

While the Wildfire Hazard Assessment identified primarily areas of high hazard, additional considerations were incorporated into the process of selecting and mapping Recommended Treatment Areas (RTAs) for fuel reduction and vegetation management activities to be undertaken by EBRPD. 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. In other areas, hazards may not be sufficient to warrant ranking as a high hazard area, but an immediate need for defensible space would be required and maintained according to applicable regulations and to protect some facilities that are deemed irreplaceable. Another situation that would require treatment regardless of its existing hazard rating is the installation of potential safety zones to serve as firefighter refuges during fire suppression operations.

The process for determining which areas were selected as RTAs involved the following tasks:

- Include areas identified in the WHA as requiring treatment (i.e., areas of high flame length within 200 feet of the western boundary and areas of high ember production and distribution). The western boundary of the Hillside parks, which contains the dominant portion of the wildland-urban interface in the Study Area, was determined to be the location where the greatest values at risk are exposed during Diablo wind conditions that coincide with high fire danger.
- Identify values within the Study Area that require development and maintenance of defensible space (Park District facilities at risk).
- Identify areas for potential use as firefighter safety and refuge during suppression activities (safety zones), or areas critical for firefighting operations aimed at fire containment.
- Identify and evaluate areas where fuel modification activities have previously taken place and must be continued to maintain fire-safe conditions.
- Coordinate and ground-truth potential treatment areas with the EBRPD Fire Department, Stewardship, and Operations staff and the project team.
- Identify and evaluate where fuel modification activities are proposed (FEMA plan).
- Assess onsite conditions to confirm FlamMap models and fuel conditions for vegetation types present.

The factors considered in identifying and mapping the RTAs are described below. Information within this section is based on available information including EBRPD staff reports, meetings with EBRPD staff, published reports, and site reconnaissance. The Polygon Justification section in Appendix E

details specific reasons why RTAs were selected. Appendix F provides the amount of each vegetation type (greater than 0.1 acres) for each RTA.

### **1. Areas of High Wildfire Hazard**

See the information provided in Section A. Methods Used to Assess Wildfire Hazard above.

### **2. Firefighting Safety and Operations**

Safety zones may be used in times of fire suppression as a place of refuge during unexpected fire behavior or unanticipated changes in operations. The location of six safety zones were identified in Redwood and Anthony Chabot parks. Safety zones were located at the intersections of fire roads and in areas of moderate to low hazard.

Several locations were identified that are critical to firefighting efforts in containing a wildfire spreading under Diablo wind conditions. These strategic locations area generally situated at ridgelines between major watersheds or on spur ridgelines where containment efforts could reduce fire spread towards residential neighborhoods.

### **3. Facilities at Risk**

A 200-foot buffer was identified around facilities at risk (shown in Table 3) that were identified by EBRPD as highly valued. Facilities were considered to be at high fire risk when flame lengths inside or adjacent to the 200-foot buffer around the facility were modeled at 8 feet or longer. Only those facilities that were highly valued and those at high fire risk were identified as RTAs, with one exception. A residence, irrespective of the risk it currently faced, was identified as an RTA because of potential life-safety concerns.

### **4. Locations of Previous Fuel Modification Activities**

Where fuel modification activities have previously taken place, continued maintenance must typically be performed to maintain fire-safe conditions. Despite previous work, in some locations high flame lengths are predicted due to vegetation types present and the nature of fuels treatment activities previously performed. In these circumstances, new methods or a new interval between treatments may be recommended. Based on the wildfire hazard assessment, areas where previous vegetation management activities have created a self-sustaining fire-safe condition (i.e., where maintenance is not necessary) were also identified for future monitoring and treatment, if needed.

**Table 3: Developed Facilities in the Study Area<sup>a</sup>**

| Facility  | Facility Type | RTA    | Facility at Risk? |
|---|---------------|--------|-------------------|
| <b>Kennedy Grove Regional Recreation Area</b>   |               |        |                   |
| Fern Cottage                                    | Building      | KG003  | ✓                 |
| Kennedy Grove Park Office & Service Yard        | Building      | KG003  | ✓                 |
| <b>Wildcat Canyon Regional Park</b>             |               |        |                   |
| Alvarado Office/Service Yard                    | Building      | WC005  | ✓                 |
| <b>Tilden Regional Park</b>                     |               |        |                   |
| Wildcat View Group Shelter (WCC)                | Camp          | TI002a | ✓                 |
| EEC Complex and Residence                       | Building      | TI002a | ✓                 |
| New Woodland Camp Shelter                       | Camp          | TI002a | ✓                 |
| Merry-Go-Round Complex/Residence & MGR Bathroom | Building      | TI008b | ✓                 |
| Tilden Corp Yard and Residence                  | Building      | TI015  | ✓                 |
| GGLS Clubhouse/Train Facilities                 | Building      | TI015  | ✓                 |
| Steam Trains Bathroom/Roundhouse & Facilities   | Building      | TI015  | ✓                 |
| Botanic Garden                                  | Garden        | TI021  | ✓                 |
| Pony Ride Complex                               | Equestrian    |        |                   |
| Lake Anza Complex/Concession/Residence          | Building      |        |                   |
| Brazil Building and Residence                   | Building      |        |                   |
| Tilden Golf Course Facility                     | Building      |        |                   |
| Tilden Golf Course Maintenance Structures       | Building      |        |                   |
| Gillespie Group Camp                            | Camp          |        |                   |
| <b>Claremont Canyon Regional Preserve</b>       |               |        |                   |
| Gelston Street Field Offices/Park Office        | Building      | CC008  | ✓                 |
| <b>Temescal Regional Recreation Area</b>        |               |        |                   |
| Temescal Bathing Facility                       | Bath House    | TM001  | ✓                 |
| Temescal Park Office and Restrooms              | Building      |        |                   |
| <b>Sibley Volcanic Regional Preserve</b>        |               |        |                   |
| Park Residence                                  | Building      | SR005  | ✓                 |
| Sibley Visitors Center                          | Building      | SR005  | ✓                 |
| Sibley Office/Shop/Park Residence               | Building      |        |                   |
| <b>Redwood Regional Park</b>                    |               |        |                   |
| Redwood Skyline Gate Residence                  | Building      | RD001  | ✓                 |
| Girls' Camp Shelter & Picnic Area               | Camp          | RD003  | ✓                 |
| Archery Range                                   | Building      | RD005b | ✓                 |
| Redwood Bowl Residence                          | Building      | RD005b | ✓                 |
| Park Residence                                  | Building      | RD006  | ✓                 |
| Park Office                                     | Building      | RD006  | ✓                 |
| Concession, Swim Complex                        | Building      | RD006  | ✓                 |
| Trudeau Center                                  | Building      | RD008  | ✓                 |
| Stable  | Equestrian    | RD009  | ✓                 |
| Redwood Stables Residence                       | Building      | RD009  | ✓                 |
| Redwood Schoolhouse                             | Building      | RD010  | ✓                 |
| Fire Station #2                                 | Building      | RD010  | ✓                 |
| Chabot Space and Science Center                 | Building      |        |                   |
| Redwood Park Entrance Residence                 | Building      |        |                   |
| Office/Garage/Service Yard                      | Building      |        |                   |
| <b>Anthony Chabot Regional Park</b>             |               |        |                   |
| Chabot Equestrian Center                        | Equestrian    | AC007  | ✓                 |
| Marksmanship Water Tank                         | Water Tank    | AC010  | ✓                 |
| Group Camp - Hawk Ridge Shelter                 | Camp          | AC011  | ✓                 |
| Skyline Ranch Stables                           | Equestrian    |        |                   |
| Marksmanship Range, Residence, Office           | Building      |        |                   |
| Service Yard, Park Residence, Kiosk             | Building      |        |                   |
| Willow Park Golf Course Structure               | Building      |        |                   |

Table 3 *Continued*

| Facility   | Facility Type | RTA | Facility at Risk? |
|--|---------------|-----|-------------------|
| <b>Anthony Chabot Regional Park</b>              |               |     |                   |
| Public Safety HQ, Nike Classroom and Park Office | Building      |     |                   |
| Lake Chabot Residence/Marina/Cafe                | Building      |     |                   |
| South County Yard                                | Building      |     |                   |
| <b>Point Pinole Regional Shoreline</b>           |               |     |                   |
| Point Pinole Park Office & Corporate Yard        | Building      |     |                   |
| <b>Miller/Know Regional Shoreline</b>            |               |     |                   |
| Golden State Railroad Museum & Park Office       | Building      |     |                   |

<sup>a</sup> Facilities outside of RTAs have not been further evaluated in this Plan.

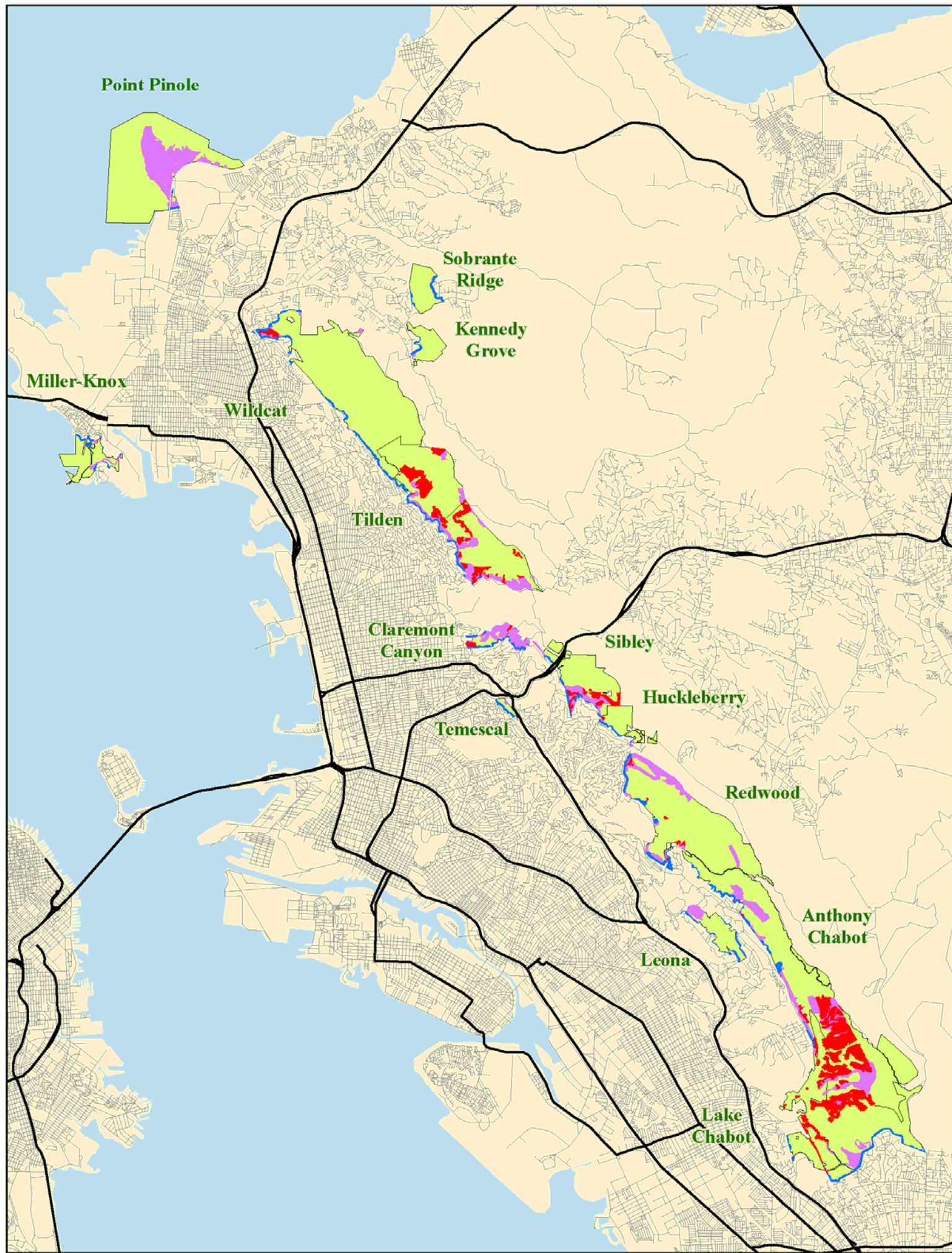
Source: East Bay Regional Park District, 2008. Various GIS files, 10-22-08.

## 5. Site Confirmation

RTAs in each park were visited and photographed to confirm mapping and record vegetation types currently onsite. Based on site-specific conditions seen during these site visits, the information displayed on the WHA Map was either verified or updated to reflect existing conditions, and boundaries of hazard areas were further delineated. Confirmation of the hazard assessment was performed by EBRPD staff and local fire protection and vegetation experts; as the planning process for this Plan was executed, additional confirmation of existing conditions onsite and the corollary information displayed on the WHA Map was conducted.



# East Bay Regional Park District Draft Wildfire Hazard Assessment



LSA



0 5,000 10,000  
FEET

1 INCH EQUALS 10,000 FEET

**WILDFIRE HAZARD ASSESSMENT AREAS**

- WITHIN 200 FEET OF PRIVATE STRUCTURES
- HIGH-RISK EUCALYPTUS
- OTHER WILDFIRE HAZARD ASSESSMENT AREAS

*East Bay Regional Park District  
Wildfire Hazard Reduction Management Plan*

December 12, 2007

I:\EBR0601\GIS\maps\Wildfire Hazard Assessment\Overview\Wildfire Hazard Assessment (tabloid).mxd (12/12/2007)

Figure 2: Draft Wildlife Hazard Assessment Map



## APPENDIX A: FLAMMAP INPUT FILES AND ASSUMPTIONS

To model fire behavior a number of data themes must be developed for the FLAMMAP program. These include:

**Elevation:** Measured in feet above sea level. This is necessary for adiabatic adjustment of temperature and humidity between elevations and for conversion of fire spread between horizontal and slope distances

*Source:* USGS digital elevation models

**Slope:** Percent of inclination from the horizontal. Slope is used to compute steepness effects on fire spread and solar irradiance.

*Source:* USGS digital elevation models

**Aspect:** Azimuth values degree clockwise from north. Aspect is used to compute effects on fire spread and solar irradiance.

*Source:* USGS digital elevation models

**Fuel Model:** Fuel models, organized and described as Fire Behavior Prediction System in terms of fuel volume, structure, and chemistry. Fuel types were determined using a set of decision rules that translate vegetation to fuel types. This approach was preferred over using state-wide fuels map developed by CDF (available from the internet) because the state-wide map was deemed less accurate. The vegetation was mapped by EBRPD staff, updated in 2006. Approximately 300 vegetation types were mapped, with details noted regarding understory and overstory dominance of various species present. See Appendix A for a description of the Fire Behavior for the fuel models selected.

*Source:* Aerial photography, botanical field surveys, translation from vegetation maps, expert opinion

**Canopy Cover:** Canopy cover is necessary to compute shading and wind reduction factors. Was determined by the 2006 vegetation type map and adjusted by field observations and/or expert opinion.

*Source:* Aerial photography, botanical field surveys, translation from vegetation maps, expert opinion

**Tree Height:** Tree height is used to compute spotting distance and crown fire characteristics. Was determined by the 2006 vegetation type map and adjusted by field observations and/or expert opinion.

*Source:* Aerial photography, botanical field surveys, translation from vegetation maps, expert opinion

**Crown Base Height, or Height to Live Canopy:** Crown base height is an important parameter for determining the transition from surface fire to crown fire. This value incorporates the effects of ladder fuels in increasing vertical continuity and assisting transition to crown fire. Was determined by the 2006 vegetation type map and adjusted by field observations and/or expert opinion.

*Source:* Aerial photography, botanical field surveys, translation from vegetation maps, expert opinion

**Weather:** Weather is important to determine environmental conditions during the simulation. The weather data theme describes the maximum and minimum temperature and relative humidity, and the time in which the maximum and minimum temperature occurs in order to dry and moisten fuels accordingly. Weather data was collected for a 10-year period; the actual observations for October 23-28, 2003 were used for the simulation. The weather observed on these days is among the driest in the previous 10 years.

*Source:* Oakland North remote automated weather station, located near Grizzly Peak and Marlborough Terrace in Oakland, above Gwin Canyon.

**Wind:** Wind provides a heat transfer mechanism and influences the direction of fire spread. The wind data theme describes the wind speed and direction every hour throughout the simulation. Weather data was collected for a 10-year period; the actual observations for October 23-28, 2003 were used for the simulation. The wind speed observed on these days is among the windiest in the previous 10 years. The direction of the wind was consistent with a long-term Diablo Wind event.

*Source:* Oakland North remote automated weather station

## **FLAMMAP and FARSITE Inputs Files**

The following discussion describes files used as inputs to the wildfire simulation program, FARSITE. These consist of:

1. **conversion files** (\*.cnv), where the fuel model specified in the spatial categorization of fuels is changed to another fuel model, or a custom fuel model.
2. **adjustment files**, where the rates of spread for each fuel model are adjusted to account for the inherent over-prediction of spread rates by the heat transfer models,
3. **custom fuel models** (\*.fmd) where fuels are defined that are not part of the standard fuel models (such as grazed grass, or an interpretation of mature landscaping),
4. **fuel moisture files** (\*.fms), where for each fuel model, the initial fuel moisture for each size class of fuels is defined for each fuel model. The moisture content of live woody fuels and live herbaceous fuels are similarly defined for each fuel model.

In all files, the format follows that required by the FARSITE version 4.0, 1997, by Mark A. Finney. FARSITE is available from Systems for Environmental Management, PO Box 8868, Missoula, MT, 59807, or from [www.fire.org/tools](http://www.fire.org/tools).

### **Conversion file**

No conversion files were used.

### **Adjustment file**

An adjustment factor of .4 was selected for both fuel models because the spread of unadjusted simulations appeared to be unrealistic. The fire behavior prediction model assumes a steady and constant wind speed which would produce a fire with optimum spread rates. In reality, wind speeds fluctuate, causing fire spread to stop, and requires re-acceleration. Thus the spread of fire routinely is over-predicted. The wind speeds were less than 20 miles per hour, and while quite windy, could not merit a higher adjustment factor. All fuel models were assigned an adjustment factor of 0.4.

### **Custom Fuel Model file**

Many custom fuel models were used to portray with more accuracy the types of fuel models found on the site. In all cases these custom fuel models used a standard fuel model as a base; the value of only one parameter was changed. In cases where especially flammable vegetation was

present (eucalyptus and pines), the heat content of the dead and live fuel was raised. In cases where the foliage was expected to be more moist, the initial fuel moisture of the living material was raised.

|                   | <b>Standard Fuel Model</b> | <b>New Custom Fuel Model</b> |
|-------------------|----------------------------|------------------------------|
| Moist fuel models | 1                          | 61                           |
| Moist fuel models | 2                          | 20                           |
| Moist fuel models | 3                          | 30                           |
| Moist fuel models | 4                          | 40                           |
| Moist fuel models | 6                          | 60                           |
| Moist fuel models | 5                          | 50                           |
| Moist fuel models | 8                          | 80                           |
| Oily Fuels        | 1                          | 14                           |
| Oily Fuels        | 2                          | 15                           |
| Oily Fuels        | 5                          | 16                           |
| Oily Fuels        | 6                          | 17                           |
| Oily Fuels        | 8                          | 18                           |
| Oily Fuels        | 9                          | 19                           |
| Oily Fuels        | 10                         | 21                           |

**Fuel Moisture file**

This file specifies the moisture in the fuels of various sizes, and specifies how much moisture is in leaves as well. The weather files then dry out or add moisture depending on ambient conditions. The first column is the fuel model number, the remaining columns are moistures by size class and live material. These values were taken from a range of moistures monitored throughout the state for the last 20 years.

## APPENDIX B: DESCRIPTIONS OF FIRE BEHAVIOR FOR FUEL MODELS

*From: Anderson, Hal E; Aids to Determining Fuel Models for Estimating Fire Behavior. Gen. Tech Report INT-122, 1982, and Rothermel, Richard C. How to predict the Spread and Intensity of Forest and Range Fires, Gen. Tech. Report INT-143.*

**FUEL MODEL 1: GRASS AND CUSTOM FUEL MODEL OF GRAZED GRASS.** Primary carrier of the fire is grass. Expected rate of spread in ungrazed grass is moderate to high, with low to moderate fireline intensity (flame length). Fires are surface fires that move rapidly through cured grass and associated material. Grazed grass produces significantly lower flame lengths and spreads slower by one-quarter to one-half the rate.

The entire fuel volume, estimated to range between .75 and 3 tons/acre consists of fine fuels, (<.25 inches in diameter). The fuel bed depth is expected to be the approximate height of the grass, or one foot tall.

**FUEL MODEL 2: (Savannas and Forest & Grass)** Primary carrier of the fire is shrub or litter beneath the shrub. Expected rate of spread and fireline intensities are moderate to high. Fire spread is through the fine herbaceous fuels, either curing or dead. These are surface fires where the herbaceous material, besides litter and dead-down stemwood from the open shrub or timber overstory, contribute to fire intensity.

Of the total 4 tons/acre fuel loading in Savannas, one-half, or 2 tons/acre, is found in fine fuels (<.25 inches in diameter). Twigs from .25 inches to one inch in diameter comprise 1 ton/acre; larger branches from 1 to 3 inches in diameter represent .5 tons/acre. Live foliage also comprises .5 tons/acre. The fuel bed depth is expected to be the approximate height of the grass, or one foot tall.

**FUEL MODEL 4: (Chaparral)** Fire intensity and fast-spreading fires involve the foliage and live and dead fine woody material in the crowns of a nearly continuous secondary overstory. Stands of mature shrub, 6 or more feet tall, such as California mixed chaparral...are typical candidates. Besides flammable foliage, there is dead woody material in the stand that significantly contributes to the fire intensity. Height of stands qualifying for this model depends on local conditions. There may be also a deep litter layer that confounds suppression efforts.

This fuel model has a large portion of fuel as foliage in the canopy. The fuel loading by size class follows: Fine dead fuels (<.25 inch diameter) represents 5.01 tons per acre. Fuels which are .25 - 1.00 inches in diameter total 4.01 tons/acre, and fuels between 1 to 3 inches in diameter total 2.00 tons per acre. Live herbaceous fuels are not a significant component in this fuel model, however live woody fuels constitute 5.01 tons per acre of fuel. The total loading of fuel exceeds that of fuel model 9, over 16 tons/acre.

**FUEL MODEL 5: (Coastal Scrub)** Fire is generally carried in the surface fuels that are made up of litter cast by the shrubs, and the grasses or forbs in the understory. The fires are generally not very intense because surface fuel loads are light, the shrubs are young with little dead material, and the foliage contains little volatile material. Fuel loads are less than 5.5 tons per acre, with almost one-half in twig-sized fuels and live fuels. The FBPS notes that shrubs are not very tall, but typically scrub in the District is to 10 feet tall.

**FUEL MODEL 6: (Riparian Woodland)** Fire carries through the shrub layer where the foliage is more flammable than fuel model 5, but requires moderate winds, greater than 8 mi/hr at midflame height. Fire will drop to the ground at low windspeeds or openings in the stand. The shrubs are older, but not as tall as shrub types of model 4, nor do they contain as much fuel as fuel model 4. A broad



range of shrub conditions is covered by this model. Fuel situations to consider include intermediate-aged stands of chamise, chaparral, and oak brush.

**FUEL MODEL 8: (Oak Forest)** Slow burning ground fires with low flame heights are generally the case, although an occasional “jackpot” or heavy fuel concentration may cause a flare up. Only under severe weather conditions involving high temperatures, low humidities and high wind do the fuels pose fire hazards. A compact litter layer (composed of needles, leaves, and some twigs) supports fire, since little undergrowth is present in the stand.

The total fuel load of the Oak Forest is 5 tons/acre, with one-half of the volume consisting of material one to three inches in diameter. 1.5 tons/acre is found in fine dead fuels (<.25 inch diameter). Fuels which are .25 - 1.00 inches in diameter total 1 ton/acre. Live herbaceous and live woody fuels are not a significant component of this fuel model. While the forest height may be greater than 40 ft, the fuel bed height is considered .2 ft, or under 2.5 inches.

**FUEL MODEL 9: (Mixed Hardwood)** Fire runs through the surface litter faster than model 8 and has a higher flame height. Both long-needle conifer and hardwood stands...are typical. Fall fires in hardwoods are representative, but high winds will actually cause higher rates of spread than predicted. This is due to spotting caused by rolling and blowing leaves. Closed stands of long-needled pine like ponderosa, Jeffrey, and red pines ...are grouped in this model. Concentrations of dead-down woody material will contribute to possible torching out of trees, spotting, and crowning.

**FUEL MODEL 10: (Redwood Forest)** The fires burn in the surface and ground fuels with greater fire intensity than the other timber litter models. Dead down fuels include greater quantities of 3-inch or larger limbwood resulting from over-maturity or natural events than create a large load of dead material on the forest floor. Crowning out, spotting, and torching of individual trees is more frequent in this fuel situation, leading to potential fire control difficulties. Any forest type may be considered if heavy down material is present; for example, insect- or disease-ridden stands, wind-thrown stands, over-mature stands with deadfall, and aged slash from light thinning or partial cutting.

The following table identifies 13 standard fuel models. These fuel models were identified by Hal E. Anderson in *Aids to Determining Fuel Models for Estimating Fire Behavior. Gen. Tech Report INT-122, 1982* and Richard C. Rothermel in *How to predict the Spread and Intensity of Forest and Range Fires, Gen. Tech. Report INT-143*. T/A indicates tons per acre. 1-H is an abbreviation for fuels smaller than ¼ inch in diameter. 10-H, for fuels ¼ - 1 inch in diameter, 100-H for fuels 1 – 3 inches in diameter. “Live” indicates living herbaceous fuels, and “woody” indicates foliar fuels of woody shrubs. Fuel Bed Depth is the height above ground in which the fuel is distributed. The moisture of extinction is the amount of dryness at which fire will not be sustained. ROS is Rate of fire spread, and FL is flame length.

Table 1: Description of Fuel Models

| Fuel Model | Typical Fuel Complex | Fuel Loading (T/A) |       |       |      | Fuel Bed Depth (ft) | Moist. of Extinction Dead Fuels (%) | ROS* ch/h | FL* (ft) |
|------------|----------------------|--------------------|-------|-------|------|---------------------|-------------------------------------|-----------|----------|
|            |                      | 1-H                | 10-H  | 100-H | Live |                     |                                     |           |          |
| 1          | Short Grass          | 0.74               | 0     | 0     | 0    | 1                   | 12                                  | 78        | 4        |
| 2          | Timber               | 2                  | 1     | 0.5   | 0.5  | 1                   | 15                                  | 35        | 6        |
| 3          | Tall Grass           | 3.01               | 0     | 0     | 0    | 2.5                 | 25                                  | 104       | 12       |
| 4          | Chaparral            | 5.01               | 4.01  | 2     | 5.01 | 6                   | 20                                  | 75        | 19       |
| 5          | Brush                | 1                  | 0.5   | 0     | 2    | 2                   | 20                                  | 18        | 4        |
| 6          | Dormant brush        | 1.5                | 2.5   | 2     | 0    | 2.5                 | 25                                  | 32        | 6        |
| 7          | Southern Rough       | 1.13               | 1.87  | 1.5   | 0.37 | 2.5                 | 40                                  | 20        | 5        |
| 8          | Closed Timber Litter | 1.5                | 1     | 2.5   | 0    | 0.2                 | 30                                  | 2         | 1        |
| 9          | Hardwood Litter      | 2.92               | 0.41  | 0.15  | 0    | 0.2                 | 25                                  | 8         | 3        |
| 10         | Timber               | 3.01               | 2     | 5.01  | 2    | 1                   | 25                                  | 8         | 5        |
| 11         | Light Logging Slash  | 1.5                | 4.51  | 5.51  | 0    | 1                   | 15                                  | 6         | 4        |
| 12         | Medium Logging Slash | 4.01               | 14.03 | 16.53 | 0    | 2.3                 | 20                                  | 13        | 8        |
| 13         | Heavy Logging Slash  | 7.01               | 23.04 | 28.05 | 0    | 3                   | 25                                  | 14        | 11       |

\*ROS and FL are represented under a fine dead fuel moisture of 8%, a midflame windspeed of 5 mi/h, and live fuel moisture, if present, of 100% (Anderson, 1982).



## APPENDIX C: WEATHER INPUTS FOR FLAMMAP SIMULATIONS

October 23-28, 2003

| <i>Date</i> | <i>ppt</i> | <i>time</i><br><i>of min T</i> | <i>time</i><br><i>of max T</i> | <i>min T</i> | <i>maxT</i> | <i>max RH</i> | <i>min RH</i> | <i>elev</i> |
|-------------|------------|--------------------------------|--------------------------------|--------------|-------------|---------------|---------------|-------------|
| 10 23       | 00         | 0100                           | 1500                           | 55           | 81          | 99            | 9             | 1500        |
| 10 24       | 00         | 0800                           | 1500                           | 64           | 79          | 23            | 10            | 1500        |
| 10 25       | 00         | 0600                           | 1600                           | 66           | 81          | 23            | 15            | 1500        |
| 10 26       | 00         | 2300                           | 1400                           | 67           | 84          | 23            | 15            | 1500        |
| 10 27       | 00         | 0100                           | 1400                           | 71           | 89          | 24            | 15            | 1500        |
| 10 28       | 00         | 2400                           | 1100                           | 71           | 88          | 26            | 15            | 1500        |
| 10 28       | 00         | 2400                           | 1100                           | 71           | 88          | 26            | 15            | 1500        |

### Wind Data

| <u>Date</u> | <u>time</u> | <u>speed</u> | <u>dir</u> | <u>cloud</u> | <u>cvr</u> | <u>Date</u> | <u>time</u> | <u>speed</u> | <u>dir</u> | <u>cloud</u> | <u>cvr</u> | <u>Date</u> | <u>time</u> | <u>speed</u> | <u>dir</u> | <u>cloud</u> | <u>cvr</u> |
|-------------|-------------|--------------|------------|--------------|------------|-------------|-------------|--------------|------------|--------------|------------|-------------|-------------|--------------|------------|--------------|------------|
| 10 23       | 0000        | 3            | 292        | 0            |            | 10 23       | 0000        | 3            | 292        | 0            |            | 10 24       | 0000        | 18           | 13         | 0            |            |
| 10 23       | 0100        | 6            | 332        | 0            |            | 10 23       | 0100        | 6            | 332        | 0            |            | 10 24       | 0100        | 18           | 23         | 0            |            |
| 10 23       | 0200        | 6            | 284        | 0            |            | 10 23       | 0200        | 6            | 284        | 0            |            | 10 24       | 0200        | 15           | 55         | 0            |            |
| 10 23       | 0300        | 5            | 210        | 0            |            | 10 23       | 0300        | 5            | 210        | 0            |            | 10 24       | 0300        | 15           | 57         | 0            |            |
| 10 23       | 0400        | 3            | 263        | 0            |            | 10 23       | 0400        | 3            | 263        | 0            |            | 10 24       | 0400        | 16           | 58         | 0            |            |
| 10 23       | 0500        | 4            | 234        | 0            |            | 10 23       | 0500        | 4            | 234        | 0            |            | 10 24       | 0500        | 18           | 52         | 0            |            |
| 10 23       | 0600        | 11           | 1          | 0            |            | 10 23       | 0600        | 11           | 1          | 0            |            | 10 24       | 0600        | 15           | 71         | 0            |            |
| 10 23       | 0700        | 11           | 53         | 0            |            | 10 23       | 0700        | 11           | 53         | 0            |            | 10 24       | 0700        | 17           | 56         | 0            |            |
| 10 23       | 0800        | 10           | 71         | 0            |            | 10 23       | 0800        | 10           | 71         | 0            |            | 10 24       | 0800        | 18           | 73         | 0            |            |
| 10 23       | 0900        | 14           | 54         | 0            |            | 10 23       | 0900        | 14           | 54         | 0            |            | 10 24       | 0900        | 16           | 51         | 0            |            |
| 10 23       | 1000        | 14           | 27         | 0            |            | 10 23       | 1000        | 14           | 27         | 0            |            | 10 24       | 1000        | 15           | 70         | 0            |            |
| 10 23       | 1100        | 18           | 37         | 0            |            | 10 23       | 1100        | 18           | 37         | 0            |            | 10 24       | 1100        | 12           | 62         | 0            |            |
| 10 23       | 1200        | 6            | 60         | 0            |            | 10 23       | 1200        | 6            | 60         | 0            |            | 10 24       | 1200        | 12           | 71         | 0            |            |
| 10 23       | 1300        | 6            | 25         | 0            |            | 10 23       | 1300        | 6            | 25         | 0            |            | 10 24       | 1300        | 7            | 52         | 0            |            |
| 10 23       | 1400        | 4            | 114        | 0            |            | 10 23       | 1400        | 4            | 114        | 0            |            | 10 24       | 1400        | 17           | 64         | 0            |            |
| 10 23       | 1500        | 7            | 324        | 0            |            | 10 23       | 1500        | 7            | 324        | 0            |            | 10 24       | 1500        | 16           | 66         | 0            |            |
| 10 23       | 1600        | 7            | 11         | 0            |            | 10 23       | 1600        | 7            | 11         | 0            |            | 10 24       | 1600        | 16           | 70         | 0            |            |
| 10 23       | 1700        | 3            | 241        | 0            |            | 10 23       | 1700        | 3            | 241        | 0            |            | 10 24       | 1700        | 10           | 30         | 0            |            |
| 10 23       | 1800        | 10           | 332        | 0            |            | 10 23       | 1800        | 10           | 332        | 0            |            | 10 24       | 1800        | 17           | 66         | 0            |            |
| 10 23       | 1900        | 14           | 357        | 0            |            | 10 23       | 1900        | 14           | 357        | 0            |            | 10 24       | 1900        | 16           | 52         | 0            |            |
| 10 23       | 2000        | 22           | 8          | 0            |            | 10 23       | 2000        | 22           | 8          | 0            |            | 10 24       | 2000        | 21           | 57         | 0            |            |
| 10 23       | 2100        | 20           | 9          | 0            |            | 10 23       | 2100        | 20           | 9          | 0            |            | 10 24       | 2100        | 20           | 63         | 0            |            |
| 10 23       | 2200        | 23           | 10         | 0            |            | 10 23       | 2200        | 23           | 10         | 0            |            | 10 24       | 2200        | 13           | 46         | 0            |            |
| 10 23       | 2300        | 23           | 8          | 0            |            | 10 23       | 2300        | 23           | 8          | 0            |            | 10 24       | 2300        | 20           | 58         | 0            |            |

| <u>Date</u> <u>time</u> <u>speed</u> <u>dir</u> <u>cloud</u> <u>cvr</u> | <u>Date</u> <u>time</u> <u>speed</u> <u>dir</u> <u>cloud</u> <u>cvr</u> | <u>Date</u> <u>time</u> <u>speed</u> <u>dir</u> <u>cloud</u> <u>cvr</u> |
|---|---|---|
| 10 25 0000 6 33 0   | 10 26 1700 2 287 0  | 10 28 1000 18 64 0  |
| 10 25 0100 7 57 0   | 10 26 1800 22 61 0  | 10 28 1100 8 18 0   |
| 10 25 0200 8 68 0   | 10 26 1900 25 65 0  | 10 28 1200 15 38 0  |
| 10 25 0300 11 62 0  | 10 26 2000 27 56 0  | 10 28 1300 26 48 0  |
| 10 25 0400 17 56 0  | 10 26 2100 26 57 0  | 10 28 1400 16 60 0  |
| 10 25 0500 15 57 0  | 10 26 2200 23 63 0  | 10 28 1500 4 211 0  |
| 10 25 0600 16 59 0  | 10 26 2300 23 61 0  | 10 28 1600 12 60 0  |
| 10 25 0700 20 52 0  | 10 27 0000 3 301 0  | 10 28 1700 3 342 0  |
| 10 25 0800 21 74 0  | 10 27 0100 16 35 0  | 10 28 1800 4 0 0  |
| 10 25 0900 22 70 0  | 10 27 0200 15 73 0  | 10 28 1900 26 41 0  |
| 10 25 1000 22 74 0  | 10 27 0300 4 321 0  | 10 28 2000 11 33 0  |
| 10 25 1100 24 62 0  | 10 27 0400 12 64 0  | 10 28 2100 7 39 0   |
| 10 25 1200 25 67 0  | 10 27 0500 8 83 0   | 10 28 2200 7 94 0   |
| 10 25 1300 24 59 0  | 10 27 0600 17 31 0  | 10 28 2300 2 159 0  |
| 10 25 1400 29 57 0  | 10 27 0700 13 52 0  |   |
| 10 25 1500 28 63 0  | 10 27 0800 4 262 0  |   |
| 10 25 1600 29 63 0  | 10 27 0900 4 296 0  |   |
| 10 25 1700 25 58 0  | 10 27 1000 1 55 0   |   |
| 10 25 1800 21 63 0  | 10 27 1100 4 277 0  |   |
| 10 25 1900 28 56 0  | 10 27 1200 13 57 0  |   |
| 10 25 2000 30 54 0  | 10 27 1300 6 97 0   |   |
| 10 25 2100 29 41 0  | 10 27 1400 1 303 0  |   |
| 10 25 2200 23 59 0  | 10 27 1500 3 255 0  |   |
| 10 25 2300 19 64 0  | 10 27 1600 4 292 0  |   |
| 10 26 0000 3 10 0   | 10 27 1700 9 59 0   |   |
| 10 26 0100 11 67 0  | 10 27 1800 5 99 0   |   |
| 10 26 0200 18 61 0  | 10 27 1900 2 289 0  |   |
| 10 26 0300 11 71 0  | 10 27 2000 5 56 0   |   |
| 10 26 0400 17 63 0  | 10 27 2100 5 101 0  |   |
| 10 26 0500 7 77 0   | 10 27 2200 2 129 0  |   |
| 10 26 0600 12 58 0  | 10 27 2300 3 145 0  |   |
| 10 26 0700 23 49 0  | 10 28 0000 3 348 0  |   |
| 10 26 0800 20 64 0  | 10 28 0100 14 63 0  |   |
| 10 26 0900 6 36 0   | 10 28 0200 17 70 0  |   |
| 10 26 1000 5 6 0  | 10 28 0300 16 62 0  |   |
| 10 26 1100 25 57 0  | 10 28 0400 3 279 0  |   |
| 10 26 1200 4 3 0  | 10 28 0500 4 208 0  |   |
| 10 26 1300 3 331 0  | 10 28 0600 5 212 0  |   |
| 10 26 1400 2 228 0  | 10 28 0700 4 311 0  |   |
| 10 26 1500 20 65 0  | 10 28 0800 3 80 0   |   |
| 10 26 1600 1 203 0  | 10 28 0900 18 49 0  |   |

## APPENDIX D: CROSSWALK FROM VEGETATION TO FUEL CHARACTERISTICS

| Vegetation Type per NOTES  | Burgan &             |                        | Tree<br>Height (ft) | Height To<br>Live<br>Crown (ft) | Canopy<br>Cover<br>(category) |
|--|----------------------|------------------------|---------------------|---------------------------------|-------------------------------|
|  | Old<br>Fuel<br>Model | Scott<br>Fuel<br>Model |                     |                                 |                               |
| Acacia   | 6                    | 182                    | 20                  | 6                               | 4                             |
| Acacia - Palm - Live Oak - California Bay                                      | 8                    | 182                    | 40                  | 6                               | 4                             |
| <b>Alder</b>   | <b>81</b>            | <b>190</b>             | <b>40</b>           | <b>12</b>                       | <b>4</b>                      |
| Alvarado Staging Area - Live Oak - California Bay - Dense Bluegum Eucalyptus   | 8                    | 182                    | 100                 | 6                               | 3                             |
| Alvarado Staging Area - Paved parking  | 0                    | 99                     | 0                   | 0                               | 0                             |
| Annual Grassland   | 1                    | 104                    | 3                   | 1                               | 0                             |
| Annual Grassland   | 1                    | 104                    | 3                   | 1                               | 0                             |
| Annual Grassland - Artichoke Thistle   | 1                    | 104                    | 3                   | 1                               | 0                             |
| Annual Grassland - Broom   | 1                    | 122                    | 6                   | 1                               | 0                             |
| Annual Grassland - Coyote Brush  | 1                    | 122                    | 6                   | 1                               | 0                             |
| Annual Grassland - Coyote Brush  | 1                    | 122                    | 3                   | 1                               | 0                             |
| Annual Grassland - Coyote Brush - California Sage                              | 1                    | 122                    | 6                   | 1                               | 0                             |
| Annual Grassland - Coyote Brush - Live Oak                                     | 1                    | 122                    | 40                  | 1                               | 1                             |
| Annual Grassland - Coyote Brush - Live Oak - California Bay                    | 1                    | 122                    | 40                  | 1                               | 1                             |
| Annual Grassland - Coyote Brush - Poison Oak                                   | 1                    | 122                    | 6                   | 1                               | 0                             |
| Annual Grassland - Coyote Brush - Scattered Live Oak - Ca Bay                  | 1                    | 122                    | 40                  | 1                               | 1                             |
| Annual Grassland - Coyote Brush - Scotch Broom                                 | 1                    | 122                    | 6                   | 1                               | 0                             |
| Annual Grassland - Coyote Brush 15.9.14  | 1                    | 122                    | 3                   | 1                               | 0                             |
| <i>Annual Grassland - Dense Bluegum Eucalyptus</i>                             | <i>14</i>            | <i>111</i>             | <i>100</i>          | <i>1</i>                        | <i>2</i>                      |
| <i>Annual Grassland - Dense Bluegum Eucalyptus - Coyote Brush</i>              | <i>5</i>             | <i>166</i>             | <i>100</i>          | <i>1</i>                        | <i>3</i>                      |
| <i>Annual Grassland - Dense Bluegum Eucalyptus - Live Oak - California Bay</i> | <i>9</i>             | <i>111</i>             | <i>100</i>          | <i>3</i>                        | <i>3</i>                      |
| <i>Annual Grassland - Dense Bluegum Eucalyptus - Mixed Conifer</i>             | <i>14</i>            | <i>127</i>             | <i>100</i>          | <i>6</i>                        | <i>1</i>                      |
| <i>Annual Grassland - Dense Eucalyptus - Broom</i>                             | <i>14</i>            | <i>127</i>             | <i>100</i>          | <i>1</i>                        | <i>1</i>                      |
| Annual Grassland - Live Oak - California Bay                                   | 1                    | 122                    | 40                  | 6                               | 1                             |
| Annual Grassland - Live Oak - California Bay                                   | 1                    | 122                    | 40                  | 6                               | 1                             |
| Annual Grassland - Mixed Conifer - Live Oak - California Bay 15.23             | 1                    | 164                    | 100                 | 6                               | 1                             |
| Annual Grassland - Mixed Conifer - Live Oak - California Bay 23.14             | 9                    | 111                    | 80                  | 6                               | 3                             |
| Annual Grassland - Poison Oak  | 1                    | 122                    | 6                   | 1                               | 0                             |
| Annual Grassland - Poison Oak - Coyote Brush                                   | 1                    | 122                    | 6                   | 1                               | 0                             |
| Annual Grassland - Poison Oak - Live Oak                                       | 1                    | 122                    | 40                  | 1                               | 1                             |
| Annual Grassland - Steep Rock  | 1                    | 121                    | 1                   | 1                               | 0                             |
| Annual Grassland - Woodchips   | 1                    | 101                    | 1                   | 1                               | 0                             |

## APPENDIX D: CROSSWALK FROM VEGETATION TO FUEL CHARACTERISTICS

| Vegetation Type per NOTES                             | Burgan &             |                        | Tree<br>Height (ft) | Height To<br>Live<br>Crown (ft) | Canopy<br>Cover<br>(category) |
|---|----------------------|------------------------|---------------------|---------------------------------|-------------------------------|
|   | Old<br>Fuel<br>Model | Scott<br>Fuel<br>Model |                     |                                 |                               |
| Annual Grassland Nasella 10-30% cover                 | 1                    | 104                    | 2                   | 1                               | 0                             |
| Annual Grassland Nasella pulchra                      | 1                    | 104                    | 3                   | 1                               | 0                             |
| Artichoke Thistle                                     | 3                    | 141                    | 3                   | 1                               | 0                             |
| Blackberry  | 5                    | 149                    | 6                   | 4                               | 0                             |
| Blackberry - Coyote Brush                             | 5                    | 149                    | 6                   | 4                               | 0                             |
| Blackberry - Coyote Brush - Live Oak - California Bay | 5                    | 149                    | 40                  | 1                               | 1                             |
| Blackberry - Coyote Brush - Poison Oak                | 5                    | 147                    | 6                   | 4                               | 0                             |
| Blackberry - Live Oak - California Bay                | 5                    | 186                    | 40                  | 4                               | 1                             |
| Blackberry - Live Oak - California Bay - Broom        | 5                    | 186                    | 40                  | 4                               | 1                             |
| Blackberry - Poison Hemlock                           | 5                    | 148                    | 6                   | 1                               | 0                             |
| Blackberry - Poison Oak - Coyote Brush                | 5                    | 149                    | 6                   | 2                               | 0                             |
| <i>Bluegum Eucalyptus</i>                             | <b>21</b>            | <b>192</b>             | <b>100</b>          | <b>4</b>                        | <b>4</b>                      |
| Broom   | 6                    | 149                    | 6                   | 2                               | 0                             |
| Broom - Annual Grassland                              | 6                    | 122                    | 6                   | 2                               | 0                             |
| Broom - Blackberry                                    | 6                    | 149                    | 6                   | 2                               | 0                             |
| <i>Broom - Dense Bluegum Eucalyptus - Blackberry</i>  | <b>17</b>            | <b>166</b>             | <b>100</b>          | <b>4</b>                        | <b>2</b>                      |
| <b>Broom - Elderberry</b>                             | <b>60</b>            | <b>150</b>             | <b>6</b>            | <b>2</b>                        | <b>0</b>                      |
| Broom - Hemlock - Coyote Brush                        | 6                    | 149                    | 6                   | 2                               | 0                             |
| <b>Broom - Willow - Pine</b>                          | <b>60</b>            | <b>152</b>             | <b>30</b>           | <b>2</b>                        | <b>1</b>                      |
| California Bay  | 8                    | 186                    | 40                  | 12                              | 4                             |
| <b>California Bay - Huckleberry</b>                   | <b>60</b>            | <b>152</b>             | <b>40</b>           | <b>6</b>                        | <b>4</b>                      |
| California Bay - Manzanita - Blackberry               | 4                    | 162                    | 40                  | 2                               | 3                             |
| <b>California Bulrush</b>                             | <b>30</b>            | <b>126</b>             | <b>3</b>            | <b>1</b>                        | <b>0</b>                      |
| <b>California Bulrush + Willows</b>                   | <b>60</b>            | <b>190</b>             | <b>30</b>           | <b>6</b>                        | <b>0</b>                      |
| California Sage                                       | 5                    | 147                    | 6                   | 2                               | 0                             |
| California Sage - Annual Grassland - Coyote Brush     | 5                    | 147                    | 6                   | 2                               | 0                             |
| California Sagebrush                                  | 5                    | 147                    | 6                   | 2                               | 0                             |
| <b>Cattails</b>                                       | <b>60</b>            | <b>110</b>             | <b>6</b>            | <b>2</b>                        | <b>0</b>                      |
| Children's play area                                  | 0                    | 91                     | 0                   | 0                               | 0                             |
| <b>Clotbur + mud</b>                                  | <b>61</b>            | <b>125</b>             | <b>2</b>            | <b>2</b>                        | <b>0</b>                      |
| Coast Live Oak - California bay                       | 8                    | 182                    | 40                  | 12                              | 4                             |
| <b>Coast Live Oak - California Bay - Coffeeberry</b>  | <b>80</b>            | <b>182</b>             | <b>40</b>           | <b>6</b>                        | <b>4</b>                      |

## APPENDIX D: CROSSWALK FROM VEGETATION TO FUEL CHARACTERISTICS

| Vegetation Type per NOTES   | Burgan &             |                        | Tree<br>Height (ft) | Height To<br>Live<br>Crown (ft) | Canopy<br>Cover<br>(category) |
|---|----------------------|------------------------|---------------------|---------------------------------|-------------------------------|
|   | Old<br>Fuel<br>Model | Scott<br>Fuel<br>Model |                     |                                 |                               |
| Coast Live Oak - California Bay - Madrone   | 8                    | 182                    | 40                  | 6                               | 4                             |
| <b>Coast Live Oak - California Bay - Willows</b>  | <b>80</b>            | <b>190</b>             | <b>40</b>           | <b>6</b>                        | <b>3</b>                      |
| <b>Coast Live Oak - California Bay + occ. Madrone, Alder, Elderberry</b>                | <b>80</b>            | <b>191</b>             | <b>40</b>           | <b>6</b>                        | <b>3</b>                      |
| Coast Live Oak - Coyote Brush - Scotch Broom  | 5                    | 147                    | 40                  | 2                               | 2                             |
| Coast Live Oak - Mixed Trees/Shrubs   | 5                    | 147                    | 40                  | 2                               | 4                             |
| Coast Live Oak - Redwood - Poison Oak - Mixed Trees/Shrubs                              | 8                    | 182                    | 100                 | 6                               | 4                             |
| Coyote Brush  | 5                    | 147                    | 6                   | 2                               | 0                             |
| Coyote Brush - Annual Grassland   | 5                    | 122                    | 6                   | 2                               | 0                             |
| Coyote Brush - Annual Grassland   | 5                    | 122                    | 6                   | 2                               | 0                             |
| Coyote Brush - Annual Grassland - Dense Bluegum Eucalyptus                              | 5                    | 189                    | 100                 | 1                               | 4                             |
| Coyote Brush - Annual Grassland - Hemlock   | 5                    | 122                    | 6                   | 2                               | 0                             |
| <b>Coyote Brush - Annual Grassland - Huckleberry</b>                                    | <b>50</b>            | <b>126</b>             | <b>6</b>            | <b>2</b>                        | <b>0</b>                      |
| Coyote Brush - Annual Grassland - Live Oak - California Bay                             | 5                    | 122                    | 40                  | 2                               | 2                             |
| Coyote Brush - Annual Grassland - Poison Oak  | 5                    | 122                    | 6                   | 2                               | 0                             |
| <b>Coyote Brush - Blackberry - Ocean Spray - Poison Oak</b>                             | <b>50</b>            | <b>152</b>             | <b>10</b>           | <b>2</b>                        | <b>0</b>                      |
| Coyote Brush - Blackberry - Poison Oak  | 5                    | 147                    | 6                   | 2                               | 0                             |
| <b>Coyote Brush - Blackberry - Poison Oak - Elderberry - Live Oak - California Bay</b>  | <b>5</b>             | <b>170</b>             | <b>40</b>           | <b>2</b>                        | <b>2</b>                      |
| Coyote Brush - Blackberry - Poison Oak - Live Oak - California Bay                      | 5                    | 165                    | 40                  | 2                               | 2                             |
| Coyote Brush - Broom  | 5                    | 147                    | 6                   | 2                               | 0                             |
| Coyote Brush - California Bay   | 5                    | 147                    | 40                  | 2                               | 2                             |
| Coyote Brush - California Buckeye - Live Oak - California Bay - Poison Oak - Blackberry | 5                    | 147                    | 40                  | 2                               | 2                             |
| <b>Coyote Brush - California Hazelnut - Blackberry - Live Oak - California Bay</b>      | <b>5</b>             | <b>170</b>             | <b>40</b>           | <b>2</b>                        | <b>2</b>                      |
| Coyote Brush - California Sage  | 5                    | 147                    | 6                   | 2                               | 0                             |
| Coyote Brush - California Sage - Annual Grassland                                       | 5                    | 147                    | 6                   | 2                               | 0                             |
| Coyote Brush - California Sage - Blackberry   | 5                    | 147                    | 6                   | 2                               | 0                             |
| Coyote Brush - California Sage - Grassland  | 5                    | 147                    | 6                   | 2                               | 0                             |
| Coyote Brush - California Sage - Live Oak   | 5                    | 147                    | 40                  | 2                               | 1                             |
| Coyote Brush - California Sage - Live Oak - California Bay                              | 5                    | 147                    | 40                  | 2                               | 2                             |
| Coyote Brush - California Sage - Monkey Flower - Live Oak - California Bay              | 5                    | 147                    | 40                  | 2                               | 2                             |
| Coyote Brush - California Sage - Poison Oak   | 5                    | 147                    | 6                   | 2                               | 0                             |
| Coyote Brush - California Sagebrush   | 5                    | 147                    | 6                   | 2                               | 0                             |

## APPENDIX D: CROSSWALK FROM VEGETATION TO FUEL CHARACTERISTICS

| Vegetation Type per NOTES   | Burgan &             |                        | Tree<br>Height (ft) | Height To<br>Live<br>Crown (ft) | Canopy<br>Cover<br>(category) |
|---|----------------------|------------------------|---------------------|---------------------------------|-------------------------------|
|   | Old<br>Fuel<br>Model | Scott<br>Fuel<br>Model |                     |                                 |                               |
| <b>Coyote Brush - Coffeeberry - Cal. Blackberry - Poison Oak - Poison Hemlock</b>             | <b>50</b>            | <b>147</b>             | <b>6</b>            | <b>2</b>                        | <b>0</b>                      |
| <i>Coyote Brush - Dense Bluegum Eucalyptus</i>  | 16                   | 209                    | 100                 | 2                               | 2                             |
| <i>Coyote Brush - Dense Bluegum Eucalyptus - California Bay</i>                               | 16                   | 209                    | 100                 | 2                               | 2                             |
| <i>Coyote Brush - Dense Bluegum Eucalyptus - Live Oak - California Bay - Annual Grassland</i> | 16                   | 209                    | 100                 | 2                               | 2                             |
| <b>Coyote Brush - Elderberry</b>  | <b>50</b>            | <b>150</b>             | <b>6</b>            | <b>2</b>                        | <b>0</b>                      |
| Coyote Brush - Elderberry - Blackberry  | 50                   | 150                    | 6                   | 2                               | 0                             |
| <b>Coyote Brush - Elderberry - Live Oak - California Bay</b>                                  | <b>50</b>            | <b>150</b>             | <b>40</b>           | <b>2</b>                        | <b>2</b>                      |
| Coyote Brush - Elderberry - Poison Oak  | 5                    | 149                    | 6                   | 2                               | 0                             |
| Coyote Brush - French Broom   | 5                    | 147                    | 6                   | 2                               | 0                             |
| Coyote Brush - Grassland  | 5                    | 122                    | 6                   | 2                               | 0                             |
| Coyote Brush - Grassland - California Sage  | 5                    | 122                    | 6                   | 2                               | 0                             |
| Coyote Brush - Hemlock  | 5                    | 147                    | 6                   | 2                               | 0                             |
| Coyote Brush - Live Oak   | 5                    | 147                    | 40                  | 2                               | 2                             |
| Coyote Brush - Live Oak - Broom   | 5                    | 147                    | 40                  | 2                               | 2                             |
| Coyote Brush - Live Oak - California Bay - Annual Grassland                                   | 5                    | 147                    | 40                  | 2                               | 2                             |
| Coyote Brush - Live Oak - California Bay - Blackberry - Poison Oak                            | 5                    | 149                    | 40                  | 2                               | 2                             |
| <b>Coyote Brush - Live Oak - California Bay - Elderberry</b>                                  | <b>50</b>            | <b>152</b>             | <b>40</b>           | <b>2</b>                        | <b>2</b>                      |
| Coyote Brush - Live Oak - California Bay - Poison Oak - Blackberry                            | 5                    | 147                    | 40                  | 2                               | 2                             |
| <b>Coyote Brush - Live Oak - California Bay - Willow</b>                                      | <b>50</b>            | <b>151</b>             | <b>30</b>           | <b>2</b>                        | <b>2</b>                      |
| <b>Coyote Brush - Live Oak - Willow</b>   | <b>50</b>            | <b>152</b>             | <b>40</b>           | <b>2</b>                        | <b>2</b>                      |
| Coyote Brush - Mixed Conifer  | 5                    | 165                    | 100                 | 2                               | 2                             |
| Coyote Brush - Mixed Conifer - Live Oak - California Bay                                      | 5                    | 165                    | 100                 | 2                               | 2                             |
| Coyote Brush - Monkey Flower  | 5                    | 147                    | 6                   | 2                               | 0                             |
| Coyote Brush - N. Coastal Scrub Mix   | 5                    | 147                    | 6                   | 2                               | 0                             |
| Coyote Brush - Oak - Shrubland  | 5                    | 147                    | 40                  | 1                               | 1                             |
| <i>Coyote Brush - Pine</i>  | 16                   | 209                    | 80                  | 2                               | 2                             |
| Coyote Brush - Pine - Annual Grassland  | 5                    | 165                    | 80                  | 2                               | 2                             |
| Coyote Brush - Poison Hemlock   | 5                    | 147                    | 6                   | 2                               | 0                             |
| Coyote Brush - Poison Oak   | 5                    | 147                    | 6                   | 2                               | 0                             |
| Coyote Brush - Poison Oak - Blackberry  | 5                    | 149                    | 6                   | 2                               | 0                             |
| <i>Coyote Brush - Poison Oak - Blackberry - Dense Bluegum Eucalyptus</i>                      | 16                   | 209                    | 100                 | 1                               | 4                             |
| <b>Coyote Brush - Poison Oak - Blackberry - Elderberry</b>                                    | <b>50</b>            | <b>152</b>             | <b>6</b>            | <b>2</b>                        | <b>0</b>                      |

## APPENDIX D: CROSSWALK FROM VEGETATION TO FUEL CHARACTERISTICS

| Vegetation Type per NOTES   | Burgan &             |                        | Tree<br>Height (ft) | Height To<br>Live<br>Crown (ft) | Canopy<br>Cover<br>(category) |
|---|----------------------|------------------------|---------------------|---------------------------------|-------------------------------|
|   | Old<br>Fuel<br>Model | Scott<br>Fuel<br>Model |                     |                                 |                               |
| Coyote Brush - Poison Oak - Blackberry - Live Oak - California Bay                  | 5                    | 149                    | 40                  | 2                               | 1                             |
| Coyote Brush - Poison Oak - Blackberry - Mixed Conifer                              | 5                    | 147                    | 80                  | 1                               | 1                             |
| Coyote Brush - Poison Oak - California Sage   | 5                    | 147                    | 6                   | 2                               | 0                             |
| <i>Coyote Brush - Poison Oak - Dense Bluegum Eucalyptus</i>                         | 16                   | 209                    | 100                 | 1                               | 4                             |
| Coyote Brush - Poison Oak - Live Oak - California Bay                               | 5                    | 147                    | 40                  | 2                               | 2                             |
| Coyote Brush - Poison Oak - Live Oak - California Bay - Hemlock                     | 5                    | 147                    | 40                  | 2                               | 2                             |
| Coyote Brush - Poison Oak - Monkey Flower   | 5                    | 147                    | 6                   | 2                               | 0                             |
| <i>Coyote Brush - Poison Oak - Monkey Flower - Pine</i>                             | 16                   | 209                    | 80                  | 2                               | 1                             |
| Coyote Brush - Poison Oak - Redwood - Live Oak - California Bay                     | 5                    | 147                    | 100                 | 2                               | 2                             |
| <b>Coyote Brush - Prunus - Poison Hemlock - Bay - Willow - etc.</b>                 | <b>50</b>            | <b>152</b>             | <b>40</b>           | <b>2</b>                        | <b>1</b>                      |
| Coyote Brush - Scotch Broom   | 5                    | 147                    | 6                   | 2                               | 0                             |
| Coyote Brush - Shrubland - Coast Live Oak - California Bay - Madrone                | 5                    | 147                    | 40                  | 2                               | 2                             |
| <b>Coyote Brush - Willow</b>  | <b>50</b>            | <b>152</b>             | <b>30</b>           | <b>2</b>                        | <b>2</b>                      |
| <i>Dense Bluegum Eucalyptus - Broom - Live Oak - California Bay</i>                 | 21                   | 192                    | 100                 | 6                               | 4                             |
| <i>Dense Bluegum Eucalyptus - California Bay</i>                                    | 21                   | 192                    | 100                 | 6                               | 4                             |
| <i>Dense Bluegum Eucalyptus - California Bay</i>                                    | 21                   | 192                    | 100                 | 6                               | 4                             |
| <i>Dense Bluegum Eucalyptus - California Bay - Pine</i>                             | 21                   | 192                    | 100                 | 6                               | 4                             |
| <i>Dense Bluegum Eucalyptus - California Sage</i>                                   | 16                   | 166                    | 100                 | 2                               | 3                             |
| <i>Dense Bluegum Eucalyptus - Coyote Brush</i>                                      | 16                   | 209                    | 100                 | 2                               | 4                             |
| <i>Dense Bluegum Eucalyptus - Live Oak - California Bay</i>                         | 21                   | 192                    | 100                 | 4                               | 4                             |
| <i>Dense Bluegum Eucalyptus - Live Oak - California Bay - Blackberry</i>            | 21                   | 192                    | 100                 | 4                               | 4                             |
| <i>Dense Bluegum Eucalyptus - Live Oak - California Bay - Coyote Brush</i>          | 21                   | 192                    | 100                 | 4                               | 4                             |
| <i>Dense Bluegum Eucalyptus - Pine</i>  | 21                   | 192                    | 100                 | 4                               | 4                             |
| <i>Dense Eucalyptus</i>   | 21                   | 192                    | 100                 | 6                               | 4                             |
| Developed   | 0                    | 91                     | 0                   | 0                               | 0                             |
| Developed - Franklin Ridge Staging Area   | 0                    | 91                     | 0                   | 0                               | 0                             |
| Developed/Landscaped  | 0                    | 93                     | 0                   | 0                               | 0                             |
| Environmental Education Center / Little Farm: Structures, irrigated turf, bare dirt | 0                    | 91                     | 0                   | 0                               | 0                             |
| Golf Course - Irrigated Turf and Trees  | 0                    | 93                     | 0                   | 0                               | 0                             |
| Golf Course: Developed  | 0                    | 93                     | 0                   | 0                               | 0                             |
| Golf Course: Water  | 0                    | 98                     | 0                   | 0                               | 0                             |
| Grassland   | 1                    | 104                    | 3                   | 1                               | 0                             |

## APPENDIX D: CROSSWALK FROM VEGETATION TO FUEL CHARACTERISTICS

| Vegetation Type per NOTES   | Burgan &             |                        | Tree<br>Height (ft) | Height To<br>Live<br>Crown (ft) | Canopy<br>Cover<br>(category) |
|---|----------------------|------------------------|---------------------|---------------------------------|-------------------------------|
|   | Old<br>Fuel<br>Model | Scott<br>Fuel<br>Model |                     |                                 |                               |
| Grassland - Coyote Brush  | 1                    | 122                    | 6                   | 1                               | 0                             |
| Grassland - Coyote Brush - California Sage  | 1                    | 122                    | 6                   | 1                               | 0                             |
| Grassland - Coyote Brush - Live Oak - California Bay                                    | 1                    | 122                    | 40                  | 1                               | 1                             |
| Grassland - Live Oak  | 1                    | 122                    | 40                  | 6                               | 1                             |
| Ground Clover   | 1                    | 122                    | 40                  | 6                               | 1                             |
| Ground Clover - Coyote Brush - California Bay   | 1                    | 122                    | 40                  | 6                               | 1                             |
| Ground Clover - Grassland - Coyote Brush  | 1                    | 122                    | 40                  | 6                               | 0                             |
| Hemlock - Annual Grassland  | 3                    | 122                    | 6                   | 3                               | 0                             |
| Hemlock - Artichoke Thistle   | 5                    | 121                    | 6                   | 3                               | 0                             |
| Hemlock - Broom - Coyote Brush  | 5                    | 147                    | 6                   | 3                               | 0                             |
| Hemlock - Elderberry - Live Oak - California Bay  | 5                    | 147                    | 6                   | 3                               | 0                             |
| Irrigated turf  | 0                    | 93                     | 0                   | 0                               | 0                             |
| Lake Anza parking lot - irrigated turf - structures - beach - landscape trees           | 0                    | 93                     | 0                   | 0                               | 0                             |
| Lake Chabot Marina - Developed  | 0                    | 91                     | 0                   | 0                               | 0                             |
| Landscaped Parking Lot  | 0                    | 93                     | 0                   | 0                               | 0                             |
| Live Oak  | 8                    | 182                    | 40                  | 12                              | 4                             |
| Live Oak - California Bay   | 8                    | 182                    | 40                  | 12                              | 4                             |
| Live Oak - California Bay   | 8                    | 182                    | 40                  | 12                              | 4                             |
| Live Oak - California Bay - Annual Grassland  | 1                    | 182                    | 40                  | 2                               | 3                             |
| Live Oak - California Bay - Annual Grassland - Coyote Brush                             | 5                    | 182                    | 40                  | 2                               | 3                             |
| Live Oak - California Bay - Blackberry  | 5                    | 182                    | 40                  | 6                               | 3                             |
| <i>Live Oak - California Bay - Broom - Pine</i>   | <i>17</i>            | <i>112</i>             | <i>40</i>           | <i>2</i>                        | <i>4</i>                      |
| <b>Live Oak - California Bay - California Buckeye - Bigleaf Maple - Alder</b>           | <b>80</b>            | <b>191</b>             | <b>40</b>           | <b>12</b>                       | <b>4</b>                      |
| <b>Live Oak - California Bay - California Buckeye - Bigleaf Maple - Alder - Redwood</b> | <b>80</b>            | <b>191</b>             | <b>100</b>          | <b>12</b>                       | <b>4</b>                      |
| Live Oak - California Bay - California Buckeye - Madrone                                | 8                    | 182                    | 40                  | 12                              | 4                             |
| Live Oak - California Bay - California Sage   | 8                    | 182                    | 40                  | 2                               | 3                             |
| Live Oak - California Bay - Coyote Brush  | 8                    | 182                    | 40                  | 2                               | 3                             |
| Live Oak - California Bay - Coyote Brush  | 8                    | 182                    | 40                  | 2                               | 3                             |
| Live Oak - California Bay - Coyote Brush - Annual Grassland                             | 5                    | 181                    | 40                  | 2                               | 3                             |
| <b>Live Oak - California Bay - Coyote Brush - Bigleaf Maple</b>                         | <b>80</b>            | <b>191</b>             | <b>40</b>           | <b>2</b>                        | <b>4</b>                      |
| <b>Live Oak - California Bay - Coyote Brush - California Hazelnut</b>                   | <b>80</b>            | <b>191</b>             | <b>40</b>           | <b>2</b>                        | <b>3</b>                      |
| <i>Live Oak - California Bay - Coyote Brush - Dense Bluegum Eucalyptus</i>              | <i>16</i>            | <i>210</i>             | <i>100</i>          | <i>2</i>                        | <i>4</i>                      |



## APPENDIX D: CROSSWALK FROM VEGETATION TO FUEL CHARACTERISTICS

| Vegetation Type per NOTES   | Burgan &             |                        | Tree<br>Height (ft) | Height To<br>Live<br>Crown (ft) | Canopy<br>Cover<br>(category) |
|---|----------------------|------------------------|---------------------|---------------------------------|-------------------------------|
|   | Old<br>Fuel<br>Model | Scott<br>Fuel<br>Model |                     |                                 |                               |
| <b>Live Oak - California Bay - Coyote Brush - Elderberry</b>                      | <b>50</b>            | <b>152</b>             | <b>40</b>           | <b>2</b>                        | <b>3</b>                      |
| <i>Live Oak - California Bay - Coyote Brush - Pine - Dense Bluegum Eucalyptus</i> | 18                   | 210                    | 100                 | 2                               | 4                             |
| Live Oak - California Bay - Coyote Brush - Poison Oak                             | 5                    | 182                    | 40                  | 2                               | 3                             |
| Live Oak - California Bay - Coyote Brush - Poison Oak - Blackberry                | 5                    | 182                    | 40                  | 2                               | 3                             |
| <b>Live Oak - California Bay - Coyote Brush - Willow</b>                          | <b>50</b>            | <b>152</b>             | <b>40</b>           | <b>6</b>                        | <b>3</b>                      |
| <i>Live Oak - California Bay - Dense Bluegum Eucalyptus</i>                       | 18                   | 112                    | 100                 | 6                               | 4                             |
| <i>Live Oak - California Bay - Dense Bluegum Eucalyptus - Coyote Brush</i>        | 18                   | 210                    | 100                 | 2                               | 3                             |
| <b>Live Oak - California Bay - Huckleberry</b>                                    | <b>80</b>            | <b>191</b>             | <b>40</b>           | <b>6</b>                        | <b>4</b>                      |
| Live Oak - California Bay - Madrone   | 8                    | 182                    | 40                  | 12                              | 4                             |
| Live Oak - California Bay - Madrone - Redwood                                     | 8                    | 182                    | 100                 | 12                              | 4                             |
| Live Oak - California Bay - Manzanita   | 4                    | 182                    | 40                  | 6                               | 3                             |
| Live Oak - California Bay - Mixed Conifer   | 8                    | 182                    | 40                  | 12                              | 4                             |
| Live Oak - California Bay - Mixed Conifer - Coyote Brush                          | 8                    | 161                    | 80                  | 6                               | 3                             |
| <i>Live Oak - California Bay - Pine</i>   | 19                   | 210                    | 80                  | 12                              | 4                             |
| Live Oak - California Bay - Redwood   | 8                    | 182                    | 100                 | 12                              | 4                             |
| Live Oak - California Bay - Redwood - Coyote Brush                                | 5                    | 164                    | 100                 | 2                               | 3                             |
| <b>Live Oak - California Bay - Willow</b>   | <b>80</b>            | <b>191</b>             | <b>40</b>           | <b>12</b>                       | <b>4</b>                      |
| <b>Live Oak - California Bay - Willow - Coyote Brush</b>                          | <b>80</b>            | <b>191</b>             | <b>40</b>           | <b>2</b>                        | <b>3</b>                      |
| <b>Live Oak - California Bay - Willows</b>  | <b>80</b>            | <b>191</b>             | <b>40</b>           | <b>12</b>                       | <b>4</b>                      |
| Live Oak - California Buckeye   | 8                    | 182                    | 40                  | 12                              | 4                             |
| Live Oak - Coyote Brush   | 5                    | 147                    | 40                  | 2                               | 2                             |
| Live Oak - Coyote Brush - California Sage   | 5                    | 147                    | 40                  | 2                               | 2                             |
| Live Oak - Manzanita  | 4                    | 147                    | 40                  | 2                               | 3                             |
| Live Oak - Redwood  | 8                    | 182                    | 100                 | 12                              | 4                             |
| Manzanita   | 4                    | 147                    | 10                  | 2                               | 0                             |
| <b>Manzanita - Huckleberry</b>  | <b>40</b>            | <b>205</b>             | <b>10</b>           | <b>2</b>                        | <b>0</b>                      |
| <b>Manzanita - Huckleberry - Golden Chinkapin</b>                                 | <b>40</b>            | <b>205</b>             | <b>15</b>           | <b>2</b>                        | <b>0</b>                      |
| Manzanita - Live Oak  | 4                    | 147                    | 40                  | 2                               | 2                             |
| Mixed Conifer   | 9                    | 184                    | 100                 | 6                               | 4                             |
| Mixed Conifer - Annual Grassland  | 2                    | 164                    | 100                 | 2                               | 3                             |
| Mixed Conifer - Coyote Brush  | 5                    | 164                    | 100                 | 2                               | 3                             |
| Mixed Conifer - Coyote Brush - Live Oak - California Bay                          | 8                    | 182                    | 100                 | 2                               | 4                             |

## APPENDIX D: CROSSWALK FROM VEGETATION TO FUEL CHARACTERISTICS

| Vegetation Type per NOTES   | Burgan &             |                        | Tree<br>Height (ft) | Height To<br>Live<br>Crown (ft) | Canopy<br>Cover<br>(category) |
|---|----------------------|------------------------|---------------------|---------------------------------|-------------------------------|
|   | Old<br>Fuel<br>Model | Scott<br>Fuel<br>Model |                     |                                 |                               |
| Mixed Conifer - Live Oak - California Bay                         | 8                    | 182                    | 100                 | 12                              | 4                             |
| Mixed Conifer - Live Oak - California Bay - Coyote Brush          | 9                    | 161                    | 100                 | 6                               | 4                             |
| <b>Moist North Coastal Scrub - Oak - Bay</b>                      | <b>5</b>             | <b>205</b>             | <b>40</b>           | <b>6</b>                        | <b>2</b>                      |
| Monkey Flower - Poison Oak  | 5                    | 147                    | 6                   | 2                               | 0                             |
| Monterey Cypress  | 8                    | 182                    | 80                  | 12                              | 4                             |
| <i>Monterey Pine</i>  | 19                   | 210                    | 80                  | 12                              | 4                             |
| Mowed Annual Grassland  | 1                    | 104                    | 3                   | 1                               | 0                             |
| Mowed Annual Grassland - Live Oak                                 | 2                    | 161                    | 3                   | 12                              | 1                             |
| Mowed Annual Grassland / Temp Parking                             | 1                    | 101                    | 1                   | 6                               | 0                             |
| Oak Bay Woodland  | 8                    | 182                    | 6                   | 12                              | 4                             |
| <b>Ocean Spray</b>  | <b>60</b>            | <b>152</b>             | <b>15</b>           | <b>6</b>                        | <b>0</b>                      |
| <b>Ocean Spray - Poison Oak - Coyote Brush</b>                    | <b>60</b>            | <b>152</b>             | <b>15</b>           | <b>6</b>                        | <b>0</b>                      |
| Paved parking   | 0                    | 99                     | 0                   | 0                               | 0                             |
| <i>Pine</i>   | 19                   | 210                    | 80                  | 12                              | 4                             |
| <i>Pine - Annual Grassland</i>                                    | 15                   | 168                    | 80                  | 12                              | 3                             |
| <i>Pine - Blackberry</i>  | 16                   | 166                    | 80                  | 6                               | 3                             |
| <i>Pine - Broom - Live Oak - California Bay</i>                   | 16                   | 167                    | 80                  | 6                               | 4                             |
| <i>Pine - California Bay</i>                                      | 19                   | 169                    | 80                  | 6                               | 4                             |
| <i>Pine - Coyote Brush</i>  | 16                   | 166                    | 80                  | 2                               | 3                             |
| <i>Pine - Coyote Brush - Blackberry</i>                           | 16                   | 166                    | 80                  | 2                               | 3                             |
| <i>Pine - Coyote Brush - Dense Bluegum Eucalyptus - Grassland</i> | 16                   | 166                    | 100                 | 2                               | 3                             |
| <i>Pine - Dense Bluegum Eucalyptus - Coyote Brush</i>             | 19                   | 166                    | 100                 | 6                               | 4                             |
| <i>Pine - Live Oak - California Bay</i>                           | 18                   | 169                    | 80                  | 12                              | 4                             |
| <i>Pine - Live Oak - California Bay - Coyote Brush</i>            | 16                   | 166                    | 80                  | 6                               | 3                             |
| <i>Pine - Poison Oak</i>  | 19                   | 166                    | 80                  | 6                               | 3                             |
| Poison Hemlock  | 5                    | 147                    | 6                   | 2                               | 0                             |
| Poison Hemlock - Coyote Brush - Annual Grassland                  | 5                    | 145                    | 6                   | 2                               | 0                             |
| Poison Oak  | 5                    | 143                    | 6                   | 2                               | 0                             |
| Poison Oak - Coyote Brush   | 5                    | 147                    | 6                   | 2                               | 0                             |
| Poison Oak - Coyote Brush - Annual Grassland                      | 5                    | 147                    | 6                   | 2                               | 0                             |
| Poison Oak - Coyote Brush - Annual Grassland - low regrowth       | 5                    | 141                    | 2                   | 2                               | 0                             |
| Poison Oak - Coyote Brush - Annual Grassland - young regrowth     | 5                    | 141                    | 2                   | 2                               | 0                             |

## APPENDIX D: CROSSWALK FROM VEGETATION TO FUEL CHARACTERISTICS

| Vegetation Type per NOTES  | Burgan &             |                        | Tree<br>Height (ft) | Height To<br>Live<br>Crown (ft) | Canopy<br>Cover<br>(category) |
|--|----------------------|------------------------|---------------------|---------------------------------|-------------------------------|
|  | Old<br>Fuel<br>Model | Scott<br>Fuel<br>Model |                     |                                 |                               |
| Poison Oak - Coyote Brush - Blackberry                                       | 5                    | 147                    | 6                   | 2                               | 0                             |
| <i>Redgum Eucalyptus</i>   | 21                   | 192                    | 100                 | 6                               | 3                             |
| <i>Redgum Eucalyptus - California Bay</i>                                    | 21                   | 192                    | 100                 | 6                               | 3                             |
| <i>Redgum Eucalyptus - Live Oak - California Bay</i>                         | 21                   | 192                    | 100                 | 4                               | 3                             |
| <i>Redgum Eucalyptus - Live Oak - California Bay</i>                         | 21                   | 192                    | 100                 | 4                               | 3                             |
| <i>Redgum Eucalyptus - Live Oak - California Bay</i>                         | 21                   | 192                    | 100                 | 4                               | 3                             |
| <i>Redgum Eucalyptus - Live Oak - California Bay - Willow</i>                | 21                   | 192                    | 100                 | 6                               | 3                             |
| Redwood  | 8                    | 182                    | 100                 | 12                              | 4                             |
| Redwood - Live Oak - California Bay  | 8                    | 182                    | 100                 | 12                              | 4                             |
| Redwood Equestrian Arena   | 0                    | 91                     | 0                   | 0                               | 0                             |
| Rifle Range: Structures + bare soil  | 0                    | 99                     | 0                   | 0                               | 0                             |
| Rotary Peace Grove : Giant Redwoods  | 8                    | 181                    | 100                 | 12                              | 4                             |
| <b>Rush</b>  | <b>61</b>            | <b>206</b>             | <b>1</b>            | <b>1</b>                        | <b>0</b>                      |
| <b>Rush - Annual Grassland</b>   | <b>61</b>            | <b>206</b>             | <b>1</b>            | <b>1</b>                        | <b>0</b>                      |
| <b>Rush (Juncus sp.)</b>   | <b>61</b>            | <b>206</b>             | <b>1</b>            | <b>1</b>                        | <b>0</b>                      |
| Scotch Broom - Coyote Brush  | 5                    | 149                    | 6                   | 2                               | 0                             |
| Sedge  | 1                    | 121                    | 1                   | 1                               | 0                             |
| Spikerush - Pennyroyal   | 1                    | 121                    | 1                   | 1                               | 0                             |
| Staging Area: Developed  | 0                    | 91                     | 0                   | 0                               | 0                             |
| Structures and Parking   | 0                    | 99                     | 0                   | 0                               | 0                             |
| Structures, gravel parking lot, corrals                                      | 0                    | 91                     | 0                   | 0                               | 0                             |
| Structures, roads, corrals   | 0                    | 91                     | 0                   | 0                               | 0                             |
| Swimming pool  | 0                    | 98                     | 0                   | 0                               | 0                             |
| <i>Thinned Bluegum Eucalyptus</i>  | 18                   | 182                    | 80                  | 6                               | 3                             |
| <i>Thinned Bluegum Eucalyptus</i>  | 18                   | 182                    | 80                  | 6                               | 3                             |
| <i>Thinned Bluegum Eucalyptus - Coyote Brush</i>                             | 16                   | 161                    | 80                  | 6                               | 3                             |
| <i>Thinned Bluegum Eucalyptus - Emerging Coast Live Oak - California Bay</i> | 18                   | 182                    | 80                  | 6                               | 3                             |
| <i>Thinned Bluegum Eucalyptus - Redwood</i>                                  | 18                   | 182                    | 100                 | 6                               | 3                             |
| Tilden Botanic Garden: California Native Plant Collection                    | 0                    | 93                     | 0                   | 0                               | 0                             |
| Tilden golf course: irrigated park turf                                      | 0                    | 93                     | 0                   | 0                               | 0                             |
| Tilden golf course: irrigated turf and landscape shrubs/trees                | 0                    | 93                     | 0                   | 0                               | 0                             |
| Tilden golf course: Structures and Parking lot                               | 0                    | 91                     | 0                   | 0                               | 0                             |

## APPENDIX D: CROSSWALK FROM VEGETATION TO FUEL CHARACTERISTICS

| Vegetation Type per NOTES  | Burgan &             |                        | Tree<br>Height (ft) | Height To<br>Live<br>Crown (ft) | Canopy<br>Cover<br>(category) |
|--|----------------------|------------------------|---------------------|---------------------------------|-------------------------------|
|  | Old<br>Fuel<br>Model | Scott<br>Fuel<br>Model |                     |                                 |                               |
| Tules (Bulrush)  | 0                    | 0                      | 0                   | 0                               | 0                             |
| Urban / Developed  | 0                    | 91                     | 0                   | 0                               | 0                             |
| Water - Sand   | 0                    | 98                     | 0                   | 0                               | 0                             |
| <b>Willow</b>  | <b>60</b>            | <b>190</b>             | <b>30</b>           | <b>6</b>                        | <b>4</b>                      |
| <b>Willow - California Bay</b>   | <b>60</b>            | <b>190</b>             | <b>30</b>           | <b>6</b>                        | <b>4</b>                      |
| <b>Willow - Coyote Brush</b>   | <b>60</b>            | <b>207</b>             | <b>30</b>           | <b>6</b>                        | <b>4</b>                      |
| <b>Willow - Coyote Brush - Poison Oak - Blackberry</b>   | <b>60</b>            | <b>190</b>             | <b>30</b>           | <b>6</b>                        | <b>3</b>                      |
| <b>Willow - Live Oak - California Bay</b>  | <b>60</b>            | <b>190</b>             | <b>40</b>           | <b>6</b>                        | <b>4</b>                      |
| <b>Willow - Live Oak - California Bay - Coyote Brush</b>   | <b>60</b>            | <b>208</b>             | <b>40</b>           | <b>6</b>                        | <b>4</b>                      |
| <b>Willow - Poison Oak - Blackberry</b>  | <b>60</b>            | <b>208</b>             | <b>30</b>           | <b>6</b>                        | <b>3</b>                      |
| <b>Willow - Walnut - Bigleaf Maple - Live Oak - California Buckeye</b>   | <b>60</b>            | <b>190</b>             | <b>40</b>           | <b>12</b>                       | <b>4</b>                      |
| <b>Willow - Walnut - Bigleaf Maple - Live Oak - California Buckeye</b>   | <b>60</b>            | <b>190</b>             | <b>40</b>           | <b>12</b>                       | <b>4</b>                      |
| <b>Willows - Coast Live Oak - California Bay</b>   | <b>60</b>            | <b>190</b>             | <b>40</b>           | <b>6</b>                        | <b>4</b>                      |
| <p><i>Fuel models with high foliar moisture (indicated <u>by lighter shading</u>) have custom fuel models assigned. The only difference between the custom fuel model and new B&amp;S fuel model is the fuel moisture that can be assigned for the duration of the simulation.</i></p> |                      |                        |                     |                                 |                               |
| <p><i>Fuel models with high foliar oils (indicated <u>by darker shading</u>) have custom fuel models assigned. The only different between the custom fuel model and new B&amp;S fuel model is the calorie content that was assigned to the custom fuel model.</i></p>                  |                      |                        |                     |                                 |                               |

## APPENDIX E - RECOMMENDED TREATMENT AREA JUSTIFICATION

| Park | WHA Code   | Within 200ft of Private Structure | Flame length >8ft within 200ft of private structure | Within 200 ft of Facility-at-Risk | High-risk Ember Prod | Category       | Existing Project Expansion |
|------|------------|-----------------------------------|---|-----------------------------------|----------------------|----------------|----------------------------|
| SO   | WHA-SO001  | yes                               | yes   | no                                | no                   | New Work       | no                         |
| SO   | WHA-SO002  | yes                               | no  | no                                | no                   | Maintenance    | no                         |
| KG   | WHA-KG001  | yes                               | yes   | no                                | no                   | New Work       | no                         |
| KG   | WHA-KG002  | some                              | no  | no                                | yes                  | New Work       | no                         |
| KG   | WHA-KG003  | no                                | no  | yes                               | no                   | New Work       | no                         |
| KG   | WHA-KG004  | yes                               | yes   | no                                | no                   | New Work       | no                         |
| WC   | WHA-WC001  | yes                               | no  | no                                | no                   | Maintenance    | no                         |
| WC   | WHA-WC002  | yes                               | no  | no                                | no                   | Maintenance    | no                         |
| WC   | WHA-WC003  | yes                               | yes   | no                                | no                   | New Work       | no                         |
| WC   | WHA-WC004  | yes                               | no  | no                                | no                   | Maintenance    | no                         |
| WC   | WHA-WC005  | yes                               | no  | no                                | yes                  | New Work       | no                         |
| WC   | WHA-WC006  | no                                | no  | no                                | no                   | Maintenance    | no                         |
| WC   | WHA-WC007a | yes                               | no  | no                                | yes                  | New Work       | no                         |
| WC   | WHA-WC007b | yes                               | no  | no                                | yes                  | New Work       | no                         |
| WC   | WHA-WC008  | yes                               | no  | no                                | no                   | Maintenance    | no                         |
| WC   | WHA-WC009  | yes                               | yes   | no                                | no                   | New Work       | yes                        |
| WC   | WHA-WC010  | yes                               | yes   | no                                | no                   | New Work       | yes                        |
| WC   | WHA-WC011  | yes                               | yes   | no                                | no                   | New Work       | yes                        |
| TI   | WHA-TI001  | no                                | no  | no                                | yes                  | New Work       | no                         |
| TI   | WHA-TI002a | no                                | no  | yes                               | yes                  | New Work       | no                         |
| TI   | WHA-TI002a | no                                | no  | yes                               | no                   | New Work       | no                         |
| TI   | WHA-TI003  | no                                | no  | no                                | no                   | New Work       | no                         |
| TI   | WHA-TI004  | no                                | no  | no                                | yes                  | New Work       | no                         |
| TI   | WHA-TI005  | no                                | no  | no                                | no                   | New Work       | no                         |
| TI   | WHA-TI006  | yes                               | yes   | no                                | yes                  | New Work       | yes                        |
| TI   | WHA-TI007a | no                                | no  | no                                | yes                  | New Work       | no                         |
| TI   | WHA-TI007b | no                                | no  | no                                | yes                  | New Work       | no                         |
| TI   | WHA-TI007c | no                                | no  | no                                | yes                  | New Work       | no                         |
| TI   | WHA-TI008a | no                                | no  | yes                               | yes                  | New Work       | no                         |
| TI   | WHA-TI008b | no                                | no  | yes                               | no                   | Maintenance    | no                         |
| TI   | WHA-TI009  | yes                               | no  | no                                | no                   | New Work       | yes                        |
| TI   | WHA-TI010  | yes                               | yes   | no                                | yes                  | New Work       | yes                        |
| TI   | WHA-TI011  | yes                               | no  | no                                | no                   | Maintenance    | no                         |
| TI   | WHA-TI012  | yes                               | yes   | no                                | yes                  | Maintenance, N | yes                        |
| TI   | WHA-TI013  | no                                | no  | no                                | yes                  | New Work       | no                         |
| TI   | WHA-TI014  | no                                | no  | no                                | yes                  | New Work       | no                         |
| TI   | WHA-TI015  | no                                | no  | yes                               | no                   | Maintenance, N | yes                        |
| TI   | WHA-TI016  | no                                | no  | no                                | no                   | New Work       | no                         |
| TI   | WHA-TI017  | no                                | no  | no                                | no                   | New Work       | no                         |
| TI   | WHA-TI018  | no                                | no  | no                                | yes                  | New Work       | no                         |
| TI   | WHA-TI019  | no                                | no  | no                                | yes                  | New Work       | no                         |
| TI   | WHA-TI020  | no                                | no  | yes                               | yes                  | New Work       | no                         |
| TI   | WHA-TI021  | no                                | no  | yes                               | no                   | New Work       | no                         |
| TI   | WHA-TI022  | no                                | no  | yes                               | no                   | New Work       | yes                        |

## APPENDIX E - RECOMMENDED TREATMENT AREA JUSTIFICATION

| Park | WHA Code   | Within 200ft of Private Structure | Flame length >8ft within 200ft of private structure | Within 200 ft of Facility-at-Risk | High-risk Ember Prod | Category    | Existing Project Expansion |
|------|------------|-----------------------------------|---|-----------------------------------|----------------------|-------------|----------------------------|
| CC   | WHA-CC001  | yes                               | yes   | no                                | yes                  | New Work    | yes                        |
| CC   | WHA-CC002  | yes                               | no  | no                                | no                   | Maintenance | no                         |
| CC   | WHA-CC003  | yes                               | yes   | no                                | no                   | New Work    | no                         |
| CC   | WHA-CC004  | no                                | no  | no                                | yes                  | New Work    | no                         |
| CC   | WHA-CC005  | no                                | no  | no                                | yes                  | New Work    | no                         |
| CC   | WHA-CC006  | yes                               | yes   | no                                | no                   | New Work    | no                         |
| CC   | WHA-CC007  | no                                | no  | no                                | no                   | Maintenance | no                         |
| CC   | WHA-CC008  | no                                | no  | yes                               | no                   | New Work    | no                         |
| CC   | WHA-CC009  | yes                               | no  | no                                | no                   | Maintenance | no                         |
| CC   | WHA-CC010  | yes                               | no  | no                                | no                   | Maintenance | no                         |
| CC   | WHA-CC011  | no                                | no  | no                                | no                   | Maintenance | no                         |
| CC   | WHA-CC012  | no                                | no  | no                                | no                   | New Work    | no                         |
| SR   | WHA-SR001  | yes                               | yes   | no                                | no                   | New Work    | yes                        |
| SR   | WHA-SR002a | yes                               | yes   | no                                | yes                  | Maintenance | no                         |
| SR   | WHA-SR002b | yes                               | yes   | no                                | yes                  | New Work    | no                         |
| SR   | WHA-SR003  | yes                               | yes   | no                                | no                   | Maintenance | no                         |
| SR   | WHA-SR004  | no                                | yes   | no                                | no                   | New Work    | no                         |
| SR   | WHA-SR005  | yes                               | no  | no                                | yes                  | New Work    | yes                        |
| SR   | WHA-SR006  | no                                | no  | no                                | yes                  | New Work    | no                         |
| SR   | WHA-SR007  | no                                | no  | no                                | yes                  | New Work    | no                         |
| HP   | WHA-HP001  | no                                | no  | no                                | yes                  | New Work    | no                         |
| HP   | WHA-HP002  | yes                               | yes   | no                                | no                   | New Work    | yes                        |
| HP   | WHA-HP003  | yes                               | yes   | no                                | no                   | New Work    | no                         |
| HP   | WHA-HP004  | yes                               | no  | no                                | no                   | New Work    | no                         |
| RD   | WHA-RD002  | no                                | no  | no                                | yes                  | New Work    | yes                        |
| RD   | WHA-RD003  | no                                | no  | no                                | no                   | New Work    | yes                        |
| RD   | WHA-RD004  | yes                               | yes   | no                                | no                   | New Work    | no                         |
| RD   | WHA-RD005a | no                                | no  | no                                | yes                  | New Work    | no                         |
| RD   | WHA-RD005b | yes                               | yes   | no                                | no                   | New Work    | no                         |
| RD   | WHA-RD006  | no                                | no  | yes                               | no                   | New Work    | no                         |
| RD   | WHA-RD007  | no                                | no  | no                                | yes                  | New Work    | no                         |
| RD   | WHA-RD008  | no                                | no  | yes                               | no                   | New Work    | no                         |
| RD   | WHA-RD009  | no                                | no  | y                                 | yes                  | New Work    | no                         |
| AC   | WHA-AC001  | yes                               | yes   | no                                | yes                  | New Work    | yes                        |
| AC   | WHA-AC002  | yes                               | no  | no                                | no                   | Maintenance | no                         |
| AC   | WHA-AC003  | yes                               | yes   | no                                | no                   | New Work    | no                         |
| AC   | WHA-AC004  | yes                               | yes   | no                                | no                   | Maintenance | no                         |
| AC   | WHA-AC006  | yes                               | yes   | no                                | no                   | New Work    | yes                        |
| AC   | WHA-AC007a | yes                               | yes   | no                                | yes                  | New Work    | yes                        |
| AC   | WHA-AC007b | yes                               | yes   | no                                | yes                  | Maintenance | yes                        |
| AC   | WHA-AC007c | yes                               | yes   | no                                | yes                  | New Work    | yes                        |
| AC   | WHA-AC008  | no                                | no  | no                                | yes                  | New Work    | yes                        |
| AC   | WHA-AC009  | no                                | no  | no                                | yes                  | New Work    | no                         |
| AC   | WHA-AC010  | no                                | no  | no                                | yes                  | New Work    | yes                        |

## APPENDIX E - RECOMMENDED TREATMENT AREA JUSTIFICATION

| Park | WHA Code     | Within 200ft of Private Structure | Flame length >8ft within 200ft of private structure | Within 200 ft of Facility-at-Risk | High-risk Ember Prod | Category    | Existing Project Expansion |
|------|--------------|-----------------------------------|---|-----------------------------------|----------------------|-------------|----------------------------|
| AC   | WHA-AC011    | no                                | no  | no                                | yes                  | New Work    | no                         |
| AC   | WHA-AC012    | no                                | no  | no                                | yes                  | New Work    | yes                        |
| AC   | WHA-AC013    | no                                | no  | no                                | yes                  | New Work    | no                         |
| AC   | WHA-AC014    | no                                | no  | no                                | no                   | Maintenance | no                         |
| LC   | WHA-LC001    | no                                | no  | no                                | yes                  | New Work    | no                         |
| LC   | WHA-LC002    | no                                | no  | no                                | yes                  | New Work    | no                         |
| LC   | WHA-LC003    | no                                | no  | no                                | yes                  | New Work    | no                         |
| LC   | WHA-LC004    | no                                | no  | no                                | yes                  | New Work    | no                         |
| LC   | WHA-LC005a&b | no                                | no  | no                                | yes                  | New Work    | no                         |
| LC   | WHA-LC006    | no                                | no  | no                                | yes                  | New Work    | no                         |
| LC   | WHA-LC007a-d | no                                | no  | no                                | yes                  | New Work    | no                         |
| LC   | WHA-LC008    | yes                               | no  | no                                | yes                  | New Work    | yes                        |
| LC   | WHA-LC009    | yes                               | yes   | no                                | no                   | Maintenance | yes                        |
| LC   | WHA-LC010    | yes                               | yes   | no                                | no                   | New Work    | no                         |
| TM   | WHA-TM001    | no                                | no  | yes                               | no                   | Maintenance | no                         |
| LE   | WHA-LE001    | yes                               | no  | no                                | no                   | Maintenance | no                         |
| LE   | WHA-LE002    | yes                               | yes   | no                                | no                   | New Work    | no                         |
| LE   | WHA-LE003    | yes                               | no  | no                                | no                   | Maintenance | no                         |
| LE   | WHA-LE004    | yes                               | no  | no                                | no                   | Maintenance | no                         |
| LE   | WHA-LE005    | yes                               | yes   | no                                | no                   | New Work    | no                         |
| LE   | WHA-LE006    | no                                | no  | yes                               | no                   | New Work    | no                         |
| PP   | WHA-PP001    | no                                | no  | no                                | no                   | Maintenance | no                         |
| PP   | WHA-PP002    | no                                | no  | no                                | no                   | Maintenance | no                         |
| PP   | WHA-PP003    | yes                               | no  | no                                | no                   | Maintenance | no                         |
| MK   | WHA-MK001    | yes                               | yes   | no                                | no                   | New Work    | no                         |
| MK   | WHA-MK002    | no                                | yes   | no                                | no                   | New Work    | no                         |
| MK   | WHA-MK003    | yes                               | no  | yes                               | no                   | New Work    | no                         |
| MK   | WHA-MK004    | no                                | no  | no                                | no                   | New Work    | no                         |
| MK   | WHA-MK005    | no                                | no  | no                                | no                   | New Work    | no                         |

**Appendix F: Vegetation Types Within Each Recommended Treatment Area (RTA)**

| <b>RTA</b>                                    | <b>Vegetation Type</b>         | <b>Acreage<sup>a</sup> (&gt; 0.1 acre present)</b> |
|---|--------------------------------|--|
| <b>Sobrante Ridge Regional Preserve</b>       |                                |  |
| <b>SO001</b>                                  | Northern Maritime Chaparral    | 2.4  |
|   | Oak-Bay Woodland/Forest        | 1.7  |
|   | <b>RTA Total</b>               | <b>4.1</b>   |
| <b>SO002</b>                                  | Oak-Bay Woodland/Forest        | 8.4  |
|   | California Annual Grassland    | 4.9  |
|   | Riparian Woodland              | 0.3  |
|   | <b>RTA Total</b>               | <b>13.7</b>  |
| <b>Kennedy Grove Regional Recreation Area</b> |                                |  |
| <b>KG001</b>                                  | Coastal Scrub (xeric)          | 0.8  |
|   | <b>RTA Total</b>               | <b>0.8</b>   |
| <b>KG002</b>                                  | Eucalyptus Forest/Plantation   | 4.5  |
|   | <b>RTA Total</b>               | <b>4.5</b>   |
| <b>KG003</b>                                  | Developed/Disturbed/Landscaped | 2.2  |
|   | Eucalyptus Forest/Plantation   | 1.0  |
|   | California Annual Grassland    | 0.4  |
|   | Oak-Bay Woodland/Forest        | 0.1  |
|   | <b>RTA Total</b>               | <b>3.7</b>   |
| <b>KG004</b>                                  | Oak-Bay Woodland/Forest        | 3.1  |
|   | Eucalyptus Forest/Plantation   | 2.1  |
|   | California Annual Grassland    | 0.9  |
|   | <b>RTA Total</b>               | <b>6.1</b>   |
| <b>Wildcat Canyon Regional Park</b>           |                                |  |
| <b>WC001</b>                                  | California Annual Grassland    | 3.8  |
|   | Oak-Bay Woodland/Forest        | 0.6  |
|   | <b>RTA Total</b>               | <b>4.4</b>   |
| <b>WC002</b>                                  | California Annual Grassland    | 4.0  |
|   | <b>RTA Total</b>               | <b>4.0</b>   |
| <b>WC003</b>                                  | Coyote Brush Scrub             | 1.7  |
|   | <b>RTA Total</b>               | <b>1.7</b>   |
| <b>WC004</b>                                  | California Annual Grassland    | 2.9  |
|   | Oak-Bay Woodland/Forest        | 2.8  |
|   | Coastal Scrub (xeric)          | 1.9  |
|   | <b>RTA Total</b>               | <b>7.6</b>   |
| <b>WC005</b>                                  | Eucalyptus Forest/Plantation   | 23.6   |
|   | Oak-Bay Woodland/Forest        | 11.5   |
|   | Developed/Disturbed/Landscaped | 5.3  |
|   | Non-native Coniferous Forest   | 2.4  |
|   | California Annual Grassland    | 1.2  |
|   | Redwood Forest                 | 0.4  |
|   | <b>RTA Total</b>               | <b>44.3</b>  |
| <b>WC006</b>                                  | California Annual Grassland    | 0.9  |
|   | Coastal Scrub (xeric)          | 0.2  |
|   | Oak-Bay Woodland/Forest        | 0.1  |
|   | <b>RTA Total</b>               | <b>1.2</b>   |
| <b>WC007a</b>                                 | Eucalyptus Forest/Plantation   | 0.7  |
|   | <b>RTA Total</b>               | <b>0.7</b>   |
| <b>WC007b</b>                                 | Eucalyptus Forest/Plantation   | 0.5  |
|   | <b>RTA Total</b>               | <b>0.5</b>   |
| <b>WC008</b>                                  | Oak-Bay Woodland/Forest        | 0.2  |
|   | <b>RTA Total</b>               | <b>0.2</b>   |
| <b>WC009</b>                                  | Oak-Bay Woodland/Forest        | 6.7  |
|   | Coastal Scrub (mesic)          | 2.3  |
|   | Riparian Woodland              | 1.6  |



| RTA                         | Vegetation Type                | Acreage <sup>a</sup> (> 0.1 acre present) |
|-----------------------------|--------------------------------|---|
|                             | Coastal Scrub (xeric)          | 0.8                                       |
|                             | <b>RTA Total</b>               | <b>11.5</b>                               |
| <b>WC010</b>                | Oak-Bay Woodland/Forest        | 5.5                                       |
|                             | Coastal Scrub (mesic)          | 5.2                                       |
|                             | Coastal Scrub (xeric)          | 0.1                                       |
|                             | <b>RTA Total</b>               | <b>10.8</b>                               |
| <b>WC011</b>                | Coastal Scrub (mesic)          | 16.8                                      |
|                             | Oak-Bay Woodland/Forest        | 12.7                                      |
|                             | Riparian Woodland              | 1.4                                       |
|                             | California Annual Grassland    | 1.2                                       |
|                             | Eucalyptus Forest/Plantation   | 1.1                                       |
|                             | Developed/Disturbed/Landscaped | 1.1                                       |
|                             | Coastal Scrub (xeric)          | 0.4                                       |
|                             | <b>RTA Total</b>               | <b>34.8</b>                               |
| <b>Tilden Regional Park</b> |                                |   |
| <b>TI001</b>                | Eucalyptus Forest/Plantation   | 17.3                                      |
|                             | Coyote Brush Scrub             | 4.5                                       |
|                             | Coastal Scrub (xeric)          | 3.8                                       |
|                             | Non-native Coniferous Forest   | 1.6                                       |
|                             | Riparian Woodland              | 1.4                                       |
|                             | <b>RTA Total</b>               | <b>28.6</b>                               |
| <b>TI002a</b>               | Eucalyptus Forest/Plantation   | 105.2                                     |
|                             | Developed/Disturbed/Landscaped | 2.0                                       |
|                             | Non-native Coniferous Forest   | 1.2                                       |
|                             | California Annual Grassland    | 0.3                                       |
|                             | Coastal Scrub (xeric)          | 0.2                                       |
|                             | Riparian Woodland              | 0.1                                       |
|                             | <b>RTA Total</b>               | <b>109.0</b>                              |
| <b>TI002b</b>               | Developed/Disturbed/Landscaped | 2.3                                       |
|                             | Riparian Woodland              | 1.3                                       |
|                             | Coastal Scrub (xeric)          | 0.7                                       |
|                             | Oak-Bay Woodland/Forest        | 0.6                                       |
|                             | Non-native Coniferous Forest   | 0.3                                       |
|                             | <b>RTA Total</b>               | <b>5.2</b>                                |
| <b>TI002c</b>               | Non-native Coniferous Forest   | 0.7                                       |
|                             | Developed/Disturbed/Landscaped | 0.1                                       |
|                             | <b>RTA Total</b>               | <b>0.8</b>                                |
| <b>TI003</b>                | Non-native Coniferous Forest   | 14.4                                      |
|                             | Coastal Scrub (xeric)          | 0.8                                       |
|                             | California Annual Grassland    | 0.2                                       |
|                             | Coyote Brush Scrub             | 0.2                                       |
|                             | <b>RTA Total</b>               | <b>15.6</b>                               |
| <b>TI004</b>                | Eucalyptus Forest/Plantation   | 45.0                                      |
|                             | Non-native Coniferous Forest   | 3.4                                       |
|                             | Coyote Brush Scrub             | 0.1                                       |
|                             | <b>RTA Total</b>               | <b>48.5</b>                               |
| <b>TI005</b>                | Coastal Scrub (xeric)          | 4.3                                       |
|                             | Non-native Coniferous Forest   | 2.0                                       |
|                             | <b>RTA Total</b>               | <b>6.3</b>                                |
| <b>TI006</b>                | Oak-Bay Woodland/Forest        | 7.7                                       |
|                             | Eucalyptus Forest/Plantation   | 1.4                                       |
|                             | Broom Scrub                    | 1.3                                       |
|                             | Developed/Disturbed/Landscaped | 0.3                                       |
|                             | Coyote Brush Scrub             | 0.1                                       |
|                             | <b>RTA Total</b>               | <b>10.7</b>                               |
| <b>TI007a</b>               | Eucalyptus Forest/Plantation   | 2.4                                       |
|                             | <b>RTA Total</b>               | <b>2.4</b>                                |

| RTA    | Vegetation Type                | Acreage <sup>a</sup> (> 0.1 acre present) |
|--------|--------------------------------|---|
| TI007b | Eucalyptus Forest/Plantation   | 1.3                                       |
|        | <b>RTA Total</b>               | <b>1.3</b>                                |
| TI007c | Eucalyptus Forest/Plantation   | 2.2                                       |
|        | <b>RTA Total</b>               | <b>2.2</b>                                |
| TI008a | Eucalyptus Forest/Plantation   | 28.8                                      |
|        | <b>RTA Total</b>               | <b>28.8</b>                               |
| TI008b | Developed/Disturbed/Landscaped | 1.8                                       |
|        | Oak-Bay Woodland/Forest        | 0.7                                       |
|        | <b>RTA Total</b>               | <b>2.6</b>                                |
| TI009  | Oak-Bay Woodland/Forest        | 13.9                                      |
|        | California Annual Grassland    | 5.5                                       |
|        | Coastal Scrub (xeric)          | 4.0                                       |
|        | Redwood Forest                 | 2.1                                       |
|        | Riparian Woodland              | 0.3                                       |
|        | Eucalyptus Forest/Plantation   | 0.2                                       |
|        | <b>RTA Total</b>               | <b>26.0</b>                               |
| TI010  | Non-native Coniferous Forest   | 13.5                                      |
|        | California Annual Grassland    | 7.1                                       |
|        | Oak-Bay Woodland/Forest        | 4.1                                       |
|        | Developed/Disturbed/Landscaped | 1.5                                       |
|        | Redwood Forest                 | 1.3                                       |
|        | Eucalyptus Forest/Plantation   | 0.4                                       |
|        | <b>RTA Total</b>               | <b>27.8</b>                               |
| TI011  | Oak-Bay Woodland/Forest        | 6.9                                       |
|        | Developed/Disturbed/Landscaped | 2.0                                       |
|        | Coastal Scrub (xeric)          | 1.7                                       |
|        | Non-native Coniferous Forest   | 1.2                                       |
|        | Redwood Forest                 | 0.6                                       |
|        | Riparian Woodland              | 0.2                                       |
|        | <b>RTA Total</b>               | <b>12.6</b>                               |
| TI012  | Eucalyptus Forest/Plantation   | 35.4                                      |
|        | California Annual Grassland    | 16.6                                      |
|        | Non-native Coniferous Forest   | 11.9                                      |
|        | Oak-Bay Woodland/Forest        | 10.1                                      |
|        | Coastal Scrub (xeric)          | 8.2                                       |
|        | Coyote Brush Scrub             | 4.6                                       |
|        | Redwood Forest                 | 1.7                                       |
|        | Developed/Disturbed/Landscaped | 1.5                                       |
|        | Coastal Scrub (mesic)          | 0.6                                       |
|        | <b>RTA Total</b>               | <b>90.7</b>                               |
| TI013  | Oak-Bay Woodland/Forest        | 6.3                                       |
|        | Coastal Scrub (xeric)          | 3.4                                       |
|        | Non-native Coniferous Forest   | 1.7                                       |
|        | Eucalyptus Forest/Plantation   | 1.4                                       |
|        | California Annual Grassland    | 1.2                                       |
|        | Riparian Woodland              | 0.9                                       |
|        | Coyote Brush Scrub             | 0.8                                       |
|        | <b>RTA Total</b>               | <b>15.7</b>                               |
| TI014  | Eucalyptus Forest/Plantation   | 3.5                                       |
|        | <b>RTA Total</b>               | <b>3.5</b>                                |
| TI015  | Oak-Bay Woodland/Forest        | 21.3                                      |
|        | Coyote Brush Scrub             | 11.2                                      |
|        | Developed/Disturbed/Landscaped | 8.3                                       |
|        | Redwood Forest                 | 5.4                                       |
|        | Coastal Scrub (xeric)          | 3.1                                       |
|        | Non-native Coniferous Forest   | 3.0                                       |
|        | California Annual Grassland    | 1.7                                       |
|        | <b>RTA Total</b>               | <b>54.0</b>                               |

| RTA                                       | Vegetation Type                | Acreage <sup>a</sup> (> 0.1 acre present) |
|---|--------------------------------|---|
| TI016                                     | Eucalyptus Forest/Plantation   | 1.4                                       |
|   | <b>RTA Total</b>               | <b>1.4</b>                                |
| TI017                                     | Non-native Coniferous Forest   | 0.9                                       |
|   | <b>RTA Total</b>               | <b>0.9</b>                                |
| TI018                                     | Eucalyptus Forest/Plantation   | 0.6                                       |
|   | <b>RTA Total</b>               | <b>0.6</b>                                |
| TI019                                     | Eucalyptus Forest/Plantation   | 2.0                                       |
|   | <b>RTA Total</b>               | <b>2.0</b>                                |
| TI020                                     | Eucalyptus Forest/Plantation   | 11.3                                      |
|   | Oak-Bay Woodland/Forest        | 3.0                                       |
|   | Riparian Woodland              | 1.1                                       |
|   | Developed/Disturbed/Landscaped | 0.2                                       |
|   | <b>RTA Total</b>               | <b>15.8</b>                               |
| TI021                                     | Developed/Disturbed/Landscaped | 11.8                                      |
|   | Oak-Bay Woodland/Forest        | 4.0                                       |
|   | Non-native Coniferous Forest   | 2.0                                       |
|   | <b>RTA Total</b>               | <b>17.8</b>                               |
| TI022                                     | Coyote Brush Scrub             | 2.6                                       |
|   | Non-native Coniferous Forest   | 2.5                                       |
|   | Developed/Disturbed/Landscaped | 1.0                                       |
|   | California Annual Grassland    | 0.3                                       |
|   | California Annual Grassland    | 1.0                                       |
|   | Non-native Coniferous Forest   | 0.4                                       |
|   | <b>RTA Total</b>               | <b>6.4</b>                                |
| <b>Claremont Canyon Regional Preserve</b> |                                |   |
| CC001                                     | Eucalyptus Forest/Plantation   | 13.4                                      |
|   | Oak-Bay Woodland/Forest        | 2.0                                       |
|   | Coastal Scrub (xeric)          | 1.8                                       |
|   | California Annual Grassland    | 1.4                                       |
|   | Coyote Brush Scrub             | 0.4                                       |
|   | <b>RTA Total</b>               | <b>19.0</b>                               |
| CC002                                     | California Annual Grassland    | 5.1                                       |
|   | Oak-Bay Woodland/Forest        | 0.8                                       |
|   | Coyote Brush Scrub             | 0.2                                       |
|   | <b>RTA Total</b>               | <b>6.1</b>                                |
| CC003                                     | Coastal Scrub (xeric)          | 5.8                                       |
|   | California Annual Grassland    | 3.5                                       |
|   | Broom Scrub                    | 2.3                                       |
|   | Coyote Brush Scrub             | 2.0                                       |
|   | Eucalyptus Forest/Plantation   | 0.2                                       |
|   | <b>RTA Total</b>               | <b>13.8</b>                               |
| CC004                                     | Eucalyptus Forest/Plantation   | 2.6                                       |
|   | <b>RTA Total</b>               | <b>2.6</b>                                |
| CC005                                     | Eucalyptus Forest/Plantation   | 0.6                                       |
|   | <b>RTA Total</b>               | <b>0.6</b>                                |
| CC006                                     | Oak-Bay Woodland/Forest        | 2.3                                       |
|   | Coastal Scrub (xeric)          | 1.0                                       |
|   | <b>RTA Total</b>               | <b>3.3</b>                                |
| CC007                                     | Coastal Scrub (xeric)          | 1.0                                       |
|   | California Annual Grassland    | 0.7                                       |
|   | <b>RTA Total</b>               | <b>1.7</b>                                |
| CC008                                     | Oak-Bay Woodland/Forest        | 1.5                                       |
|   | Developed/Disturbed/Landscaped | 0.9                                       |
|   | Coyote Brush Scrub             | 0.8                                       |
|   | Coastal Scrub (xeric)          | 0.5                                       |
|   | Eucalyptus Forest/Plantation   | 0.3                                       |
|   | <b>RTA Total</b>               | <b>4.0</b>                                |

| RTA                                      | Vegetation Type                | Acreage <sup>a</sup> (> 0.1 acre present) |
|--|--------------------------------|---|
| CC009                                    | Coastal Scrub (xeric)          | 45.0                                      |
|  | Oak-Bay Woodland/Forest        | 9.9                                       |
|  | Coyote Brush Scrub             | 9.3                                       |
|  | California Annual Grassland    | 1.0                                       |
|  | Non-native Coniferous Forest   | 0.4                                       |
|  | <b>RTA Total</b>               | <b>65.6</b>                               |
| CC010                                    | Oak-Bay Woodland/Forest        | 3.9                                       |
|  | Coyote Brush Scrub             | 1.2                                       |
|  | Eucalyptus Forest/Plantation   | 0.8                                       |
|  | Coastal Scrub (xeric)          | 0.3                                       |
|  | <b>RTA Total</b>               | <b>6.2</b>                                |
| CC011                                    | Coastal Scrub (xeric)          | 27.8                                      |
|  | Coyote Brush Scrub             | 7.0                                       |
|  | Oak-Bay Woodland/Forest        | 5.4                                       |
|  | <b>RTA Total</b>               | <b>40.2</b>                               |
| CC012                                    | Coyote Brush Scrub             | 2.1                                       |
|  | Non-native Coniferous Forest   | 0.3                                       |
|  | <b>RTA Total</b>               | <b>2.4</b>                                |
| <b>Temescal Regional Recreation Area</b> |                                |   |
| TM001                                    | Developed/Disturbed/Landscaped | 0.9                                       |
|  | Oak-Bay Woodland/Forest        | 0.6                                       |
|  | California Annual Grassland    | 8.7                                       |
|  | Eucalyptus Forest/Plantation   | 3.0                                       |
|  | Oak-Bay Woodland/Forest        | 0.6                                       |
|  | <b>RTA Total</b>               | <b>1.5</b>                                |
| <b>Sibley Volcanic Regional Preserve</b> |                                |   |
| SR001                                    | Oak-Bay Woodland/Forest        | 4.0                                       |
|  | Non-native Coniferous Forest   | 2.6                                       |
|  | Coyote Brush Scrub             | 1.2                                       |
|  | <b>RTA Total</b>               | <b>7.8</b>                                |
| SR002a                                   | Eucalyptus Forest/Plantation   | 13.4                                      |
|  | Oak-Bay Woodland/Forest        | 8.4                                       |
|  | Coastal Scrub (xeric)          | 3.0                                       |
|  | Coastal Scrub (mesic)          | 2.1                                       |
|  | Broom Scrub                    | 0.7                                       |
|  | Coyote Brush Scrub             | 0.1                                       |
|  | <b>RTA Total</b>               | <b>27.7</b>                               |
| SR002b                                   | Eucalyptus Forest/Plantation   | 9.0                                       |
|  | Broom Scrub                    | 3.3                                       |
|  | California Annual Grassland    | 1.2                                       |
|  | Oak-Bay Woodland/Forest        | 0.9                                       |
|  | Coastal Scrub (mesic)          | 0.2                                       |
|  | Coastal Scrub (xeric)          | 0.1                                       |
| <b>RTA Total</b>                         | <b>14.7</b>                    |   |
| SR003                                    | California Annual Grassland    | 16.5                                      |
|  | <b>RTA Total</b>               | <b>16.5</b>                               |
| SR004                                    | Oak-Bay Woodland/Forest        | 8.6                                       |
|  | Coastal Scrub (xeric)          | 2.9                                       |
|  | California Annual Grassland    | 1.4                                       |
|  | <b>RTA Total</b>               | <b>12.9</b>                               |
| SR005                                    | Oak-Bay Woodland/Forest        | 16.6                                      |
|  | Non-native Coniferous Forest   | 9.5                                       |
|  | Coyote Brush Scrub             | 5.3                                       |
|  | Coastal Scrub (mesic)          | 3.2                                       |
|  | California Annual Grassland    | 0.9                                       |
|  | Riparian Woodland              | 0.9                                       |

| RTA  | Vegetation Type                | Acreage <sup>a</sup> (> 0.1 acre present) |
|--|--------------------------------|---|
|  | Developed/Disturbed/Landscaped | 0.9                                       |
|  | Coastal Scrub (xeric)          | 0.1                                       |
|  | <b>RTA Total</b>               | <b>37.4</b>                               |
| SR006  | Eucalyptus Forest/Plantation   | 38.4                                      |
|  | <b>RTA Total</b>               | <b>38.4</b>                               |
| SR007  | Eucalyptus Forest/Plantation   | 6.0                                       |
|  | <b>RTA Total</b>               | <b>6.0</b>                                |
| <b>Huckleberry Botanic Regional Preserve</b> |                                |   |
| HP001  | Eucalyptus Forest/Plantation   | 1.7                                       |
|  | <b>RTA Total</b>               | <b>1.7</b>                                |
| HP002  | Oak-Bay Woodland/Forest        | 8.9                                       |
|  | Northern Maritime Chaparral    | 4.2                                       |
|  | <b>RTA Total</b>               | <b>13.1</b>                               |
| HP003  | Northern Maritime Chaparral    | 1.0                                       |
|  | <b>RTA Total</b>               | <b>1.0</b>                                |
| HP004  | Oak-Bay Woodland/Forest        | 0.8                                       |
|  | Coastal Scrub (mesic)          | 0.4                                       |
|  | <b>RTA Total</b>               | <b>1.2</b>                                |
| <b>Redwood Regional Park</b>                 |                                |   |
| RD001  | Non-native Coniferous Forest   | 38.7                                      |
|  | Eucalyptus Forest/Plantation   | 16.4                                      |
|  | California Annual Grassland    | 4.9                                       |
|  | Oak-Bay Woodland/Forest        | 1.5                                       |
|  | Coastal Scrub (xeric)          | 1.4                                       |
|  | Broom Scrub                    | 0.5                                       |
|  | Developed/Disturbed/Landscaped | 0.1                                       |
|  | <b>RTA Total</b>               | <b>63.6</b>                               |
| RD002  | Eucalyptus Forest/Plantation   | 5.0                                       |
|  | <b>RTA Total</b>               | <b>5.0</b>                                |
| RD003  | Eucalyptus Forest/Plantation   | 10.2                                      |
|  | Riparian Woodland              | 6.2                                       |
|  | Coyote Brush Scrub             | 5.0                                       |
|  | Oak-Bay Woodland/Forest        | 4.2                                       |
|  | Redwood Forest                 | 1.3                                       |
|  | Developed/Disturbed/Landscaped | 0.7                                       |
|  | <b>RTA Total</b>               | <b>27.6</b>                               |
| RD004  | Non-native Coniferous Forest   | 12.8                                      |
|  | Oak-Bay Woodland/Forest        | 6.7                                       |
|  | California Annual Grassland    | 6.2                                       |
|  | Coyote Brush Scrub             | 1.8                                       |
|  | Developed/Disturbed/Landscaped | 0.4                                       |
|  | Eucalyptus Forest/Plantation   | 0.3                                       |
|  | <b>RTA Total</b>               | <b>28.3</b>                               |
| RD005a                                       | Eucalyptus Forest/Plantation   | 1.1                                       |
|  | <b>RTA Total</b>               | <b>1.1</b>                                |
| RD005b                                       | Non-native Coniferous Forest   | 4.5                                       |
|  | Developed/Disturbed/Landscaped | 1.5                                       |
|  | Redwood Forest                 | 1.1                                       |
|  | Coyote Brush Scrub             | 0.5                                       |
|  | California Annual Grassland    | 0.5                                       |
|  | Oak-Bay Woodland/Forest        | 0.3                                       |
|  | <b>RTA Total</b>               | <b>8.4</b>                                |
| RD006  | Oak-Bay Woodland/Forest        | 4.1                                       |
|  | Redwood Forest                 | 2.4                                       |
|  | Developed/Disturbed/Landscaped | 1.1                                       |
|  | <b>RTA Total</b>               | <b>7.6</b>                                |

| RTA  | Vegetation Type                | Acreage <sup>a</sup> (> 0.1 acre present) |
|--|--------------------------------|---|
| RD007  | Eucalyptus Forest/Plantation   | 2.1                                       |
|  | <b>RTA Total</b>               | <b>2.1</b>                                |
| RD008  | Coyote Brush Scrub             | 2.7                                       |
|  | Developed/Disturbed/Landscaped | 0.8                                       |
|  | Non-native Coniferous Forest   | 0.1                                       |
|  | Serpentine Bunchgrass Prairie  | 0.1                                       |
|  | <b>RTA Total</b>               | <b>3.7</b>                                |
| RD009  | Eucalyptus Forest/Plantation   | 5.8                                       |
|  | Developed/Disturbed/Landscaped | 2.1                                       |
|  | Coastal Scrub (xeric)          | 1.0                                       |
|  | Oak-Bay Woodland/Forest        | 0.8                                       |
|  | <b>RTA Total</b>               | <b>9.6</b>                                |
| RD010  | Oak-Bay Woodland/Forest        | 0.7                                       |
|  | Non-native Coniferous Forest   | 0.6                                       |
|  | Developed/Disturbed/Landscaped | 0.5                                       |
|  | Eucalyptus Forest/Plantation   | 0.4                                       |
|  | Redwood Forest                 | 0.3                                       |
|  | <b>RTA Total</b>               | <b>2.4</b>                                |
| RD011  | Coastal Scrub (xeric)          | 0.5                                       |
|  | <b>RTA Total</b>               | <b>0.5</b>                                |
| <b>Leona Canyon Regional Open Space Preserve</b> |                                |   |
| LE001  | Oak-Bay Woodland/Forest        | 5.7                                       |
|  | <b>RTA Total</b>               | <b>5.7</b>                                |
| LE002  | Coyote Brush Scrub             | 0.4                                       |
|  | <b>RTA Total</b>               | <b>0.4</b>                                |
| LE003  | Oak-Bay Woodland/Forest        | 2.0                                       |
|  | Coastal Scrub (xeric)          | 1.7                                       |
|  | California Annual Grassland    | 1.1                                       |
|  | <b>RTA Total</b>               | <b>4.8</b>                                |
| LE004  | Oak-Bay Woodland/Forest        | 4.3                                       |
|  | Coyote Brush Scrub             | 3.4                                       |
|  | Coastal Scrub (xeric)          | 0.9                                       |
|  | California Annual Grassland    | 0.8                                       |
|  | <b>RTA Total</b>               | <b>9.5</b>                                |
| LE005  | Coastal Scrub (xeric)          | 3.9                                       |
|  | California Annual Grassland    | 0.4                                       |
|  | Non-native Coniferous Forest   | 0.2                                       |
|  | Oak-Bay Woodland/Forest        | 0.1                                       |
|  | <b>RTA Total</b>               | <b>4.6</b>                                |
| LE006  | Coastal Scrub (xeric)          | 25.5                                      |
|  | California Annual Grassland    | 10.9                                      |
|  | Oak-Bay Woodland/Forest        | 2.9                                       |
|  | Broom Scrub                    | 0.4                                       |
|  | <b>RTA Total</b>               | <b>39.7</b>                               |
| <b>Anthony Chabot Regional Park<sup>b</sup></b>  |                                |   |
| AC001  | Oak-Bay Woodland/Forest        | 4.4                                       |
|  | California Annual Grassland    | 2.7                                       |
|  | Eucalyptus Forest/Plantation   | 1.3                                       |
|  | Coastal Scrub (xeric)          | 0.8                                       |
|  | Developed/Disturbed/Landscaped | 0.3                                       |
|  | Non-native Coniferous Forest   | 0.2                                       |
|  | <b>RTA Total</b>               | <b>9.6</b>                                |
| AC002  | California Annual Grassland    | 2.2                                       |
|  | Non-native Coniferous Forest   | 0.2                                       |
|  | Developed/Disturbed/Landscaped | 0.1                                       |
|  | <b>RTA Total</b>               | <b>2.5</b>                                |

| RTA    | Vegetation Type                | Acreage <sup>a</sup> (> 0.1 acre present) |
|--------|--------------------------------|---|
| AC003  | Coastal Scrub (xeric)          | 3.2                                       |
|        | Oak-Bay Woodland/Forest        | 1.6                                       |
|        | <b>RTA Total</b>               | <b>4.7</b>                                |
| AC004  | Coastal Scrub (xeric)          | 13.0                                      |
|        | Oak-Bay Woodland/Forest        | 7.2                                       |
|        | Coyote Brush Scrub             | 2.9                                       |
|        | Non-native Coniferous Forest   | 0.4                                       |
|        | <b>RTA Total</b>               | <b>23.5</b>                               |
| AC006  | Coyote Brush Scrub             | 12.5                                      |
|        | Oak-Bay Woodland/Forest        | 12.4                                      |
|        | Coastal Scrub (xeric)          | 2.8                                       |
|        | Non-native Coniferous Forest   | 1.3                                       |
|        | Eucalyptus Forest/Plantation   | 1.2                                       |
|        | California Annual Grassland    | 0.5                                       |
|        | <b>RTA Total</b>               | <b>30.7</b>                               |
| AC007  | Coyote Brush Scrub             | 33.9                                      |
|        | Eucalyptus Forest/Plantation   | 21.9                                      |
|        | Coastal Scrub (xeric)          | 14.6                                      |
|        | California Annual Grassland    | 8.4                                       |
|        | Non-native Coniferous Forest   | 6.3                                       |
|        | Oak-Bay Woodland/Forest        | 6.1                                       |
|        | Developed/Disturbed/Landscaped | 4.4                                       |
|        | Redwood Forest                 | 1.3                                       |
|        | Broom Scrub                    | 0.7                                       |
|        | <b>RTA Total</b>               | <b>97.5</b>                               |
| AC008a | Eucalyptus Forest/Plantation   | 57.3                                      |
|        | Coyote Brush Scrub             | 6.6                                       |
|        | Oak-Bay Woodland/Forest        | 5.2                                       |
|        | Coastal Scrub (xeric)          | 0.7                                       |
|        | California Annual Grassland    | 0.3                                       |
|        | <b>RTA Total</b>               | <b>70.1</b>                               |
| AC008b | Coastal Scrub (xeric)          | 27.5                                      |
|        | Eucalyptus Forest/Plantation   | 27.0                                      |
|        | Coyote Brush Scrub             | 0.5                                       |
|        | Oak-Bay Woodland/Forest        | 0.1                                       |
|        | <b>RTA Total</b>               | <b>55.1</b>                               |
| AC008c | Eucalyptus Forest/Plantation   | 194.7                                     |
|        | Oak-Bay Woodland/Forest        | 28.9                                      |
|        | Coastal Scrub (xeric)          | 3.8                                       |
|        | Coyote Brush Scrub             | 2.8                                       |
|        | California Annual Grassland    | 0.9                                       |
|        | <b>RTA Total</b>               | <b>231.1</b>                              |
| AC009  | Eucalyptus Forest/Plantation   | 24.8                                      |
|        | <b>RTA Total</b>               | <b>24.8</b>                               |
| AC010  | Eucalyptus Forest/Plantation   | 90.1                                      |
|        | <b>RTA Total</b>               | <b>90.1</b>                               |
| AC011  | Eucalyptus Forest/Plantation   | 86.0                                      |
|        | Coyote Brush Scrub             | 22.2                                      |
|        | Oak-Bay Woodland/Forest        | 1.4                                       |
|        | Developed/Disturbed/Landscaped | 1.4                                       |
|        | California Annual Grassland    | 1.2                                       |
|        | <b>RTA Total</b>               | <b>112.1</b>                              |
| AC012  | Coyote Brush Scrub             | 18.9                                      |
|        | Eucalyptus Forest/Plantation   | 9.5                                       |
|        | <b>RTA Total</b>               | <b>28.4</b>                               |
| AC013  | Eucalyptus Forest/Plantation   | 183.2                                     |
|        | California Annual Grassland    | 19.5                                      |
|        | Coyote Brush Scrub             | 5.8                                       |

| RTA                                    | Vegetation Type                | Acreage <sup>a</sup> (> 0.1 acre present) |
|--|--------------------------------|---|
|  | Developed/Disturbed/Landscaped | 0.9                                       |
|  | <b>RTA Total</b>               | <b>209.4</b>                              |
| AC014                                  | Coyote Brush Scrub             | 61.6                                      |
|  | California Annual Grassland    | 16.5                                      |
|  | Oak-Bay Woodland/Forest        | 9.8                                       |
|  | Coastal Scrub (xeric)          | 4.5                                       |
|  | Eucalyptus Forest/Plantation   | 0.4                                       |
|  | Riparian Woodland              | 0.1                                       |
|  | <b>RTA Total</b>               | <b>93.0</b>                               |
| <b>Lake Chabot Regional Park</b>       |                                |   |
| LC001                                  | Eucalyptus Forest/Plantation   | 3.5                                       |
|  | <b>RTA Total</b>               | <b>3.5</b>                                |
| LC002                                  | Eucalyptus Forest/Plantation   | 1.2                                       |
|  | <b>RTA Total</b>               | <b>1.2</b>                                |
| LC003                                  | Eucalyptus Forest/Plantation   | 1.9                                       |
|  | <b>RTA Total</b>               | <b>1.9</b>                                |
| LC004                                  | Eucalyptus Forest/Plantation   | 2.1                                       |
|  | <b>RTA Total</b>               | <b>2.1</b>                                |
| LC005a                                 | Eucalyptus Forest/Plantation   | 2.1                                       |
|  | <b>RTA Total</b>               | <b>2.1</b>                                |
| LC005b                                 | Eucalyptus Forest/Plantation   | 5.2                                       |
|  | <b>RTA Total</b>               | <b>5.2</b>                                |
| LC006                                  | Eucalyptus Forest/Plantation   | 25.2                                      |
|  | Oak-Bay Woodland/Forest        | 4.9                                       |
|  | Coyote Brush Scrub             | 0.7                                       |
|  | California Annual Grassland    | 0.1                                       |
|  | <b>RTA Total</b>               | <b>30.9</b>                               |
| LC007a                                 | Eucalyptus Forest/Plantation   | 2.4                                       |
|  | <b>RTA Total</b>               | <b>2.4</b>                                |
| LC007b                                 | Eucalyptus Forest/Plantation   | 2.7                                       |
|  | <b>RTA Total</b>               | <b>2.7</b>                                |
| LC007c                                 | Eucalyptus Forest/Plantation   | 3.5                                       |
|  | <b>RTA Total</b>               | <b>3.5</b>                                |
| LC007d                                 | Eucalyptus Forest/Plantation   | 0.8                                       |
|  | <b>RTA Total</b>               | <b>0.8</b>                                |
| LC008                                  | California Annual Grassland    | 8.7                                       |
|  | Eucalyptus Forest/Plantation   | 3.0                                       |
|  | Oak-Bay Woodland/Forest        | 0.6                                       |
|  | <b>RTA Total</b>               | <b>12.3</b>                               |
| LC009                                  | California Annual Grassland    | 20.7                                      |
|  | Coastal Scrub (xeric)          | 3.4                                       |
|  | Coyote Brush Scrub             | 1.6                                       |
|  | Developed/Disturbed/Landscaped | 1.4                                       |
|  | Oak-Bay Woodland/Forest        | 1.0                                       |
|  | <b>RTA Total</b>               | <b>28.1</b>                               |
| LC010                                  | California Annual Grassland    | 2.2                                       |
|  | Coastal Scrub (xeric)          | 2.1                                       |
|  | Oak-Bay Woodland/Forest        | 0.5                                       |
|  | <b>RTA Total</b>               | <b>4.8</b>                                |
| <b>Point Pinole Regional Shoreline</b> |                                |   |
| PP001                                  | Eucalyptus Forest/Plantation   | 181.3                                     |
|  | Coastal Prairie                | 154.1                                     |
|  | Non-native Grassland           | 42.9                                      |
|  | Ruderal                        | 27.9                                      |
|  | Coyote Brush Scrub             | 23.6                                      |
|  | Coastal Scrub (xeric)          | 10.1                                      |



| RTA                                   | Vegetation Type                        | Acreage <sup>a</sup> (> 0.1 acre present) |
|---------------------------------------|--|---|
|                                       | Coastal Scrub (mesic)                  | 0.5                                       |
|                                       | Oak-Bay Woodland/Forest                | 0.5                                       |
|                                       | Non-native Perennial Grassland         | 0.3                                       |
|                                       | Developed/Disturbed/Landscaped         | 0.3                                       |
|                                       | Freshwater Marsh                       | 0.2                                       |
|                                       | Aquatic/Open Water                     | 0.1                                       |
|                                       | Riparian Woodland                      | 0.1                                       |
|                                       | <b>RTA Total</b>                       | <b>441.9</b>                              |
| <b>PP001a</b>                         | California Annual Grassland            | 0.3                                       |
|                                       | <b>RTA Total</b>                       | <b>0.3</b>                                |
| <b>PP001b</b>                         | Coyote Brush Scrub                     | 1.7                                       |
|                                       | <b>RTA Total</b>                       | <b>1.7</b>                                |
| <b>PP002</b>                          | Eucalyptus Forest/Plantation           | 7.2                                       |
|                                       | Coyote Brush Scrub                     | 4.0                                       |
|                                       | Non-native Grassland                   | 2.9                                       |
|                                       | <b>RTA Total</b>                       | <b>14.1</b>                               |
| <b>PP003</b>                          | Eucalyptus Forest/Plantation           | 3.7                                       |
|                                       | Non-native Grassland                   | 0.4                                       |
|                                       | <b>RTA Total</b>                       | <b>4.2</b>                                |
| <b>PP004</b>                          | Coyote Brush Scrub                     | 1.6                                       |
|                                       | <b>RTA Total</b>                       | <b>1.6</b>                                |
| <b>PP005a</b>                         | Coastal Prairie                        | 11.6                                      |
|                                       | Developed/Disturbed/Landscaped         | 2.0                                       |
|                                       | <b>RTA Total</b>                       | <b>13.6</b>                               |
| <b>PP005b</b>                         | Coastal Prairie                        | 1.0                                       |
|                                       | <b>RTA Total</b>                       | <b>1.0</b>                                |
| <b>Miller/Knox Regional Shoreline</b> |  |   |
| <b>MK001</b>                          | Broom Scrub                            | 4.3                                       |
|                                       | Coastal Prairie / Non-native Grassland | 0.6                                       |
|                                       | Eucalyptus Forest/Plantation           | 0.5                                       |
|                                       | Developed/Disturbed/Landscaped         | 0.4                                       |
|                                       | <b>RTA Total</b>                       | <b>5.9</b>                                |
| <b>MK002</b>                          | Coyote Brush Scrub                     | 0.3                                       |
|                                       | Non-native Coniferous Forest           | 0.1                                       |
|                                       | <b>RTA Total</b>                       | <b>0.4</b>                                |
| <b>MK003</b>                          | Coastal Prairie / Non-native Grassland | 2.7                                       |
|                                       | <b>RTA Total</b>                       | <b>2.7</b>                                |
| <b>MK004</b>                          | Non-native Coniferous Forest           | 2.9                                       |
|                                       | Coastal Scrub (xeric)                  | 0.3                                       |
|                                       | <b>RTA Total</b>                       | <b>3.2</b>                                |
| <b>MK005</b>                          | Coastal Prairie / Non-native Grassland | 4.8                                       |
|                                       | Coastal Scrub (mesic)                  | 3.3                                       |
|                                       | Coastal Scrub (xeric)                  | 1.8                                       |
|                                       | Non-native Coniferous Forest           | 0.1                                       |
|                                       | <b>RTA Total</b>                       | <b>10.0</b>                               |

<sup>a</sup> In this table, the RTA totals show the approximate vegetation acreage within each identified RTA. This total does not include roadways and may not represent the actual size of the RTA identified in Table III-2 of the EBRPD Wildfire Hazard Reduction and Resource Management Plan. The actual vegetation types present must be determined by site assessment visits.

<sup>b</sup> 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 canceled. As a result, this RTA was deleted from further consideration.

Source: EBRPD GIS Database 2004 Vegetation Data.