Welcome!

Meeting Purpose:

Provide information about the City of Oakland's Draft Vegetation Management Plan

Gather public comment

Inform the environmental review of the Draft Vegetation Management Plan pursuant to the California Environmental Quality Act

Meeting Format:

Overview Presentation: A presentation about the Draft Vegetation Management Plan will be given.
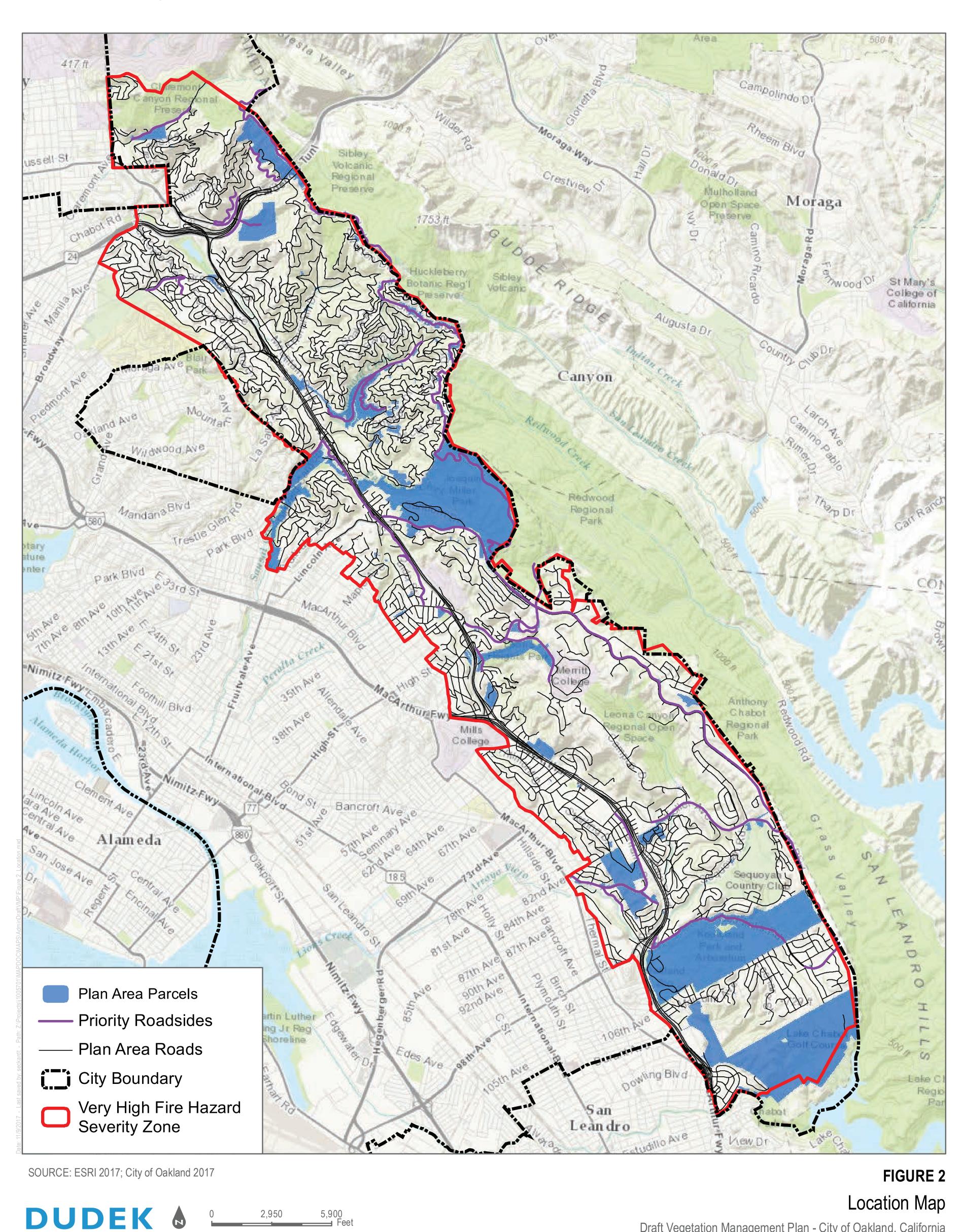
Information Boards: There are multiple boards around the room with information regarding the Draft Vegetation Management Plan that can be reviewed at any time.

Questions: Staff members wearing badges are available to answer questions and assist with finding information.

Plan Area

Legend

- Plan Area Parcels
- Priority Roadsides
- Plan Area Roads
- City Boundary
- Very High Fire Hazard Severity Zone

SOURCE: ESRI 2017; City of Oakland 2017

DUDEK

0   2,950   5,900 Feet

FIGURE 2
Location Map
Draft Vegetation Management Plan - City of Oakland, California

City of
Oakland

Purpose of Plan

To evaluate the specific wildfire hazard factors in the Plan Area and provide a framework for managing vegetative fuel loads on City-owned properties and along roadways within the City's Very High Wildfire Hazard Severity Zone such that wildfire hazard is reduced and negative environmental effects resulting from vegetation management activities are avoided or minimized.

The information and recommendations presented in the Vegetation Management Plan will be used by the Oakland Fire Department to evaluate vegetation management needs on an ongoing basis.

Vegetation Management Goals & Objectives

The Oakland Fire Department has identified four primary goals to guide preparation of the Plan and subsequent vegetation management actions to reduce wildfire hazard.

- **Reduce wildfire hazard on City-owned land and along critical access/egress routes within the City's designated Very High Wildfire Hazard Severity Zone**

- **Reduce the likelihood of ignitions and extreme fire behavior to enhance public and firefighter safety**

- **Implement practices to avoid or minimize impacts to natural resources**

- **Maintain an active role in regional efforts to reduce wildfire hazard in the Oakland Hills**

Methodologies for Plan Development

Development of the Vegetation Management Plan included an assessment of wildfire hazard within the Plan Area and an evaluation of variables that contribute to wildfire risk.

- **Field Assessments:** Conducted to identify vegetative communities and land cover types, fuel characteristics, fuel models, terrain, and hazard conditions in the Plan Area.

- **Geographic Information Systems (GIS) Analysis:** Conducted to evaluate conditions in the Plan Area, including terrain, vegetative cover, land ownership, City-owned parcel distribution, the area of land within 100 and 300 feet of existing structures, and the extent and distances of Plan Area roads.

- **Fire Behavior Modeling:** Conducted in GIS for selected larger parcels to identify areas that may be subject to extreme fire behavior, considering weather, fuels, and terrain variables.

- **Research:** Conducted to document existing vegetation management practices used by the Oakland Fire Department and to identify anecdotal evidence of areas subject to high ignition potential.

Description of Plan Area

The Plan Area encompasses City-owned parcels and the areas within 30 feet of the edge of roadsides located within the City's designated Very High Wildfire Hazard Severity Zone.

The Plan Area includes:

- **422 City-owned parcels (<0.1 acres to 235 acres).**
  Parcels have been categorized into the following categories:
  - Urban and residential
  - Canyon areas
  - Ridgetop areas
  - City park lands and open space
  - Other areas
  - Medians

- **Roadside areas along 308 miles of road within the City's Very High Wildfire Hazard Severity Zones, which includes surface and arterial streets, State Routes 13 and 24, and Interstate 580.**

City-Owned Parcels within the Plan Area

PARCEL CATEGORY	QUANITITY	TOTAL ACREAGE
Urban & Residential	191	59.2
Canyon Areas	85	185.7
Ridgetop Areas	11	130.2
City Park Lands & Open Space	90	1,522.8
Other Areas*	13	21.2
Medians	32	5.8
Total:	422	1,924.9

*Other areas include fire stations (nos. 21 and 25), City facilities (parking lots, police stations), and parks and playgrounds.

Description of Plan Area

The City of Oakland has identified highly flammable plants, some of which occur in the Plan Area.

Highly Flammable Plants in the City of Oakland

TREES		
Acacia	Douglas Fir	Pine
Arbor-Vitae	Fir	Spruce
Bald Cypress	Hemlock	Sugar Gum Eucalyptus
Blue Gum Eucalyptus	Larch	Tamarix
Cedar	Manna Gum Eucalyptus	Yew
Cryptomeria	Palm	
Cypress	Pepper	
SHRUBS		
Buckwheat	Coyote Brush	Redshanks
California Sagebrush	Hopseed Bush	Scotch/French/Spanish Broom
Chamise	Juniper	
GROUND COVERS		
Algerian Ivy	Coyote Brush	Juniper
PERENNIALS		
Bamboo	Deer Grasses	Grasses (Miscanthus)
Black Sage	Fountain Grasses	Pampas Grass

*Source: City of Oakland. 2017. "Watershed Improvement Program: Fire Wise Native Plants."
http://www2.oaklandnet.com/oakca1/groups/fire/documents/webcontent/oak042152.pdf

The following invasive plants occur in the Plan Area and contribute to increased fire hazard:

- **Acacia species** – silver wattle, blackwood acacia, and others (Cal-IPC invasive species)
- **Blackberry** (Rubus discolor and R. ulmifolius)
- **Cotoneaster** (Cotoneaster franchetii, C. lacteus, and C. pannosus) (Cal-IPC invasive species)
- **Elm** (Ulmus spp.)
- **Eucalyptus species** – blue gum and red gum (E. camaldulensis) (Cal-IPC invasive species)
- **Gorse** (Ulex europaea) (Cal-IPC invasive species)
- **Hawthorn** (Crataegus monogyna) (Cal-IPC invasive species)
- **Holly** (Ilex aquifolium) (Cal-IPC invasive species)
- **Jubata grass** (Cortaderia jubata) (Cal-IPC invasive species)
- **Mayten** (Maytenus boaria)
- **Plum and cherry** (Prunus spp.) (Prunus cerasifera is a Cal-IPC invasive species)
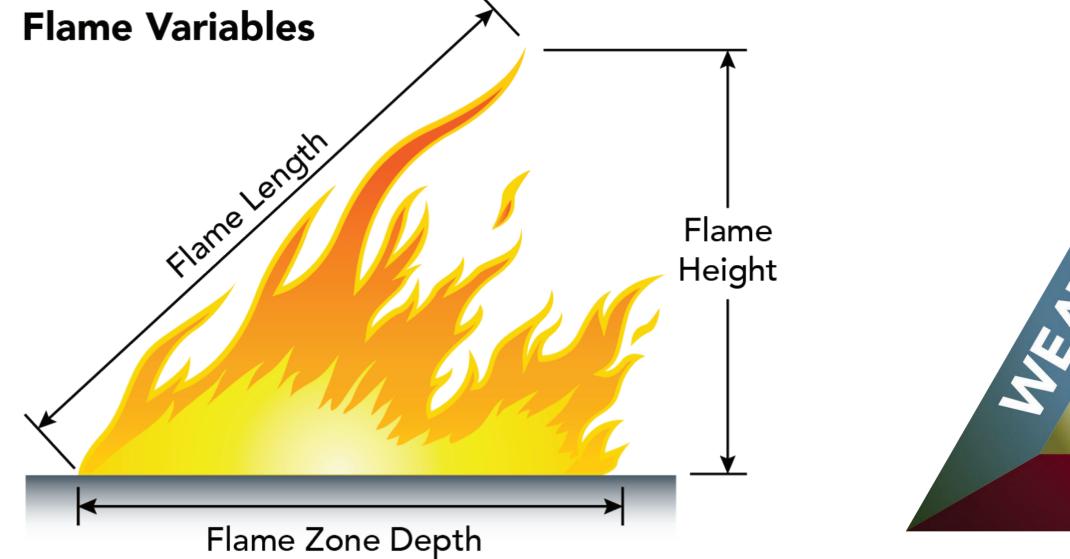
Fire Behavior Modeling

Modeling of potential fire behavior was conducted to support development of this VMP. The FlamMap software package was used to identify portions of the Plan Area that may be subject to extreme fire behavior, considering weather, fuels, and terrain variables. FlamMap is GIS-driven computer program that incorporates fuels, weather, and topography data in generating static fire behavior outputs, including values associated with flame length and crown fire activity, among others.
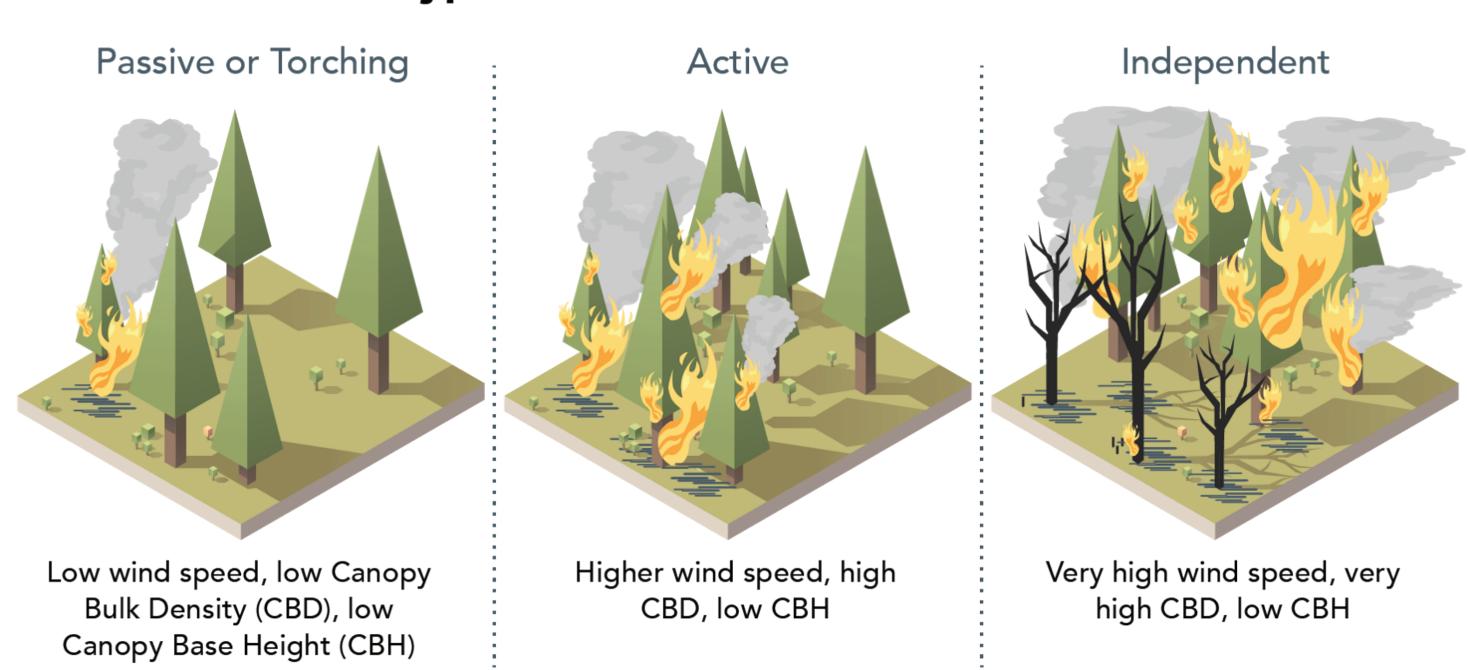
Extreme Fire Behavior: that which precludes methods of direct control (e.g., flame lengths 8 feet and greater), behaves unpredictably and erratically, and typically involves high spread rates, crowning and/or spotting, the presence of fire whirls, and a strong convective column (NWCG 2017).

Representative photos of each fuel model used in the analysis are shown below.

Types of Wind Driven Crown Fire

Passive or Torching — Low wind speed, low Canopy Bulk Density (CBD), low Canopy Base Height (CBH)

Active — Higher wind speed, high CBD, low CBH

Independent — Very high wind speed, very high CBD, low CBH

Vegetation Management Techniques

Vegetation management for fire hazard mitigation is the practice of thinning, pruning, removing, or otherwise altering vegetation in order to reduce the potential for ignitions and modify fire behavior.

Given the dynamic nature of vegetation, a single treatment technique or management prescription may not be appropriate for one site over time. Therefore, an adaptive approach that allows for selection of management techniques is needed to achieve the vegetation management standards outlined in the Vegetation Management Plan.

Vegetation management techniques will be identified by Oakland Fire Department personnel during annual work plan development and will be dictated by site-specific conditions and effort needed to meet identified vegetation management standards.

In general, vegetation management techniques can be classified into four categories:

- **Biological** (e.g., grazing)
- **Hand Labor** (e.g., hand pulling, cutting)
- **Mechanical** (e.g., mowing, masticating)
- **Chemical** (e.g., herbicide)

oaklandnet.com/VegManagement
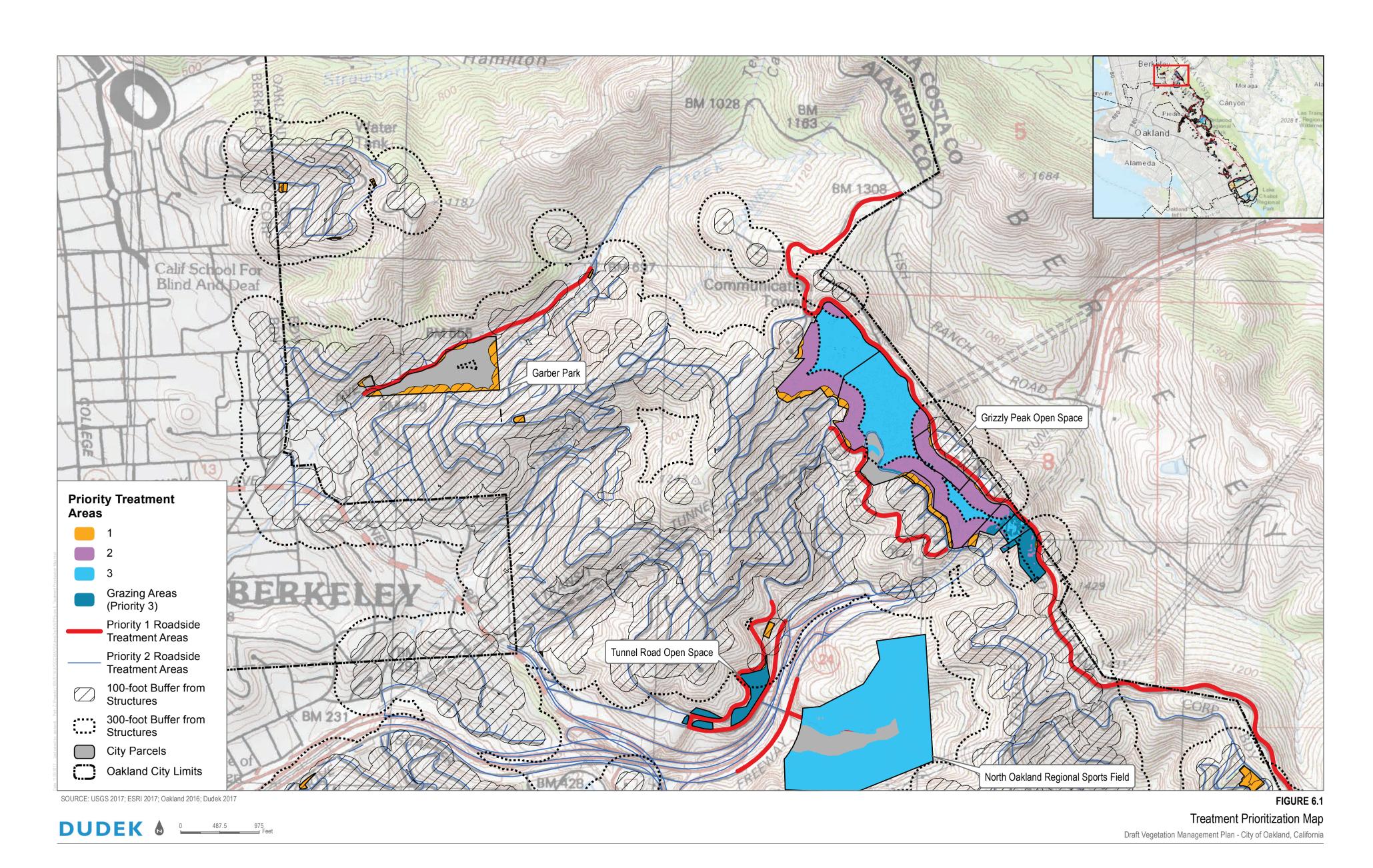
Treatment Prioritization

Given the variability of parcel size and distribution, terrain characteristics, vegetative fuel cover, and potential fire behavior across the Plan Area, uniform application of vegetation management standards is not feasible. Treatment areas were therefore prioritized and may be reduced based on field observations during annual field assessments, or where otherwise recommended. An example treatment prioritization map is shown below.

Priority Treatment Areas
- 1
- 2
- 3
- Grazing Areas (Priority 3)
- Priority 1 Roadside Treatment Areas
- Priority 2 Roadside Treatment Areas
- 100-foot Buffer from Structures
- 300-foot Buffer from Structures
- City Parcels
- Oakland City Limits

SOURCE: USGS 2017; ESRI 2017; Oakland 2016; Dudek 2017

DUDEK

0   487.5   975 Feet

FIGURE 6.1
Treatment Prioritization Map
Draft Vegetation Management Plan - City of Oakland, California

Priority 1 areas include those where annual vegetation management activities should be focused first and include:

- **Area within 100 ft of structures or critical infrastructure** (e.g., water supplies, communications facilities). This provides defensible space for existing structures and reduces fire intensity at the wildland urban interface.

- **Area within 30 ft from roadside edges (including City-owned medians) along major access/egress routes.** Roadsides are of concern because wildfires are generally started by human activity (e.g., sparks, tossed cigarettes).

- **Areas where vegetation management will contribute to multi-jurisdictional regional fuel breaks.** Collaborating vegetation management activities with other land owners/managers enhances the fuel break network in the Oakland Hills and allows for more effective containment and suppression activities should a wildfire occur.

- **Area within 30-foot buffer around known/historic sources, areas, or sites of ignition.** This treatment effort is intended to minimize wildfire ignitions originating from human activity.

Priority 2 areas include areas where annual vegetation management activities should be focused once Priority 1 areas have been completed or if schedules and budgets allow for completion in addition to Priority 1 areas. Priority 2 areas include:

- **Area within 30 ft from roadside edges along all other roads in the Plan Area not included in Priority 1.**

- **Areas between 100 ft and 300 ft from structures where modeled fire behavior exhibits crown fire or flame lengths > 8 ft.** Treatment in this area is intended to minimize extreme fire behavior in areas near existing structures and reduce spotting potential from crown fires that may ignite vegetation or structures at considerable distances from the fire.

Priority 3 areas include those where annual vegetation management activities should be focused once Priority 1 and 2 areas have been completed or if schedules and budgets allow for completion in addition to Priority 1 and 2 areas. Priority 3 areas include:

- **Areas currently managed under the City's goat grazing program in areas >300 ft from structures.** The intent of this management activity is to maintain lower fuel loads within larger park lands or open space areas in the Plan Area.

- **Areas >300 ft from structures where modeled fire behavior exhibits crown fire or flame lengths in excess of 8 ft.** Treatment in this area is intended to minimize extreme fire behavior and reduce spotting potential from crown fires that may ignite vegetation or structures at considerable distances from the fire.
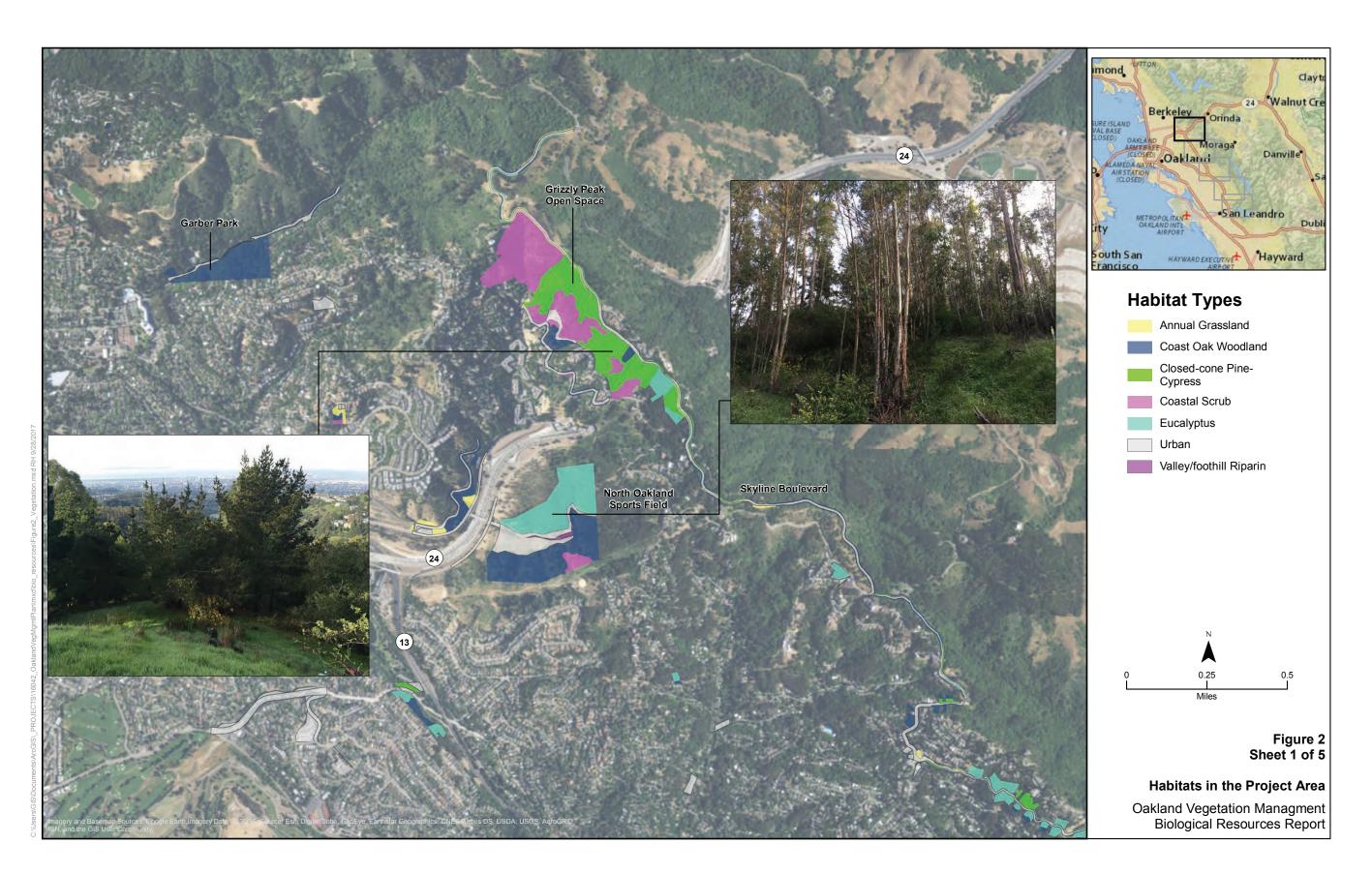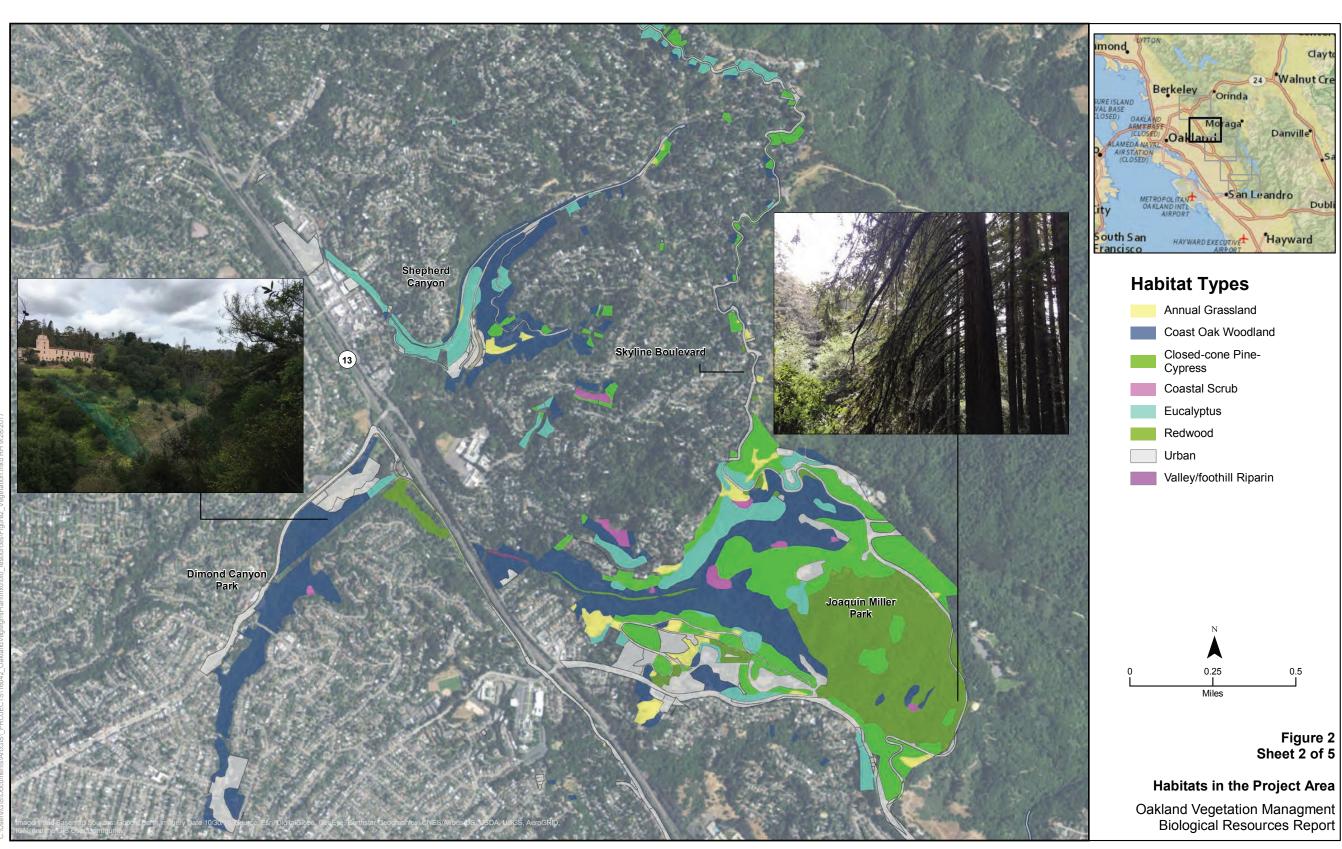
Biological Resources

Existing biological conditions within the Plan Area were documented through:

- **Review of pertinent reference materials** available from U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, California Native Plant Society (East Bay Chapter)

- **Field surveys** of the Plan Area

- **Mapping of vegetation and land cover**

- **Identification of potential habitat** for special-status species and sensitive natural communities

Plan Implementation

The Oakland Fire Department, or its designee, will be responsible for implementing the Vegetation Management Plan and will be responsible for the following:

- Assessing field conditions on a routine basis to determine the need for vegetation management action implementation

- Developing annual work plans and budgets

- Prioritizing vegetation treatment actions and areas based on field observations

- Screening, selecting, and hiring contractors, or directing City personnel, to conduct identified vegetation management actions

- Monitoring vegetation management actions during operations to ensure that avoidance measures and BMPs are being properly implemented

- Monitoring treated properties following vegetation management actions to ensure that treatment standards have been achieved

Adaptive Management

Adaptive management is an iterative process of implementation, monitoring, and adjustment of management actions based on monitoring results. The following adaptive management practices will be used in the implementation of the Vegetation Management Plan:

- Monitoring vegetation management activities during operations to ensure that avoidance measures and Best Management Practices are being properly implemented

- Monitoring treated properties following vegetation management activities to ensure that treatment standards have been achieved

- Monitoring treated properties to determine the need for follow-up treatment actions

- Monitoring treated properties to determine the need for post-operations Best Management Practices

- Monitoring to document the success of vegetation treatment activities and identify needs for adjustments to vegetation treatment activities or standards

Schedule and Next Steps

2018		
SUMMER	FALL	WINTER
Draft Vegetation Management Plan		
	California Environmental Quality Act (CEQA) Notice of Preparation	
	CEQA Scoping (Public Comment, Scoping Meetings)	

2019			
SPRING	SUMMER	FALL	WINTER
Public Draft EIR (Public Comment, Public Meetings)			
	Final EIR & Planning Commission Certification of EIR		
			Notice of Determination

Public Comment Period

May 11 to June 11, 2018

Submit your

Email:
VMPcomments@oaklandvegmanagement.org

Mail:
Horizon Water & Environment
Attn: Ken Schwarz
266 Grand Avenue, Suite 210
Oakland, CA 94610

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Habitat Types
- Annual Grassland
- Coast Oak Woodland
- Closed-cone Pine-Cypress
- Coastal Scrub
- Eucalyptus
- Redwood
- Urban

Figure 2
Sheet 3 of 5

Habitats in the Project Area
Oakland Vegetation Managment
Biological Resources Report

Habitat Types
- Annual Grassland
- Coast Oak Woodland
- Closed-cone Pine-Cypress
- Chamise-Redshank Chaparral
- Coastal Scrub
- Eucalyptus
- Freshwater Emergent Wetland
- Perennial Grassland
- Redwood
- Urban

Figure 2
Sheet 4 of 5

Habitats in the Project Area
Oakland Vegetation Managment
Biological Resources Report

Habitat Types
- Annual Grassland
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Figure 2
Sheet 5 of 5

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