HUCKLEBERRY BOTANIC REGIONAL PRESERVE – HP002
FUELS MANAGEMENT PRESCRIPTION

SITE DESCRIPTION AND LOCATION:

This site consists of 13.6 acres of Northern Maritime Chaparral with hemlock, broom and poison oak. Maritime Chaparral is considered "hard" chaparral dominated by shrubs varying in height from 2-12 feet. Dominant plants species include chinquapin, huckleberry, madrone, hazelnut, ceanothus, brittle-leaf manzanita, mountain mahogany and poison oak. There are multiple sites of Pallid manzanita (*Arctostaphylos pallida*), an endangered species requiring extensive protective measures described in this prescription. This RTA is bordered on the Southwest by houses on Villanova Drive.

VEGETATION MANAGEMENT GOALS:

Oak-bay woodland, Pallid manzanita, scattered northern coastal scrub.

FUELS MANAGEMENT OBJECTIVES:

1. Improve fire protection capability adjacent to neighborhood.
2. Reduce fuel volume so that the potential for flame lengths will be less than 8 feet.
3. Reduce ladder fuels and the potential for crown fires and ember dissemination.

RESOURCE OBJECTIVES AND CONSIDERATIONS:

- Conduct all initial treatment during the period from July 31st to Jan. 31st to avoid disturbance to nesting raptors and song birds, as recommended by the District's Stewardship staff. If work is proposed during nesting season, Stewardship will conduct a pre-work nesting survey within 15-days of performance of work and flag a buffer around identified nest sites. Some areas within the RTA may have prohibited entry until after nesting season based on the results of the Stewardship surveys.

- Within potential and occupied Alameda Whipsnake habitat, as determined by pre-assessment surveys, conduct treatment activities in a manner that will minimize adverse effects to Alameda Whipsnakes and their habitat. Within brushlands or brushland/grassland habitats, work may occur between Oct. 31st and April 1st. If work occurs outside this window, Stewardship staff will determine if a biological monitor should be present for activities on site. Some areas within the RTA may have prohibited entry based on the results of the Stewardship assessments.

- Conduct surveys in oak and bay habitat to identify and avoid Dusky-Footed Woodrat nests. Any nest identified will be protected by a buffer described in the protocol developed by Stewardship.

- Install erosion control measures if needed in areas where vegetation has been removed or disturbed to protect water courses (streams, drainages, springs, wetlands) and to prevent sloughing of slopes during rainfall events.

- To reduce the spread of *P. cinnamomi* no treatment activities, except for pile burning, will be conducted during the wet season (October 15 to May 15). Pile burning will not occur within 100 feet of any area infected with *P. cinnamomi* during the wet season (October 15 to May 15).

- Goat grazing is prohibited within RTAs containing pallid manzanitas.

FUELS TREATMENT PRESCRIPTION:

Initial Treatment

This RTA contains Pallid Manzanita and all plants will be flagged by Service approved biologist prior to work and protected. Future maintenance may include the removal of dead material from Pallid Manzanita for fuel reduction and general health of plant, as referenced in the District's current Pallid Manzanita Management Plan. Managing the overstory with minor soil disturbance and the removal of invasive plants may expose fresh germination sites beneficial for P. Manzanita. Care should be taken to seek and flag any new seedlings that might occur yearly, prior to work. To reduce the spread of *P. cinnamomi*, a plant pathogen that potentially exists within the RTAs containing pallid manzanita plants, the following minimization and avoidance measures will be implemented:

- Each year or prior to any wildfire hazard reduction activities within a watershed supporting pallid manzanitas, an appropriately timed survey of the site to be treated will be conducted by a Service approved biologist, to identify areas infected with *P. cinnamomi*.
- Work within 100 feet of any area known to be infected with *P. cinnnamomi* will be scheduled to occur after all other areas within 500 feet of the infection have been treated.
- A specific ingress/egress route, that minimizes the potential spread of *P. cinnamomi*, will be identified by a Service-approved biologist when working within watersheds that support pallid manzanitas.
- A wash station will be established at the ingress/egress location. Prior to entering or exiting the ingress/egress location, any potentially contaminated material will be removed from all boots, hand tools, clothing, and other equipment, then these items will be disinfected using 70% isopropanol (rubbing alcohol) or another Service-approved substance known to disinfect *P. cinnamomi* contaminated equipment.

All non-native trees and shrubs will be cut and removed using hand labor. All shrubs and trees that are not a component of the Northern Maritime Chaparral vegetation type within 20 feet of pallid manzanita plants and all shrubs or trees that are excessively shading pallad manzanita plants (i.e., pines, acacias, eucalyptus, oak, bay, madrone, etc.) will be cut and treated to reduce competition with pallid manzanitas and to reduce fuel loads. Logs from trees that are a component of the Northern Maritime Chaparral vegetation type may be retained, not to exceed 3 per acre, and in various stages of decay. Retained logs will be no less than 12" inches in diameter throughout length of the log. The logs must be limbed, topped, and positioned so that they are substantially in contact with the forest floor to promote wildlife habitat and long term soil productivity. The rest of the material may be placed into piles for burning or scattered.

With the exception of selected oaks and bays retained for recruitment, all oaks/bays less than 6" dbh may be removed to increase spacing and health of forested area. All retained trees will be limbed up to 8 feet from the forest floor to reduce total fuel volume.

Remove non-manzanita shrub volume and dead material according to performance standards for Northern Maritime Chaparral by cutting brush and scattering or placing in piles for burning. Herbaceous, native plants will remain. Work includes:

- Removal of broom, coyote brush, hemlock, blackberry and other invasive plants that create a fuel issue.
- Herbicide applications within 300 feet of pallid manzanitas will be applied through direct application to the stump only as necessary during initial treatment and annual maintenance to treat re-sprouts.
- Material may be piled and burned or scattered.

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

YEAR	FUELS TREATMENT
01	Initial Treatment.
02-04	Use weed eating/mowing/herbicides to maintain grass and low shrub fuel loads.
05	Repeat initial treatment as needed. Use weed eating/mowing/herbicides to maintain grass and low shrub fuel loads.
06-09	Use weed eating/mowing/herbicides to maintain grass and low shrub fuel loads.
10	Repeat initial treatment as needed. Use weed eating/mowing/herbicides to maintain grass and low shrub fuel loads.
11-14	Use weed eating/mowing/herbicides to maintain grass and low shrub fuel loads.
15	Repeat initial treatment as needed. Use weed eating/mowing/herbicides to maintain grass and low shrub fuel loads.
16-19	Use weed eating/mowing/herbicides to maintain grass and low shrub fuel loads.
20	Repeat initial treatment as needed. Use weed eating/mowing/herbicides to maintain grass and low shrub fuel loads.
21-25	Use weed eating/mowing/herbicides to maintain grass and low shrub fuel loads.
25-30	Repeat initial treatment as needed. Use weed eating/mowing/herbicides to maintain grass and low shrub fuel loads.

MONITORING:

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

PRESCRIPTION PREPARED BY:

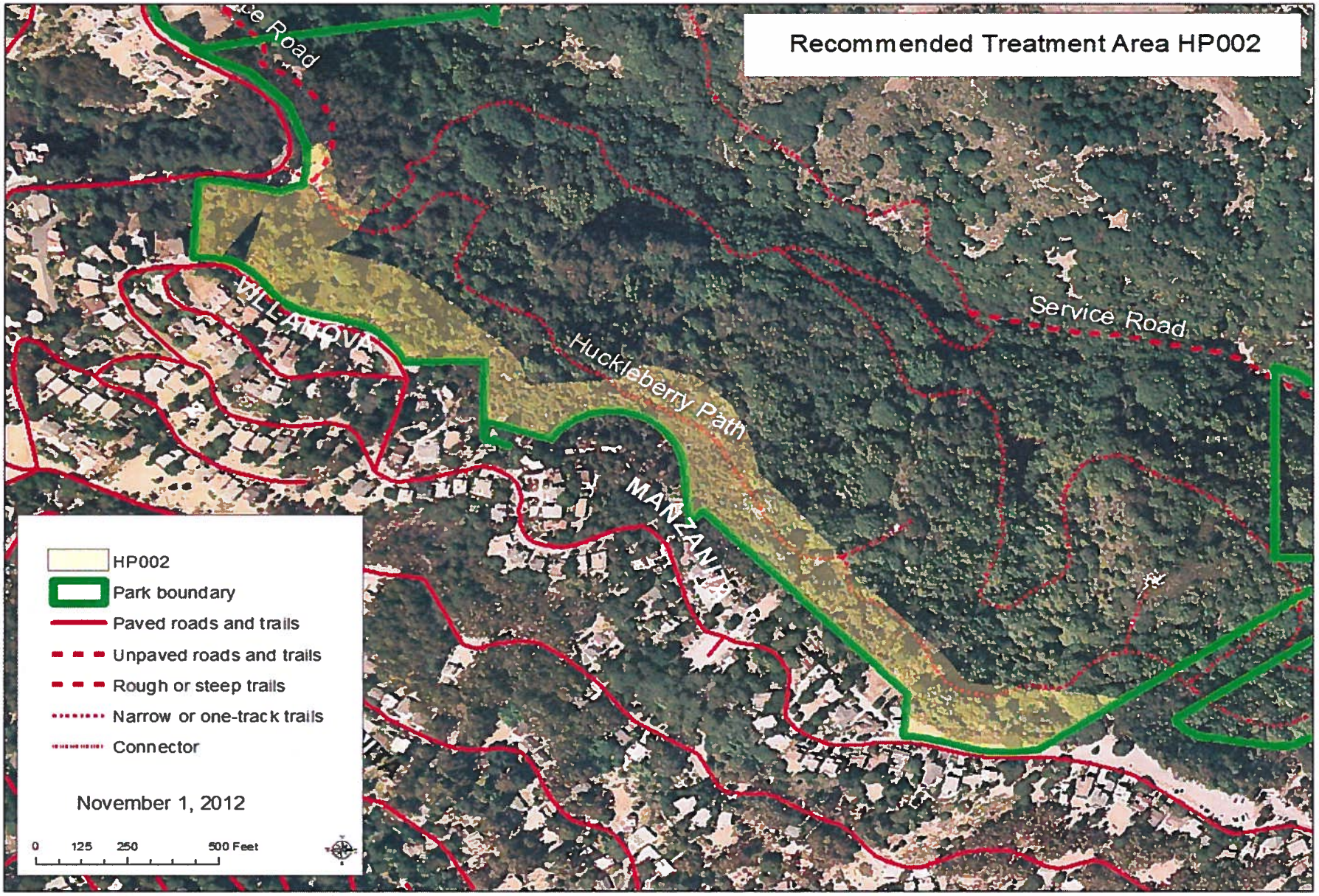
Aileen Theile — Fire Captain, EBRPD — Signature — 11/1/2012 Date

REVIEW AND APPROVAL:

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

John R. Swanson — Fire Chief, EBRPD — Signature — 11.01.2012 Date

John M. Escobar — Stewardship Manager, EBRPD — Signature — 11.06.2012 Date


Recommended Treatment Area HP002
Service Road
Huckleberry Path
VILLANOVA
MANZANITA
HP002
Park boundary
Paved roads and trails
Unpaved roads and trails
Rough or steep trails
Narrow or one-track trails
Connector
November 1, 2012
0 125 250 500 Feet