



August 24, 2021

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SUBJECT: Comments on Proposed Project at 250 Heacox Road, File Number: PLN2018-00489

Dear Mr. Kelley,

On behalf of the Midpeninsula Regional Open Space District (Midpen), I appreciate the opportunity to comment on the proposed residential development project at 250 Heacox Road, Woodside, CA, which will be presented at a Planning Commission public hearing on August 25, 2021. The property is in close proximity to Coal Creek and Russian Ridge Open Space Preserves (Preserves), and Midpen therefore would like to provide the following concerns regarding this project.

This project proposes the removal of four significant trees at approximately 8, 10, 11, and 30 inches in diameter, including three coast live oaks and one bay. The area surrounding the proposed project has been heavily hit by *Phytophthora*-caused plant diseases, including Sudden Oak Death (SOD). Since its discovery in California in 1994, SOD has been responsible for the death of over one million oak and tanoak trees in California alone. Mortality rates are greater than 50 percent in some areas and continue to increase. Trees grown in nurseries have been known to carry *Phytophthora* and spread the pathogen where planted. Notably, current research suggests that larger healthy trees in SOD infested areas may carry a genetic resistance to the pathogen.

Midpen requests that the County incorporate appropriate protocols for the developer to implement to minimize the spread of *Phytophthora*, including disinfecting tools and removing soil from heavy equipment before entering and when leaving the project site. Moreover, to protect the genetic integrity of native oak trees and reduce the risk of vectoring *Phytophthora* to the project site and our adjacent Preserves, Midpen requests that the County require replacement of the three coast live oak trees with three planted acorns sourced from the same watershed for every tree removed instead of using nursery stock. Additionally, due to the proliferation of *Phytophthora* through bay trees, Midpen requests the County require replacement of the bay tree with an alternative native tree species, such as another coast live oak. Though it is not known if the trees on the site are hosts or carriers of known plant diseases, attention is needed to reduce the potential risk of spreading SOD and related *Phytophthora* pathogens, which are known to be present in the vicinity of the Preserves. For reference, I have attached four best management practice documents for conducting vegetation work in areas with potential *Phytophthora* infection.

We appreciate the opportunity to comment on this project. Should you have any questions about this letter,

## Guidelines to Minimize *Phytophthora* Contamination in Restoration Projects

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These guidelines aim to avoid contamination of restoration sites with exotic pathogenic *Phytophthora* species or other plant pathogens during planting and related activities.

### Contents

Definitions .....	1
I. Guidelines for General Construction .....	2
II. Guidelines for Planting at Field Sites .....	2
Appendix	
A. Procedures for sanitizing tools, surfaces, and footwear.....	5
B. Clean water specifications .....	6

### Definitions:

- **Holding facility or nursery:** A facility where nursery stock is maintained for a short to extended period of time prior to planting. Plant maintenance activities may include irrigation, fertilization or light pruning, as necessary. Nurseries involved in most other activities, including propagation or repotting are considered production nurseries.
- **Job site:** The job site includes areas for planting, soil stockpiling, parking, and access roads within and leading to the site.
- **Nursery stock:** All types of nursery grown plants.
- **Planting area:** Area being planted for habitat restoration, erosion control, or other purposes.
- **Planting site:** An individual planting basin or other spot, typically no larger than one square yard, where an individual plant or several grouped plants will be installed.
- **Sanitize:** Clean and treat with a sanitizing agent or via a lethal heat exposure to kill plant pathogens present as external contamination.
- **Sanitizing agent:** Materials such as bleach (sodium hypochlorite solutions), alcohol, quaternary ammonium compounds, and peroxides that can directly kill exposed propagules of *Phytophthora* or other plant pathogens when used properly. Most sanitizing agents can also kill a wide variety of bacteria and deactivate many viruses. Note that most materials referred to as fungicides are applied to plants to suppress disease but may not kill the pathogens and are not sanitizing agents.

## 1.2. Handling and transporting nursery plants at the job site

- 1.2.1. Nursery plants shall be transported on or in vehicles or equipment that have been cleaned before loading the stock. Truck beds, racks, or other surfaces need to be swept, blown with compressed air and/or power washed as needed so they are visibly free of soil and plant detritus. More information on sanitizing surfaces are described in the Appendix.
- 1.2.2. Keep plants in sanitized vehicles or on sanitized carts, trailers, etc. until delivered to their planting sites. (More information may be found in sections 1.3.3. and 1.3.4.)
- 1.2.3. At the job site, plants shall be handled to prevent contamination until delivered to each planting site. Nursery stock shall not be placed on the soil or other potentially contaminated surfaces until they are placed at their specific planting sites.
- 1.2.4. If it is necessary to offload plants at the job site, plants may be placed on clean waterproof plastic tarps or other clean, sanitized surfaces. If tarps are used for holding plants, one surface needs to be dedicated for contact with nursery stock and will be cleaned and sanitized to maintain phytosanitary conditions.

## 1.3. Other planting site inputs

- 1.3.1. Washing, soaking, or irrigation of plant material shall be conducted using clean water sources as specified in the Appendix below. Untreated surface waters should not be used for these purposes.
- 1.3.2. On-site or off-site collection of plant materials, including seed and cuttings for direct planting, shall be conducted in a phytosanitary manner (see guidelines for collection practices at [www.calphytos.org](http://www.calphytos.org)).
- 1.3.3. Prior to delivery to the planting areas, mulch, compost, soil amendments, inoculants, and other organic products need to be examined and determined to be low-risk for pathogen introduction. Acceptable materials are those that are free of contamination by plant pathogens based on their composition or manufacturing conditions, or that have been exposed to an effective heat treatment to eliminate pathogens. Such materials must be handled and stored in a manner that prevents contamination. At the job site, delivered materials shall be handled to prevent contamination until delivered to each planting site in the same manner specified for nursery stock in section 1.2 above.
- 1.3.4. All other materials to be installed at the site shall be of new or sanitized material that has not been stored in contact with soil, untreated surface waters, or other potentially contaminated materials. This includes irrigation supplies (such as pipe, fittings, valves, drip line, emitters, etc.), erosion control fabrics, fencing, stakes, posts, and other planting site inputs.

## 2. Cleaning and sanitation required before entering planting area to prevent introducing contamination from other locations

*Phytophthora* contamination can be present in agricultural and landscaped areas, in commercial nursery stock, and in some infested native or restored habitat areas. Contamination can be spread via soil, plant material and debris, and water from infested areas. Arriving at the site with clean vehicles, equipment, tools, footwear, and clothing helps prevent unintentional contamination of the planting site from outside sources.

- 3.1.2. Do not bring more vehicles into the planting area than necessary and keep vehicles on surfaced or graveled roads whenever possible to minimize potential for soil movement.
- 3.1.3. Travel off roads or on unsurfaced roads should be avoided when soil and road surfaces are wet enough that soil will stick to vehicle tires and undercarriages.
- 3.1.4. To allow for adequate decontamination of equipment, tools, gloves, and shoes, avoid planting under overly wet conditions or when soil is saturated.

### **3.2. Minimize unnecessary movement of soil and plant material within the planting area, especially from higher to lower risk areas**

- 3.2.1. Brush off soil from tools and gloves when moving between successive planting sites to prevent repeated collection and deposition of soil across multiple sites.
- 3.2.2. Avoid contaminating clothing with soil during planting operations. Brush off soil accumulations before moving from one planting site to the next. Use nonporous knee pads that are cleaned between planting sites if kneeling is necessary.
- 3.2.3. When possible, plant nursery stock from a given block in the same local area rather than spreading it widely. If a problem is associated with a given block of plants, it will be easier to detect and deal with it if the plants are spatially grouped.
- 3.2.4. Phase work to minimize movement between areas with high and low risk of contamination. Where possible, complete work in low risk areas before moving to higher risk areas. Alternatively, assign personnel to working in either high or low risk areas exclusively to reduce the need for decontamination.
- 3.2.5. Clean soil and plant debris from large equipment and sanitize hand tools, buckets, gloves, and footwear when moving from higher risk to lower risk areas or when moving between widely separated portions of the planting area.
- 3.2.6. All non-plant materials to be installed at the site (irrigation equipment, erosion control fabric, fencing, etc.) shall be handled to prevent movement of soil within the site, especially movement from higher risk to lower risk areas. Materials should be kept free of soil contamination by maintaining them in clean vehicles or carts, trailers, etc., or stockpiling in elevated dry areas on clean tarps until used.

### **4. Clean water specifications**

**Objective:** use only uncontaminated, appropriately-treated water for irrigation.

- 4.1.1. Water used for irrigating plants needs to be uncontaminated. See Appendix for specifications.

## **Appendix**

### **A. Procedures for sanitizing tools, surfaces, and footwear**

Surfaces and tools should be clean and sanitized before use. Tools and working surfaces (e.g., plant carts) should be smooth and nonporous to facilitate cleaning and sanitation. Wood handles on tools should be sealed with a waterproof coating to make them easier to sanitize.

- 5.2. If well water is used, wellheads shall be protected from contamination by surface water sources.
- 5.3. Untreated surface waters and recycled nursery runoff shall not be used, and plants shall not be held where potential contamination from such sources is possible via splash, runoff, or inundation.
- 5.4. Irrigation equipment must be kept free of contamination that could be transferred to irrigation water or plants. All hoses, wands, and nozzles, and hand irrigation equipment must either be new or sanitized before use. Drip irrigation and other sprinkler parts should be new or sanitized. Hose ends, wands, or nozzles that become contaminated with soil or mud during use should be cleaned and sanitized before being used further.

**Table of Contents**

- 1. Overview .....3**
- 1.1 What is Phytophthora? .....3**
- 1.2 General Steps:.....3**
- 1.3 Proper Disinfectants .....4**
- 2. Cleaning at the Field Office .....5**
- 2.1 Remove Soil from Equipment and Footwear .....5**
- 2.2 Disinfect Tools With Bleach .....5**
- 2.3 Disinfect Wheeled Equipment/ Vehicles.....6**
- 3. Cleaning at Field Site .....6**
- 3.1 Cleaning at Start of Field Day .....7**
- 3.2 Cleaning at End of Field Day .....8**
- 4. FAQ.....8**
- 5. Sources .....9**
- 6. Future Methods .....9**

### 1.3 Proper Disinfectants

All recommended disinfectants are considered pesticides. Personal protective equipment required by the State of California for anyone using disinfectants is eye protection with wrap-around and brow protection and 14 mil chemical resistant gloves. You can use smaller mil gloves if handling chemicals for 15 minutes or less.

- 1.3.1 The disinfectants listed in Table 1 are recommended by standard phytosanitary guidelines.
- 1.3.2 Other disinfecting agents or methods, such as Lysol or heat treatments, must be reviewed and approved by NR staff before use.
- 1.3.3 Disinfectants are most effective when surfaces are clean of soil and user follows label instructions.

Disinfecting Agent	Active ingredient	Contact time	Product shelf life	Proper Disposal	Health Risk	Personal Protective Equipment
Granular Chlorine Bleach (Leslies Chlor Brite, EZ Chlor)	Sodium dichloroisocyanurate dihydrate	2 min	Long if undiluted	Neutralizer (Vita-D-Chlor)	High	Eyewear, gloves; do not inhale
Liquid Bleach (Clorox)*	Sodium chloride	2 min	3-5 months	TBD	High	Eyewear, gloves; do not inhale
Rubbing Alcohol	Ethanol or Isopropyl Alcohol	1 min	Long	TBD	Med	Eyewear, gloves; flammable
Quaternary ammonium compounds (Quat 128 or Physan 20)	Dodecyl dimethyl ammonium chloride	10 min	Long if undiluted	TBD	Med	Eyewear, gloves; toxic to fish

**Table 1:** List of approved disinfecting agents. Always follow chemical label instructions.

\*Liquid bleaches are generally not recommended as a disinfectant because they lose potency in storage.

- 2.2.2 Fill waterproof container with 10 gallons of water. Use label instructions to add the right amount of disinfecting agent. For granular bleach, use one teaspoon in 10 gallons to get the desired 0.525% dilution.
- 2.2.3 Dunk tools in solution for required soaking time (see Table 1). For granular bleach, this is 2-minutes. Just getting tools wet does not mean they will be disinfected. Think of it as chemical cooking.
- 2.2.4 If you used chlorine bleach as a disinfectant, it needs to be neutralized after soaking. This 'rinse cycle' will deactivate the bleach so it does not corrode metal and so that it is safer to dispose of the soak water. Equipment sprayed with alcohol does not require this neutralization step.
- 2.2.5 In addition to tools, remember to disinfect the sanitation kit, gloves, tarps, or other miscellaneous items that have come into contact with soil.
- 2.2.6 Let tools dry. The hose lay is great for drying tarps.

### 2.3 Disinfect Wheeled Equipment/ Vehicles

Anything with wheels, including wheel barrels, ATV's, motorized carts that will be used at the field site needs to be cleaned and this is best done at the field office before the project. Vehicles that stay at the staging area do not have to be cleaned and sanitized. However, it is good phytosanitary practice to remove soil from wheels every time you leave a site.

- 2.3.1 Scrub down tires either by hand scrubbing or using a pressure spray wash.
- 2.3.2 Sanitize using disinfecting spray such as bleach (must be made weekly) or rubbing alcohol.

## 3. Cleaning at Field Site

Remember to **Arrive Clean and Leave Clean**. If equipment was cleaned and treated with a disinfectant at the field office and delivered in a clean truck, then on-site cleaning of equipment will only be required when leaving at the end of a work day. We recommend that everyone be encouraged to thoroughly clean their footwear of soil before arrival at the site, and then footwear be treated with alcohol upon arrival. Volunteers may not always be aware of this recommendation and may arrive with boots that need to be cleaned of foreign soil at the field site. Scraping all soil off equipment and footwear is required before leaving site, and sanitation of all footwear is usually recommended when leaving a site, especially for known contaminated sites. Rubbing alcohol is usually the preferred disinfectant in the field. Bleach products can be used in the field, but it is harder to mix and dispose of them properly in the field. See details below.



## 3.2 Cleaning at End of Field Day

### Tools:

Portable sanitation kits include the following items in a bin: 2 tarps, boot brush with scraper, 2 spray bottles of 70% isopropyl alcohol, 2 long-handled brushes, 2 paint scrapers, and instructions. On muddy days, also bring a basin & 2 jugs of water.

- 3.2.1 Sanitation of equipment and shoes is important for known or suspected contaminated sites. More leniency can be given for 'clean' sites.
- 3.2.2 Remove all soil and organic material from footwear and equipment. Leave soil onsite. Use the boot scraper, paint scraper and a stiff brush to remove any soil and plant material on both the top and bottom of footwear and from tools including the digging ends and handles. Make sure to clean out crevices. On muddy days, fill the basin with water to assist in rinsing off excess soil once the majority of debris has been removed.
- 3.2.3 Water helps in removing dried clods of soil. This water can be dumped on-site only if the soil originates from on-site.
- 3.2.4 Standing on the 'clean' tarp, spray cleaned footwear and tools with 70% isopropyl alcohol, thoroughly wetting the surface and allowing it to dry (approx. 1 min). If the surface of your footwear or tools is already wet, spray extra alcohol to displace the water and allow the alcohol to soak the surface.
- 3.2.5 Before leaving the site, shake soil off the scrapers, brushes and tarp.
- 3.2.6 At the field office, thoroughly clean the portable sanitation kit by washing out, spraying with alcohol and drying the container and all contents before storage. The portable sanitation kit must be clean before moving to a new site.

## 4. FAQ

Q. What do we do with left over soil?

A. Depends on the soil. Soil from off-site should be disposed of in a trash bag and thrown away-- there's no knowing if off-site soil is contaminated or not. On site soil can be disposed of on-site back where it came from.

Q. What do we do with dirty water?

A. Pouring on pavement or another non-porous surface should disperse the contaminated soil enough to UV (sun) sterilize the water. If using bleach, use neutralizer and the water can be considered clean and safe enough to pour out anywhere. Don't pollute! Other disinfectants need proper disposal that isn't safe for dumping on the ground. Contact Natural Resources Department (Amanda Mills/Coty Sifuentes-Winter) or EH&S for safe disposal procedures.

Q. How do we use the tarps?

A. Two tarps, two purposes. Dirty tarp: use as a containment area to clean off soil clogs, especially offsite soil, for later disposal. Clean tarp: provides users a clean surface to sterilize (with alcohol or other sanitation liquid) shoes and equipment not cleaned at the Field offices.

Q. When will we need to sanitize or use the kits?

**Midpeninsula Regional Open Space District**  
**Sudden Oak Death Precautions and Acorn Planting Protocol**

1. Sudden Oak Death (SOD) Precautions

- a. Prior to the start of construction work, the Construction Superintendent shall inform construction personnel that they are working in a potential SOD-infested area, the implications of the disease, and the need to prevent further disease spread. Non-English speaking personnel shall be provided the appropriate written or verbal translations.
- b. To the extent practical, avoid locating equipment and material near host plants and trees, especially if showing disease symptoms.
- c. Route equipment away from host plants and trees, especially if showing disease symptoms.
- d. Any cutting or chipping of on-site plant material shall be restricted to the project area and the debris shall remain in the project area.
- e. After completing any cutting or chipping of on-site plant material, ensure that the equipment is free from host debris by first removing any visible plant material that clings to the equipment and follow with the cutting or chipping of non-host material.
- f. Before any equipment or vehicles leave the preserve, the contractor shall inspect the equipment and vehicles for host plant debris (leaves, twigs, and branches). Host plant debris must be removed from equipment and vehicles prior to their departure.
- g. If conditions at the work site are muddy due to dust suppression activities or summer rains, remove or wash off accumulations of soil, mud, and organic debris from shoes, boots, vehicles, and heavy equipment prior to exiting the preserve. If an equipment power wash station is used, its location must first be approved by the District Representative.

2. Acorn Planting Protocols

- a. Prior to planting, the contractor will remove debris within a 2-3 foot diameter of the planting basin and hollow out a planting hole fist deep and wide in loose soil. Place 3 seeds on their side in the hole, cover with soil to grade and firmly pat down. Contractor shall install Tubex Shrubshelters (2.5' height) centered on the planted seeds. Contractor shall insure that each installed Tubex Scrubshelter is in good condition and securely attached to wooden stakes with the bottom edge covered by soil. Contractor shall install a mulch layer or certified weed free stray 3 to 5-inches deep in an area of 3-foot diameter around each tree shelter. Contractor will provide and water each basin with one (1) gallon of water.
- b. After the first Spring, keep only the most vigorous seedling in each basin. If space is an issue, plant trees closer together.
- c. At year 5, thin trees to 2:1 ratio.
- d. At year 10, thin trees to 1:1 ratio.

***Midpen will gladly issue a free permit to collect 36 acorns (3:1 for 4 trees, 3 acorns each) for use from either Coal Creek and/or Russian Ridge Open Space Preserves to a qualified contractor.***

- 2.10. Clean seed as soon as possible after collection to remove any debris before storage or stratification. Inspect stored seeds or other propagules regularly and discard materials that develop symptoms in storage.
- 2.11. Where compatible with seed storage and germination requirements, treat seed using heat or appropriate disinfecting chemicals to eliminate seed-borne pathogens or external contamination. Seed treatment may be omitted for species where it is impractical or the risk of seed-borne or contaminating pathogens is negligible.
- 2.12. Do not bring potentially infected or contaminated plant material into clean production areas of the nursery. Properly collected seed and tip cuttings (described above) will normally be free of *Phytophthora*.
- 2.13. Plant propagules that have been in contact with the soil (divisions, tubers, rhizomes, bulbs, etc.) have an elevated risk of being infected or contaminated with *Phytophthora* or other soilborne pathogens. Plant stock originating from such propagules should be segregated from planting material started from cleaner sources, such as seed or cuttings and from other vegetatively propagated material from different localities. The goal is to avoid introducing pathogens, including pathogens that may be endemic to a given site, to new areas or native plant populations via plants that become infected in the nursery.
- 2.14. Plant propagules from the soil (divisions, tubers, rhizomes, bulbs, etc.) should be thoroughly cleaned to remove soil and inspected. Discard propagules that show evidence of decay. Surface contamination can be removed with treatments such as diluted bleach dips, but surface treatments will not eliminate internal infections. Internal infections can only be eliminated by heat treatments, but not all plant propagules will tolerate temperatures needed to kill *Phytophthora* infections.

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**This is an absolute abomination.**

Smack in the middle of two nature preserves, along a scenic highway and in a high fire danger area these people want to build an 8,109 sq. ft house + an enormous ADU; a stable bigger than most houses, a 3 car **and** a 4 car garage, a huge pool; plus do 4,580 cu. ft of grading.

If the county has any conscience, or any concern for fire safety, this proposal will be denied. This sort of development is even extreme in Atherton.