

#### **EXHIBIT A**

# **Project Plans and Operational Specifications**

# **Project Background**

In 2019, San Mateo Resource Conservation District applied for a *California Climate Investments – CAL FIRE Forest Health Grant* that was awarded in March of 2020. The program intent of CAL FIRE Forest Health Grants is to fund active restoration and reforestation activities aimed at providing more resilient and sustained forests to ensure their longevity in California while also mitigating climate change, protecting communities from fire risk, strengthening rural economies, and improving California's water & air (https://www.fire.ca.gov/grants/forest-health-grants/).

**San Mateo Resource Conservation District's** (SMRCD) Forest Health and Fire Resiliency program shares similar goals in forest and ecosystem health by considering natural systems resilience in the face of climate change with goals aimed at improving forest health and minimizing fuel loads across larger landscapes (http://www.sanmateorcd.org/project/forest-and-fire/).

SMRCD collaborated with *San Mateo County Park's* (SMCP) Natural Resource Management team who seek to balance conservation with public enjoyment of their lands in order to preserve them for generations to come. Their practices consider managing the land, water, soil, plant and animal resources within the park system using ecological principles and techniques to achieve healthy and diverse ecosystems (https://parks.smcgov.org/natural-resource-management).

The collaborative outcome has been the development of a forest health fuel reduction project at Huddart and Wunderlich, San Mateo County Parks, that ties three missions together to execute a project encompassing 402.1 acres of vegetative treatments to enhance and restore a forest system challenged by lack of fire and, changing climates that has many homes in close proximity to park borders.

This project supports the intent of the Forest Health Program and California's climate goals by;

1) Proactively restoring forest health, improving ecosystem resiliency and conserving working forests by conducting targeted fuel reduction; 2) Protecting upper watersheds where the state's water supply originates by strategically placing our projects throughout the watershed; 3) Promoting the long-term storage of carbon in forest trees and soils through the reduction of dense understory vegetation thus promoting larger healthier stands of mature trees and; 4) Minimizing the loss of forest carbon from large, intense wildfires, through reduction of ladder fuels and brush as well as through placement of fuel breaks along ridge tops to reduce the intensity of wildfires.



Tactically, these areas have also been identified by CAL FIRE where landscape level vegetative treatments will reduce wildfire risk and increase opportunities to manage wildfire. Treatments will be placed, west to east, from Highway 35 from the ridgetop of the Santa Cruz Mountains in a swath of treatments altering the structure of predominantly understory trees and understory vegetation to approximately the valley floor of Woodside, California through both parks. The additional intent of this project is to change the fire behavior that historically has occurred along the Santa Cruz Mountains in a parallel manner, north to south, with respect to prevailing wind flows.

# **Project Location:**

The project treatment area encompasses a total of 402.1 acres on San Mateo County Park lands, specifically Huddart County Park is 217.6 acres and Wunderlich County Park is 184.5 acres. The project properties are located to the west of Woodside, California and south of the Crystal Springs Reservoir in San Mateo County, see Project Operations Maps at end of document (maps not to scale).

## **Project Site:**

Huddart and Wunderlich County Parks are recreational properties owned by San Mateo County containing hiking and equestrian trails and scenic picnic areas utilized by the public including the Kings Mountain Archery Range at the top of Huddart. Proposed treatment areas are located within the park boundaries off roads and trails; however, some trail closures will be required for public safety that will be managed by San Mateo County Parks.

#### **Project Treatments:**

Treatments will be mechanical, using masticators on slopes predominantly less than 40% and averaging ~30%. Work will be done in an environmentally sensitive manner honoring the significance of archeological and biological sensitive resources, selectively thinning dense tree cover or stands, and diseased tree populations. Treatment prescriptions will focus on improving the health and resiliency of forests by reducing the fire danger through cleanup of dense undergrowth. Live and dead vegetative fuels will be treated to decrease the continuity of vegetation, decrease flammability, and accelerate decomposition of treated material.

# **Operational Specifications:**

The following specifications will act as the requirements for the Contractor to operate safely and efficiently while protecting and conserving sensitive resources and protecting the beneficial uses that San Mateo County Parks provides to the public.

# **General Specifications**

1. A pre-designated Contractor foreman will be required to be on site at all times while the crew is working. The foreman must be able to address concerns from San Mateo County



Parks, San Mateo Resource Conservation District, their supervised designee, park users, or adjacent landowners.

- 2. Operations may occur from 7:00 a.m. to 6:00 p.m., Monday through Friday and not on legally designated holidays.
- 3. Operations are expected to occur from May 1<sup>st</sup> October 15<sup>th</sup>. Operations may also occur from October 15<sup>th</sup> May 1<sup>st</sup> with approval from San Mateo County Parks; if saturated soil conditions do not exist; if operations from appurtenant roads and staging areas can be conducted from a stable operating surface, and if additional requirements under **Operations from October 15<sup>th</sup> May 1<sup>st</sup>, Watercourse Protections, Waterbreaks,** and **Wildlife Protection Avoidance Measures** can be adhered to.
- 4. The Contractor will ensure that a toilet and garbage disposal facilities are available for crews and are used in staging areas identified for operations.
- 5. Contractor is responsible for assessing treatment areas to determine where traffic control may be needed. Masticated or treated material of any kind should not make contact with any public road. If any masticated material contacts public roads it should be cleaned up immediately.
- 6. The Contractor will be responsible for preserving survey markers and will replace damaged markers at their own expense using surveyors acceptable to the landowner.
  - a. The Contractor will also be responsible for any damage to park infrastructure or private property and will replace or repair these items at their own expense through means acceptable to San Mateo County Parks or the landowner.
- 7. Any appurtenant seasonal roads and staging areas shall be filmed ahead of active operations by San Mateo County Parks staff or San Mateo Resource Conservation District Staff and the Contractor shall be responsible for returning the roads and staging areas to an "as good or better" condition following operations.
- 8. Contractor shall be responsible for maintaining a spill kit containing the following items:
  - **a.** Protective clothing or personal protective equipment to protect body parts most likely to be exposed to spilled hazardous substances.
  - b. Tools that clean up a spill consisting of highly absorbent towels, pads and at least 6, 3-inch x 10-foot-long spill absorbent socks.
- 9. Prior to beginning operations, San Mateo County Parks, San Mateo Resource Conservation District, and their supervised designee will conduct a pre-operational meeting to discuss project implementation, special protection measures and any potential operational constraints regarding the conduct of this contract that may impact



- project completion; including, but not limited to, planned start date, special protection measures, operational constraints, operating schedule, and order of project completion.
- 10. San Mateo County Parks, San Mateo Resource Conservation District, and their supervised designee shall flag 2-3 example treatment mark areas for Contractor review at the preoperational meeting.
- 11. Contractors and all heavy equipment operators are required to utilize *Avenza* software on phones or tablets capable of viewing PDF georeferenced operations maps provided by San Mateo County Parks and San Mateo Resource Conservation District to identify the Contractors location, stay within project treatment areas or appurtenant infrastructure approved for operational use, and avoid sensitive resource areas.
  - a. At the end of each day Contractors will export a shapefile from *Avenza* showing the completion of treated areas (requires a \$130.00 a year subscription to *Avenza*). San Mateo County Parks, or San Mateo Resource Conservation District, or their supervised designee will field verify the completion of these areas indicated by Contractor's exported shapefiles.
  - b. Training will also be provided to the Contractor on how to use *Avenza* software and export shapefiles.
- 12. Contractor shall prepare and keep record of a daily checklist made available at the request of San Mateo County Parks, San Mateo Resource Conservation District, or their supervised designee that checks the following for daily operations:
  - a. Inspections around the equipment and staging area for any wildlife that may have decided to occupy the area.
  - b. Inspections for any equipment leaks.
  - c. Ensure all water tanks for fire suppression are full.
  - d. Confirm that nesting and bat roosts surveys are completed for the treatment areas proposed for operations that day if operating from February 1<sup>st</sup> to August 31st.
  - e. Record wind speed and relative humidity measurements at the beginning of operations, 12:00 p.m. and at the conclusion of operations each day.



#### **Tree Treatments**

- Trees ≤8 inches Diameter at Breast Height (DBH) shall be removed, if under an overstory canopy focusing on the removal of tanoak and overstocked redwood areas. All live larger diameter trees remain.
  - a. Contractor shall not remove any buckeye, olive trees, sycamores, big leaf maple, or red alder.
- 2. Trees ≤8 inches DBH that do not have an overstory canopy shall be spaced leaving approximately 15-20 feet between tree crowns.
  - a. Consideration shall be given to maintaining a diversity of tree species in these areas where feasible.
- 3. Damage to residual trees shall be minimized to the greatest extent feasible.
- 4. Remove any standing dead trees ≤12 inches DBH.
- 5. All dead and downed trees <12 inches in diameter will be delimbed/chipped through mastication or an otherwise agreed upon method with the remaining trunks left in place unless several trees have created a piled concentration. In this case, the remaining tree trunks will be separated by at least 10 feet from any other logs and left on site.
  - a. Dead trees >12 inches diameter may be masticated for access around treatment areas but, should remain in place where feasible unless they create a significant fire hazard and shall be separated by at least 10 feet from any other logs and left on site.
  - b. Contractor shall consider maintaining an appropriate number of snags and downed woody debris within the treatment areas. Target snags should be ~1-2 per acre and similar for downed woody debris >12 inches in diameter.
- 6. A tree of any size considered a hazard and direct threat to personal safety or infrastructure may be removed.
- 7. San Mateo County Parks, or San Mateo Resource Conservation District, or their supervised designee reserve the right to reasonably adjust tree treatments in areas where additional sensitive resources are identified and may adjust the treatment prescription as needed.

## **Tree Pruning Treatments**

1. Conifer trees >8 inches DBH will be pruned (live and dead limbs) up to a minimum height of 8 feet, except next to park infrastructure and road surfaces, including within 30 feet of Highway 35, Kings Mountain Road, and Bear Gulch Road, where the minimum



pruning height is 12 feet. No pruning will be done to a height greater than 50% of total tree height. Hardwoods shall not be pruned.

- 2. Conifer limbs may be pruned with a masticator, but pruned ends shall have a smooth appearance with no frayed material visible especially in areas frequented by the public. Note: This may require follow-up handwork.
- 3. In areas where damage to secondary lateral hardwood limbs is expected due to mechanical mastication, hardwoods shall be pruned by hand to facilitate access for mastication equipment and minimize damage to hardwoods species. It is expected that the amount of hand will be minimal and focused on a few key areas occupied by larger coast live oaks that will need hand pruning treatment to reduce the spread of infection to the remaining hardwood stand. San Mateo County Parks will provide instruction on hardwood pruning techniques.

## **Understory Vegetation, Brush, and Shrub Treatments**

- 1. All understory vegetation, brush, and shrubs under the drip lines of trees shall be cut and masticated leaving root systems intact for resprouting except:
  - a. Contractor shall not masticate, or remove through handwork, hydrophytic riparian species such as chain fern (woodwardia), carex sp., rushes, blue elderberry, and red elderberry.
  - b. Where significant stands of huckleberry, toyon, and hazelnut occur under the drip line of trees, Contractor shall maintain a component of these shrubs at a spacing between 25 50 feet for each species occurrence, whose shrub crown is approximately 10-15 feet wide. Spacing may be closer to 25 feet on flatter ground and 50 feet on steeper ground or proximity to infrastructure or homes within treatment areas.
- 2. Outside of the drip line of retained trees, brush and shrubs shall be cut and masticated leaving root systems intact for resprouting to achieve a horizontal crown separation of approximately 25 to 50 feet. Spacing may be closer to 25 feet on flatter ground and 50 feet on steeper ground or proximity to infrastructure or near homes within treatment areas. Remaining clumps of brush and shrubs should not exceed approximately 10-20 feet in diameter and will consist of healthy appearing specimens where feasible. A minimum of 35% relative cover of existing brush, shrubs, and understory vegetation shall be retained in a mosaic pattern across treatment areas.
  - a. Consideration shall be given to maintaining a diversity of understory vegetation, brush, and shrub species in these areas.
- 3. Damage to residual understory vegetation and brush shall be minimized to the greatest extent feasible.



4. San Mateo County Parks, or San Mateo Resource Conservation District, or their supervised designee reserve the right to reasonably adjust understory vegetation and brush treatments in areas where additional sensitive resources are identified and may adjust the treatment prescription as needed.

# **Treated Vegetation within Treatment Areas**

- 1. The residual masticated material shall remain uniformly spread to the extent feasible within the project area, shall not exceed a depth of six inches (6") and should average approximately three inches (3"), and individual pieces shall not exceed two feet (2') in length or three inches (3") in diameter at the large end to support regeneration in the understory.
- 2. Excessive residual masticated material shall not obstruct water flow in drainage features such as ditches and culverts. Such material shall be removed by the contractor prior to a forecasted 30% precipitation event or upon completion of operations, whichever occurs first.
- 3. Residual masticated material should be utilized to cover approximately 75% of any areas bared during operations and shall not be piled at the base of remaining trees or sensitive vegetation.
- 4. Upon completion of a treatment area the contractor shall ensure that trails are left open and passable by the public with respect to all possible park users.
  - a. Scattered debris is acceptable on the trail surface but not to the point that it creates any significant tripping hazards.
- 5. Damage to residual trees and brush shall be minimized to the greatest extent feasible. If there is excessive damage to residual trees or brush, the contractor shall remove those specimens.
- 6. All stump heights will be cut no higher than 6 inches above the ground. All cuts will be a flat or parallel cut to the ground and will have a smooth appearance with no frayed material visible.

#### **Acceptable Heavy Equipment**

- 1. Excavator with a boom mounted masticating head capable of reaching a minimum distance of 20 feet.
- 2. Small, tracked tractor such as a skid steer or mini excavator with masticating head capable of working under 8-foot canopies.



3. Other heavy equipment may be proposed for use by the Contractor and must be approved by San Mateo County Parks and San Mateo Resource Conservation District. To propose other heavy equipment, the Contractor should be prepared with equipment dimensions, weight, and photos of equipment.

# Fire Safety

- 1. The Contractor will have fire tools available on-site during operations for firefighting purposes per PRC 4428:
  - a. No person, except any member of an emergency crew or except the driver or owner of any service vehicle owned or operated by or for, or operated under contract with, a publicly or privately owned utility, which is used in the construction, operation, removal, or repair of the property or facilities of such utility when engaged in emergency operations, shall use or operate any vehicle, machine, tool or equipment powered by an internal combustion engine operated on hydrocarbon fuels, in any industrial operation located on or near any forest, brush, or grass-covered land between April 1<sup>st</sup> and December 1<sup>st</sup> of any year, or at any other time when ground litter and vegetation will sustain combustion permitting the spread of fire, without providing and maintaining, for firefighting purposes only, suitable and serviceable tools in the amounts, manner and location prescribed in this section.
  - b. On any such operation a sealed box of tools shall be located, within the operating area, at a point accessible in the event of fire. This fire toolbox shall contain: one backpack pump-type fire extinguisher filled with water, two axes, two McLeod fire tools, and a sufficient number of shovels so that each employee at the operation can be equipped to fight fire.
  - c. One or more serviceable chainsaws of three and one-half or more horsepower with a cutting bar 20 inches in length or longer shall be immediately available within the operating area, or, in the alternative, a full set of timber-felling tools shall be located in the fire toolbox, including one crosscut falling saw six feet in length, one double-bit axe with a 36-inch handle, one sledge hammer or maul with a head weight of six, or more, pounds and handle length of 32 inches, or more, and not less than two falling wedges.
  - d. Each rail speeder and passenger vehicle, used on such operation shall be equipped with one shovel and one axe, and any other vehicle used on the operation shall be equipped with one shovel. Each tractor used in such operation shall be equipped with one shovel.
    - i. As used in this section:
    - ii. "Vehicle" means a device by which any person or property may be propelled, moved, or drawn over any land surface, excepting a device moved by human power or used exclusively upon stationary rails or tracks.



- iii. "Passenger vehicle" means a vehicle which is self-propelled, and which is designed for carrying not more than 10 persons including the driver, and which is used or maintained for the transportation of persons but does not include any motortruck or truck tractor.
- 2. The Contractor shall provide and be responsible for operating and maintaining one of the following options for initial ignition attack and fire suppression:
  - a. A full 500-gallon water buffalo trailer with a water pump and minimum 50-foot fire hose both attached to the trailer within reasonable proximity to operations at all times.
    - i. If the contractor is operating more than one crew out of different staging areas the contractor shall provide one of these units for each crew.
  - b. Heavy equipment conducting mastication shall have a foam fire suppression system built in.

OR

- c. A side-by-side off-highway utility vehicle with appropriate firefighting tools that include a shovel, Mcleod, Pulaski, and a chainsaw with a minimum 20-inch bar, fire extinguisher, and first aid kit. In addition, the side by side off highway utility vehicle shall carry an ATV/UTV skid unit that, at minimum, is equivalent to a Mercedes Wick-100 4H or Wick SI 250 Pump/Motor and a <sup>3</sup>/<sub>4</sub>" x 50' Rubber Booster Hose on a Manual Reel.
- d. A full 500-gallon water buffalo trailer with a water pump and minimum 50-foot fire hose both attached to the trailer within reasonable proximity to operations at all times.
  - i. If the contractor is operating more than one crew out of different staging areas the contractor shall provide one of these units for each crew.
- e. Contractor may propose an alternative method that meets or exceeds these standards.
- f. San Mateo County Parks staff will arrange for a water source for Contractor to keep 500-gallon water buffalo trailer or ATV/UTV skid unit full of water.
- 3. Treatment areas shall be walked prior to operations to determine if there are any potential ignition hazards such as rocks, metal objects, or fuel sources that could act as possible ignition points. The Contractor should adjust operational schedules to operate in these areas when fire hazard risks are the lowest, such as early morning.
- 4. Each vehicle or piece of heavy equipment shall be outfitted with a minimum 5 lb. Class ABC fire extinguisher, and/or a 2.5-gallon air pressurized gallon Class A water fire



extinguisher, and/or a 5-gallon backpack pump physically attached to the heavy equipment or truck in an accessible location to respond to any possible ignitions. Heavy Equipment with foam fire suppressions system built in meet this requirement.

- 5. Spark arrestors are required for all mechanized tools.
- 6. Smoking is restricted to non-vegetated areas.
- 7. Work areas shall be walked at the end of each day to conduct a fire check unless operating in the winter period and conditions are too wet for an ignition to occur.
- 8. Fire patrol shall be required on site during and at least 3 hours after operations when the relative humidity is at or below 20% and/or when winds are at or above 15 mph at the end of the day in the work area.
  - a. Contractor shall have a Kestrel to monitor wind and relative humidity and shall take readings at the beginning of operations, 12:00 p.m. and at the conclusion of operations each day. Contractor shall maintain a record of readings as part of the daily operational checklist.
- 9. CAL FIRE, San Mateo County Parks, San Mateo Resource Conservation District, or their supervised designee, reserves the right to restrict operating hours or operations in total during critical fire weather.

# **Ground Disturbing Activities within Treatment Areas**

- 1. Ground disturbance shall be minimized to the greatest extent feasible. Berms, ruts and other operator caused ground disturbance over 12 inches in height/depth shall be smoothed out to original contours before leaving the immediate work area.
- 2. Equipment shall operate parallel to the slope (up and down the fall line) to the greatest extent feasible.
- 3. The cutting or mulching head of the masticator shall be kept at or above the duff layer and not into mineral soil to the greatest extent feasible.
- 4. Equipment shall not enter areas outside of the designated project areas unless authorized by San Mateo County Parks, or San Mateo Resource Conservation District, or their supervised designee.
- 5. Upon completion of a treatment area the contractor shall ensure that roads are left open and passable by the public with respect to all possible park users.
  - a. Scattered debris is acceptable on the road but not to the point that it creates any significant road hazards for park staff or users.



# Operations from October 15<sup>th</sup> - May 1<sup>st</sup>

- 1. If Contractor obtains approval to operate from October 15<sup>th</sup> to May 1<sup>st</sup> no operations on saturated soils conditions as defined below may occur:
  - a. Saturated soil is defined as soil and/or surface material pore spaces that are filled with water to such an extent that runoff is likely to occur. Indicators of saturated soil conditions may include but are not limited to:
    - i. areas of ponded water,
    - ii. pumping of fines from the soil or road surfacing material during operations,
    - iii. loss of bearing strength resulting in the deflection of soil or road surfaces under a load, such as the creation of wheel ruts,
    - iv. spinning or churning of wheels or tracks that produces a wet slurry, or
    - v. inadequate traction without blading wet soil or surfacing materials.
  - b. In addition, operations on appurtenant roads or staging areas may only occur from a stable operating surface defined below:
    - i. A surface that can support vehicular traffic and that routes water off the road surface or into drainage facilities without concentrating flow in ruts (tire tracks), pumping of the roadbed, or ponding flow in depressions. A stable operating surface shall include paved roads, structurally sound road base, unsaturated hard packed seasonal roads, and all must be appropriate for intended use.

#### **Watercourse Protections**

1. All Class III watercourse centerlines within proximity to where operations will occur have watercourse centerlines flagged in blue with yellow and white striped equipment exclusion zone flagged to indicate an equipment limitation zone (ELZ) buffer. Handwork may occur within the ELZ zone if needed. See below for ELZ distances.

| Equipment Limitation Zones in *Feet |      |      |  |
|-------------------------------------|------|------|--|
| Class III Mata van uvan s           | <30% | >30% |  |
| Class III Watercourses              | 25 5 |      |  |

<sup>\*</sup> Feet = Measured along the ground based on slope

- 2. No Class I or II Watercourses exist within proximity to the treatment areas.
- 3. Heavy equipment used in project operations shall not be serviced or fueled within 65 feet of a watercourse or in any locations where servicing will allow, grease, oil, or fuel to pass into lakes or watercourses. Contractor shall maintain a spill response kit within reasonable proximity to equipment operations.
- 4. Equipment shall be checked each day for any signs of leaks and if discovered, shall be repaired immediately.



- 5. Operations shall not place, discharge, dispose of, or deposit in such a manner as to permit to pass into waters of the state, any substances or materials, including, but no limited to, soil, silt, bark, slash, sawdust, or petroleum in quantities which may cause harm to fish, wildlife, beneficial functions of riparian zones, or the quality and beneficial uses of water.
- 6. All staging areas and fueling or maintenance of vehicles and equipment shall occur outside of sensitive habitat areas and at least 65 feet from any water body, drainages (including storm drains) or riparian habitat.
  - a. No petroleum products, chemical, silt, fine soil, or any substance or material deleterious to sensitive species shall be allowed to pass into or be placed where it could enter a stream channel.
  - b. Any spills of hazardous materials shall be cleaned up and/or removed immediately. Any such spills shall be reported to San Mateo County Parks.
  - c. Major vehicle maintenance, repairs, and washing shall be done off-site.
  - d. Vehicular and equipment refueling is prohibited.
  - e. Chainsaw fueling shall occur on service roads and only where spills can be easily cleaned and at least 65 feet away from streams, bridges, or other areas that can transport spilled materials into natural waterways.

#### Waterbreaks

- 1. Waterbreaks shall be re-installed in their original locations and original configuration on appurtenant seasonal roads or staging areas used by the Contractor following operations and prior to October 15<sup>th</sup> on any year that operations occur.
- 2. Where waterbreaks need to be additionally placed following operations, they shall be placed similarly to other existing waterbreaks. At minimum, waterbreaks placed shall be placed at an approximate 45-degree angle, be cut diagonally to a minimum 6 inches into the firm roadbed or disturbed area, have a continuous firm embankment of at least 6 inches in height, and a width of 6 inches immediately adjacent to the lower edge of the waterbreak cut-out flow.
- 3. If the installation of additional waterbreaks cannot be accomplished by heavy equipment due to inability to access a site, then hand-dug waterbreaks may be constructed with less than the requisite 6 inches above grade and 6 inches below grade where appropriate but must be functional and maintain a 6-inch-wide outlet.



- 4. Waterbreaks shall be located to allow water to be discharged into some form of vegetative cover, duff (forest floor detritus), slash, rocks, or less erodible material wherever possible, and shall be constructed to provide for unrestricted discharge at the lower end of the waterbreak so that water will be discharged and spread in such a manner that erosion shall be minimized.
- 5. Waterbreaks may be located and adjusted outside of the maximum waterbreak spacing specified at the discretion of San Mateo County Parks, San Mateo Resource Conservation District, or their supervised designee in order to reduce any potential impacts and allow for the beneficial use of water. The waterbreaks shall be situated in a manner as to allow water to drain into stable soil configurations.
- 6. Waterbreak spacing shall conform with the table below. The waterbreak spacing may also be adjusted by San Mateo County Parks, San Mateo Resource Conservation District, or their supervised designee to create a greater level of protection than identified under general soil stabilization measures.

| Maximum     | Distance Between Waterbro  | eaks Measu  | red in *Feet |
|-------------|----------------------------|-------------|--------------|
| U.S. Equi   | valent Measure Road or Tra | il Gradient | in percent   |
| 10% or less | 11-25%                     | 26-50%      | >50%         |
| 100         | 75                         | 50          | 50           |

<sup>\*</sup> Feet = Measured along the ground based on slope

a. Where vegetation is not adequate to act as a sediment filter at waterbreak outlet locations that have the potential to discharge sediment to a watercourse, the Contractor shall armor the road drainage outlets with slash, chunks of wood, rock, or other methods in consultation with San Mateo County Parks, San Mateo Resource Conservation District, or their supervised designee.

#### **Biological Resource Avoidance Measures**

- 1. If any California Endangered Species Act (CESA) or Federally Endangered Species (ESA) listed plant or animal is encountered, operations shall cease in proximity, and the area shall be avoided. San Mateo County Parks, or San Mateo Resource Conservation District, or their supervised designee shall be notified immediately.
- 2. Nesting and bat roost surveys are required from February 1<sup>st</sup> to August 31<sup>st</sup> and shall be conducted within 3 days of any mechanical mastication operations in treatment areas by San Mateo County Parks, San Mateo Resource Conservation District, or their supervised designee to determine if nesting activity is occurring.



- a. Areas where nesting and bat roosts are found to occur shall have a buffer zone flagged in orange glo of 50 100 feet depending on the species needs. San Mateo County Parks, San Mateo Resource Conservation District, or their supervised designee reserve the right to increase the buffer size as needed to protect sensitive species.
- b. Disturbance of nests/dens/roosts/nest cavities shall be avoided. If the Contractor identifies an active nest/den/roost/nest cavity, a buffer should be established between the construction activities of 100 feet and the active nest/den/roost/nest cavity so that nesting activities are not interrupted. San Mateo County Parks, San Mateo Resource Conservation District, or their supervised designee shall be advised immediately.
- 3. It is likely that contractors will encounter woodrat nests. Woodrat nests should receive a buffer of 5 10 feet. Woodrat nests may only be removed if necessary, to access a portion of a treatment area otherwise inaccessible or reasonably pass from one treatment polygon to another.

# **Archaeological Resources**

1. If evidence of archaeological or cultural resources are discovered during project operations, all operations will cease in the vicinity of the potential resource and the area shall be avoided. San Mateo County Parks, or San Mateo Resource Conservation District, or their supervised designee shall be notified immediately.

#### **Sudden Oak Death**

The pathogen, *Phytopthora ramorum*, commonly referred to as Sudden Oak Death (SOD), infects coastal forests throughout California and Oregon and kills susceptible species including tanoak, coast live oak, California black oak, Shreve's oak, canyon live oak, and madrone saplings. Host species that are in the project area include, but are not limited to California bay laurel, coast redwood, Oregon big-leaf maple and Douglas fir. To avoid the spread of this pathogen:

- 1. All hand equipment including boots will be sanitized and heavy equipment hosed off prior to, and following, operations in areas where the spread of SOD is possible outside the Zone of Infestation.
- 2. Chips from mastication should not be thrown onto roads, near culverts, into nearby streams, or onto the base of trees to the maximum extent feasible. Other restrictions and limitations regarding where chips may be thrown from masticators can be found under **Treated Vegetation within Treatment Areas** and **Watercourse Protections.**
- 3. SOD hosts species, or SOD infected trees should only be chipped back into areas where SOD species are already present to avoid and minimize the risk of spreading SOD.



4. The California Oak Mortality Task Force website contains additional information regarding treatment and disposal measures for plants infected with SOD. See the attached link for additional information and to monitor changes in SOD treatment recommendations: (http://www.suddenoakdeath.org/).

# **Invasive Species**

- 1. Invasive species should only be chipped back into areas where non-native species are already present to avoid and minimize the risk of spreading invasive species.
- 2. Equipment, tools, boots etc. must all be cleaned of dirt and debris before arriving on site to prevent import of weed seed into the parks.

# Flagging Key

- 1. **Blue and white striped flagging** Water Course and Lake Protection Zones (WLPZ) for Class I and II watercourses (none present in the project area).
- 2. **Blue flagging** Marks the centerline of a Class III watercourse. May also be utilized to mark the location of a waterbreak that needs to be constructed. The location of the waterbreak will be designated by placing a flag at the waterbreak inlet and an additional flag at the waterbreak outlet.
- 3. **Yellow and white striped flagging** Equipment Exclusion Zone.
- 4. **Orange and white stripped flagging** Special Treatment Zone
- 5. **Orange glo** Identifies areas of avoidance for sensitive vegetation or sensitive wildlife resources.
- 6. **Solid pink glo flagging accompanied by solid white flagging** Special instructions to the Contractor written on the white flagging in black permanent pen.
- 7. **Yellow flagging with the words "SKID TRAIL" on it** Location where heavy equipment may travel off-road to access hazard trees marked for removal.
- 8. **Orange flagging with the words "TRUCK ROAD" on it** Location where vehicles licensed for use on county roads and state highways may travel.
- 9. **Solid blue accompanied by solid white and either SKID TRAIL (yellow) or TRUCK ROAD (orange) flagging** Stream crossing approved for equipment use indicated by appropriate color yellow SKID TRAIL or orange TRUCK ROAD.



| <ul><li>10. Black and yellow flagging – Caution, Wasp or Bee's nest</li><li>11. Red flagging – Indicates a potential property boundary.</li></ul> |  |  |  |  |
|---|--|--|--|--|
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