**TRABUCO CANYON INVASIVE PEST MITIGATION AND FUELS REDUCTIONS PROJECT
TRABUCO CANYON, ORANGE COUNTY, CA**

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# INTRODUCTION AND OVERVIEW

## INTRODUCTION

The Orange County Fire Authority (OCFA), as the lead agency under the California Environmental Quality Act (CEQA), has prepared this Initial Study (IS) to evaluate the potential environmental impacts associated with the Trabuco Canyon Invasive Tree Pest Mitigation and Fuels Reduction Project (Proposed Project or Project). The Proposed Project involves the spraying of barrier insecticide to eliminate and slow the spread rate of pests, enhancing the survival rate of existing tree populations and creating a fire safe condition.

## CEQA REQUIREMENTS

The Proposed Project is a discretionary action and therefore is subject to the requirements of CEQA (Public Resources Code (PRC), Division 13, Sections 21000–21177) and the State CEQA Guidelines (California Code of Regulations (CCR) Title 14, Sections 15000–15387). Initial studies such as this document are typically used as a basis for deciding whether to prepare an environmental impact report (EIR), a mitigated negative declaration (MND), or a negative declaration (ND) for a project pursuant to CEQA. However, in this case, this IS is being used to review the Proposed Project to determine its eligibility for an exemption from additional environmental review under CEQA.

The State CEQA Guidelines identify 33 classes of projects that have been determined not to have a significant effect on the environment and that are, therefore, exempt from the provisions of CEQA. These categorical exemptions are described in State CEQA Guidelines Sections 15301–15333.

The following categorical exemption applies to the Proposed Project.

* Section 15304: Class 4 consists of minor public or private alterations in the conditions of land, water and/or vegetation which do not involve removal of healthy, mature, and scenic trees except for forestry and agricultural purposes.
* Section 15307. Actions By Regulatory Agencies For Protection Of Natural Resources:

Class 7 consists of actions taken by regulatory agencies as authorized by state law or local ordinance to assure the maintenance, restoration, or enhancement of a natural resource where the regulatory process involves procedures for protection of the environment. Examples include but are not limited to wildlife preservation activities of the State Department of Fish and Game. Construction activities are not included in this exemption.

* Section 15308. Actions By Regulatory Agencies For Protection Of The Environment:

Class 8 consists of actions taken by regulatory agencies, as authorized by state or local ordinance, to assure the maintenance, restoration, enhancement, or protection of the environment where the regulatory process involves procedures for protection of the environment. Construction activities and relaxation of standards allowing environmental degradation are not included in this exemption.

Section 15300.2 of the State CEQA Guidelines specifies a number of exceptions to the use of a categorical exemption.

* 1. Location. Classes 3, 4, 5, 6, and 11 are qualified by consideration of where the project is to be located – a project that is ordinarily insignificant in its impact on the environment may in a particularly sensitive environment be significant. Therefore, these classes are considered to apply in all instances, except where the project may impact an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.
	2. Cumulative Impact. All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.
	3. Significant Effect. A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.
	4. Scenic Highways. A categorical exemption shall not be used for a project which may result in damage to scenic resources, including but not limited to, trees, historic buildings, rock outcroppings, or similar resources, within a highway officially designated as a state scenic highway. This does not apply to improvements that are required as mitigation by an adopted negative declaration or certified EIR.
	5. Hazardous Waste Sites. A categorical exemption shall not be used for a project located on a site that is included on any list compiled pursuant to Section 65962.5 of the Government Code.
	6. Historical Resources. A categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.

This IS provides a comprehensive review of the potential environmental issues associated with the Proposed Project to ensure that none of the above exceptions are applicable to the Proposed Project.

A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to the project (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

All answers must take account of the whole action involved, including off site as well as on site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

Once the Lead Agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant.

“Potentially Significant Impact” is appropriate if substantial evidence indicates that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.

“Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” Mitigation measures are identified and explain how they reduce the effect to a less than significant level (mitigation measures may be cross referenced).

Earlier analyses may be used where, pursuant to the Program EIR or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. (Section 15063[c] [3][D]. In this case, a brief discussion should identify the following:

1. Earlier analyses used where they are available for review
2. Which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards and whether such effects were addressed by mitigation measures based on the earlier analysis
3. The mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project for effects that are “Less than Significant with Mitigation Measures Incorporated

References and citations have been incorporated into the checklist references to identify information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document, where appropriate, include a reference to the page or pages where the statement is substantiated.

Source listings and other sources used or individuals contacted are cited in the discussion.

The explanation of each issue identifies:

1. The significance criteria or threshold, if any, used to evaluate each question
2. The mitigation measure identified, if any, to reduce the impact to less than significant

## INITIAL STUDY ORGANIZATION

The content and format of this report are designed to meet the requirements of CEQA. This IS identifies the potential environmental impacts of the Proposed Project to support the decision to prepare an EIR, MND, ND, or Notice of Exemption. The report contains the following sections.

* Chapter 1, Introduction and Overview, identifies the Proposed Project and the purpose of the IS.
* Chapter 2, Project Information, identities the location, background, and planning objectives of the Proposed Project and describes the Proposed Project in detail.
* Chapter 3, Environmental Impact Analysis, presents the CEQA checklist responses for each resource topic. This section includes a brief setting section for each resource topic and identifies the potential impacts of implementing the Proposed Project.
* Chapter 4, References, identifies all printed references and communications cited in this IS

Figure 1: Project Location and Vicinity Map

# Project Description

## Overview OF THE PROJECT

Approximately 163,992 acres throughout the County are experiencing high tree mortality due to a recent severe drought conditions and tree pests. The Gold Spotted Oak Borer (GSOB) and Invasive Shot Hole Borer (ISHB) are weakening and killing native hardwood and ornamental species in the southern California wildland and urban landscapes. The California Board of Forestry and Fire Protection has declared some areas in the County as Zones of Infestation (ZOI) for the GSOB. The OCFA, under the CalFire Fire Prevention Grant Program, proposes to treat infested trees located on both County- and privately-owned properties with a contact insecticide to prevent the spread of resident beetles to neighboring trees and re-infestation of current host trees. In addition, trees lacking pest exit holes, but within approximately 100 meters of trees with exit holes, would be treated preventatively with a barrier spray. These trees may either be infested from eggs laid during the previous flight season or may be un-infested but vulnerable due to their proximity to infested trees.

Ongoing maintenance activities following insecticide application may be require limited mechanized removal of dead, dying, and diseased tree material. If tree material removal is deemed necessary, OCFA crew members would fall, limb, buck, and chip targeted trees and in some cases, stump grind. All root structures would remain intact underground, and the felled tree parts will be hand-carried and chipped in an area that will not cause ground disturbance. In order to protect tree root structures, a buffer zone encompassing six feet outside the tree canopy will be established. Within this buffer zone no parking will be allowed, there will be no change in the soil grade, and no material will be stockpiled. For beetle infested trees, tree material will be chipped into green waste bins and hauled away in a covered bin to green waste facilities or chipped onsite at predetermined locations to be solarized. Chippers onsite would remain on pavement or would be used off-pavement only on previously disturbed ground, when the ground is not wet, in order to avoid ground disturbance. Haul trucks required for the removal of tree material and green waste bins would remain on existing roadways.

Trees are an important component of natural ecosystems in California and treatment of infested trees would eliminate pests and slow the spread rate, enhancing the survival rate of existing tree populations. A decrease in tree mortality would ultimately reduce the wildfire risks to habitable structures by reducing potential fuel within parks and adjacent to roads, homes, and HOAs.

### Project Location

The Proposed Project would occur within Trabuco Canyon, an unincorporated community on the eastern edge of Orange County, California. The Proposed Project site borders the western and eastern sides of a section of Live Oak Canyon Road, immediately northwest of Trabuco Canyon Road, covering a total of approximately 70 acres (Figure 1). The western side of the Proposed Project site also encompasses a strip of land within O’Neill Regional Park. Trees treated as a result of the Proposed Project are in areas designated as Very High Fire Hazard Severity Zones (VHFHSZ) within the County’s State Responsibility Area (SRA). Only trees located outside the borders of the Cleveland National Forest would be sprayed and maintained (CalFire 2007).

### Pesticide Application

Pesticides would be applied using one to two diesel trucks that have attached booms with pressurized spray rigs. Trucks with pressurized spraying rigs would remain on established roadways, using hoses that are a minimum length of 200 feet to apply spray. Contact spray would be applied to completely cover the trunk and any branches greater than 8 inches in diameter. Barrier spray application will be evaluated annually and, with consultation, be repeated as necessary. Contact insecticides kill adult beetles when ingested at emergence and also kill eggs laid on the bark surface. These sprays will not control larvae feeding in the tree but are effective at killing adult beetles as they directly contact the insecticide on the bark surface. The insecticide Carbaryl would be used because of its apparent effectiveness against GSOB under laboratory and field conditions (unpublished IRC data).

The insecticide products would be applied by a registered pesticide applicator (Qualified Applicator Certificate or License) licensed for Forestry (Category E). Qualified contractors have a Category E certification and the associated Operator IDs with the County Agricultural Commissioner to apply restricted chemicals. All pesticide applications would strictly follow label and label supplement specifications, and all pesticide use would be reported to the landowner and the Orange County Agricultural Commissioner at the end of each application month. Carbaryl is a restricted chemical and its use would be reported to the Orange County Agricultural Commissioner in advance of treatment.

### Schedule

The Proposed Project activities are anticipated to last approximately 2 months, operating Monday through Saturday between the hours of 8:00 AM and 4:00 PM. Insecticide treatment would occur between April and June to slightly precede adult beetle flight activity.

## Required permits and approvals

* Notice of Intent (NOI) with the County Agricultural Commissioner

# Environmental Determination

*The environmental factors checked below would potentially be affected by this project, involving at least one impact that is a “Potentially Significant Impact," as indicated by the checklists on the following pages.*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *[ ]*  | *Aesthetics*  | *[ ]*  | *Agriculture and Forestry Resources*  | *[ ]*  | *Air Quality* |
| *[ ]*  | *Biological Resources* | *[ ]*  | *Cultural Resources* | [ ]  | *Energy*  |
| *[ ]*  | *Geology / Soils*  | *[ ]*  | *Greenhouse Gas Emissions* | [ ]  | *Hazards & Hazardous Materials* |
| *[ ]*  | *Hydrology / Water Quality* | *[ ]*  | *Land Use / Planning* | [ ]  | *Mineral Resources* |
| *[ ]*  | *Noise* | *[ ]*  | *Population / Housing* | [ ]  | *Public Services* |
| *[ ]*  | *Recreation* | *[ ]*  | *Transportation* | *[ ]*  | *Tribal Cultural Resources* |
| *[ ]*  | *Utilities / Service Systems* | *[ ]*  | *Wildfire* | *[ ]*  | *Mandatory Findings of Significance* |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**DETERMINATION**

**On the basis of this initial evaluation:**

|  |  |  |
| --- | --- | --- |
| **1.** | I find that the project **could not** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared. | [ ]  |
| **2.** | I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared. | [ ]  |
| **3.** | I find the proposed Project **may have a significant effect** on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required. | [ ]  |
| **4.** | I find that the proposed Project **may have a “potentially significant impact” or “potentially significant unless mitigated impact”** on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed. | [ ]  |
| **5.** | I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or Negative Declaration pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required. | [ ]  |

Signature Date

Name Title

### Aesthetics

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| a) Except as provided in Public Resources Code Section 21099 would the project have a substantial adverse effect on a scenic vista? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated[ ]  | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **Less Than Significant Impact.** The Scenic Highways Component of the County’s General Plan designates viewscape and landscape corridors to protect areas with unique visual character throughout the County. There is a designated viewscape along Live Oak Canyon Road, which travels through the Proposed Project area. Though, there are no designated scenic vistas along Live Oak Canyon Road or in the vicinity of the Proposed Project site (County of Orange 2005). Furthermore, the Proposed Project consists of insecticide application using one to two trucks with pressurized spray rigs; thus, the equipment would be minor, would be in the viewscape temporarily (April to early May), and would be constantly moving throughout the Proposed Project area. Ongoing maintenance activities would occur intermittently and would also require minor equipment including haul vehicles, chainsaws, and a chipper. Long term impacts of the Proposed Project to the viewscape include increasing of the survival of existing trees, which would improve the overall visual appeal of the Proposed Project site. Impacts would be less than significant.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| b) Except as provided in Public Resources Code Section 21099 would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | NoImpact[x]  |

1. **No Impact.** The County has one officially designated state scenic highway, State Route 91, of which the Proposed Project area is located approximately 15 miles to the east; thus, the Proposed Project site is outside the viewshed of the state scenic highway (Caltrans 2019). Further, the Proposed Project involves the spraying of insecticide using one to two trucks with pressurized spraying rigs; thus, the equipment would be minor, would be in the viewshed temporarily (April to June), and would be constantly moving throughout the Proposed Project area. Ongoing maintenance activities would occur intermittently and would also require minor equipment including a few haul vehicles, chainsaws, and a chipper. Long term impacts of the Proposed Project to the viewshed include increasing of the survival potential of existing trees, which would improve the overall visual appeal of the Proposed Project site. No impact would occur.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| c) Except as provided in Public Resources Code Section 21099 would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | PotentiallySignificantImpact[ ]  | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **Less Than Significant Impact.** As mentioned above in Impact a), the County General Plan’s Scenic Highways Component defines goals, objectives, and policies for protecting the County’s unique visual resources. The Proposed Project site is within a rural area of the County characterized by oak tree canopies and winding country roads. A designated viewscape corridor along Live Oak Canyon Road travels through the Proposed Project area, but the application of insecticide to infested trees would promote the survival of existing trees to maintain the rural character of the area. Moreover, the Proposed Project would align with the Scenic Highway Plan Goal 1 which intends “to preserve and enhance unique or special aesthetic and visual resources through sensitive highway design and the regulation of development within the scenic corridor.” To deliver on Goal 1, the Proposed Project would promote objectives 1.1, 1.2, and 1.4 from the Scenic Highway Plan through the treatment of diseased trees to promote survival of existing trees:
	1. Protect and enhance the County’s beauty, amenities, and quality of life within the unincorporated areas.
	2. Add to the pleasure of its residents and visitors by enhancing scenic routes.
	3. Preserve established Scenic Highways in order to protect the existing scenic qualities of these corridors (County of Orange 2012).

Considering the Proposed Project’s consistency with the County General Plan and applicable zoning regulations, impacts would be less than significant.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| d) Except as provided in Public Resources Code Section 21099 would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | PotentiallySignificantImpact[ ]  | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | NoImpact[x]  |

1. **No Impact.** None of the necessary equipment to complete insecticide application or ongoing maintenance for the Proposed Project, which includes one to two trucks with a pressurized spraying rig, would produce a substantial amount light or glare. Furthermore, the Proposed Project activities would occur only during daytime hours of 8 AM to 4 PM Monday through Saturday, thus no lighting will be required. No impact would occur.

### Agriculture & Forestry Resources

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board would the project |  |  |  |  |
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact | NoImpact[x]  |

1. **No Impact.** The Proposed Project area is forested and is not zoned for agricultural use. Moreover, the Proposed Project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (DOC 2016). No impact would occur.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact | NoImpact[x]  |

1. **No Impact.** The Proposed Project site is forested and is not zoned for agricultural use. In addition, the Proposed Project site is not currently under a Williamson Act contract (County of Orange 2001). No impact would occur.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact | NoImpact[x]  |

1. **No Impact.** As previously mentioned, the Proposed Project site is forested but is not zoned as forest land or timberland. The east side of the Proposed Project site is zoned residential within the Foothill/Trabuco Specific Plan area, and the west side is zoned open space (County of Orange 1991; 2016). Moreover, the Proposed Project activities would involve spraying insecticide on beetle-infested trees to promote non-infested tree survival, and is not intended to convert forest land to non-forest uses. No impact would occur.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact | NoImpact[x]  |

1. **No Impact.** As described in Impact c), the Proposed Project would comprise of spraying insecticide on infested trees to promote the survival of existing trees. No forest land will be converted to non-forest land as a result of the Proposed Project; therefore, no impact would occur.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or the conversion of forest land to non-forest use? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | NoImpact[x]  |

1. **No Impact.** As described in Impacts a) through d), no farmland is located on or adjacent to the Proposed Project site and forest land will not be converted to non-forest use as a result of the Proposed Project. No impact would occur.

### Air Quality

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| a) Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations would the project conflict with or obstruct implementation of the applicable air quality plan? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated[ ]  | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **Less Than Significant Impact.** The Proposed Project requires, at most, two diesel fueled trucks with pressurized spraying rigs to carry out insecticide spraying activities. For ongoing maintenance activities, a few pieces of diesel and gasoline fueled equipment would be required: one or two haul trucks, chainsaws, and a chipper. Use of all the necessary equipment would occur on a highly temporary and minor scale. All equipment would be permitted by the South Coast Air Quality Management District (SCAQMD) and operations would comply with rules set forth in the SCAQMD Rule Book (SCAQMD 2019). Use of the equipment and vehicles will not significantly affect air quality due to the limited and temporary nature of the activities and construction equipment use.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| b) Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated[ ]  | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **Less Than Significant Impact.** As mentioned in Impact a), the Proposed Project requires, at most, two diesel fueled trucks with pressurized spraying rigs to carry out insecticide spraying activities. For ongoing maintenance activities, a few pieces of diesel and gasoline fueled equipment would be required: one or two haul trucks, chainsaws, and a chipper. Use of all the necessary equipment would occur on a highly temporary and minor scale. All equipment would be permitted by the South Coast Air Quality Management District (SCAQMD) and operations would comply with rules set forth in the SCAQMD Rule Book (SCAQMD 2019). Use of the equipment and vehicles will not significantly affect air quality due to the limited and temporary nature of the activities and construction equipment use.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| c) Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations would the project expose sensitive receptors to substantial pollutant concentrations? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated[ ]  | Less thanSignificantImpact[ ]  | NoImpact[x]  |

1. **No Impact.** As mentioned in Impacts a) and b), the use of equipment for the Proposed Project would occur on a highly temporary and minor scale; all equipment would be permitted by the South Coast Air Quality Management District (SCAQMD); and operations would comply with rules set forth in the SCAQMD Rule Book (SCAQMD 2019). The Proposed Project site is in a rural, forested environment and there are no nearby sensitive receptors. Considering no sensitive receptors would be exposed to pollutants, and no Proposed Project pollutant concentrations would be significant, no impact would occur.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| d) Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations would the project result in other emissions (such as those leading to odors adversely affecting a substantial number of people)? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated[ ]  | Less thanSignificantImpact[ ]  | NoImpact[x]  |

1. **No Impact.** As described above, the Proposed Project site is in a rural, forested environment and there are no nearby sensitive receptors. Considering no sensitive receptors would be exposed to emissions such as those leading to odors, and Proposed Project emissions would be negligible, no impact would occur.

### Biological Resources

The proposed treatment areas within the Trabuco Canyon area are located in the canyons and foothills immediately northwest of Trabuco Canyon Road, and along the southeastern section of Live Oak Canyon Road near O’Neill Regional Park. The treatment area is approximately 70 acres in size and is characterized by vegetation communities including (but not limited to) coastal sage scrub, cactus scrub, chaparral, oak woodland, riparian, and non-native and native grassland vegetation communities. The treatment areas do not include trees within the Cleveland National Forest boundaries.

The most recent records of the California Natural Diversity Database (CNDDB) managed by California Department of Fish and Wildlife (CDFW 2020), the United States Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) site (USFWS 2020), and the California Native Plant Society’s Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California (CNPS 2020) were reviewed for the U.S. Geological Survey (USGS) 7.5-minute *Santiago Peak, San Juan Capistrano, El Toro, and Canada Gobernadora*  quadrangles containing and surrounding (up to 3 miles) the Proposed Project site. These databases contain records of reported occurrences of federal- or state-listed endangered or threatened species, California Species of Concern (SSC), or otherwise sensitive species or habitats, and critical habitat that may occur within or in the immediate vicinity of the Proposed Project site. The literature review resulted in the following:

* Twenty-nine rare and listed plant species
* Twenty-one rare and sensitive wildlife species
* Critical habitat for California gnatcatcher (*Polioptila californica californica*) and Arroyo toad (*Anaxyrus californicus*) overlap with the Trabuco polygon.

Of the 29 rare and listed plant species that resulted from the database search, two of these species are known to occur within one-mile of the treatment area within the last 40 years. The species names and status are provided below.

* intermediate mariposa lily (*Calochortus weedii* var. *intermedius*) – California Rare Plant Rank (CRPR) 1B.2, CNDDB 2012, 2014, 2015
* chaparral nolina (*Nolina cismontane*) – CRPR 1B.2, CNDDB 2013

Suitable habitat for the remaining 27 species occurs within or adjacent to the proposed treatment areas. However, ground disturbance and/or removal of suitable habitat is not proposed.

Of the 21 rare and listed wildlife species that resulted from the database search, seven species are known to occur within one-mile of the treatment area within the last 40 years. The species names and status are provided below.

* coast horned lizard (*Phrynosoma blainvillii*) – SSC, CNDDB 1990
* coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*) – SSC, CNDDB 2002, 2017
* coastal California gnatcatcher – federally threatened, CNDDB 1991, 1998, 2001, 2015
* orange-throated whiptail (*Aspidoscelis hyperythra*) – SSC, CNDDB 2015, 2017
* red-diamond rattlesnake (*Crotalus ruber*) – SSC, CNDDB 2001
* Riverside fairy shrimp (*Streptocephalus woottoni*) – federally endangered, CNDDB 2001, 2009
* western spadefoot toad (*Spea hammondii*) – SSC, CNDDB 2003

The coastal California gnatcatcher is a federally threatened species and was recorded by the CNDDB and USFWS sensitive species databases in four areas within one-mile of the treatment. This species was not recorded within the proposed treatment areas; however, it is possible this species could occur adjacent to the treatment areas within sage scrub habitats.

The Riverside fairy shrimp is a federally endangered species and was recorded approximately 0.31 and 0.92 miles to the northwest of the proposed treatment areas. This species was not recorded within the proposed treatment area. This species inhabits vernal pools and/or shallow ponds.

Although there is potential suitable habitat for these wildlife species, ground disturbance and/or removal of suitable habitat and application of carbaryl in water or wetted areas are not proposed.

The western end of USFWS designated critical habitat for arroyo toad is located along the foothills above Trabuco Creek Road. No arroyo toads have been identified in this area. The closest record (USFWS 1997, 1998) of arroyo toads is approximately 1.3 to 2.75 miles to the east of the proposed treatment area, in an unknown tributary to the Arroyo Trabuco Creek. Ground disturbance and/or application of carbaryl in water or wetted areas are not proposed.

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| a) Would the project have a substantial adverse effect, either directly or through habitat modification, on any species identified as candidate, sensitive or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated[ ]  | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **Less than Significant Impact**. The Proposed Project involves the spraying of insecticide, using up to two large diesel trucks with attached pressurized rigs, on beetle infested trees in the 70-acre Trabuco Canyon area near O’Neill Regional Park. All infested trees, within the proposed treatment area, are proposed to be treated with a barrier insecticide to prevent the spread of resident beetles to neighboring trees and re-infestation of current host trees. No trees within the Cleveland National Forest will be treated. Contact insecticides kill adult beetles when ingested at emergence and also kill eggs laid on the bark surface. These sprays would not control larvae feeding in the tree but are effective at killing adult beetles as they directly contact the insecticide on the bark surface. It is moderately to very toxic to humans and nontoxic to wild bird species, but it is toxic to bees and beneficial insects and would not be applied to flowers when bees are active. Furthermore, carbaryl is toxic to aquatic and estuarine invertebrates and would not be applied to water or wetted areas. Habitat removal is not proposed and ground disturbances are not anticipated for this Proposed Project. As a part of ongoing maintenance, limited mechanized removal of trees might be required, including felling, limbing, bucking, and chipping of infested trees. This would result in removal of dead and decaying vegetation from the site and thus would reduce further infestation and fuel for fire. Impacts to sensitive habitat such as coastal sage scrub, cactus scrub, chaparral, native and non-native grassland are not anticipated. Treatment of infested trees include oak trees, sycamores, and other infected trees (outside of water areas). Treatment will reduce tree mortality and fire risk, will improve the quality of oak woodland and riparian habitat and natural communities, and will benefit species that occur within those habitats.

Due to the mortality of large oaks and other hardwood trees within Orange County, OC Parks has been treating areas such as Weir Canyon for the invasive shot-hole bore and gold spotted oak borer for over three years. The treatment of these invasive pests has been performed in compliance with the Orange County NCCP and the OC Parks Land Management and Operations Plan. Treatment in Trabuco Canyon would follow their operational constraints and best management practices for biological resources. These include the following:

* A biologist familiar with the biological resources in the area will escort the crew and trucks to the tree location using the path of least resistance (where trees are not located on the edge of a road) so disturbance to native vegetation (i.e., trampling or brushing against shrubs) will be avoided and/or minimized.
* Before work may begin, the biologist will conduct a pre-activity survey to search for species that may be present, including using a firm yet blunt tined, plastic rake, to gently sift up any reptiles or amphibians that may be buried in the leaf litter, where appropriate.
* The pre-activity survey includes a search for rare plant species that will be avoided during treatment.
* The biologist will have the authority to stop work if any wildlife enters the work area, or if a sensitive species is observed.
* The biologist will remove/flush (for non-sensitive wildlife) or let wildlife move out of the work area on its own and once wildlife is a safe distance away, will allow work to resume.
* The biologist will escort the crew back out to the road.
* A daily log will be completed to document biological monitoring activities, protected species observations, any necessary corrective action, or any other relevant biological data.

In addition, if work activities are planned during the nesting bird season (February 15 to August 31), in order to remain in compliance with the Migratory Bird Treaty Act and section 10(a)(1)(A) of the Endangered Species Act, a pre-activity nesting bird survey will be conducted.

* The nesting bird survey will be conducted at each tree location and along access to the tree location, including a 100-foot buffer for passerines and a 200-foot buffer for raptors (if terrain safely allows), prior to work being conducted. In the event an active nest is observed by the biologist, work will not be allowed to occur within 50 feet for passerines, 100 feet for listed species, and 200 feet for raptors until the nest becomes inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area, and the young are no longer expected to be impacted by the Proposed Project treatment activities.

Carbaryl is non-toxic to plant species. No ground disturbance or removal of habitat other than infected trees are proposed for this Proposed Project. As part of the operational constraints and best management practices, if a sensitive plant is identified, the biologist will flag for avoidance. Impacts to rare plants and associated habitat are not anticipated.

Amphibians such as the western spadefoot toad occur in water or wet areas in the spring. The Riverside fairy shrimp occurs in shallow ponded areas or vernal pools. No water or wetted areas would be treated with carbaryl. No impacts to these species are anticipated.

Reptiles such as the coast horned lizard, orange-throated whiptail, and red-diamond rattlesnake and commonly found mammals may occur in the area. As part of the operational constraints and best management practices, the biologist will conduct a pre-activity survey to search for species that may be present, including using a firm yet blunt tined, plastic rake, to gently sift up any reptiles or amphibians that may be buried in the leaf litter, where appropriate. If wildlife is identified, the biologist will stop work until the animals are safely out of the area. Impacts to amphibians, reptiles, and mammals and the associated habitat are not anticipated.

Carbaryl is non-toxic to bird species. As part of the operational constraints and best management practices, nesting bird surveys will be conducted and nesting birds and associated buffers will be avoided. This includes nests within or adjacent to infested trees. Impacts to avian species are not anticipated.

Carbaryl is toxic to bees and other insects. As part of the operational and constraints and best management practices, carbaryl will not be applied to flowers if bees are present, and application will be minimized in areas where insects are prevalent.

With the continued implementation of these parameters for operational constraints and best management practices, less than significant impacts are expected.

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| b) Would the project have a substantial adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **Less than Significant Impact**. The Proposed Project aims to prevent the spread of infested trees which would reduce tree mortality and fire risk, improve the quality of riparian habitat and natural communities, and benefit the species that occur within those habitats. OC Parks has implemented the treatment of the invasive shot-hole borer and gold-spotted oak borer in Weir Canyon in compliance with the Orange County NCCP and the OC Parks Land Management and Operations Plan for over three years. The treatment of these invasive species in the Trabuco Canyon area will follow the parameters for the operational constraints and best management practices regarding spill kits, refueling, clean-up, transporting, and disposal of hazardous materials to avoid contaminating riparian habitat and sensitive natural communities. Therefore, less than significant impacts are anticipated.

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| c) Would the project have a substantial adverse effect on state or federally protected wetlands (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact | NoImpact[x]  |

1. **No Impact**. The Proposed Project activities include spraying of insecticide on trees. In addition, felling, limbing, bucking and chipping of targeted infested trees and in some cases, stump grinding could occur during routine maintenance of the site for fuel reduction. The Proposed Project does not include habitat removal or grading activities and the infected trees identified for treatment do not occur within wetlands. In addition, as carbaryl is toxic to aquatic and estuarine invertebrates, it will not be applied to water or areas with wetted soil. As part of the operational constraints and best management practices (see section a), the biologist will be present to identify and avoid all state and federally protected wetlands; therefore, no impacts are anticipated.

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| d) Would the project Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact | NoImpact[x]  |

1. **No Impact**. The Proposed Project involves the spraying of insecticide, using up to two large diesel trucks with attached pressurized rigs, on beetle infested trees in the Trabuco Canyon area near O’Neill Regional Park. Carbaryl is toxic to aquatic and estuarine invertebrates and will not be applied to water or areas with wetted soil. The treatment of these invasive species in the Trabuco Canyon area will follow the parameters for the operational constraints and best management practices regarding pre-activity surveys to identify and avoid wildlife. In addition, the Proposed Project activities would result in improved habitat, not loss of habitat and therefore, would not have an impact on the movement of wildlife through the treatment areas.

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| e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact | NoImpact[x]  |

1. **No Impact**. The treatment will be conducted in compliance with OC Parks Land Management and Operations Plan which has included three years of monitoring the pesticide and fungicide treatment of the invasive shot-hole borer and gold-spotted oak borer in the Weir Canyon area. The combination of fungicides and pesticides have been used to improve the effectiveness of the treatment. The beetle produces a fungus in the tree (which infects and eventually kills the tree). Other practices that can be implemented include soil injection, trunk injection, and root protection. Root protection includes protecting the roots from 6 feet outside of the canopy to protect the tree (root protection zone): not parking vehicles, no stockpiling material, no changing soil grade, no contamination of soil, etc. within the protected root zone. Trunk injections can be implemented instead of application to the bark to increase absorption of the pesticide/fungicide into affected trees. Soil injections can be implemented instead of trunk injections for some tree species. Trunk injections can cause wounds in oak trees. Long cracks in the bark may appear as a wound response to injection of coast live oaks, potentially allowing infection by secondary pathogens. Soil injections offer the advantage of placing the insecticide under mulch or turf and directly into the root zone. This also can also help to prevent runoff on sloped surfaces. Injections would be made just deep enough to place the insecticide beneath the soil surface (2-4 inches). Soil injections would be made within 18 inches of the trunk where the density of fine roots and absorption rates are highest.

This treatment has been performed in compliance with the Orange County NCCP and the OC Parks Land Management and Operations Plan for areas including Weir Canyon. This includes implementation of their operational constraints and best management practices for biological resources. Treatment of infected trees will reduce infestation, reduce risk of fire, and improve the quality of habitat for biological resources; therefore, no impacts are anticipated.

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| f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservancy Conservation Plan, or other approved local, regional, or state habitat conservation plan? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact | NoImpact[x]  |

1. **No Impact**. The treatment will be conducted in compliance with the ongoing treatment of monitoring, pesticide and fungicide treatment of the invasive shot-hole borer and gold-spotted oak borer in Weir Canyon. The same methodology for treatment (for over three years) will be performed in compliance with the Orange County NCCP and the OC Parks Land Management and Operations Plan. This includes implementation of their operational constraints and best management practices for biological resources. Therefore, no impacts are anticipated.

### Cultural Resources

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| a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated[ ]  | Less thanSignificantImpact[ ]  | NoImpact[x]  |

1. **No Impact.** The Proposed Project consists of insecticide application using one to two trucks with spraying rigs and ongoing tree maintenance activities. Although there is potential for subsurface historical resources to be located within the of the Proposed Project site, no ground disturbing activities that could impact these subsurface resources are associated with the Proposed Project. Trucks used for spraying activities and hauling would remain on established roadways, and chippers would remain on paved areas or previously disturbed areas that are not wet. Furthermore, tree roots would not be removed during tree removal activities, felled trees would be hand carried rather than dragged, and tree material would be chipped in an area that will not cause ground disturbance. No impacts to historical resources would occur.

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| b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated[ ]  | Less thanSignificantImpact | NoImpact[x]  |

1. **No Impact.** There is potential for subsurface archeological resources to be located within the of the Proposed Project site, but, as mentioned above, no ground disturbing activities that could impact these subsurface resources are associated with the Proposed Project. Trucks used for spraying activities and hauling would remain on established roadways, and chippers would remain on paved areas or previously disturbed areas that are not wet. Additionally, tree roots would not be removed during tree removal activities, felled trees would be hand carried rather than dragged, and tree material would be chipped in an area that will not cause ground disturbance. No impacts to archeological resources would occur.

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| c) Would the project disturb any human remains, including those interred outside of formal cemeteries? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated[ ]  | Less thanSignificantImpact[ ]  | NoImpact[x]  |

1. **No Impact.** Although the Proposed Project site does not contain a formal cemetery or any known burial grounds, there is still a remote potential for subsurface human remains to be located within the of the Proposed Project site. As previously mentioned, no ground disturbing activities that could impact these subsurface resources are associated with the Proposed Project. Trucks used for spraying activities and hauling would remain on established roadways, and chippers would remain on paved areas or previously disturbed areas that are not wet. Additionally, tree roots would not be removed during tree removal activities, felled trees would be hand carried rather than dragged, and tree material would be chipped in an area that will not cause ground disturbance. Should human remains be uncovered during Proposed Project activities, as specified by State Health and Safety Code Section 7050.5, no further disturbance would occur until the County Coroner has made the necessary findings as to the origin and disposition pursuant to Public Resources Code 5097.98. No impacts would occur.

### Energy

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| a) Would the project a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated[ ]  | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **Less Than Significant Impact.** The Proposed Project would involve insecticide spraying of beetle-infested trees which would include implementing one to two diesel-fueled trucks with pressurized spraying rigs. Ongoing maintenance following insecticide application may require one to two haul trucks, chainsaws, and a chipper. The only energy requirements for the Proposed Project are diesel and gasoline fuel, and fuel requirements would remain below local and federal greenhouse gas (GHG) emission standards. Additionally, activities would occur during daylight hours, from 8AM to 4PM; thus, no lighting would be needed to execute the Proposed Project. Energy use would not be wasteful, inefficient, or unnecessary. Impacts would be less than significant.

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| b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?  | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated[ ]  | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **Less Than Significant Impact.** As mentioned in Impact a), the only energy requirement for the Proposed Project is fuel to power the diesel trucks with insecticide spraying rigs and potential maintenance equipment. Fuel requirements for this equipment would remain below local and federal greenhouse gas (GHG) emission standards. No structures would be built as a result of the Proposed Project; therefore, the 2016 California Green Building Standards Codes are not applicable. Impacts would be less than significant.

### Geology and Soils

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| a) i) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **i)** **Less Than Significant Impact.** The Proposed Project site is not in the vicinity of an Alquist-Priolo Fault Zone, with the closest fault zone being the Elsinore Fault located approximately 9 miles to the northeast (DOC 2020). In addition, the Proposed Project involves insecticide application using one to two trucks with spraying rigs and ongoing maintenance activities. Trucks associated with spraying activities and hauling would remain on established roadways. Furthermore, tree roots would not be removed during tree removal activities, felled trees would be hand carried rather than dragged, and tree material would be chipped in an area that will not cause ground disturbance. Therefore, the Proposed Project would not cause an increased risk of loss, injury, or death involving rupture of an unknown fault. No impact would occur.

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| a) ii) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated[ ]  | Less thanSignificantImpact[ ]  | NoImpact[x]  |

**a)**  **ii)** **No Impact.** As mentioned in Impact a)i) above, the Proposed Project site is approximately 9 miles southwest of the closest fault zone and would avoid ground disturbance. Further, since the Proposed Project site is in a rural area and would not include structures or long-term activities in the area, it would not cause an increased risk of loss, injury, or death involving rupture of an unknown fault. No impact would occur.

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| a) iii) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated[ ]  | Less thanSignificantImpact[x]  | NoImpact[ ]  |

**a)** **iii) Less Than Significant Impact.** The Proposed Project site is within the Santiago Peak liquefaction zone that travels along Live Oak Canyon Road (DOC 2020). Though, the Proposed Project site is 9 miles from the nearest seismic zone and insecticide application and ongoing maintenance activities would avoid ground disturbance, as noted in the previous sections. Further, the Proposed Project activities would be temporary, with trucks moving throughout the Proposed Project site. In addition, tree roots would not be removed during tree removal activities, and no ground disturbance would occur. Thus, risk of loss, injury, or death involving seismic-related ground failure would be less than significant.

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| a) iv) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[x]  | NoImpact[ ]  |

**a) iv)** **Less Than Significant Impact.** There are approximately nine, small Santiago Peak landslide zones that border the Proposed Project site to the west (DOC 2020). Though, as described above, insecticide spraying and ongoing maintenance activities would avoid ground disturbance; therefore, the risk of loss, injury, or death involving landslides would be less than significant.

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| b) Would the project result in substantial soil erosion or the loss of topsoil? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **Less Than Significant Impact.** The Proposed Project would involve insecticide application to beetle infested trees and subsequent maintenance activities for fuel reduction. Trucks associated with spraying activities and hauling would remain on established roadways, tree roots would not be removed during tree removal activities, felled trees would be hand carried rather than dragged, and tree material would be chipped in an area that will not cause ground disturbance. Proposed Project activities would not result in substantial soil erosion or loss of topsoil; impacts would be less than significant.

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| c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **Less Than Significant Impact.** The Proposed Project site is within the Santiago Peak liquefaction zone and borders a number of Santiago Peak landslide zones (DOC 2020). Though, as mentioned in Impacts a) and b), insecticide application and subsequent maintenance activities associated with the Proposed Project would be surficial and would not cause ground disturbance or destabilization of the geologic unit. Potential for the Proposed Project to result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse is less than significant.

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| d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **Less Than Significant Impact.** Expansive soils are most often clay based soils, and are defined by the way they expand when water is introduced and shrink when they dry out. Within the Proposed Project site, the soil on the western side of Live Oak Canyon Road is majority clay and the soil on the eastern side is majority sandy loam (USDA 2020). Although there may be expansive soils in the western half of the Proposed Project site, activities include insecticide spraying of beetle infested trees and ongoing maintenance activities, which would not involve the construction of structures or buildings. Further, Proposed Project activities would be small-scale, intermittent throughout the Proposed Project site, and would avoid ground disturbance. Direct or indirect risk to life or property due to expansive soils would be less than significant.

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| e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact | NoImpact[x]  |

1. **No Impact.** As previously described, the Proposed Project would comprise of spraying insecticide on infested trees and ongoing maintenance activities. No habitable structures that require the use of septic tanks or alternative wastewater disposal systems would be built as a result of the Proposed Project. No impact would occur.

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| f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated[ ]  | Less thanSignificantImpact[ ]  | NoImpact[x]  |

1. **No Impact.** The Department of Conservation’s Geologic Map of California shows that the Proposed Project site is underlain by an assortment of geologic units of various ages. The oldest deposits are marine sedimentary and metasedimentary rocks from the Jurassic period and the youngest deposits are marine and nonmarine sedimentary rocks from the Pleistocene-Holocene epochs (DOC 2010). Many of the lithological units underlying the Proposed Project site are paleontologically sensitive.

In general, the potential for a given project to result in adverse impacts to paleontological resources is directly proportional to the amount of ground disturbance associated with the Project. The Proposed Project entails insecticide application using one to two trucks with spraying rigs and ongoing tree maintenance activities. Trucks associated with spraying activities and hauling of tree material would remain on established roadways. Furthermore, tree roots would not be removed during tree removal activities, felled trees would be hand carried rather than dragged, and tree material would be chipped in an area that will not cause ground disturbance. No ground disturbance would occur as a result of the Proposed Project; therefore, there is no potential for subsurface paleontological resources in previously undisturbed sediments to be encountered. No impact would occur.

### Greenhouse Gas Emissions

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| a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **Less Than Significant Impact.** The Proposed Project activities, which include spraying insecticide and ongoing maintenance following, require at most two diesel trucks with pressurized spraying rigs, two diesel haul trucks, chainsaws, and a chipper. Operation of equipment would meet state and federal emission requirements and will not generate significant GHG emissions that would impact the environment. Both the initial insecticide spraying and ongoing maintenance would be temporary and limited efforts, and would result in less than significant impacts.

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| b) Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[x]  | NoImpact |

1. **Less Than Significant Impact.** As described in Impact a), the Proposed Project activities, which include spraying insecticide on beetle infested trees and ongoing tree maintenance following, require at most two diesel trucks with pressurized spraying rigs, two diesel haul trucks, chainsaws, and a chipper. All equipment usage would meet state and federal emission requirements and would not generate significant GHG emissions that would impact the environment.

### Hazards and Hazardous Materials

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| a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **Less Than Significant Impact.** The Proposed Project involves spraying insecticide on beetle infested trees and ongoing tree maintenance using diesel- and gasoline-fueled equipment such as trucks, chainsaws, and a chipper. Fueling of all equipment would be conducted following established protocols to prevent soil contamination and/or transport in a watercourse. Fueling protocols include using approved containers for transporting fuel to saws; dispensing fuel at least 10 feet away from any sources of ignition when performing construction activities; no smoking during fueling; using a funnel or a flexible hose when pouring fuel into saws; and never attempting to fuel running or hot equipment.

The insecticide that would be used for spraying, Carbaryl, is moderately to very toxic to humans, bees, other beneficial insects, as well as aquatic and estuarine invertebrates. To prevent impacts of Carbaryl on people and the environment, all insecticide applications would strictly follow label and label supplement specifications, and all insecticide applications would be reported to the landowner and the Orange County Agricultural Commissioner. Since Carbaryl is a restricted chemical, planned use would also be reported to the Orange County Agricultural Commissioner in advance of treatment. With implementation of the established strict fueling and insecticide-use protocols, impacts would be less than significant.

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| b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | PotentiallySignificantImpact[ ]  | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **Less Than Significant Impact.** As mentioned in Impact a), a fueling protocol would be implemented during the Proposed Project to prevent release of hazardous material, such as diesel or gasoline, to the public or environment. Although the insecticide that would be used is considered toxic to humans and various species, all insecticide applications would strictly follow label and label supplement specifications; planned use would be reported to the Orange County Agricultural Commissioner in advance; and all completed insecticide applications would be reported to the landowner and the Orange County Agricultural Commissioner. These strict fueling and insecticide-use protocols would reduce foreseeable upset and accident conditions to less than significant.

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| c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated[ ]  | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **Less Than Significant Impact.** The Proposed Project site is not within one-quarter mile of an existing or proposed school, with the closest schools being Trabuco Elementary School and the Earthroots Field School approximately 0.4 mile to the east. In addition, the strict fueling and insecticide-use protocols, described in Impact a), would be implemented to prevent the release of hazardous material to people or the environment. Potential for emission of hazardous materials within one-quarter mile of an existing or proposed school is less than significant.

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| d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | PotentiallySignificantImpact[ ]  | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | NoImpact[x]  |

1. **No Impact.** According to the State Water Resources Control Board’s GeoTracker database and the Department of Toxic Substances Control’s EnviroStor database, there are no recent hazardous materials sites that have open cases within one-quarter mile of the Proposed Project site. The closest hazardous material sites are two former leaking underground storage tank (LUST) sites, one approximately 0.2 mile to the north and one 0.2 mile to the south; these cases were completed and closed in 1989 and 1987 respectively (DTSC 2020; SWRCB 2020). No impact would occur.

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| e) For a project located within an airport land use plan or, where such a plan had not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? | PotentiallySignificantImpact[ ]  | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | NoImpact[x]  |

1. **No Impact.** The closest airport to the Proposed Project site is the John Wayne Airport, approximately 15 miles to the west, and the Proposed Project site is not within the Airport Planning Area (ALUC 2005). Therefore, the Project would not result in a safety hazard or excessive noise for people residing or working in the Project area. No impact would occur.

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| f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact | NoImpact[x]  |

1. **No Impact.** The Proposed Project comprises of spraying insecticide on beetle infested trees and subsequent tree maintenance activities. Heavy equipment required for these activities would consist of one to two trucks with pressurized spraying rigs, and if maintenance is required, one to two hauling trucks. The presence of these trucks would be temporary, as they would travel throughout the Proposed Project site intermittently, and would avoid blockage of the main access road, Live Oak Canyon Road. None of the Proposed Project activities would prevent execution of any emergency response or evacuation plans in the area, therefore no impact would occur.

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| g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | NoImpact[x]  |

1. **No Impact.** The Proposed Project involves spraying insecticide on beetle infested trees and subsequent tree maintenance activities in hopes of eliminating pests, slowing the spread rate, and enhancing the survival rate of existing tree populations. A decrease in tree mortality would ultimately reduce the wildfire risks to habitable structures by reducing potential fuel within parks and adjacent to roads, homes, and HOAs. No impact would occur.

### Hydrology and Water Quality

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| a) Would the project violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated[ ]  | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **Less Than Significant Impact.** No wastewater discharge is expected to result from the Proposed Project activities. Although the chosen insecticide is considered toxic to aquatic life, all pesticide applications would strictly follow label and label supplement specifications to avoid any leeching into the surrounding surface or ground water. Additionally, the Proposed Project would comply with all applicable water quality standards set by the Santa Ana Regional Water Quality Control Board. Impacts would be less than significant.

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| b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | NoImpact[x]  |

1. **No Impact.** There are no water requirements for execution of the Proposed Project activities and ground disturbance would be avoided, as all trucks would remain on established roadways, tree roots would not be removed during tree removal activities, felled trees would be hand carried rather than dragged, and tree material would be chipped in an area that will not cause ground disturbance. With no ground disturbance, the Proposed Project would not alter groundwater supply or interfere substantially with groundwater recharge; therefore, no impact would occur.

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| c) i) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | NoImpact[x]  |

1. **i) No Impact.** The Proposed Project involves spraying of insecticide on beetle infested trees and subsequent tree maintenance, as needed. No impervious surfaces would be introduced to the Proposed Project site and, as mentioned above, ground disturbance would be avoided. The drainage pattern of the Project site would not change as a result of the Proposed Project; thus, no impact would occur.

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| c) ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated[ ]  | Less thanSignificantImpact[ ]  | NoImpact[x]  |

1. **ii) No Impact.** As mentioned in Impact c)i), no impervious surfaces would be introduced to the Proposed Project site and ground disturbance would be avoided. The amount of surface runoff from the Project site would not change as a result of the Proposed Project; thus, no impact would occur.

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| c) iii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources or polluted runoff? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated[ ]  | Less thanSignificantImpact[ ]  | NoImpact[x]  |

1. **iii) No Impact.** As mentioned in Impact c)i), no impervious surfaces would be introduced to the Proposed Project site and ground disturbance would be avoided. Additionally, all pesticide applications would strictly follow label and label supplement specifications to avoid creating any polluted runoff. The drainage pattern of the Project site would not change as a result of the Proposed Project; thus, no impact would occur.

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| c) iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | NoImpact[ ]  |

1. **iv) No Impact.** As mentioned in Impact c)i), no impervious surfaces would be introduced to the Proposed Project site and ground disturbance would be avoided. The drainage pattern of the Project site would not change as a result of the Proposed Project; thus, no impact would occur.

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| d) Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **Less Than Significant Impact.** The FEMA 100-year floodplain travels through the Proposed Project site, following the contours of Live Oak Canyon Road (FEMA 2020). Though, the Proposed Project activities would require minimal equipment that would be moving intermittently throughout the Project site. In the case of flood hazard, trucks could be easily moved out of the flood zone. Additionally, all pesticide applications would strictly follow label and label supplement specifications to avoid releasing any pollutants. The County General Plan’s Safety Element states that the County coastline is shielded to the west by the Channel Islands and to the north by Point Conception from most sources of tsunami (OC 2013b). Further, the Proposed Project site is approximately 13 miles from the coast. The closest water body that could produce a seiche is the Upper Oso Reservoir, which is approximately 1.5 miles west of the Proposed Project site, but is separated from the Project site by approximately 1,500 feet of elevation. Impacts would be less than significant.

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| e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **Less Than Significant Impact.** As mentioned in Impact a) above, the Proposed Project would comply with all applicable water quality standards set by the Santa Ana Regional Water Quality Control Board in addition to the Orange County Water District’s Ground Water Management Plan (OCWD 2015). The Proposed Project would also uphold Goal 1 of the County General Plan’s Resources Element which endeavors to “ensure an adequate dependable supply of water of acceptable quality for all reasonable uses” (OC 2013a). No wastewater discharge is expected to result from the Proposed Project activities and all pesticide applications would strictly follow label and label supplement specifications to avoid any effects on water quality. Impacts would be less than significant.

### Land Use Planning

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| a) Would the project physically divide an established community? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | NoImpact[x]  |

1. **No Impact.** The Proposed Project involves spraying insecticide on beetle infested trees and subsequent tree maintenance in a rural, forested area. The closest established community to the Proposed Project site is approximately 0.4 mile down Live Oak Canyon Road to the south. Though, no permanent structures would be built as a result of the Proposed Project. Additionally, the trucks required would be temporary, would travel throughout the Proposed Project site intermittently, and would avoid blockage of Live Oak Canyon Road. No impact would occur.

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| b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? | PotentiallySignificantImpact[ ]  | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | NoImpact[x]  |

1. **No Impact.** According to the Foothill/Trabuco Specific Plan Land Use District Map, the Proposed Project site is designated Trabuco Canyon Residential District on the eastern half and Open Space Conservation District on the western half. The Open Space designation is intended to preserve regionally significant open space lands. The Trabuco Canyon Residential designation is intended to provide for the development and maintenance of low density, single family residential development in a manner that is rural in character and compatible with areas of steep to gentle sloping terrain and significant biological resources (OC 1991). The Proposed Project activities would comprise of spraying insecticide on beetle infested trees and subsequent tree maintenance activities to eliminate tree pests, slow the spread rate, and enhance the survival rate of existing tree populations. Enhancing survival of existing trees would protect open space and promote the rural character of the area, which is consistent with the land use designations for the Proposed Project site; no impact would occur.

### Mineral Resources

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| a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact | NoImpact[x]  |

1. **No Impact.** The County has three main mineral-rich areas, one of them being Trabuco Canyon (OC 2013a). According to the US Geological Service’s Mineral Resources Online Spatial Data, there are three previous mines and two mineral occurrences in Trabuco Canyon. Only one of these five sites is located within the boundaries of the Proposed Project site, in the southern part of O’Neill Regional Park. The 1983 recording identifies the site as previously producing clay (USGS 2020). Ground disturbance from the Proposed Project would be avoided and the Proposed Project activities would be minor and temporary. The Proposed Project would not affect mineral resources within the site; thus, no impact would occur.

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| b) Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact | NoImpact[x]  |

1. **No Impact.** As mentioned in Impact a) above, the County General Plan’s map of mineral resources identifies a mineral resource area within Trabuco Canyon (OC 2013a). One previous mining site is located within the boundaries of the Proposed Project site, identified as previously producing clay (USGS 2020). Ground disturbance from the Proposed Project would be avoided and Proposed Project activities would be minor and temporary. The Proposed Project would not affect mineral resources within the site. No impact would occur.

### Noise

#### Environmental Setting

The Proposed Project site is located in the Trabuco Canyon area of Orange County, California. The east side of the Proposed Project site is zoned residential within the Foothill/Trabuco Specific Plan area and the west side is zoned open space; both halves of the Project site are uninhabited forest. However, the site is in vicinity of residential neighborhoods along the south and western boundaries.

The County of Orange General Plan – Noise Element establishes the following applicable policies related to the Project:

* Policy 4.3: To develop and enforce standards in addition to those presently included in the Noise Ordinance to regulate noise from construction and maintenance activities and commercial public and industrial 1 land uses.
* Policy 4.4: To consider noise reduction as a factor in the purchase of County maintenance equipment and the use of such equipment by County contractors and permittees.

The County of Orange Noise Ordinance, Section. 4-6-7. - Special provisions provides the following policies applicable to the Project (County of Orange 2020):

* (g) Mobile noise sources associated with agricultural operations, provided such operations do not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or any time on Sunday or a Federal holiday.
* (h) Mobile noise sources associated with agricultural pest control through insecticide application, provided that the application is made in accordance with restricted material permits issued by or regulations enforced by the Agricultural commissioner.

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| a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **Less Than Significant Impact.** Equipment required for the Proposed Project includes one to two trucks with pressurized spraying rigs, and if subsequent tree maintenance is needed, equipment would include one to two haul trucks, chainsaws, and a chipper. The County General Plan’s Noise Element identifies that a truck produces approximately 90 dBA and a wood-working class, which is assumed to include saws, approximately 100 dBA. The Noise Element also identifies Residential land use as the most sensitive and choses 65 dB as the upper community noise equivalent level (CNEL) limit (OC 1999). Although the Proposed Project site is designated as residential on the eastern half, the area is currently forested and rural with no residential properties. Additionally, equipment noise would occur intermittently and on a temporary basis limited between 8AM to 4PM, Monday through Saturday, which is consistent with the County Noise Ordinance (OC 2020). Impacts would be less than significant.

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| b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact | NoImpact[x]  |

1. **No Impact.** As described in Impact a) above, the Proposed Project includes one to two trucks with pressurized spraying rigs, and if subsequent tree maintenance is needed, equipment would include one to two haul trucks, chainsaws, and a chipper. Although the Proposed Project site is designated as residential on the eastern half, the area is currently forested and rural with no residential properties onsite. None of this equipment would result in excessive groundborne vibration or groundborne noise levels and no impact would occur.

### Population and Housing

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| a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact | NoImpact[x]  |

1. **No Impact.** The Proposed Project comprises of spraying insecticide on beetle infested trees and subsequent tree maintenance, if required. No habitable structures would be built, and no infrastructure would be expanded, as a result of the Proposed Project; therefore, there is no potential for substantial unplanned population growth due to the Proposed Project. No impact would occur.

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| b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact | NoImpact[x]  |

1. **No Impact.** The Proposed Project comprises of spraying insecticide on beetle infested trees and subsequent tree maintenance, if required. The Proposed Project activities would be temporary and intermittent throughout the Proposed Project area, and would not affect people or housing in the area. No impact would occur.

### Public Services

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| a) i) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | NoImpact[x]  |

1. **i) No Impacts.** The Proposed Project aims to create a fire safe environment and reduce the risks of wildfire in the Trabuco Canyon area of the County by spraying insecticide on beetle infested trees and removing dead, dying, and diseased tree material as needed. Additionally, the Proposed Project does not include the addition of commercial or residential uses within the Project site. The Proposed Project would not increase the demand for fire protection, and no impact would occur.

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| a) ii) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | NoImpact[x]  |

* 1. **ii)** **No Impacts.** As noted above, the Proposed Project activities involve spraying insecticide on beetle infested trees and ongoing mechanized removal of dead, dying and decaying trees in the Trabuco Canyon area; these activities would not increase the demand for police protection. No impact would occur.

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| a) iii) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | NoImpact[x]  |

**a) iii) No Impacts.** The Proposed Project does not involve the addition of any commercial or residential uses within the Proposed Project site or its surroundings. It would not induce growth requiring the extension of existing school services or creation of new school facilities. No impact would occur.

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| a) iv) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | NoImpact[x]  |

**a) iv) No Impacts.** As noted above, the Proposed Project only involves insecticide treatment and potential removal of beetle infested trees in the Trabuco Canyon area to promote existing tree survival. Though increased tree survival may increase the visual appeal of O’Neill Regional Park, the Proposed Project would only restore the edge of the park to its originally intended condition. The use of O’Neill Regional Park would not increase as a result of the Proposed Project, and there would be no increase in demand for parks in the area overall. No impact would occur.

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| a) v) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact | NoImpact[x]  |

**a) v) No Impacts.** The Project activities consist of treatment and removal of dead, dying and decaying tress in the Trabuco Canyon area. It would not induce growth or add any commercial or residential uses within the site and its vicinity. Thus, the Project is not anticipated to increase the demand for any existing public facilities. No impact would occur.

### Recreation

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| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **Less Than Significant Impact.** The Proposed Project activities would promote the survival of existing trees within the Project site, which includes the eastern edge of O’Neill Regional Park. Though increased tree survival may increase the visual appeal of the area, the Proposed Project would only restore the edge of O’Neill Regional Park to its originally intended condition. Additionally, the Proposed Project site overlaps with an insignificantly small section of O’Neill Regional Park. Considering the use of O’Neill Regional Park would not increase to a point where substantial physical deterioration of the facility would be expected, impacts would be less than significant.

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| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | NoImpact[x]  |

1. **No Impact.** The Proposed Project comprises of spraying insecticide on beetle infested trees and consequent tree maintenance, if required. No recreational facilities would be constructed or expanded as a result of the Project, O’Neill Regional Park will only be restored to its originally intended condition. No impact would occur.

Transportation

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| a) Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities? | PotentiallySignificantImpact[ ]  | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | NoImpact[x]  |

1. **No Impact.** The western edge of the Proposed Project site encompasses a small swath of O’Neill Regional Park, which offers a number of multiuse trails for pedestrians and bikers. Although trucks required to execute Proposed Project activities may access the Project site using nearby transportation corridors and trails, Proposed Project activities would be temporary and intermittent. Long-term impacts of the Proposed Project would be beneficial for trail users, as dead, dying and diseased vegetation may be removed, increasing visibility along trails and resulting in safer ingress and egress. The Project will not conflict with the County Circulation Plan, and no impact would occur (OC 2018).

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| b) Would the project Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? | PotentiallySignificantImpact[ ]  | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **Less Than Significant Impact.** The Proposed Project activities do not involve any land use or zoning designation revisions. The Project also does not include a transportation element that would have a significant effect on the vehicle miles travelled (VMT) in the Project area. During the initial Project activities, 1-2 large diesel trucks (engine size 350/450/550) with attached booms would be employed to spray insecticide on the infested vegetation. The VMT impacts of the equipment would be temporary and limited to only the Project implementation phase. Thus, less than significant impact would occur.

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| c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact | NoImpact[x]  |

1. **No Impact.** The Proposed Project activities are limited to spraying of insecticide on infested trees and subsequent tree maintenance, as is required. The Project does not consist of any changes to any existing physical design feature or uses within the Project site area. Additionally, due to the removal of the infested vegetation, the Project will help improve visibility and access within the Project site. Thus, no impacts would occur.

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| d) Would the project result in inadequate emergency access? | PotentiallySignificantImpact[ ]  | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | NoImpact[x]  |

1. **No Impact.** As noted above, trucks required to execute Proposed Project activities may access the Project site using nearby roads and trails, but Proposed Project activities would be temporary and intermittent. Further, the Proposed Project, by removal of dead, dying and diseased trees from the Proposed Project area, will help increase visibility along trails and should result in safer ingress and egress for trail users. The Project does not consist of any activities that would result in any hindrance to emergency routes in the area, either during implementation phase or thereafter. Thus, no impact would occur.

### Tribal Cultural Resources

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| a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated[ ]  | Less thanSignificantImpact[ ]  | NoImpact[x]  |
| b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated[ ]  | Less thanSignificantImpact[ ]  | NoImpact[x]  |

**a) and b)** As mentioned in the previous sections, the Proposed Project activities, including the insecticide treatment, fuels reduction and subsequent maintenance would avoid ground disturbance to the site. The bucked wood would be hand carried to chippers, thus avoiding the possibility of ground disturbance by haul trucks. The chippers would be parked on pavements and only used off-pavement on previously disturbed ground that is not wet. Additionally, it has been confirmed with the manufacturers that the pesticides used during the Project activities would be narrowly targeted to the infested vegetation and would not have any impacts to collateral traditional use plants or plant species of importance to the tribes. Thus, it is unlikely that any tribal cultural resources would be discovered and/or disturbed as a result of the Proposed Project.

Additionally, pursuant to PRC Section 21080.3.1 (AB 52), California Native American tribes traditionally and culturally affiliated with a project area can request notification of projects in their traditional cultural territory. However, PRC Section 21080.3.1(b) further states that consultation shall occur prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project. As documented throughout this Initial Study, the Proposed Project would not result in any significant impacts to any resource areas. Moreover, the Proposed Project qualifies for the use of a Categorical Exemption under Class 4, 7, and 8. Therefore, because the Proposed Project does not require the preparation of a negative declaration, mitigated negative declaration, or environmental impact report, it is not subject to the consultation requirements of AB 52. Consequently, no impacts on tribal cultural resources would occur.

###  Utilities and Service Systems

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| a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or expansion of which could cause significant environmental effects? | PotentiallySignificantImpact  | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | No Impact[x]  |

1. **No Impact.** The Proposed Project activities comprise of spraying insecticide on beetle infested trees and potential tree maintenance following. The Proposed Project, therefore, would not require any relocation, construction of new, or expansion of water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities. No impact would occur.

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| b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal dry and multiple dry years? | PotentiallySignificantImpact  | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | No Impact[x]  |

1. **No Impact.** The Proposed Project activities comprise of spraying insecticide on beetle infested trees and potential tree maintenance following. The Proposed Project, therefore, would not require any water supply currently or in the reasonably foreseeable future. No impact would occur.

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| c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | NoImpact[x]  |

1. **No Impact.** The Proposed Project activities comprise of spraying insecticide on beetle infested trees and potential tree maintenance following. The Proposed Project, therefore, would not require any wastewater treatment currently or in the reasonably foreseeable future. No impact would occur.

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| d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | NoImpact[ ]  |

1. **No Impact.** The Proposed Project activities comprise of spraying insecticide on beetle infested trees and potential tree maintenance following. The Proposed Project, therefore, would not require any water supply currently or in the reasonably foreseeable future. No impact would occur.

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| e) Would the project negatively impact the provision of solid waste services or impair the attainment of solid waste reduction goals? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **Less Than Significant Impact.** The Proposed Project activities comprise of spraying insecticide on beetle infested trees and potential tree maintenance following. The Proposed Project, therefore, would generate minimal solid waste in the form of insecticide containers. These would be disposed of by strictly following label and label supplement specifications. The limited beetle infested tree material that may be removed from the Proposed Project site would be chipped into green waste bins and hauled away in a covered bin to green waste facilities or chipped onsite at predetermined locations to be solarized. There are seven permitted green waste facilities located throughout the County that would be available for the Proposed Project (OC 2012). Impacts would be less than significant.

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| f) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | PotentiallySignificantImpact  | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | No Impact[x]  |

1. **No Impact.** As discussed in Impact e), the Proposed Project would generate limited solid waste in the form of pesticide containers and tree material. The County Waste Management Commission enforces the Integrated Waste Management Act of 1989 (AB 939), which requires that local jurisdictions reduce their waste going to landfills by 50 percent by the year 2000 onward (OC 2012). Considering the Proposed Project would generate such minimal solid waste, the Project would comply with AB 939, and no impact would occur.

### Wildfire

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| a) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones would the project impair an adopted emergency response plan or emergency evacuation plan? | PotentiallySignificantImpact  | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | No Impact[x]  |

* 1. **No** **Impact.** The Proposed Project, as noted in Section 2.1.1, is located within a SRA VHFSZ defined by CalFire (CalFire 2007). However, Project activities are temporary and intermittent throughout the Project site. Moreover, the Proposed Project activities do not comprise of any physical changes in the site or its surroundings that might cause a hindrance to or impair the emergency response plans and emergency evacuation plans, adopted under the County of Orange Safety Element. No impact would occur.

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| b) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | PotentiallySignificantImpact  | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | No Impact[x]  |

* 1. **No Impact.** The Proposed Project activities aim to reduce the risks associated with wildfires by eliminating tree pests that increase tree mortality and consequently removing dead, dying and decaying trees that are potential fuel for wildfires. Thus, in spite of its location within a VHFSZ, the Project activities would be beneficial in reducing wildfire risks and uncontrolled spread of a wildfire in the area. No impact would occur.

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| c) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | PotentiallySignificantImpact  | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[ ]  | No Impact[x]  |

* 1. **No** **Impact.** The Proposed Project activities comprise of treatment and removal of beetle infested trees and do not involve the installation or maintenance of infrastructure such as roads, fuel breaks, emergency water sources, power lines, etc. that might exacerbate fire risk in the site and its surroundings. No impact would occur.

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| d) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability or drainage changes? | PotentiallySignificantImpact  | Less than SignificantWith MitigationIncorporated | Less thanSignificantImpact[x]  | No Impact[ ]  |

* 1. **Less Than Significant Impact.** Although the Proposed Project site is located in a sloping, uneven terrain in Trabuco Canyon, which is designated as a landslide prone area by the California Department of Conservation, the Project activities aim to reduce the wildfire risks in the area by removal of fire prone, beetle infested vegetation. Thus, due to reduced risks of wildfire, the risks associated with flooding or landslide as a result of post-fire instability or drainage changes will be less than significant.

### Mandatory Findings of Significance

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| a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | PotentiallySignificantImpact | Less than SignificantWith MitigationIncorporated[ ]  | Less thanSignificantImpact[x]  | NoImpact[ ]  |

* 1. **Less Than Significant Impact.** A review of records of reported occurrences of federal- or state-listed endangered or threatened species, California Species of Concern (SSC), or otherwise sensitive species or habitats, and critical habitat that may occur within or in the immediate vicinity of the Proposed Project site, revealed the presence of twenty-nine rare and listed plant, twenty-one rare and sensitive wildlife species, and Critical habitat for California gnatcatcher (*Polioptila californica californica*) and Arroyo toad (*Anaxyrus californicus*) overlapping with the Trabuco polygon.

The Proposed Project activities involve the spraying of insecticide, using up to two large diesel trucks with attached pressurized rigs, on beetle infested trees to prevent the spread of resident beetles to neighboring trees and re-infestation of current host trees. As a part of ongoing maintenance, limited mechanized removal of trees might be required, including felling, limbing, bucking, and chipping of infested trees.

Impacts to sensitive habitat, as revealed from the records review, such as coastal sage scrub, cactus scrub, chaparral, native and non-native grassland, are not anticipated. Treatment of infested trees include oak trees, sycamores, and other infected trees (outside of water areas) which will reduce tree mortality and fire risk, will improve the quality of oak woodland and riparian habitat and natural communities, and will benefit species that occur within those habitats. As mentioned in Section 3.1.4, the treatment would be in compliance with the relevant Operational Constraints and would also employ best management practices for biological resources, including a pre-activity survey, ceasing work in case any wildlife or sensitive species is observed in the work area, maintaining a daily log to document biological monitoring activities, etc. In addition, if work activities are planned during the nesting bird season (February 15 to August 31), in order to remain in compliance with the Migratory Bird Treaty Act and section 10(a)(1)(A) of the Endangered Species Act, a pre-activity nesting bird survey will be conducted.

As a part of the treatment, a restricted chemical, Carbaryl would be used. However, Carbaryl is non-toxic to plant species and with the continued implementation of these parameters for operational constraints and best management practices, no impacts are anticipated due to the application of Carbaryl. The applicable best management practices would include flagging any identified sensitive plants for avoidance, avoiding treating any water or wetted areas with carbaryl to prevent impacts to amphibians, conducting nesting bird surveys and maintaining nesting bird buffers, avoiding application of the chemical to flowers if bees are present, and minimizing application in areas where insects are prevalent.

Thus, the Proposed Project does not pose any threat to degrade the quality of the environment. Any impact to any biological resources and its habitat would be less than significant. Additionally, no impacts to cultural resources are anticipated, as there is no ground disturbance associated with the Proposed Project activities that could expose subsurface historical resources, archeological resources, or human remains.

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| b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects?) | PotentiallySignificantImpact[ ]  | Less than SignificantWith MitigationIncorporated[ ]  | Less thanSignificantImpact[x]  | NoImpact[ ]  |

1. **Less Than Significant Impact.** The potential for cumulative impacts occurs when the independent impacts of the Proposed Project are combined with the impact of related projects in proximity to the Project such that impacts occur that are greater than the impacts of the Project alone. As discussed above, it has been determined that the Project would have no impact, or impacts would be less than significant, with respect to the environmental issues. Where the Proposed Project would have no impact or a less than significant impact, it would not contribute to cumulative impacts. The Project is only to promote existing tree survival in the area and is not growth-inducing; thus, it would not contribute to the cumulative effects of population growth.

Cumulative impacts associated with the Proposed Project and identified related projects would be less than significant.

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| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | PotentiallySignificantImpact[ ]  | Less than SignificantWith MitigationIncorporated[ ]  | Less thanSignificantImpact[ ]  | NoImpact[x]  |

* 1. **No Impact.** The implementation Project would only involve promote existing tree survival in the area and thus, would not result in environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly. Short-term emissions from operation of equipment for the Proposed Project would not exceed the SCAQMD regional thresholds of significance for criteria pollutants and would not result in a significant project impact. Projects that do not generate a project-specific air quality impact would not be considered cumulatively considerable. Accordingly, the Project would not result in a cumulative air quality impact.

Noise from the Proposed Project related activities would be minor, temporary and localized in a forest, rural portion of Trabuco Canyon, thus not impacting the areas surrounding the Project site. Thus, the Proposed Project activities are not expected to result in a perceivable cumulative increase in ambient noise levels. As a result, the noise levels associated with Proposed Project activities would not be considered cumulatively considerable. With regard to operational noise, the Proposed Project will not create operational noise and thus would not be cumulatively considerable with regard to operational noise impacts. Vehicle trips from activities of the Project are expected to be localized and, thus, would impact only the roads immediately along the Project route. Thus, cumulative impacts will be less than significant.

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