

**USDA Forest Service
Deschutes National Forest
Sisters Ranger District**

DECISION MEMO

Highway 20 Corridor Public Safety Project

Deschutes County, Oregon

T13S, R09E, Sections 19, 29, 30, 32, and 33; T14S, R09E, Sections 3, 4, 5, 10, 11, 13, 14 and 24; T14S, R10E, Sections 19, 30, 31 and 32; and T15S, R10E, Sections 5, 23, and 24.

Willamette Meridian

DECISION

After a careful review of the proposed action, public comment, and the environmental effects of the project, I have decided to authorize the abatement (felling) of herbicide-affected trees¹, dead trees, and imminent danger trees and their removal, where appropriate, as forest products (e.g. sawlogs or firewood) along a 12.5 mile section of Oregon State Highway 20 (Figure 1).

The abatement of these dead and dying trees will improve public health and safety along Highway 20 and maintain the scenic quality of a National Scenic Byway. The Forest Service will work closely with the Oregon Department of Transportation (ODOT) to ensure the successful completion of the project.

Approximately 0.4 million board feet (MMBF) may be harvested; this equates to about 2,100 trees being removed from the ca. 514-acre project area.

In response to public comment, discussions with the Forest pathologist and further review by the district interdisciplinary team, and balanced with the need to promote public health and safety, I have decided to modify the original proposed action as follows:

Zone 1 (0-75 feet from the edge of the highway)

1. Herbicide-affected trees with $\geq 90\%$ tree canopy damage, regardless of diameter class, located within the first 75 feet from the edge of the highway, and imminent danger trees and dead trees located in the clear zone will be felled and utilized as forest products. The *clear zone* is defined as an area from the edge of the highway pavement to a distance of about 30 feet. No activity fuels (slash) or down logs will be left in the clear zone area.

¹ Symptoms of herbicide damage in tree crowns include chlorotic (fading, light green or yellowing) foliage; abnormal curling of meristems; crown dieback; killed meristems in shoots; and abnormal swellings in the stems of shoots.

2. Imminent danger trees and dead trees not affected by herbicides and located *outside* the clear zone will be felled. Some will be left on-site to meet wildlife coarse woody debris requirements where the project intersects the range of the northern spotted owl.

Zone 2 (75 feet to 150 feet from the edge of the highway)

1. Imminent danger trees will be either be 1) felled and left on-site to meet wildlife coarse woody debris requirements or 2) topped to provide wildlife habitat if the tree meets tree topping safety requirements

Activity fuels (i.e. slash) will be transported, then burned, at designated slash landing locations. All slash from the felling of herbicide-affected trees will, to the extent practicable, be removed from the root zone of live ponderosa pine trees.

I have decided to authorize the felling and removal of trees in Zone 1 as forest products, as outlined above, in a single timber harvest operation. A single timber harvest operation will provide for more efficient and effective public health and safety by 1) removing all designated trees in one time period, thus avoiding the closure of Highway 20 at a future point in time; 2) increasing the efficiency of ODOT highway crews in providing traffic control; and 3) limiting the effects to the public use of Highway 20.

My decision also allows for the felling and removal of trees in the future. Herbicide-affected trees that have less than 90% canopy damage will be monitored over time; if trees die or have canopy damage that equals or exceeds 90%, trees will be felled and utilized as forest products, primarily as firewood.

To address comments related to tree topping instead of tree removal I have authorized a limited amount of machine tree topping in Zone 2, where safe to do so. To address down wood levels, about 1/3 of the project area is in the range of the northern spotted owl where felled trees unaffected by herbicide will be left on site. Due to the uncertainty of residual herbicide in herbicide-affected trees, they will not be used for stream restoration projects or moved to other areas in the national forest to supplement down wood levels as requested by some commenters. Many of the comments received during project scoping requested changes in herbicide use or increased accountability which although outside the scope of this decision have been addressed.

The project file is located at the Sisters Ranger Station, Sisters, Oregon.

Existing Condition

In 2013, 2014, and 2015 the herbicide *Perspective*® was applied along Highway 20 to control broadleaf weeds and brush. *Perspective*® contains an active ingredient now known to harm ponderosa pine and other trees.

In 2014 foresters first noticed the occurrence of stressed trees along Highway 20. From 2014 through 2018, ponderosa pines continued to become stressed and die adjacent to the highway. Foresters began to suspect that herbicide use might be affecting trees and the use of *Perspective*® was discontinued on National Forest System lands in Oregon and Washington. Sampling of trees indicate that herbicide use was the likely cause of death of ponderosa pine trees adjacent to the highway.

Consequently, there are herbicide-killed and dying trees with herbicide injury located immediately adjacent to Highway 20. In addition, there are danger trees with an imminent-failure potential (high likelihood of breaking/failing) located within 1.5 times their tree height (typically 150 feet slope distance) of the highway. Due to the very high volume of traffic on Highway 20 there is a need to abate (fell) trees that pose a threat to public safety.

Purpose and Need for Action

The *purpose* of the project is to improve public health and safety along Highway 20.

There is a *need* to 1) abate (fell) herbicide-affected, dead trees, and imminent danger trees along a 12.5 mile section of State Highway 20 and 2) remove felled trees to promote highway safety in the clear zone; reduce fuel loadings adjacent to the highway; and meet visual quality standards along a National Scenic Byway.

Modified Proposed Action

The modified proposed action would provide for improved public health and safety along 12.5 miles of Highway 20. About 514 acres would be treated to meet the purpose and need for action, including log landings and slash disposal areas.

The treatment area consists of two broadly defined zones located on either side of Highway 20 (Figure 2). The treatment area is about 1 ½ times tree height or about 150 feet as measured from the fog line (this distance may vary depending on the height of the tree under consideration).

Zone 1 (0-75 feet from the edge of the highway)

1. Herbicide affected trees with $\geq 90\%$ tree canopy death, regardless of diameter class, located within the first 75 feet from the edge of the highway, and imminent danger trees and dead trees located within the *clear zone* would be felled and utilized as forest products. The *clear zone* is defined as an area extending perpendicular from the edge of the highway pavement about 30 feet. No activity fuels (slash) or down logs will be left in the clear zone area.
2. Imminent danger trees and dead trees not affected by herbicides and located *outside* the clear zone would be felled. Some will be left on-site to meet wildlife coarse woody debris requirements where the project intersects the range of the northern spotted owl.

Zone 2 (75 feet to 150 feet from the edge of the highway)

1. Imminent danger trees would be either be 1) felled and left on-site to meet wildlife coarse woody debris requirements or 2) topped to provide wildlife habitat if the tree meets tree topping safety requirements

Felled trees would be removed to meet the purpose and need for action and utilized as forest products if in compliance with land management allocation standards and guidelines.

Ground based logging equipment would be used to move felled trees to log landings. Activity fuels (slash) would be processed at adjacent disposal areas. Any activity fuels that remain in the 150 foot-wide strip on either side of the highway would be hand-piled and burned (activity fuels

from herbicide-affected trees not moved to a designated slash disposal area would be moved away from the root zone of living ponderosa pine, and to the extent practicable, hand-piled, and burned). No new road or temporary construction is required.

The clear zone adjacent to Highway 20 would be kept free of logging debris and other obstructions generated through the felling of trees. Stumps would be treated with a stump grinder to meet visual quality standards (i.e. stump height) or remove vehicular obstructions in the clear zone.

Highway traffic control would be coordinated with the Oregon Department of Transportation (ODOT) when sections of the highway need to be temporarily closed to conduct timber falling operations. Traffic delays are estimated to last up to 20 minutes. The project would take place during spring (preferred) or fall when traffic loads are lighter than the peak summer recreation season. The timber falling operation would be completed as soon as possible to avoid extended impacts to commercial freight traffic and the general public.

Identification of Danger Trees and Herbicide-Killed and Dying Trees

Danger trees would be evaluated and rated for their potential to fail (break) and their potential to cause property damage or injury according to the guidelines in "*Field Guide for Danger-Tree Identification and Response along Forest Roads and Work Sites in Oregon and Washington*" (Filip G. et al. 2016). Tree rating information would be collected by qualified personnel and filed at the Sisters Ranger Station, Sisters, Oregon.

Guidelines for the identification of herbicide-killed and dying trees (including symptoms of herbicide injury) along Highway 20 were developed by a Forest Service Plant Pathologist and are available for review at the Sisters Ranger District office and at the Forest project web site.

Findings Regarding the Use of a Categorical Exclusion

My decision is documented under 36 CFR 220.6(d)(4):

Repair and maintenance of roads, trails, and landline boundaries.

I have determined this is the appropriate categorical exclusion to document the environmental effects of the project since the abatement and removal of herbicide-affected trees, dead trees, and imminent danger trees is necessary for road/highway maintenance and will meet the purpose and need for action.

The use of this categorical exclusion is consistent with previously authorized projects along roadways on the ranger district to document the environmental review of tree removal associated with a timber sale.

I have reviewed the analysis provided by the district resource specialists assigned to this project. I find that the degree of potential effect on any of the resources conditions listed at 36 CFR 220.6(b), shown as 1-6 below, does not preclude use of a categorical exclusion 36 CFR 220.6(d)(4). The mere presence of one or more of these resource conditions does not preclude the use of a categorical exclusion (CE). It is the existence of a cause-effect relationship between a proposed action and the potential effect on these resource conditions and if such a relationship exists, the degree of the potential effect of a proposed action on these resource conditions that determines whether extraordinary circumstances exist (36 CFR 220.6(b)).

Given these findings, I conclude that there are no extraordinary circumstances associated with my decision. Therefore, further analysis of the project in an environmental assessment (EA) or an environmental impact statement (EIS) is not required.

The following discussions present my findings for each resource condition found in the project area. Resource specialists' reports are on file at the Sisters Ranger Station, Sisters, Oregon. Resource Protection Measures are found on page 7 of this decision memo.

1) Federally listed threatened, endangered or sensitive (TES) species, or designated habitat or species proposed for Federal listing, or proposed critical habitat.

Botanical Species²

- There will be *no effect* to Threatened or Endangered plant species; no Threatened or Endangered plant species are located on the Deschutes National Forest.
- The project *may impact Sensitive plant individuals or habitat, but is not likely to contribute to a trend towards federal listing or loss of viability to the population.* Resource Protection Measures are required.

Fish Species³

- There will be *no effect* to the Federally Threatened Columbia River Bull Trout and Bull Trout critical habitat.
- The project *may impact individuals or habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species* for Region Six Sensitive Inland Columbia Basin Redband Trout.
- The project *may impact individuals or habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species* Region Six Sensitive Indian Ford Juga.
- There will be *no impact* to the Region Six Sensitive A Caddisfly. No habitat is located in the project area.

Wildlife Species⁴

- The project *may affect but would not likely to adversely affect* the Federally Threatened Northern Spotted Owl.
- The project *may affect but would not likely to adversely affect* Northern Spotted Owl critical habitat.
- There will be *no effect* to the Federally Threatened Oregon Spotted Frog. No habitat is located in the project area.
- There will be *no effect* to the Federally Threatened Oregon Spotted Frog critical habitat. No habitat is located in the project area.
- There will be *no effect* to the Federally Endangered Gray Wolf. No habitat is located in the project area.

² Highway 20 Corridor Public Safety Project: Botany Report.

³ Highway 20 Corridor Public Safety Project: Biological Evaluation, Biological Assessment and Effects Analysis for Aquatic Threatened, Endangered, and Sensitive Species.

⁴ Highway 20 Corridor Public Safety Project: Biological Evaluation and Wildlife Report.

- There will be *no effect* to the Proposed Threatened North American wolverine. No habitat is located in the project area.
- The project *may impact but would not likely contribute to a trend towards Federal listing or cause a loss of viability to populations or species* for the Regional Six Sensitive species bald eagle, Lewis' woodpecker, white-headed woodpecker, fringed myotis, pallid, Townsend's big-eared bat, and Crater Lake tighcoil.

2) Floodplains, wetlands, or municipal watersheds.

Floodplains: Executive Order 11988 provides direction to avoid adverse impacts associated with the occupancy and modification of floodplains. Floodplains are defined by this order as, "... the lowland and relatively flat areas adjoining inland and coastal waters including flood prone areas of offshore islands, including at a minimum, that area subject to a one percent [100-year recurrence] or greater chance of flooding in any one year."

There are no floodplains within the project area.

Wetlands: Executive Order 11990 was promulgated to avoid adverse impacts associated with destruction or modification of wetlands. Wetlands are defined by this order as, "... areas inundated by surface or ground water with a frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds."

There are no wetlands within the project area.

Municipal Watersheds:

There are no municipal watersheds within the project area.

3) Congressionally designated areas such as wilderness, wild and scenic rivers, or national recreation areas.

The Three Sisters and Mt. Washington Wilderness areas are located about 8-10 air miles west of the project area; the Whychus Wild and Scenic River is located about six air miles south of the project area; and the Oregon Dunes National Recreation Area is located about 120 air miles west of the project area.

4) Inventoried Roadless Areas.

There are no Inventoried Roadless Areas in the project area. The Three Sisters Inventoried Roadless Area is located about 11 air miles southwest of the project area.

5) Research Natural Areas.

There are no existing or proposed Research Natural Areas (RNA) in the project area. The Metolius Research Natural Area is located about five air miles northeast of the project area.

6) American Indian and Alaska Native religious or cultural sites. Archaeological sites, or historic properties or areas.

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effect of a project on any district, site, building, structure, or object that is included in, or eligible for inclusion in the National Register. Section 106 of the National Historic Preservation Act also requires federal agencies to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment.

The Archaeological Resources Protection Act covers the discovery and protection of historic properties (prehistoric and historic) that are excavated or discovered in federal lands. It affords lawful protection of archaeological resources and sites that are on public and Indian lands. The Native American Graves Protection and Repatriation Act cover the discovery and protection of Native American human remains and objects that are excavated or discovered in federal lands. It encourages avoidance of archaeological sites that contain burials or portions of sites that contain graves through “in situ” preservation, but may encompass other actions to preserve these remains and items.

This decision complies with the cited Acts.

Surveys were conducted for Native American religious or cultural sites, archaeological sites, prehistoric sites and historic properties and areas that may be affected by this decision.

The project as designed will have no adverse effect on any National Register of Historic Places (NRHP) eligible historic, archaeological sites, or any tribal interests.

The project meets Stipulation 3(B)5 of the 2003 Programmatic Agreement for the State of Oregon: No Adverse Effect (No Historic Properties Affected).

Other Findings

My decision will meet all relevant standards and guidelines as outlined in the Deschutes National Forest Land and Resource Management Plan (Forest Plan), as amended, and other relevant laws, policy, and guidelines.

The project meets all nine objectives of the Aquatic Conservation Strategy as outlined in the Northwest Forest Plan and the Riparian Management Objectives as outlined in the Inland Native Fish Strategy.

The project will have no impact on Survey and Manage plant and fungi individuals or habitat. Resource Protection Measures are required.

There is a high risk of introducing and or spreading invasive plants within this project area. Resource Protection Measures are required.

Resource Protection Measures

The following resource protections measures are required for the successful implementation of the project.

Botany

Peck's penstemon (Sensitive)

- Minimize soil disturbance and work with the district botanist at known Peck's penstemon sites.
- Do not place piles or logging decks at Peck's penstemon sites.

Survey and Manage

- Avoid any disturbance, to the extent possible, when falling and removing trees adjacent to old-growth habitat. Danger trees located in old-growth habitat (Northwest Forest Plan area) would be felled and left in place outside of the clear zone.

Invasive Plants

- Require clean vehicles and equipment to reduce introduction of invasive plant seed. Wash tires and undercarriages to remove mud, dirt and seeds before bringing on the National Forest and again after leaving. Use Clean Equipment clause in contract.
- Work with the district botanist to ensure highest risk areas are disturbed to the minimum amount possible.
- Work to increase public (including contractors) awareness of invasive plants and their potential negative impact on the environment. Include educational emphasis in pre-work and other contract meetings.
- Reseeding of the disturbed areas is encouraged in order to reduce the spread of invasive species. The need for reseeded should be evaluated by the district botanist following project implementation. Reseeding can only be done with local seed of species approved by the district botanist for any specific site location.
- Weed sites within the project area need to be treated by hand or under a Forest Service herbicide use prescription before and after disturbance. Long-term weed treatments will likely be needed.
- Minimize soil disturbance where possible.

Hydrology and Fisheries

- Adhere to USFS Regional Best Management practices (BMPs) for all project related activities.
- Herbicide-affected danger trees in Riparian Reserves or Riparian Habitat Conservation Areas would be felled and removed.
- Non herbicide-affected danger trees would be felled and left in Riparian Reserves or Riparian Habitat Conservation Areas to provide for additional large woody debris habitat.
- Avoid felling trees into stream channels whenever possible to reduce risk of channel aggradation or scour near road culverts.
- Ground-based equipment use in Riparian Reserves or Riparian Habitat Conservation Areas would be allowed except within 30 feet of the channel edge unless on the highway, highway shoulder, or existing roads.
- Where needed, use directional felling or "reaching in" with equipment to remove trees in the Riparian Reserve or Riparian Habitat Conservation Area to reduce the amount of ground disturbance.
- Where necessary, orient ground-based skid trails in the Riparian Reserve or Riparian Habitat Conservation Areas parallel or non-perpendicular to the channel.

- Trees removed from the Riparian Reserve or Riparian Habitat Conservation Areas shall be fully suspended, if possible and at a minimum, partially suspended on the butt end to reduce ground disturbance.
- Except where allowed, locate all skid trails and landings outside of the Riparian Reserve and Riparian Habitat Conservation Areas.
- Locate burn piles at least 50 feet away from all stream channels and outside of riparian vegetation, whichever is greatest.
- Do not locate burn piles in swales, washes, or depressions.
- Burn piles should not cover more than 5% of the area within Riparian Reserves and Riparian Habitat Conservation Areas and should be less than 100 ft². Piles within 50-100 feet of streams should be no larger than 50 ft² in size.

Wildlife

- All dead trees and danger trees not affected by herbicide would be felled and left on-site outside the 30-foot clearance zone to meet wildlife coarse woody debris requirements where the project intersects the range of the northern spotted owl.
- Pile burning within the Northwest Forest Plan boundary area would not occur during the northern spotted owl nesting seasonal restriction period (March 1 through September 30).
- A limited number of danger trees not affected by herbicide would be topped by machine to provide small standing snags for cavity nesters.

PUBLIC INVOLVEMENT

Public Scoping

A public scoping letter was distributed via GovDelivery (380 emails) and the U.S. Mail (18 letters) on April 25, 2018. The project was also listed in the July 2018 Schedule of Proposed Actions (SOPA) and the Deschutes National Forest web site. The scoping period ended on May 29, 2018.

Letters were also sent to the Confederated Tribes of the Warm Springs, Oregon; Burns Paiute Tribe; and the Klamath Tribes. No responses were received from the tribes.

Public scoping generated 65 comments. Comments included assigning accountability and responsibility for the application of herbicides which caused tree death along Highway 20; effects of the proposed action on wildlife habitat and visual resources; the need for appropriate mitigation measures; the use of a categorical exclusion to document project effects; and others. A copy of the district response to public comment is included in the project file located at the Sisters Ranger District office.

Public Meeting and Field Trip

In response to scoping, a public meeting and field trip was held on September 24, 2018. The public meeting was held at the Sisters-Camp Sherman Fire hall located in the city of Sisters, Oregon.

About 14 members of the public, including members of various organizations, attended the public meeting. Many questions focused of the use of herbicides, its future use in Oregon, safety, and the use of wood as forest products that have herbicide residues. These questions were addressed by representatives of the Oregon Department of Agriculture.

The field trip to the project area was attended by members of the environmental community, a private citizen, local media, personnel from the Sisters Ranger District and the Oregon Department of Transportation, and the Forest pathologist. The field trip reviewed the overall project proposal, discussed the effects of herbicide on trees that caused tree death, provided an example of trees that would be marked for removal, and described how dead crown percentages were calculated.

A number of questions were raised during the field trip including the possibility of topping trees to provide wildlife habitat; felling and leaving trees in place to provide coarse woody debris as wildlife habitat; the number of trees over 21 inches diameter at breast height (dbh) that would be removed as sawlogs; the use of herbicide-affected trees for in-stream fish habitat improvement; road closures; and effects to ground nesting birds during the spring nesting season.

IMPLEMENTATION DATE

The project can be implemented immediately upon the signing of this decision memo.

ADMINISTRATIVE REVIEW OPPORTUNITIES

My decision is not subject to administrative review under 36 CFR 218.

CONTACT INFORMATION

For further information regarding my decision please contact Michael Keown, Environmental Corridor, at (541) 549-7735; e-mail: michael.keown@usda.gov.



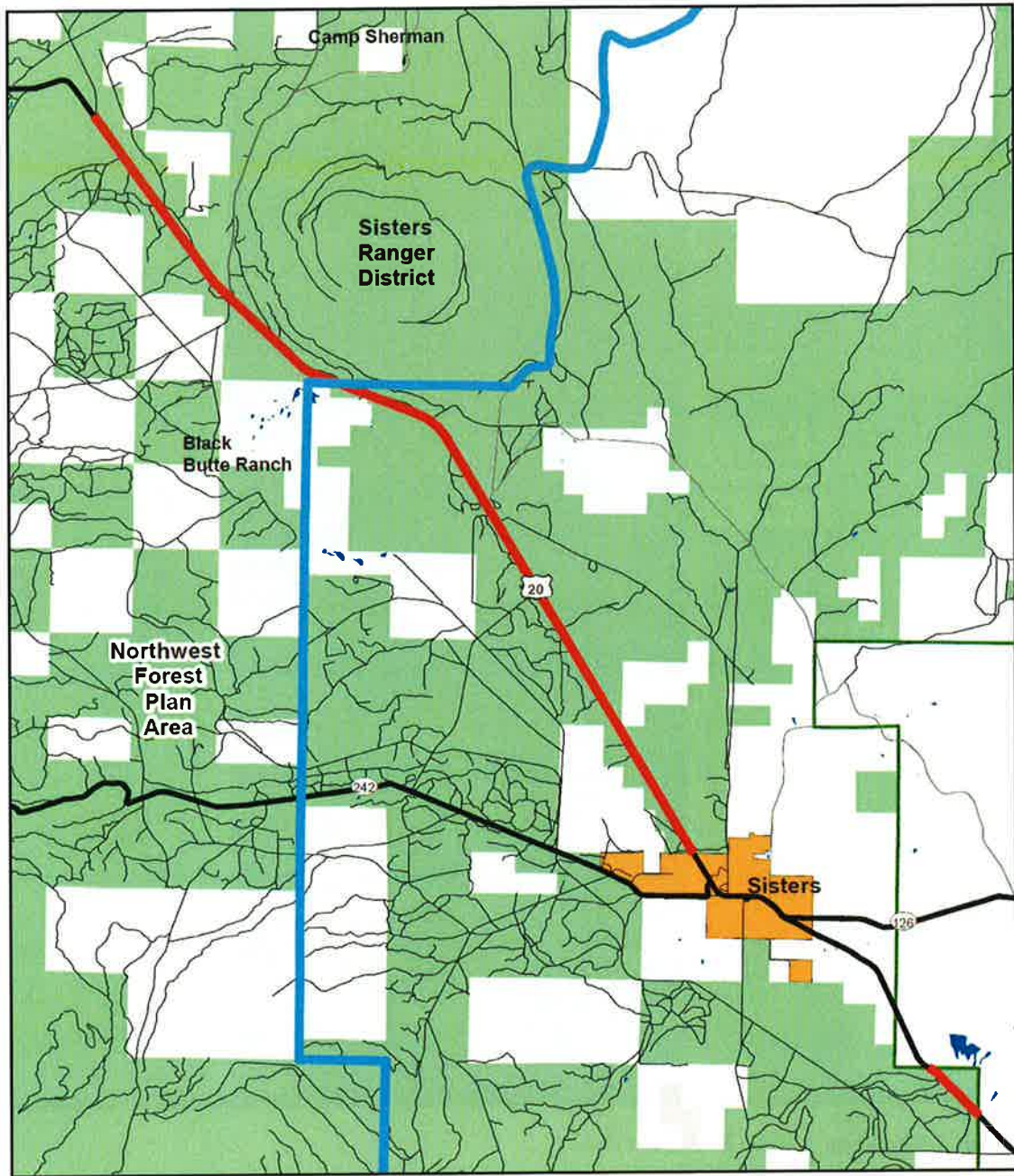
Ian Reid
District Ranger



Date

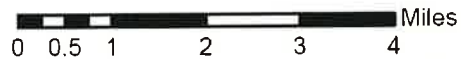
Reference

Flip, G. et al. 2016. Field Guide for Danger Tree Identification and Response along Forest Roads and Work Sites in Oregon and Washington. USDA Forest Service, Forest Health Protection, Pacific Northwest Region, Portland, Oregon R6-NR-TP-021-2016.



— Treatment Areas
 Northwest Forest Plan Boundary

Highway 20 Corridor Public Safety Project



February 5, 2019

Figure 1: Project Area

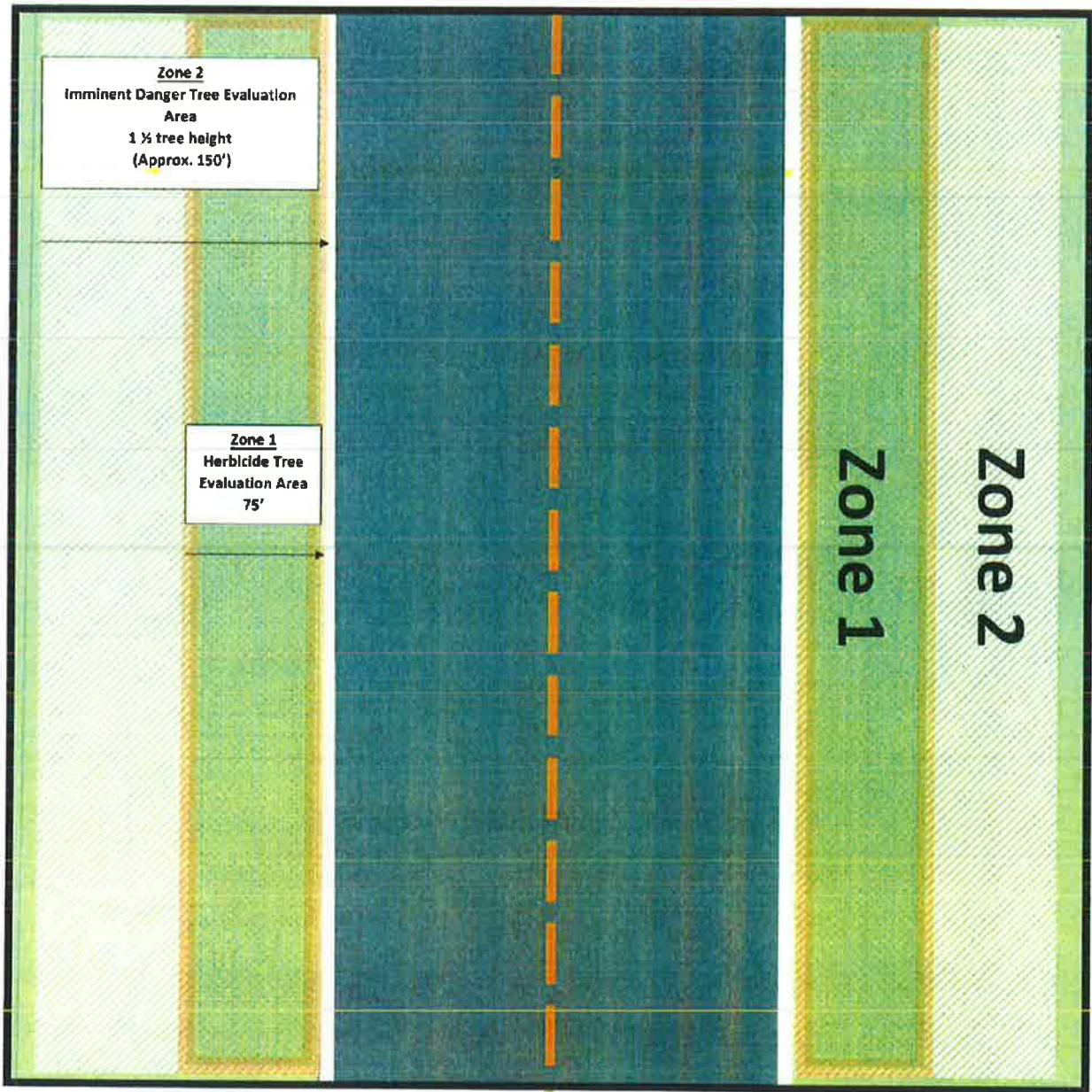


Figure 2: Treatment Areas – Zone 1 and Zone 2