Drano Stand and Wildlife Habitat Improvement Project

Skamania County, Washington

DECISION MEMO AND CONSISTENCY DETERMINATION CD-21-04-S

BACKGROUND

The Drano Stand and Wildlife Habitat Improvement Project is designed to improve timber stand conditions and wildlife habitat by restoring resiliency to fire-dependent habitats through the reduction of in-growth of small trees and the encroachment of Douglas-fir caused by decades of fire exclusion. The project area is on lands managed by the US Forest Service (USFS) as part of the Columbia River Gorge National Scenic Area (CRGNSA). The project is planned in a portion of the Skamania County Wildland Urban Interface designated by Klickitat and Skamania County, Washington Community Wildfire Protection Plan.

The project is needed to address:

- 145 acres in Fire Regime Condition Class 2 with a moderately altered fire regime, moderate risk for losing key ecosystem components, moderate change to pattern, size, frequency, or severity of fires, vegetation attributes have been moderately altered from their historical range;
- 40 acres in Fire Regime Condition Class 3 with a significantly altered fire regime, high risk for losing key ecosystem components, dramatic change to pattern, size, frequency, or severity of fires, vegetation attributes have been significantly altered from their historical range.

PROJECT DESCRIPTION

Figures 1-2 and Tables 1-4 for site details and prescription by vegetation type.

The project is designed to achieve these ecosystem restoration goals:

- Restore, as much as possible, the natural fire regime and associated habitats while protecting threatened, endangered, or sensitive species.
- Release overtopped oak trees to forestall their rapid decline.
- Improve the growing conditions for large legacy ponderosa pine trees by removing the understory trees competing with them for moisture and light.

- Reduce the risk of bark beetle tree mortality by reducing the number of trees per acre (predisposition to beetles is largely due to water stress during dry summer months and increase in beetle populations in areas that have freshly cut Douglas fir accumulations on the ground).

Project design criteria would be applied to all treatments.

Figure 1. Vicinity Map of the Drano Stand and Wildlife Habitat Improvement Project

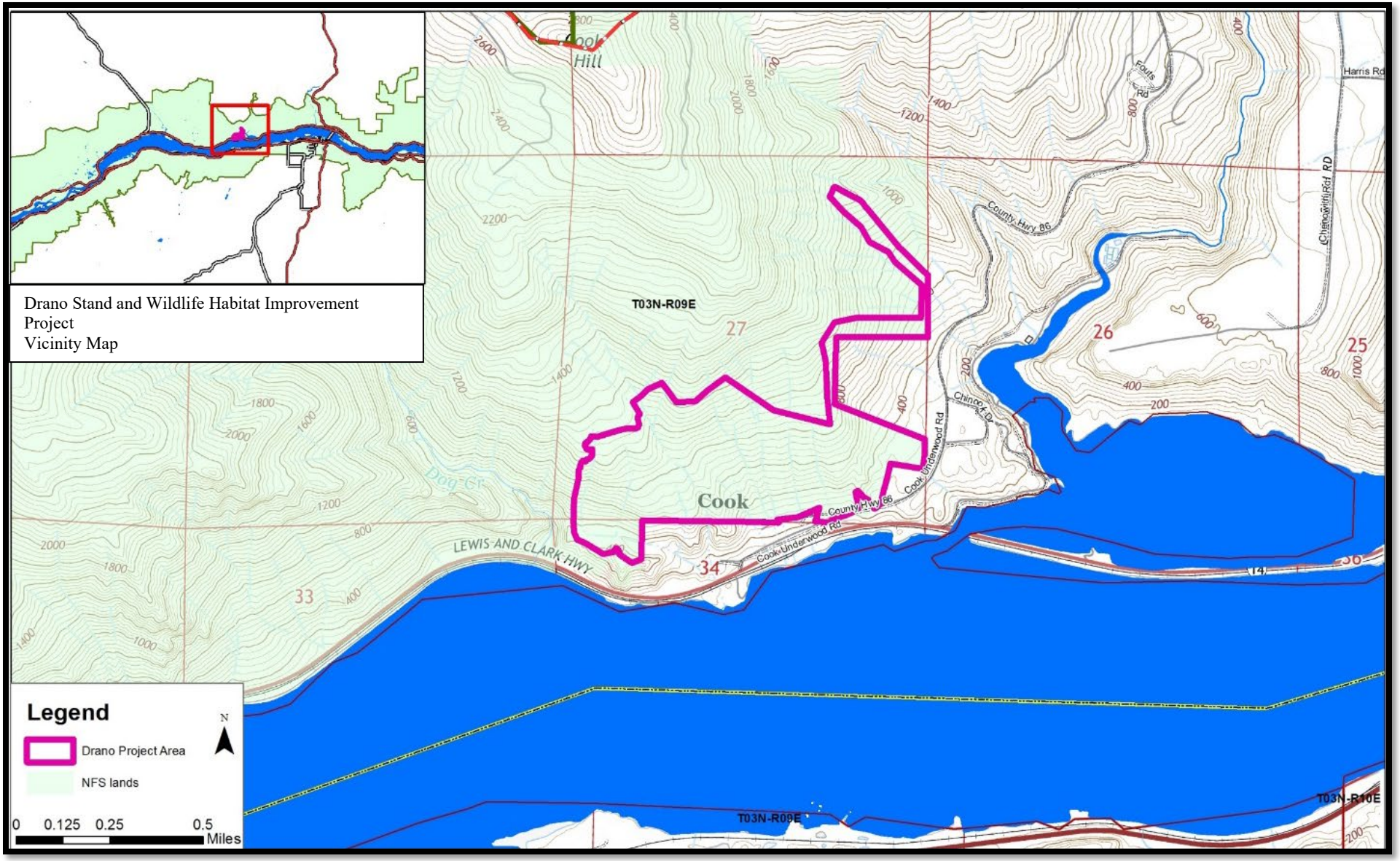
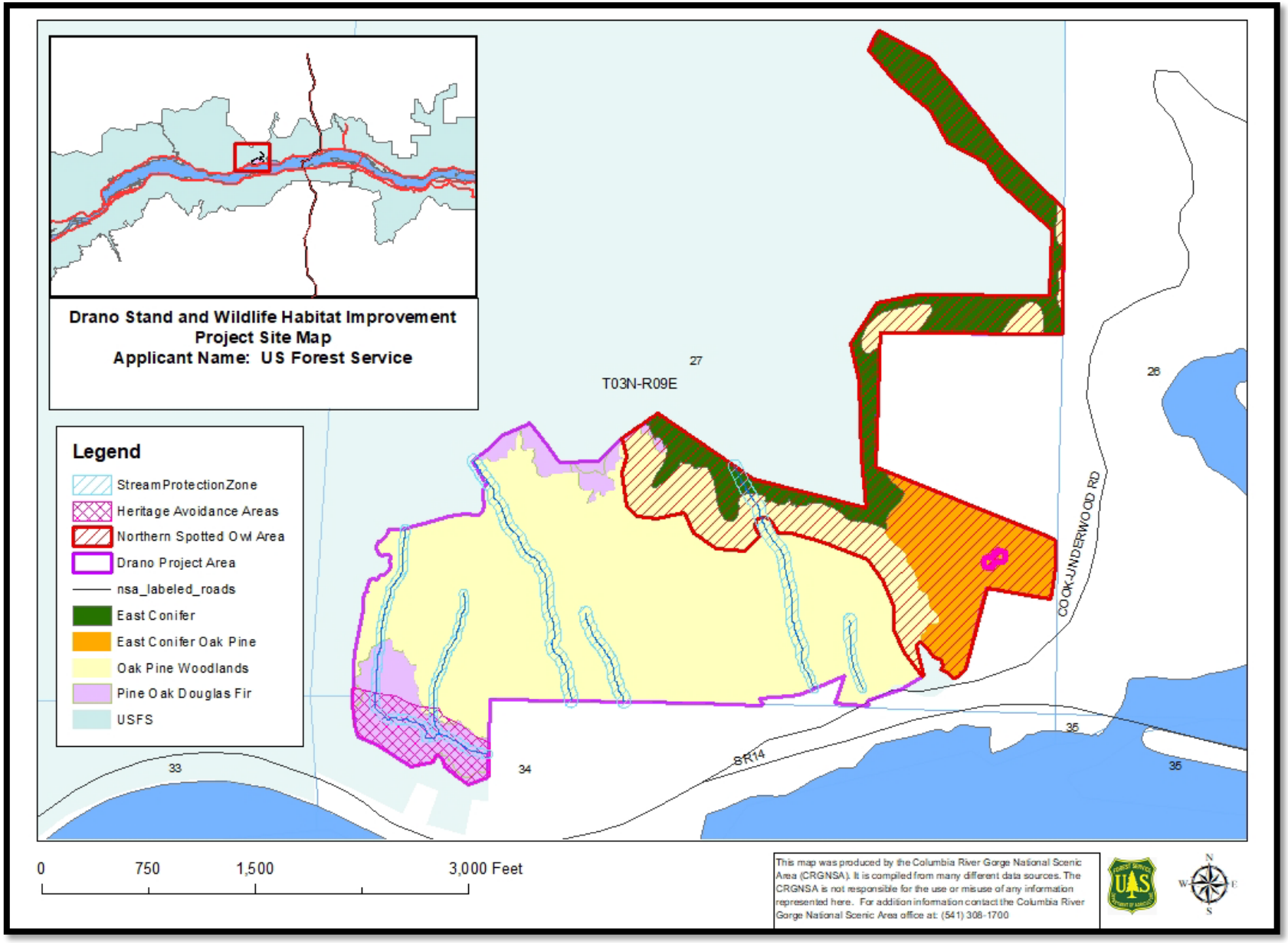


Figure 2. Site Map of Proposed Treatments for the Drano Stand and Wildlife Habitat Improvement Project



Prescriptions by Vegetation Type

Table 1. East Conifer Prescription (green areas on Figure 2)

Component	Existing Condition	Desired Condition	Proposed Treatment
Shrub Understory	Understory, where present, is heavy in-growth of young Grand fir or Douglas-fir. Shrubs component scattered with ocean-spray, snowberry, hazel, vine maple, and ceanothus.	There should be big leaf maples intermixed as understory with other smaller hardwoods. Shrubs are scattered except in more open areas.	Retain all shrubs.
Overstory	Stands mostly consist of Douglas-fir with average age about 50-70 years and dbh (diameter breast height) measurements averaging about 14-20"with scattered older Douglas-fir and Ponderosa Pine. Much more Douglas-fir than natural fire regime would have produced. Currently there are approximately 120 Stems per acres of overstory. Some patches of hardwoods consisting predominantly of big leaf maples. Large oaks at lower elevations are dying from being overtopped by Douglas-fir.	There should be a few irregularly shaped small openings of differing sizes and patches of oaks and pines on southern facing slopes. Generally, the dominant canopy will be above a 60% closure dominated by Douglas Fir.	Canopy closure greater than 60% over entire cover type. Thin by felling all fir trees ≤ 8" dbh. Pile sub 4" material for burning outside of riparian buffers, lop and scatter when enough material for good piles does not exist.
Snags	Variable across the landscape	More than 5 snags per acre in the 10-20" dbh size and at least 3 snags per acre in the >20" dbh size range.	Across the stand type, outside of riparian buffers and pine oak release areas ensure there are at least 5 snags/ac that are 10-20" dbh and at least 3 snags/ac that are greater than 20" dbh.
Openings	Small openings that are relatively scarce.	Mosaic of smaller openings	Not to exceed 4% of widely dispersed, variable sized mosaic of irregular shapes blending with existing openings
Herbaceous Layer	Ground relatively bare--where cover present: Oregon grape, allium, yarrow, and lupine.	Bare ground still common but more grasses/herbaceous increasing.	1-4": 2 tons/ac 4-9": 3 tons/ac (this would equate to ~50 trees per acre (tpa) sub 8" dbh) 10+": 15 tons/ac (this would equate to ~25 tpa at 15" dbh) Within this 10+" category, at least 1-3 pieces of large woody debris should be maintained that are greater than 20" dbh and 30' long.
Downed Wood	Variable across the landscape	There should be at least 6 pieces of wood per acre that are greater than 20" dbh and 30 feet	

Table 2. Pine-Oak Douglas Fir Prescription (purple areas on Figure 2)

Component	Existing Condition	Desired Condition	Proposed Treatment
Shrub Understory	Heavy in-growth of young Douglas fir. Many shrubs, such as ocean-spray, snowberry, hazel, vine maple, Oregon grape, and ceanothus, scattered and in more open areas more dominant.	There should be big leaf maples intermixed as understory with other smaller hardwoods. Shrubs are scattered except in more open areas.	Remove all conifer tree species ≤ 8" dbh, except retain 50% sub 10" pines. Retain all oak.
Overstory	Large pines and oaks much more common than in East Conifer, but these make up less than 50% of the total canopy. Smaller diameter trees range about 500 to over 1000 stems/ac. Younger firs (20-50 yrs with dbh ranging from 10-14") are often seen over-topping older oaks (80-200+ years).	There should be a few irregularly shaped/ mosaic small openings of differing sizes and patches of oaks and pines on southern facing slopes but generally the dominant canopy will be above a 60% closure dominated by Douglas Fir. Larger Pines or Oaks Exist sporadically across this cover type where larger openings or drier soil conditions exist.	Canopy closure greater than 60% over entire cover type. Douglas and grand fir ≤ 8" dbh should be felled while retaining a minimum of 40 stems per acre of 15"-20" dbh or 80 stems per acre of 8-14". Outside of Protection Zones, Ponderosa Pines ≥ 16" dbh, Oak trees ≥ 10" dbh and clumps of three or more oaks ≥ 5" diameter will be given a 40' clearing of all Douglas or grand fir trees up to 20" dbh. Pile sub 10" material for burning outside of riparian buffers, lop and scatter when enough material for good piles does not exist.
Snags	Variable across the landscape	More than 5 snags per acre exist in the 10-20" dbh size and at least 3 snags per acre in the >20" dbh size range.	Across the stand type, outside of riparian buffers and pine oak release areas ensure there are at least 5 snags/ac that are 10-20" dbh and at least 3 snags/ac that are greater than 20" dbh. Douglas fir larger than 20" dbh within the 40' Pine/Oak release radius should be converted into snags, preferably by climbing.
Openings	Some openings appear to be permanent based on soils or moisture content of soils because of Missoula floods	Mosaic of smaller openings	Not to exceed 4% of widely dispersed, variable sized mosaic of irregular shapes blending with existing openings
Herbaceous Layer	Cover present: natives largely replaced by annual cheat grass. Some native include: allium spp., yarrow, and lupine.	Bare ground still common but more grasses/herbaceous increasing.	1-4": 2 tons/ac 4-9": 3 tons/ac (this would equate to ~50 tpa sub 8" dbh) 10+": 15 tons/ac (this would equate to ~25 tpa at 15" dbh) Within this 10+" category, at least 1-3 pieces of large woody debris should be maintained that are greater than 20" dbh and 30' long.
Downed Wood	Variable across the landscape	There should be at least 6 pieces of wood per acre that are greater than 20" dbh and 30 feet.	

Table 3. Oak-Pine Woodlands prescription (yellow areas on Figure 2)

Component	Existing Condition	Desired Condition	Proposed Treatment
Shrub Understory	Shrubs are present as in other vegetation types with poison oak being dominant. Young Douglas Fir are prevalent and if not treated will dominate understory and reach overstory in about 10-15 years without fire.	Shrubs scattered in drier areas but more dominant in wetter areas. No Douglas fir recruitment.	Remove all conifer tree species ≤ 8" dbh, except retain 50% young/ sub 10" pines. Retain all oaks.
Overstory	Oak, scattered Ponderosa Pine and big leaf maple are dominant with rapidly encroaching Douglas-fir. Generally stems per acre are within range of 200-400, depending on number of young Douglas Fir (about 1-20 years with an average range in dbh from 3 to 20").	Douglas-fir is less than 1% of stand. Pines and oaks dominate. Goal is to encourage growth of larger/older pines and oaks with about 100-200 stems/ac.	Emphasize protection of all >16" and oaks >10" dbh (and clumps having at least 3, 5" oaks) by felling or converting to snags firs within 40 ft. radius of these oaks or pines. Thin Douglas and Grand fir 8 - < 20" dbh to reach the total stand density of 30-50 stems/ac outside of protection zone. Across the stand type, outside of riparian buffers and pine oak release areas ensure there are at least 5 snags/ac that are 10-20" dbh and at least 3 snags/ac that are greater than 20" dbh. Any snags created inside the Pine/Oak release areas count towards these snags.
Snags	variable across the landscape	More than 5 snags per acre exist in the 10-20" dbh size and at least 3 snags per acre in the >20" dbh size range.	Across the stand type, outside of riparian buffers and pine oak release areas ensure there are at least 5 snags/ac that are 10-20" dbh and at least 3 snags/ac that are greater than 20" dbh. Douglas fir larger than 20" dbh within the 40' Pine/Oak release radius should be converted into snags, preferably by climbing.
Openings	Some openings appear to be permanent based on soils or moisture content of soils as a result of Missoula floods.	New openings and opening maintenance is created from pile burning and release of larger legacy trees.	Not to exceed 4% of widely dispersed, variable sized mosaic of irregular shapes blending with existing openings
Herbaceous Layer	Native and non-native grasses and wildflowers	Same as existing with the addition of more native bunchgrass and other native grasses.	1-4": 2 tons/ac 4-9": 3 tons/ac (this would equate to ~50 tpa sub 8" dbh) 10+": 15 tons/ac (this would equate to ~25 tpa at 15" dbh 1-3 pieces of large woody debris/ac should be maintained that are greater than 20" dbh and 30' long.
Downed Wood	variable across the landscape	1-3 pieces of large woody debris should be maintained that are greater than 20" dbh and 30' long	

Table 4. East Conifer Oak Pine Prescription (orange areas on Figure 2)

Component	Existing Condition	Desired Condition	Proposed Treatment
Shrub Understory	Heavy in-growth of young Douglas fir. Many shrubs, such as ocean-spray, snowberry, hazel, vine maple, Oregon grape, and ceanothus, scattered and in more open areas more dominant.	There should be big leaf maples intermixed as understory with other smaller hardwoods. Shrubs are scattered except in more open areas.	Retain all oaks
Overstory	There is a range of 200 to 800 stems per acre of 1" to 20" trees in this area. Generally, the majority of these trees are sub 4" trees. There is a concentration of 3 acres close to private property with a very high stocking (450) stems per acre of 7-14" trees. Large pines and oaks are much more common than in East Conifer but less than 10%, with the majority of the older oaks and pines are getting overtopped by much younger fir trees. A 10" oak tree ranging in age from 80-200 years old while a fir tree in the 10-14" range will typically be less than 40 years old.	There should be a few irregularly shaped/ mosaic small openings of differing sizes and patches of oaks and pines on southern facing slopes but generally the dominant canopy will be above a 60% closure dominated by Douglas Fir. Larger Pines or Oaks Exist sporadically across this cover type where larger openings or drier soil conditions exist.	Maintain 60% of overstory averaged out across the cover type. Cut all ≤ 8" dbh Douglas fir across stand type, pile sub 10" material for burning outside of riparian buffers, lop and scatter when enough material for good piles does not exist.
Snags	variable across the landscape	More than 5 snags per acre exist in the 10-20" dbh size and at least 3 snags per acre in the >20" dbh size range.	Any Douglas Fir larger than 20" dbh within the 40' Pine/Oak release radius should be converted into snags by climbing (preferably) or by other methods. Do not make snags within 200' of USFS ownership boundary. Across the stand type, outside of riparian buffers and pine oak release areas ensure there are at least 5 snags/ac that are 10-20" dbh and at least 3 snags/ac that are greater than 20" dbh. Any snags created inside the Pine/Oak release areas count towards these snags.
Openings	Some openings appear to be permanent based on soils and water holding capacity as a result of Missoula floods.	Mosaic of smaller openings	Not to exceed 4% of widely dispersed, variable sized mosaic of irregular shapes blending with existing openings.
Herbaceous Layer	Cover present: largely repressed by excessive growth of small diameter trees occluding penetration of sunlight.	Bare ground still common but more grasses/herbaceous increasing	1-4": 2 tons/ac 4-9": 3 tons/ac (this would equate to ~50 tpa sub 8" dbh) 10+": 15 tons/ac (this would equate to ~25 tpa at 15" dbh) Within this 10+" category, at least 1-3 pieces of large woody debris/ac should be maintained that are greater than 20" dbh and 30' long.
Downed Wood	Variable across the landscape	There should be at least 6 pieces of wood per acre that are greater than 20" dbh and 30 feet long	

PROJECT DESIGN CRITERIA

Vegetation

- No shrubs will be cut or removed unless they are a safety concern.
- No permanent leave tree marking shall be used except the marking of boundary trees near the base of each tree.

Roads

- Only one road access is currently available for light vehicles. No new roads will be created either for temporary use or otherwise.
- Road maintenance on the existing road would occur to facilitate light vehicles.
- Culverts within the project area would be maintained to provide proper drainage for light vehicles.
- Use erosion control measures (e.g., wood chip wattles) where road maintenance may result in delivery of sediment to adjacent surface water.
- Chipping will be retained as an option, but only along existing roads where those roads can be accessed without the need for any ground disturbing maintenance.

Slash Piles

- When necessary, excess material shall be burned only when weather conditions minimize impacts from smoke. These include burning on cloudy days when residual smoke cannot be seen; burn during low visitor time periods; and burning during periods of atmospheric instability for better smoke dispersal.
- After piles are burned, their footprints will receive a native seed mix to help reduce the possibility of invasive species and promote native bunch grasses. Invasive plant infestations will be located and avoided to forestall potential spread until eradicated.
- Piles should not be placed on or in the following areas: the bottom of ephemeral draws, or within perennial or intermittent stream protection zones.
- Piles should not be placed in vernal pools or seasonally wet areas.
- These pile footprints will be seeded with a mix determined by the FS botanist.

Underburning

- The proposal would create a prescribed underburning schedule for thinned tree stands and areas where fire can be reintroduced without thinning.
- Ignition could occur within the Riparian Reserve, but outside of the stream protection zone.
- All burned areas will be seeded with native grasses and forbs.

Hydrology

- Stream Protection Zones:
    - Activities within 30 feet of any intermittent stream and 45 feet of any perennial stream (Stream Protection Zone) will be felled by hand and any materials will be left on site; however, small diameter material (less than 4 inches) can be removed from the protection zones if soil integrity can be retained.
    - Protection zones are measured from the edge of the bankfull channel on both sides of the stream. Buffers would be expanded to include slope breaks where appropriate.
    - If a tree greater than 4-inch diameter dbh located outside a protection zone lands wholly or partially within the protection zone when felled, none of the tree located within the protection zone would be removed.
    - Deviations to these protection zone measures may be permitted if on-the-ground conditions warrant variations to improve hydrologic function and condition as determined by the CRGNSA hydrologist.
    - Within a protection zone, sub-8-inch thinning of trees is permissible as long as they are not providing primary shade to the stream at the locations where they are being thinned. Fir trees < 16-in dbh near prescription distances from larger oak trees (> 10-inch dbh) may be felled or snagged, if they are not providing primary shade to the stream.
- Activities between 30-100 feet of an intermittent stream, and 45-200 feet of any perennial stream (Riparian Reserve) may be felled by hand and subsequently piled and burned. Only material less than 4-inch diameter may be piled within the Riparian Reserve.
- Maintain physical and water quality integrity of facilities associated with the spring water sources during operations.
- All wetland-dependent vegetation will be left undisturbed.
- If any streams are identified in the field during implementation, regardless of being mapped, they should be treated per the project design criteria.

Wildlife

- A biological assessment and biological evaluation have been completed and a Letter of Concurrence was issued by the US Fish and Wildlife Service (on file at the CRGNSA office). Below is a summary of the project design criteria.
    - All active Western Gray Squirrel nest sites shall have a 400 ft. no entry buffer around the nest tree between March 1 and August 31.
    - If any sensitive wildlife or flora is located during the project, the Scenic Area wildlife biologist or ecologist shall be notified and appropriate measures taken to ensure protection.

- Creation of snags where they are below requirements of the CRGNSA Management Plan.
- Within Northern Spotted Owl Areas, snags and down wood shall not be used for firewood.
- Areas where post treatment field surveys indicate that a majority of the vegetation was removed and slow vegetation recovery is expected will be seeded with a native seed mixture to reduce the chance of surface erosion. Opportunities exist to enhance habitat for native wildlife species after treatment by re-vegetating all disturbed areas with desired native bunch grass, forb and shrub species. Appropriate forage species include bluebunch wheatgrass (*Agropyron spicatum*), Idaho fescue (*Festuca idahoensis*), Serviceberry (*Amelanchier alnifolia*), arrowleaf balsamroot (*Balsamorhizasagittata*), deerbrush (*Ceanothus integerrimus*), and others.

Botany/Invasive Species

- To reduce the potential for transport or spread of invasive plants by road maintenance, equipment, fire vehicles, and other all equipment shall be required to be washed before entering Forest Service lands.
- All stands will be monitored post-activity for invasive plants.
- If new invasive plant infestations are discovered, they will be assessed for treatment.
- Limit to the extent possible disturbance in the spring to vernally moist areas, where rare plants may exist.
- Adhere to 200’ buffer along Dog Creek, along cliffs and waterfalls on Dog Creek to avoid disturbance to rare plants.
- After piles are burned, footprints will be re-seeded with native seed mix to prevent invasive plant infestations.
- Areas where under burning will occur will be seeded with native seed mix, with consideration of species such as those species listed above.

Soil

- Not more than 15% of an activity areas soil productivity will be detrimentally disturbed.

Scenery

- Visible changes on edges between stand types should be feathered rather than a distinct line that can be seen from distances.
- Reverse cut stumps (cut face away from viewing corridors).
- Low cut stumps to 8” and below.
- Use cut tree marking rather than leave tree.
- Revegetate all disturbed soil as soon as is practicable.

Public Recreation

- Trail users, residents, and the general public will be notified of thinning and burning activities by posting warning signs at key trail intersections.

Cultural Resources

- Within the Heritage Avoidance Area (map on file at CRGNSA office):
    - Directionally fell trees away from power poles and nearby hardware and artifacts.
    - Slash burn piles should be a minimum distance of 40 ft. from all cultural materials.
    - Sub 8" thinning and other fuel reductions can occur in direct proximity to cultural materials, as protection from potential fire.
- Archeological sites shall be identified in the field, including the appropriate buffers.
- Should any historic or prehistoric cultural resources be uncovered during project activities, the applicant shall cease work and immediately notify the CRGNSA office and the Washington State Historic Preservation Office. The CRGNSA should also notify the Indian Tribal governments within 24 hours if the resources are prehistoric or otherwise associated with Native American Indians.

Timing Restrictions

- Outside of the Northern Spotted Owl Areas thinning with gas powered saws or machinery is permitted between April 1 to December 15. Restrictions in place to avoid noise disturbance in deer winter range.
- Within the Northern Spotted Owl Areas, thinning with gas powered saws or machinery is permitted between July 16 to December 15.
- Active Western Gray Squirrel nest sites shall have a 400 ft. no entry buffer around the nest tree between March 1 and August 31.
- Pile burning is permitted between July 16 and December 15, consistent with an approved burn plan.

DECISION

I have decided to implement the Drano Stand and Wildlife Habitat Improvement Project as described on Figures 1-2 and Tables 1-4 above, including project design criteria. I find the Project to be consistent with the CRGNSA Management Plan provided it is implemented as described in this decision memo, the project application, and the CRGNSA Consistency Determination Findings of Fact document (beginning on page 16, referenced as CD-21-04-S).

This action is categorically excluded from documentation in an environmental impact statement (EIS) or an environmental assessment (EA). The applicable category of actions is identified in agency procedures as 36 CFR 220.6(e)(6) *Timber stand and/or wildlife habitat improvement*

activities that do not include the use of herbicides or do not require more than 1 mile of low standard road construction. This category of action(s) is applicable because the proposal focuses on vegetation treatments aimed at habitat improvement throughout the area. There is no use of herbicides or road construction as part of this project decision.

Based on an interdisciplinary review of the project's anticipated environmental effects by Forest Service resource specialists I find that there are no extraordinary circumstances related to the proposed action that will warrant further documentation in an EIS or an EA. I considered resource conditions identified in agency procedures that should be considered in determining whether extraordinary circumstances might exist.

- *Federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species.*

  As part of the analysis completed for this project, possible effects from the project on species listed, or proposed for listing, under the Endangered Species Act (ESA) were examined, and a Biological Evaluation (BE) was developed. The project tiers to the 2013 National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service Aquatic Restoration Biological Opinions, (ARBO II, NWR-2013-9664 and 01EOFW00-2013-F-0090, respectively).

  The project and site plans were submitted to and discussed with U.S. Fish and Wildlife Service. Project effects on federally listed species and their designated critical habitats are as follows:

  - The project may affect but is not likely to affect the northern spotted owl. The project will maintain spotted owl habitat in the short-term, and to a degree, promote the development of spotted owl nesting, roosting, and foraging habitats in the long-term, the effects to critical habitat are insignificant, and with timing restrictions the project may affect, but in not likely to adversely affect the northern spotted owl.
  - There are no effects from the project on listed fish species (including bull trout, bull trout critical habitat, federally listed anadromous salmonids and steelhead, or their critical habitats).

  For Forest Sensitive Species, individuals may be impacted by the project, but not populations, nor would the project cause a trend toward federal listing of any of these species.

- *Flood plains, wetlands, or municipal watersheds.*

  No mapped wetlands, other than those identified as "riverine" and associated with mapped streams are identified within the project area per the National Wetland Inventory. In addition, the streams that intersect the project area are generally steeper, headwater type confined streams with very little to no established floodplains and little to no riparian wetland development. There is overlap with small portions of the northeastern portion of the project area with a groundwater source area for a mapped spring water source by Washington Department of Health. Project Design Criteria for this project include protection of existing spring sources and their infrastructure, and therefore this

project will not alter the circumstances of the mapped drinking water source area.

- *Congressionally designated areas such as wilderness, wilderness study areas, or national recreation areas*

  The permit areas lie within the congressionally designated National Scenic Area. A Consistency Determination was completed to ensure consistency with the CRGNSA Management Plan (See Page 16). That determination concluded that the project is consistent with the National Scenic Area Management Plan Policy and Guidelines provided the applicant meet the criteria and conditions listed in the Findings of Fact and Consistency Determination. There are no other designated areas in the project area.

- *Inventoried roadless areas or potential wilderness areas*

  This project is not located in or near an inventoried roadless area or potential wilderness areas and therefore will have no effect to such areas.

- *Research natural areas*

  This project is not located in or near a Research Natural Area and therefore will have no effect to such areas.

- *American Indians and Alaska Native religious or cultural sites*

  Initial notification was sent to the Confederated Tribes and Bands of the Yakama Nation, the Confederated Tribes of Warm Springs, the Confederated Tribes of the Umatilla Indian Reservation, and the Nez Perce Tribe. The cultural resource survey report for the project work was sent to the same tribes on October 4, 2021. Project-level consultation with tribes indicated that there are no areas of specific concern.

- *Archaeological sites, or historic properties or areas.*

  The Archaeologist prepared a report to complete agency requirements with respect to Section 106 of the National Historic Preservation Act and Title 36, Code of Federal Regulations, Chapter 800 (36 CFR 800). No cultural resources were identified during heritage resource survey. On these bases, the Agency Specialist recommended a determination of "No historic properties affected" (36 CFR 800.4 (d)(1)) for the project. Initial notification with the draft Area of Potential Effect was sent to the Washington Department of Archaeology and Historic Preservation's (WDAHP). The cultural resource survey report for the work was sent on November 2, 2021 and concurrence was received on November 2, 2021.

FINDINGS REQUIRED BY OTHER LAWS AND REGULATIONS

National Scenic Area Act (16 USC 544)

The attached Findings of Fact address consistency with the CRGNSA Management Plan guidelines. The project is consistent with the 1986 National Scenic Area Act. The proposed treatments are consistent with goals, policy, and guidelines of General Management Areas (GMA) and Special Management Areas (SMA) allocations per the CRGNSA Management Plan.

National Forest Management Act (16 U.S.C. 1600)

All lands proposed for treatment are productive forest as validated by soil interpretations, plant associations, and on-site growth measurements. The proposed silvicultural treatments meet all the requirements, conditions, and constraints for vegetation manipulation, where applicable, as specified in title 36 CFR 219.27 (b) and Appendix F of the Gifford Pinchot Land and Resource Management Plan. This meets National Forest Management Act requirements as clarified in the Pacific Northwest Regional Guide. Findings relative to 16 U.S.C. 1604 (g)(3)(E) to harvest timber do not apply. The proposed treatments are consistent with goals, policy, and guidelines of GMA and SMA allocations per the CRGNSA Management Plan.

Endangered Species Act (16 U.S.C. § 1531 et seq.)

The proposal is not likely to adversely affect (NLAA) northern spotted owl and northern spotted owl critical habitat. There are no effects from the project on listed fish species. I find that this action is consistent with the Endangered Species Act of 1973. Relevant project design criteria and best management practices have been incorporated into the project design.

Clean Water Act (33 U.S.C. §1251 et seq.)

Water quality has been addressed through project design criteria and acquisition of all necessary local, state and federal permits will be completed before implementation. With design features, mitigation measures, and Best Management Practices, water quality will be maintained throughout implementation of this proposed action and meet requirements of the Clean Water Act.

Executive Order 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (59 FR 7629; February 16, 1994)

This project will not result in any disproportionate impact to minority or low-income populations. Tribal consultations have been concluded.

National Historic Preservation Act (54 U.S.C. § 300101 et seq.)

Site survey, report, and consultation have been concluded with a finding of *"No historic properties affected"* (36 CFR 800.4 (d)(1)) for the project. As designed, this project will not have any adverse impact to significant cultural resources.

PUBLIC INVOLVEMENT

This action was originally listed as a proposal on the Columbia River Gorge National Scenic Area Schedule of Proposed Actions in July 2021 and updated periodically during the analysis. Scoping letters regarding the opportunity to comment on the proposal were sent to known interested and effected parties. A notice of review for consistency with the CRGNSA Management Plan with a 30-day opportunity to comment was published to the Forest Service's CRGNSA public website on August 11, 2021. There were no comments received during review or scoping.

ADMINISTRATIVE REVIEW (APPEAL) OPPORTUNITIES

This project is not subject to administrative review under 36 CFR 218.

A written request for review of the CRGNSA Consistency Determination, with reasons to support the request, must be received within 20 days of the date shown with the Forest Supervisor signature below. Requests for review should be addressed to: Request for CRGNSA Review, Regional Forester, P.O. Box 3623, Portland, OR 97208.

IMPLEMENTATION DATE

Project implementation is expected to start soon after this decision is signed in December 2021. Monitoring will occur for at least two years following completion of the project.

The CRGNSA Consistency Determination expires two years after the date on this determination. If implementation has not commenced before that date, and an extension of the determination has not been requested, a new consistency review shall be required.

CONTACT

For additional information concerning this decision, contact: Roland Rose, Fuels Planner, 541-308-1723 or roland.rose@usda.gov

DONNA MICKLEY Digitally signed by DONNA MICKLEY
Date: 2021.12.11 12:56:47 -08'00'

DONNA MICKLEY Date
Forest Supervisor
Columbia River Gorge National Scenic Area

CRGNSA CONSISTENCY DETERMINATION
DRANO STAND AND WILDLIFE HABITAT IMPROVEMENT PROJECT
CD-21-04-S
SKAMANIA COUNTY, WASHINGTON

FINDINGS OF FACT

LANDOWNER:	US Forest Service, Columbia River Gorge National Scenic Area
APPLICANT:	Donna Mickley, Forest Supervisor, Columbia River Gorge National Scenic Area
PROPOSED ACTION:	Thin and pile burn 190 acres
LOCATION:	Township 3N, Range 9 E, Sections 27 & 34, Willamette Meridian Tax Lots: 03092700030000, 03092700010000, 03092740020000, 03092700040000, 03093420020000, 03093420010200
NATIONAL SCENIC AREA DESIGNATION:	Special Management Area (SMA)
LAND USE DESIGNATION:	Open Space; Forest
LANDSCAPE SETTING:	Gorge Walls, Canyonlands, and Wildlands; Coniferous Woodlands

The following findings of fact contain the applicable standards and guidelines from the CRGNSA Management Plan. The Management Plan, as adopted in 2004 and updated in 2011, is in effect. The CRGNSA Management Plan standards and guidelines are displayed in regular type. The findings are displayed in **bold type**.

A. PUBLIC COMMENT

A notice describing the project was sent to a mailing list of known interested parties and adjacent landowners on August 10, 2021. A period of 30 days was allowed for public comment. The project did not receive any public comment during the 30-day review period.

B. PROJECT PROPOSAL

The Drano Stand and Wildlife Habitat Improvement Project is designed to improve timber stand conditions and wildlife habitat by restoring resiliency to fire-dependent habitats through the reduction of in-growth of small trees and the encroachment of Douglas-fir caused by decades of fire exclusion. The project area is on lands managed by the US Forest Service (USFS) as part of the Columbia River Gorge National Scenic Area (CRGNSA). The project is planned in a portion of the Skamania County Wildland Urban Interface designated by Klickitat and Skamania County, Washington Community Wildfire Protection Plan. The project would thin and pile burn approximately 190 acres Fire Regime I, condition class 2 and 3 tree stands in the Wildland-Urban Interface in the Drano Lake area. See Figures 1-2 and Tables 1-4 for site details and prescription by vegetation type. The project design criteria in Appendix A would be applied to

all treatments.

Fire Regime Condition Class

Fire regimes in combination with condition classes are used to describe existing stands in fire-dependent landscapes as to the degree of alteration from the historic fire regime and the relative risk of fire-caused losses of key components of the forest ecosystem:

- Condition Class 1-Fire regimes are within an historical range, low risk for losing key ecosystem components, vegetation attributes (species composition and structure) are intact and functioning within an historical range. These areas can be maintained using fire.
- Condition Class 2-Moderately altered fire regime, moderate risk for losing key ecosystem components, moderate change to pattern, size, frequency, or severity of fires, vegetation attributes have been moderately altered from their historical range. These areas may need moderate levels of restoration treatments, such as hand or mechanical thinning and prescribed fire.
- Condition Class 3-Significantly altered fire regime, high risk for losing key ecosystem components, dramatic change to pattern, size, frequency, or severity of fires, vegetation attributes have been significantly altered from their historical range. These areas may need high levels of restoration treatments, such as hand or mechanical thinning before prescribed fire can be used to restore the historical fire regime.

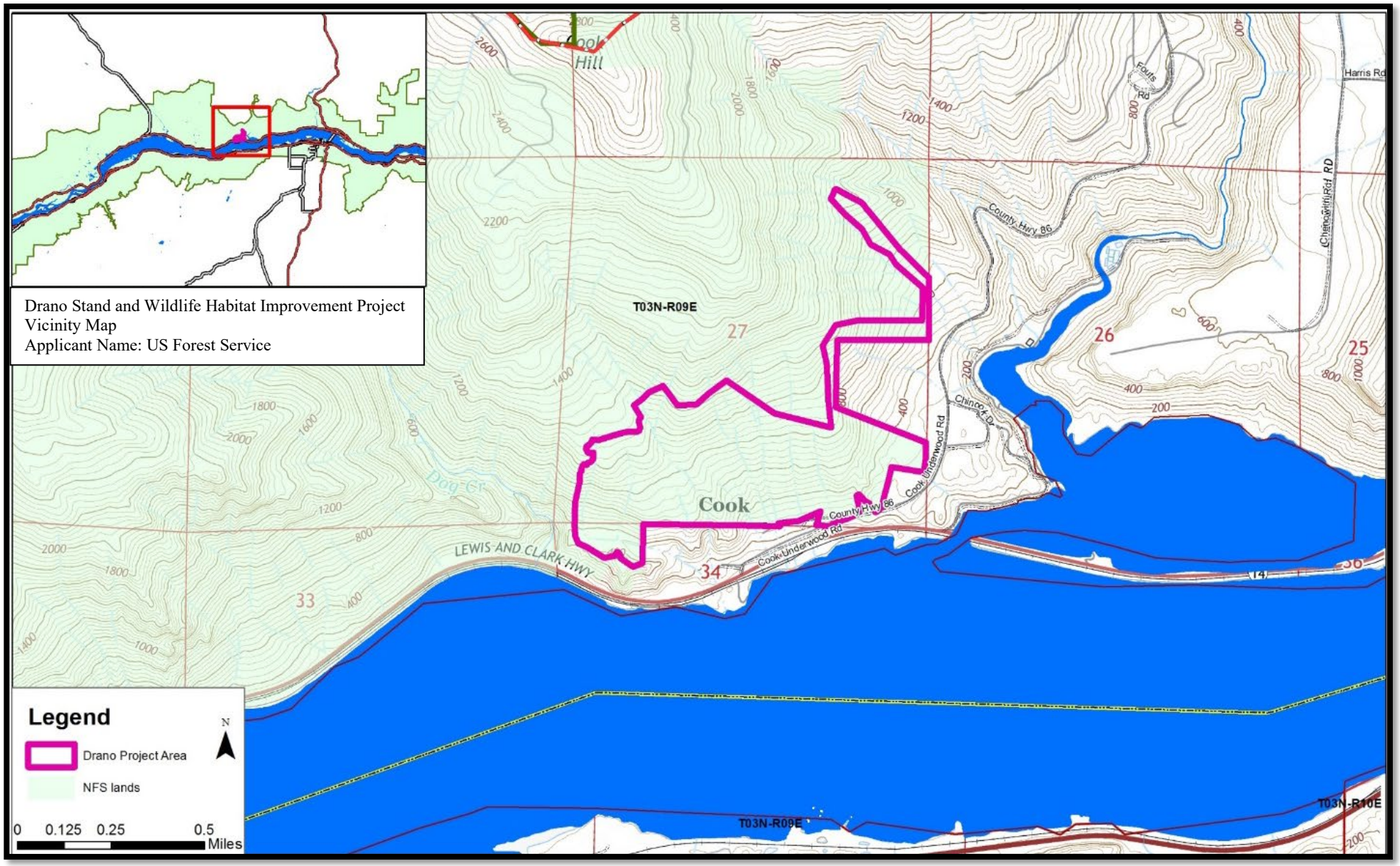
Departures from the natural fire regime are caused by fire suppression, timber harvesting, livestock grazing, introduction and establishment of exotic plant species, introduced insects or disease, or other management activities.

In the Drano Project area, approximately 145 acres are in Condition Class 2 and 40 acres are in Condition Class 3.

Project's Ecosystem Restoration Goals

- Restore, as much as possible, the natural fire regime and associated habitats while protecting threatened, endangered or sensitive species.
- Release overtopped oak trees to forestall their rapid decline.
- Improve the growing conditions for large legacy ponderosa pine trees by removing the understory trees competing with them for moisture and light.
- Reduce the risk of bark beetle tree mortality by reducing the number of trees per acre (predisposition to beetles is largely due to water stress during dry summer months and increase in beetle populations in areas that have freshly cut Douglas fir accumulations on the ground).

See the following figures and tables for project details.


Drano Stand and Wildlife Habitat Improvement Project
Vicinity Map
Applicant Name: US Forest Service
T03N-R09E
T03N-R08E
T03N-R10E
Cook
Cook Hill
Dog Cr.
LEWIS AND CLARK HWY
County Hwy 86
Cook-Underwood Rd
Chinook Rd
Harris Rd
Routs Rd
Chenowith Rd
Legend
Drano Project Area
NFS lands
N
0 0.125 0.25 0.5
Miles

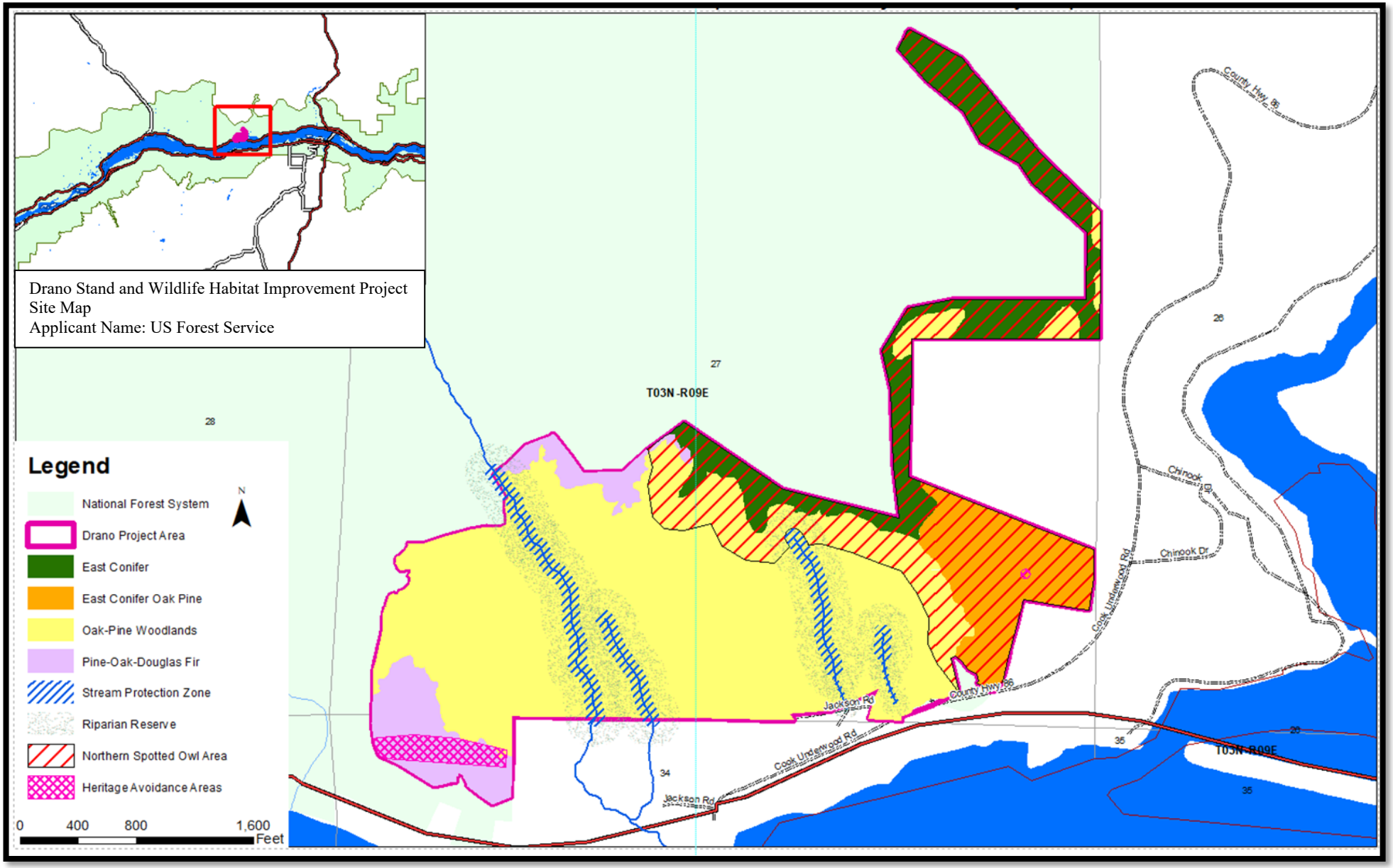

Drano Stand and Wildlife Habitat Improvement Project
Site Map
Applicant Name: US Forest Service
Legend
National Forest System
Drano Project Area
East Conifer
East Conifer Oak Pine
Oak-Pine Woodlands
Pine-Oak-Douglas Fir
Stream Protection Zone
Riparian Reserve
Northern Spotted Owl Area
Heritage Avoidance Areas
N
0
400
800
1,600
Feet
T03N-R09E
27
28
34
35
26
Jackson Rd
Cook Underwood Rd
County Hwy 86
Chinook Dr

TABLE 5. EAST CONIFER PRESCRIPTION (GREEN ON SITE MAP)

Component	Existing Condition	Desired Condition	Proposed Treatment
Shrub Understory	Understory, where present, is heavy in-growth of young Grand fir or Douglas-fir. Shrubs component scattered with ocean-spray, snowberry, hazel, vine maple, and ceanothus.	There should be big leaf maples intermixed as understory with other smaller hardwoods. Shrubs are scattered except in more open areas.	Retain all shrubs.
Overstory	Stands mostly consist of Douglas-fir with average age about 50-70 years and dbh (diameter breast height) measurements averaging about 14-20"with scattered older Douglas-fir and Ponderosa Pine. Much more Douglas-fir than natural fire regime would have produced. Currently there are approximately 120 Stems per acres of overstory. Some patches of hardwoods consisting predominantly of big leaf maples. Large oaks at lower elevations are dying from being overtopped by Douglas-fir.	There should be a few irregularly shaped small openings of differing sizes and patches of oaks and pines on southern facing slopes. Generally the dominant canopy will be above a 60% closure dominated by Douglas Fir.	Canopy closure greater than 60% over entire cover type. Thin by felling all fir trees ≤ 8" dbh. Pile sub 4" material for burning outside of riparian buffers, lop and scatter when enough material for good piles does not exist.
Snags	variable across the landscape	More than 5 snags per acre in the 10-20" dbh size and at least 3 snags per acre in the >20" dbh size range.	Across the stand type, outside of riparian buffers and pine oak release areas ensure there are at least 5 snags/ac that are 10-20" dbh and at least 3 snags/ac that are greater than 20" dbh.
Openings	Small openings that are relatively scarce.	Mosaic of smaller openings	Not to exceed 4% of widely dispersed, variable sized mosaic of irregular shapes blending with existing openings
Herbaceous Layer	Ground relatively bare--where cover present: Oregon grape, allium, yarrow, and lupine.	Bare ground still common but more grasses/herbaceous increasing.	1-4": 2 tons/ac 4-9": 3 tons/ac (this would equate to ~50 trees per acre (tpa) sub 8" dbh) 10+": 15 tons/ac (this would equate to ~25 tpa at 15" dbh) Within this 10+" category, at least 1-3 pieces of large woody debris should be maintained that are greater than 20" dbh and 30' long.
Downed Wood	variable across the landscape	There should be at least 6 pieces of wood per acre that are greater than 20" dbh and 30 feet	

TABLE 6. PINE-OAK DOUGLAS FIR PRESCRIPTION (PURPLE AREAS ON SITE MAP)

Component	Existing Condition	Desired Condition	Proposed Treatment
Shrub Understory	Heavy in-growth of young Douglas fir. Many shrubs, such as ocean-spray, snowberry, hazel, vine maple, Oregon grape, and ceanothus, scattered and in more open areas more dominant.	There should be big leaf maples intermixed as understory with other smaller hardwoods. Shrubs are scattered except in more open areas.	Remove all conifer tree species ≤ 8" dbh, except retain 50% sub 10" pines. Retain all oak.
Overstory	Large pines and oaks much more common than in East Conifer, but these make up less than 50% of the total canopy. Smaller diameter trees range about 500 to over 1000 stems/ac. Younger firs (20-50 yrs with dbh ranging from 10-14") are often seen over-topping older oaks (80-200+ years).	There should be a few irregularly shaped/ mosaic small openings of differing sizes and patches of oaks and pines on southern facing slopes but generally the dominant canopy will be above a 60% closure dominated by Douglas Fir. Larger Pines or Oaks Exist sporadically across this cover type where larger openings or drier soil conditions exist.	Canopy closure greater than 60% over entire cover type. Douglas and grand fir ≤ 8" dbh should be felled while retaining a minimum of 40 stems per acre of 15"-20" dbh or 80 stems per acre of 8-14". Outside of Protection Zones, Ponderosa Pines ≥ 16" dbh, Oak trees ≥ 10" dbh and clumps of three or more oaks ≥ 5" diameter will be given a 40' clearing of all Douglas or grand fir trees up to 20" dbh. Pile sub 10" material for burning outside of riparian buffers, lop and scatter when enough material for good piles does not exist.
Snags	variable across the landscape	More than 5 snags per acre exist in the 10-20" dbh size and at least 3 snags per acre in the >20" dbh size range.	Across the stand type, outside of riparian buffers and pine oak release areas ensure there are at least 5 snags/ac that are 10-20" dbh and at least 3 snags/ac that are greater than 20" dbh. Douglas fir larger than 20" dbh within the 40' Pine/Oak release radius should be converted into snags, preferably by climbing.
Openings	Some openings appear to be permanent based on soils or moisture content of soils as a result of Missoula floods	Mosaic of smaller openings	Not to exceed 4% of widely dispersed, variable sized mosaic of irregular shapes blending with existing openings
Herbaceous Layer	Cover present: natives largely replaced by annual cheat grass. Some native include: allium spp., yarrow, and lupine.	Bare ground still common but more grasses/herbaceous increasing.	1-4": 2 tons/ac 4-9": 3 tons/ac (this would equate to ~50 tpa sub 8" dbh) 10+": 15 tons/ac (this would equate to ~25 tpa at 15" dbh) Within this 10+" category, at least 1-3 pieces of large woody debris should be maintained that are greater than 20" dbh and 30' long.
Downed Wood	variable across the landscape	There should be at least 6 pieces of wood per acre that are greater than 20" dbh and 30 feet.	

TABLE 7. OAK-PINE WOODLANDS PRESCRIPTION (YELLOW AREAS ON SITE MAP)

Component	Existing Condition	Desired Condition	Proposed Treatment
Shrub Understory	Shrubs are present as in other vegetation types with poison oak being dominant. Young Douglas Fir are prevalent and if not treated will dominate understory and reach overstory in about 10-15 years without fire.	Shrubs scattered in drier areas but more dominant in wetter areas. No Douglas fir recruitment.	Remove all conifer tree species ≤ 8" dbh, except retain 50% young/ sub 10" pines. Retain all oaks.
Overstory	Oak, scattered Ponderosa Pine and big leaf maple are dominant with rapidly encroaching Douglas-fir. Generally stems per acre are within range of 200-400, depending on number of young Douglas Fir (about 1-20 years with an average range in dbh from 3 to 20").	Douglas-fir is less than 1% of stand. Pines and oaks dominate. Goal is to encourage growth of larger/older pines and oaks with about 100-200 stems/ac.	Emphasize protection of all >16" and oaks >10" dbh (and clumps having at least 3, 5" oaks) by felling or converting to snags firs within 40 ft. radius of these oaks or pines. Thin Douglas and Grand fir 8 - < 20" dbh to reach the total stand density of 30-50 stems/ac outside of protection zone. Across the stand type, outside of riparian buffers and pine oak release areas ensure there are at least 5 snags/ac that are 10-20" dbh and at least 3 snags/ac that are greater than 20" dbh. Any snags created inside the Pine/Oak release areas count towards these snags.
Snags	variable across the landscape	More than 5 snags per acre exist in the 10-20" dbh size and at least 3 snags per acre in the >20" dbh size range.	Across the stand type, outside of riparian buffers and pine oak release areas ensure there are at least 5 snags/ac that are 10-20" dbh and at least 3 snags/ac that are greater than 20" dbh. Douglas fir larger than 20" dbh within the 40' Pine/Oak release radius should be converted into snags, preferably by climbing.
Openings	Some openings appear to be permanent based on soils or moisture content of soils as a result of Missoula floods.	New openings and opening maintenance is created from pile burning and release of larger legacy trees.	Not to exceed 4% of widely dispersed, variable sized mosaic of irregular shapes blending with existing openings
Herbaceous Layer	Native and non-native grasses and wildflowers	Same as existing with the addition of more native bunchgrass and other native grasses.	1-4": 2 tons/ac 4-9": 3 tons/ac (this would equate to ~50 tpa sub 8" dbh) 10+": 15 tons/ac (this would equate to ~25 tpa at 15" dbh
Downed Wood	variable across the landscape	1-3 pieces of large woody debris should be maintained that are greater than 20" dbh and 30' long	1-3 pieces of large woody debris/ac should be maintained that are greater than 20" dbh and 30' long.

TABLE 8. EAST CONIFER OAK PINE PRESCRIPTION (ORANGE AREAS ON SITE MAP)

Component	Existing Condition	Desired Condition	Proposed Treatment
Shrub Understory	Heavy in-growth of young Douglas fir. Many shrubs, such as ocean-spray, snowberry, hazel, vine maple, Oregon grape, and ceanothus, scattered and in more open areas more dominant.	There should be big leaf maples intermixed as understory with other smaller hardwoods. Shrubs are scattered except in more open areas.	Retain all oaks
Overstory	There is a range of 200 to 800 stems per acre of 1" to 20" trees in this area. Generally, the majority of these trees are sub 4" trees. There is a concentration of 3 acres close to private property with a very high stocking (450) stems per acre of 7-14" trees. Large pines and oaks are much more common than in East Conifer but less than 10%, with the majority of the older oaks and pines are getting overtopped by much younger fir trees. A 10" oak tree ranging in age from 80-200 years old while a fir tree in the 10-14" range will typically be less than 40 years old.	There should be a few irregularly shaped/ mosaic small openings of differing sizes and patches of oaks and pines on southern facing slopes but generally the dominant canopy will be above a 60% closure dominated by Douglas Fir. Larger Pines or Oaks Exist sporadically across this cover type where larger openings or drier soil conditions exist.	Maintain 60% of overstory averaged out across the cover type. Cut all ≤ 8" dbh Douglas fir across stand type, pile sub 10" material for burning outside of riparian buffers, lop and scatter when enough material for good piles does not exist.
Snags	variable across the landscape	More than 5 snags per acre exist in the 10-20" dbh size and at least 3 snags per acre in the >20" dbh size range.	Any Douglas Fir larger than 20" dbh within the 40' Pine/Oak release radius should be converted into snags by climbing (preferably) or by other methods. Do not make snags within 200' of USFS ownership boundary. Across the stand type, outside of riparian buffers and pine oak release areas ensure there are at least 5 snags/ac that are 10-20" dbh and at least 3 snags/ac that are greater than 20" dbh. Any snags created inside the Pine/Oak release areas count towards these snags.
Openings	Some openings appear to be permanent based on soils and water holding capacity as a result of Missoula floods.	Mosaic of smaller openings	Not to exceed 4% of widely dispersed, variable sized mosaic of irregular shapes blending with existing openings
Herbaceous Layer	Cover present: largely repressed by excessive growth of small diameter trees occluding penetration of sunlight.	Bare ground still common but more grasses/herbaceous increasing	1-4": 2 tons/ac 4-9": 3 tons/ac (this would equate to ~50 tpa sub 8" dbh) 10+": 15 tons/ac (this would equate to ~25 tpa at 15" dbh) Within this 10+" category, at least 1-3 pieces of large woody debris/ac should be maintained that are greater than 20" dbh and 30' long.
Downed Wood	variable across the landscape	There should be at least 6 pieces of wood per acre that are greater than 20" dbh and 30 feet long	

C. LAND USE DESIGNATIONS

The proposal is not located in the Agricultural Land Use Designation, so Management Plan, Part II, Chapter 1 Agriculture Land, SMA Guidelines, Review Uses, Guideline 1 does not apply to this project.

The Management Plan, Part II, Chapter 2 Forest Land, SMA Guidelines, *Review Uses*, states:

1. X. Forest practices in accordance with an approved forest practices application (see application requirements) and subject to the additional guidelines in this chapter.
    (1) The following information, in addition to general site plan requirements (see Part II, Chapter 7: General Policies and Guidelines) shall be required:
        (a) Delineate the following on a recent aerial photo or detailed map:
            (i) The size, shape, and exact location of the proposed treatment area including any clumps of leave trees to remain. If more than one silvicultural prescription is to be used, code each on the photo.
            (ii) Other important natural features of the subject parcel such as steep areas, streams, wetlands, rock outcrops, etc.
            (iii) Road and structure construction and/or reconstruction location.
            (iv) Location of proposed rock or aggregate sources.
            (v) Major skid trails, landings, and yarding corridors.
            (vi) Commercial firewood cutting areas.
            (vii) Protection measures for scenic, cultural, natural, and recreation resources, such as road closures.
        (b) Describe the existing forest in terms of species, ages, sizes, landscape pattern (including how it fits into the surrounding landscape pattern) and canopy closure for all canopy layers.
        (c) Describe how the forest practice will fit into the existing landscape pattern and how it will meet scenic and natural resource standards in Review Uses 1.X(4)(a-g) and 1.X=(5)(a-d).
        (d) Written silvicultural prescriptions with projected post-treatment forest condition specified in terms of species, ages, sizes, landscape pattern (including how it fits into the surrounding landscape pattern) and canopy closure for all canopy layers.
        (e) Road and structure construction and/or reconstruction design.
        (f) Existing and proposed rock pit development plans.
        (g) A discussion of slash disposal methods.
        (h) A reforestation plan as reviewed by the appropriate state forest practices agency.
    (2) As part of the application, flag, stake or mark buffers, any trees or downed wood to be retained or removed (whichever makes the most sense), and areas for placing fill or removing material in preparation for a field visit by the reviewer.
    (3) Stewardship Plan Requirements: The following information, in addition to the applicable portions of the forest practice application requirements above and general site plan requirements (see Part II, Chapter 7: General Policies and Guidelines) shall be provided:
        (a) Outline the long term goals, proposed operations, and future sustainability of the subject parcel.
        (b) Describe the time frame and steps planned to reach the long term goals.

(c) For Forest Practices, describe how the proposed activities fit into the long term goals and sustainability of the parcel and/or forest health. The following shall be addressed:
(i) Describe the range of natural conditions expected in the forest in terms of tree species, structure, and landscape pattern.
(ii) Describe what the resulting tree species, structure, and landscape pattern will be after the proposed activities.
(iii) Give a clear explanation how a deviation from the applicable guidelines may better achieve forest health objectives.
(iv) Give a clear explanation how and why the proposed activities will lead the forest towards its range of natural variability and result in reaching sustainability, resiliency to disturbances.

(d) For clearing trees for new agricultural use, the following shall be addressed in addition to X(3)(a) and (b) above:
(i) Submit NRCS soil unit description and map for each soil unit affected by the proposed clearing or treatment.
(ii) Based on the needs of the operation, give a clear explanation as to the exact size of the clearing needed and how it will meet the natural and scenic requirements set forth in W(4)(a-d) in this chapter
(iii) Describe in sufficient detail for evaluation the proposed agricultural use, the improvements needed on the parcel, time line for its establishment, and its marketability
(iv) Show evidence that an agricultural specialist, such as the county extension agent, has examined and found the proposed agricultural use reasonable and viable.

(4) For forest practices, the following scenic resource guidelines shall apply: (See Scenic Resources section)

(5) Forest practices shall maintain the following in addition to applicable natural resources guidelines in Part I, Chapter 4, SMA Natural Resources: (See Natural Resources section)

Finding: The proposed forest practice qualifies as a Review Use. Forest practice guidelines 1, 2, and 3 have been met in the Application provided by the applicant and included in the figures and tables within this review on pages 3-8 of the Consistency Determination.

Forest practice guidelines 4-5 are addressed under the appropriate resource areas.

D. SCENIC RESOURCES

Finding: The site encompasses two landscape settings: Gorge Walls, Canyons, and Wildlands and Coniferous Woodlands.

The Management Plan, Part I, Chapter 1 (Scenic Resources), SMA guidelines, states:

SMA Design Guidelines Based on Landscape Settings

Guideline 1-A, C-D are not applicable and are not included

1. The following guidelines apply to all lands within SMA landscape settings regardless of visibility from KVAs (includes areas seen from KVAs as well as areas not seen from KVAs):
   B. Coniferous Woodland and Oak-Pine Woodland: Woodland areas shall retain the overall appearance of a woodland landscape. New developments and land uses shall retain the overall visual character of the natural appearance of the Coniferous Woodland and Oak-Pine Woodland landscape.

Finding: The proposal meets this guideline because the design criteria outlined as part of this project (applicable to all prescriptions) would ensure Coniferous Woodland areas shall retain the overall appearance of a woodland landscape

E. Gorge Walls, Canyonlands, and Wildlands: New developments and land uses shall retain the overall visual character of the natural-appearing landscape.
(1) Structures, including signs, shall have a rustic appearance, use nonreflective materials, have low contrast with the surrounding landscape, and be of a Cascadian architectural style.
(2) Temporary roads shall be promptly closed and revegetated.
(3) New utilities shall be below ground surface, where feasible.
(4) Use of plant species non-native to the Columbia River Gorge shall not be allowed.

Finding: There are no structures, utilities, or temporary roads proposed as part of this project. Project design criteria requires the use of native seeds where seeding may be necessary. The design criteria outlined as part of this project would ensure areas with the landscape setting of Gorge Walls, Canyonlands, and Wildlands would retain the overall visual character of the natural-appearing landscape. Guideline has been met.

SMA Guidelines for Development and Uses Visible from KVAs

(Guidelines 4-5 and 8-14 are not applicable and not included)

1. The guidelines in this section shall apply to proposed developments on sites topographically visible from key viewing areas.
2. New developments and land uses shall be evaluated to ensure that the required scenic standard is met and that scenic resources are not adversely affected, including cumulative effects, based on the degree of visibility from key viewing areas.
3. The required SMA scenic standards for all development and uses are summarized in the following table:

Table 9. Required SMA Scenic Standards

LANDSCAPE SETTING	LAND USE DESIGNATION	SCENIC STANDARD
Coniferous Woodland, Oak-Pine Woodland	Forest (National Forest Lands), Open Space	Not Visually Evident
River Bottomlands	Open Space	Not Visually Evident

Gorge Walls, Canyonlands, Wildlands	Forest, Agriculture, Public Recreation, Open Space	Not Visually Evident
Coniferous Woodland, Oak-Pine Woodland	Forest, Agriculture, Residential, Public Recreation	Visually Subordinate
Residential	Residential	Visually Subordinate
Pastoral	Forest, Agriculture, Public Recreation, Open Space	Visually Subordinate
River Bottomlands	Forest, Agriculture, Public Recreation	Visually Subordinate

Findings: This proposal encompasses the landscape settings of Gorge Walls, Canyons, and Wildlands and Coniferous Woodlands, which have scenic standards of Not Visually Evident (Gorge Walls, Canyons, and Wildlands) and Visually Subordinate (Coniferous Woodlands). For this project all treatments will comply with the SMA Scenic Standard of Not Visually Evident as the more restrictive scenic standard. According to the Management Plan, Not Visually Evident is defined as:

> ***Not Visually Evident (SMA): A visual quality standard that provides for development or uses that are not visually noticeable to the casual visitor. Developments or uses shall only repeat form, line, color, and texture that are frequently found in the natural landscape, while changes in their qualities of size, amount, intensity, direction, pattern, etc., shall not be noticeable.***

The project was designed to meet all criteria established in the Desired Forest Structure and Pattern Table of the Management Plan (Part II, Chapter 2, Page 27) for the West Conifer forest type, which has been documented in Table 12 of this Consistency Review. Additionally, scenery specific design criteria were established to ensure these scenic standards would be met. Currently, the areas are natural appearing and consistent with the characteristic features of the Gorge Walls, Canyons, and Wildlands and Coniferous Woodlands landscape settings.

6. The extent and type of conditions applied to a proposed development or use to achieve the scenic standard shall be proportionate to its degree of visibility from key viewing areas.

A. Decisions shall include written findings addressing the factors influencing the degree of visibility, including but not limited to:
   (1) The amount of area of the building site exposed to key viewing areas,
   (2) The degree of existing vegetation providing screening,
   (3) The distance from the building site to the key viewing areas from which it is visible,
   (4) The number of key viewing areas from which it is visible, and
   (5) The linear distance along the key viewing areas from which the building site is visible (for linear key viewing areas, such as roads).

B. Conditions may be applied to various elements of proposed developments to ensure they meet the scenic standard for their setting as seen from key viewing areas, including but not limited to:
   (1) Siting (location of development on the subject property, building orientation, and other elements),

(2) Retention of existing vegetation,
(3) Design (color, reflectivity, size, shape, height, architectural and design details and other elements), and
(4) New landscaping

Findings: The NSA Scenery Specialist used ArcGIS and GoogleEarth© elevation profiles to calculate that the parcel is topographically visible from the following Key Viewing Areas (KVAs):

Table 10. Key Viewing Areas

KVA	Foreground	Middleground	Background
Columbia River	X		
SR 14	X		
I 84		X	
HCRHST		X	
Cook Underwood Rd		X	
Dog Mtn Trail		X	

Visibility
According to ArcGIS mapping data, the project area is topographically visible from KVAs identified above, in the immediate foreground and middle ground (.25 mile and above). As viewed from the foreground and middleground vegetative coverage is the visual element that has potential to differentiate this project from the surrounding natural landscape, as no structural development is proposed. The proposal includes project design criteria to allow for a configuration that is responsive to natural landscape patterns. This includes designing the treatments so that visible changes on edges between stand types are feathered rather than a distinct line that can be seen from distances.

Any potential for changes in the form, line, color, and texture of the natural landscape within the project could occur through slight changes in vegetation coverage, but the project is focused on moving the area towards desired vegetative conditions. For the reasons stated above, in conjunction with implementation of the project design criteria, the vegetative manipulation will be beneficial to the natural appearance of the landscape.

The proposal meets the scenic standard of Not Visually Evident, as described in findings above.

Cumulative Effects
Because this project will not have significant scenic impacts it will not have cumulative impacts.

7. Sites approved for new development to achieve scenic standards shall be consistent with guidelines to protect wetlands, riparian corridors, sensitive plant or wildlife sites and the buffer zones of each of these natural resources, and guidelines to protect cultural resources.

Findings: Consistency with guidelines for cultural resources and natural resources can be found in the applicable sections below.

SMA Guidelines for KVA Foregrounds and Scenic Routes

1. All new developments and land uses immediately adjacent to scenic routes shall be in conformance with state or county scenic route guidelines.
2. Scenic highway corridor strategies shall be developed and implemented for Interstate 84 (I-84), Washington State Route 14 (SR 14) and the Historic Columbia River Highway (HCRH). For I-84, SR 14 and the HCRH, this involves ongoing implementation (and possible updating) of the associated existing documents.
3. The goals of scenic corridor strategies shall include: 1) providing a framework for future highway improvements and management that meet Management Plan scenic guidelines and public transportation needs; and 2) creating design continuity for the highway corridor within the Scenic Area. Corridor strategies shall, at minimum, include design guidelines (e.g. materials, conceptual designs, etc.) for typical projects that are consistent with Management Plan scenic resources provisions and an interdisciplinary, interagency project planning and development process.
4. The following guidelines shall apply only to development within the immediate foregrounds of key viewing areas. Immediate foregrounds are defined as within the developed prism of a road or trail KVA or within the boundary of the developed area of KVAs such as Crown Pt. and Multnomah Falls. They shall apply in addition to applicable guidelines in the previous section (SMA Guidelines for Development Visible from KVAs).
   A. The proposed development shall be designed and sited to meet the applicable scenic standard from the foreground of the subject KVA. If the development cannot meet the standard, findings must be made documenting why the project cannot meet the requirements in the previous section and why it cannot be redesigned or wholly or partly relocated to meet the scenic standard.
   B. Findings must evaluate the following:
      (1) The limiting factors to meeting the required scenic standard and/or applicable guidelines from the previous section;
      (2) Reduction in project size;
      (3) Options for alternative sites for all or part of the project, considering parcel configuration and on-site topographic or vegetative screening;
      (4) Options for design changes including changing the design shape, configuration, color, height, or texture in order to meet the scenic standard.
   C. Form, line, color, texture, and design of a proposed development shall be evaluated to ensure that the development blends with its setting as seen from the foreground of key viewing areas:
      (1) Form and Line-Design of the development shall minimize changes to the form of the natural landscape. Development shall borrow form and line from the landscape setting and blend with the form and line of the landscape setting. Design of the development shall avoid contrasting form and line that unnecessarily call attention to the development.
      (2) Color-Color shall be found in the project's surrounding landscape setting. Colors shall be chosen and repeated as needed to provide unity to the whole design.
      (3) Texture-Textures borrowed from the landscape setting shall be emphasized in the

design of structures. Landscape textures are generally rough, irregular, and complex rather than smooth, regular, and uniform.

(4) Design-Design solutions shall be compatible with the natural scenic quality of the Gorge. Building materials shall be natural or natural appearing. Building materials such as concrete, steel, aluminum, or plastic shall use form, line color and texture to harmonize with the natural environment. Design shall balance all design elements into a harmonious whole, using repetition of elements and blending of elements as necessary.

5. Right-of-way vegetation shall be managed to minimize visual impacts of clearing and other vegetation removal as seen from key viewing areas. Roadside vegetation management (vista clearing, planting, etc.) should enhance views from the highway.
6. Screening from key viewing areas shall be encouraged for existing and required for new road maintenance, warehouse, and stockpile areas.

Findings: The project design criteria were designed to ensure project activities would meet the appropriate scenic guidelines in areas visible from the foreground of KVAs. Guideline is met.

SMA Guidelines for Areas Not Seen from KVAs

1. Unless expressly exempted by other provisions in this chapter, colors of structures on sites not visible from key viewing areas shall be earth-tones found at the specific site. The specific colors or list of acceptable colors shall be approved as a condition of approval, drawing from the recommended palette of colors included in the Scenic Resources Implementation Handbook.

Finding: This guideline is not applicable because there are no structures proposed as part of this project.

The Management Plan, Part II, Chapter 2 (Forest Land), SMA guidelines, Review Uses states:

SMA Scenic Guidelines for Forest Practices (1-3 addressed under Land Use Designations, (d) is not applicable and not included)

(4) For forest practices, the following scenic resource guidelines shall apply:

(a) Forest practices shall meet the design guidelines and scenic standards for the applicable landscape setting and zone (See Required SMA Scenic Standards table, SMA Guidelines for Development Visible from KVAs, SMA Scenic Resource Provisions, Part I, Chapter I).

Finding: This project is consistent with design guidelines and scenic standards for Coniferous Woodlands and Gorge Walls, Canyonlands, and Wildlands. Consistency with this guideline is discussed in previous findings.

(b) In the western portion (to White Salmon River) of the SMA Coniferous Woodland Landscape Setting, no more than 8% of the composite KVA viewshed from which the forest practice is topographically visible shall be in created forest openings at

one time. The viewshed boundaries shall be delineated by the Forest Service.

Finding: The proposal is designed not to exceed 4% of widely dispersed, variable sized mosaic of irregular shapes that blend with existing openings. Guideline is met.

(c) In the western portion (to the White Salmon River) of the SMA Gorge Walls, Canyonlands and Wildlands Landscape Setting, no more than 4% of the composite KVA viewshed from which the forest practice is topographically visible shall be in created forest openings at one time. The viewshed boundaries shall be delineated by the Forest Service.

Finding: The proposal is designed not to exceed 4% of widely dispersed, variable sized mosaic of irregular shapes that blend with existing openings. Guideline is met.

(e) Size, shape, and dispersal of created forest openings shall maintain the desired natural patterns in the landscape as set forth in the Natural Resources guidelines in Review Uses 1.X(5)(a)-(c) in this chapter.
(f) The maximum size of any created forest opening is set forth by the "Desired" vegetation type in the forest Structure and Pattern Table. (i)-(ii)

Finding: The desired vegetation type for this project is West Conifer. Project design is consistent with desired conditions for this vegetation type. See Table 12. Guideline is met.

(g) Created forest openings shall not create a break or opening in the vegetation in the skyline as viewed from a key viewing area.

Finding: Openings will be designed as a mosaic of irregular shapes that blend with existing openings as to not be noticeable as viewed from a KVA. Guideline is met.

E. CULTURAL RESOURCES

The Management Plan, Part I, Chapter 2 (Cultural Resources), states:

SMA Guidelines

1. All cultural resource surveys, evaluations, assessments, and mitigation plans shall be performed by professionals whose expertise reflects the type of cultural resources that are involved. Principal investigators shall meet the professional standards published in 36 CFR 61.

Finding: The Cultural Resource Survey Report was prepared to complete agency requirements with respect to Section 106 of the National Historic Preservation Act and Title 36, Code of Federal Regulations, Chapter 800 (36 CFR 800). The Agency Specialist recommended a determination of "No historic properties affected" (36 CFR 800.4 (d)(1)) for the proposed project.

2. Discovery during construction: All authorizations for new developments or land uses shall require the immediate notification of the reviewing agency if cultural resources are discovered during construction or development. If cultural resources are discovered, particularly human bone or burials, work in the immediate area of discovery shall be suspended until a cultural resource professional can evaluate the potential significance of the discovery and recommend measures to protect and/or recover the resource. If the discovered material is suspected to be human bone or a burial, the following procedures shall be used:

   A. The applicant shall stop all work in the vicinity of the discovery.
   B. The applicant shall immediately notify the Forest Service, the applicant's cultural resource professional, the county coroner, and appropriate law enforcement agencies.
   C. The Forest Service shall notify the tribal governments if the discovery is determined to be an Indian burial or a cultural resource.

3. Determination of potential effects to significant cultural resources shall include consideration of cumulative effects of proposed developments that are subject to any of the following: 1) a reconnaissance or historic survey; 2) a determination of significance; 3) an assessment of effect; or 4) a mitigation plan. (Added: U.S. Sec. Ag. concurrence 7/1/11)

Finding: The forest service archaeologist reviewed the proposal and determined that a reconnaissance survey was required. Cultural resource survey was conducted in 2017.

Guideline 4 is not applicable to this project and not included.

F. NATURAL RESOURCES

1. Wetlands, Streams, Ponds, Lakes, and Riparian Areas

The Management Plan, Part I, Chapter 3 (Natural Resources), SMA Provisions, states:

SMA Guidelines

1. All new developments and uses, as described in a site plan prepared by the applicant, shall be evaluated using the following guidelines to ensure that natural resources are protected from adverse effects. Comments from state and federal agencies shall be carefully considered. (Site plans are described under "Review Uses" in Part II, Chapter 7: General Policies and Guidelines.)
2. Water Resources (Wetlands, Streams, Ponds, Lakes, and Riparian Areas)
   A. All Water Resources shall, in part, be protected by establishing undisturbed buffer zones as specified in 2.A.(2)(a) and 2(b) below. These buffer zones are measured horizontally from a wetland, stream, lake, or pond boundary as defined below.
      (1) All buffer zones shall be retained undisturbed and in their natural condition, except as permitted with a mitigation plan.
      (2) Buffer zones shall be measured outward from the bank full flow boundary for streams, the high water mark for ponds and lakes, the normal pool elevation for the Columbia River, and the wetland delineation boundary for wetlands on a horizontal scale that is perpendicular to the wetlands, stream, pond or lake boundary. On the

main stem of the Columbia River above Bonneville Dam, buffer zones shall be measured landward from the normal pool elevation of the Columbia River. The following buffer zone widths shall be required:

(a) A minimum 200 foot buffer on each wetland, pond, lake, and each bank of a perennial or fish bearing stream, some of which can be intermittent.

(b) A 50-foot buffer zone along each bank of intermittent (including ephemeral), non-fish bearing streams.

(c) Maintenance, repair, reconstruction and realignment of roads and railroads within their rights-of-way shall be exempted from the wetlands and riparian guidelines upon demonstration of all of the following:

(i) The wetland within the right-of-way is a drainage ditch not part of a larger wetland outside of the right-of-way.

(ii) The wetland is not critical habitat.

(iii) Proposed activities within the right-of-way would not adversely affect a wetland adjacent to the right-of-way.

(3) The buffer width shall be increased for the following:

(a) When the channel migration zone exceeds the recommended buffer width, the buffer width shall extend to the outer edge of the channel migration zone.

(b) When the frequently flooded area exceeds the recommended riparian buffer zone width, the buffer width shall be extended to the outer edge of the frequently flooded area.

(c) When an erosion or landslide hazard area exceeds the recommended width of the buffer, the buffer width shall be extended to include the hazard area.

(4) Buffer zones can be reconfigured if a project applicant demonstrates all of the following: (1) the integrity and function of the buffer zone is maintained, (2) the total buffer area on the development proposal is not decreased, (3) the width reduction shall not occur within another buffer, and (4) the buffer zone width is not reduced more than 50% at any particular location. Such features as intervening topography, vegetation, man made features, natural plant or wildlife habitat boundaries, and flood plain characteristics could be considered.

(5) Requests to reconfigure buffer zones shall be considered if an appropriate professional (botanist, plant ecologist, wildlife biologist, or hydrologist) hired by the project applicant (1) identifies the precise location of the sensitive wildlife/plant or water resource, (2) describes the biology of the sensitive wildlife/plant or hydrologic condition of the water resource, and (3) demonstrates that the proposed use will not have any negative effects, either direct or indirect, on the affected wildlife/plant and their surrounding habitat that is vital to their long-term survival or water resource and its long-term function.

(6) The local government shall submit all requests to re-configure sensitive wildlife/plant or water resource buffers to the Forest Service and the appropriate state agencies for review. All written comments shall be included in the project file. Based on the comments from the state and federal agencies, the local government will make a final decision on whether the reconfigured buffer zones are justified. If the final decision contradicts the comments submitted by the federal and state agencies, the local government shall justify how it reached an opposing conclusion.

Finding: Project design criteria incorporates buffer zones for mapped intermittent and perennial streams in the project area. Additionally, design criteria would ensure unmapped streams found during project activities would be treated per the same design criteria. A mitigation plan was required as part of this project because work would be conducted within the water resource buffer.

B. When a buffer zone is disturbed by a new use, it shall be replanted with only native plant species of the Columbia River Gorge.

Finding: All disturbed areas will be reseeded with a native seed mix per the project design criteria.

C. The applicant shall be responsible for identifying all water resources and their appropriate buffers (see above).

Finding: Streams and their buffers were identified in the application. If any additional water resources are identified in during project implementation, stream buffers should be treated appropriately according to the Project Design Criteria.

D. Wetlands Boundaries shall be delineated using the following:
(1) The approximate location and extent of wetlands in the Scenic Area is shown on the National Wetlands Inventory (U.S. Department of the Interior, 1987). In addition, the list of hydric soils and the soil survey maps shall be used as an indicator of wetlands.
(2) Some wetlands may not be shown on the wetlands inventory or soil survey maps. Wetlands that are discovered by the local planning staff during an inspection of a potential project site shall be delineated and protected.
(3) The project applicant shall be responsible for determining the exact location of a wetlands boundary. Wetlands boundaries shall be delineated using the procedures specified in the '1987 Corps of Engineers Wetland Delineation Manual (on-line edition)'.
(4) All wetlands delineations shall be conducted by a professional who has been trained to use the federal delineation procedures, such as a soil scientist, botanist, or wetlands ecologist.

Finding: No wetlands were identified within the project area.

E. Stream, pond, and lake boundaries shall be delineated using the bank full flow boundary for streams and the high water mark for ponds and lakes. The project applicant shall be responsible for determining the exact location of the appropriate boundary for the water resource.

Finding: The project design criteria described measuring the stream protection zones from the stream bank, which typically also equates to the high-water mark. The buffer is also measured from this location.

F. The local government may verify the accuracy of, and render adjustments to, a bank full

flow, high water mark, normal pool elevation (for the Columbia River), or wetland boundary delineation. If the adjusted boundary is contested services, at the project applicant's expense, or the local government will ask for technical assistance from the Forest Service to render a final delineation.

Finding: The Forest Hydrologist will assist the project proponents in the field to identify bank full and high-water marks, if needed.

G. Buffer zones shall be undisturbed unless the following criteria have been satisfied:
(1) The proposed use must have no practicable alternative as determined by the practicable alternative test. Those portions of a proposed use that have a practicable alternative will not be located in wetlands, stream, pond, lake, and riparian areas and/or their buffer zone.
(2) Filling and draining of wetlands shall be prohibited with exceptions related to public safety or restoration/enhancement activities as permitted when all of the following criteria have been met:
(a) A documented public safety hazard exists or a restoration/ enhancement project exists that would benefit the public and is corrected or achieved only by impacting the wetland in question, and
(b) Impacts to the wetland must be the last possible documented alternative in fixing the public safety concern or completing the restoration/enhancement project, and
(c) The proposed project minimizes the impacts to the wetland.
(3) Unavoidable impacts to wetlands and aquatic and riparian areas and their buffer zones shall be offset by deliberate restoration and enhancement or creation (wetlands only) measures as required by the completion of a mitigation plan.

Finding: There is no practicable alternative. If the water resource buffers were not treated, then if a fire were to start in the project area and reached the buffer, it would likely cause a high intensity fire, which would likely kill the riparian vegetation and result in excess sediment delivery and stream temperatures. A mitigation plan is required since these activities are proposed in the water resources buffers.

H. Determination of potential natural resources effects shall include consideration of cumulative effects of proposed developments within the following areas: wetlands, streams, ponds, lakes, riparian areas and their buffer zones. (Added: U.S. Sec. Ag. concurrence 7/1/11)

Finding: By treating the project area, it will be more resilient should a fire be introduced. Recently, the adjacent landowner also treated their property for fuels. Cumulatively, this will have a beneficial effect to both the uplands and riparian areas.

2. Wildlife and Plants

A. Protection of sensitive wildlife/plant areas and sites shall begin when proposed new developments or uses are within 1000 ft of a sensitive wildlife/plant site and/or area. Sensitive Wildlife Areas are those areas depicted in the wildlife inventory and listed in

Table 2, including all Priority Habitats listed in this Chapter. The approximate locations of sensitive wildlife and/or plant areas and sites are shown in the wildlife and rare plant inventory.

Finding: **One sensitive plant Oregon Bolandra (*Bolandra oregana*) occurs within 1,000 feet of the project area, but habitat for this species does not occur within the proposed area, nor will there be any impacts to potential habitat. Additionally, the project will implement appropriate buffers in Priority Habitats (Oregon White Oak and Riparain) within the project area.**

B. The local government shall submit site plans (of uses that are proposed within 1,000 feet of a sensitive wildlife and/or plant area or site) for review to the Forest Service and the appropriate state agencies (Oregon Department of Fish and Wildlife or the Washington Department of Wildlife for wildlife issues and by the Oregon or Washington Natural Heritage Program for plant issues).

C. The Forest Service wildlife biologists and/or botanists, in consultation with the appropriate state biologists, shall review the site plan and their field survey records. They shall:

(1) Identify/verify the precise location of the wildlife and/or plant area or site,

(2) Determine if a field survey will be required,

(3) Determine, based on the biology and habitat requirements of the affected wildlife/plant species, if the proposed use would compromise the integrity and function of or result in adverse effects (including cumulative effects) to the wildlife or plant area or site. This would include considering the time of year when wildlife or plant species are sensitive to disturbance, such as nesting and rearing seasons, or flowering season, and

(4) Delineate the undisturbed 200 ft buffer on the site plan for sensitive plants and/or the appropriate buffer for sensitive wildlife areas or sites, including nesting, roosting and perching sites.

(a) Buffer zones can be reconfigured if a project applicant demonstrates all of the following: (1) the integrity and function of the buffer zones is maintained, (2) the total buffer area on the development proposal is not decreased, (3) the width reduction shall not occur within another buffer, and (4) the buffer zone width is not reduced more than 50% at any particular location. Such features as intervening topography, vegetation, man made features, natural plant or wildlife habitat boundaries, and flood plain characteristics could be considered.

(b) Requests to reduce buffer zones shall be considered if an appropriate professional (botanist, plant ecologist, wildlife biologist, or hydrologist), hired by the project applicant, (1) identifies the precise location of the sensitive wildlife/plant or water resource, (2) describes the biology of the sensitive wildlife/plant or hydrologic condition of the water resource, and (3) demonstrates that the proposed use will not have any negative effects, either direct or indirect, on the affected wildlife/plant and their surrounding habitat that is vital to their long-term survival or water resource and its long-term function.

(c) The local government shall submit all requests to re-configure sensitive

wildlife/plant or water resource buffers to the Forest Service and the appropriate state agencies for review. All written comments shall be included in the record of application and based on the comments from the state and federal agencies, the local government will make a final decision on whether the reduced buffer zone is justified. If the final decision contradicts the comments submitted by the federal and state agencies, the local government shall justify how it reached an opposing conclusion.

Finding: This project occurs outside of habitat for sensitive plant species Oregon Bolandra (*Bolandra oregana*) and other priority habitats have appropriate buffers. The sensitive plant species Oregon Bolandra (Bolandra oregana) does not occur within 200 feet of proposal and the area further than 200 feet has additional buffers for other resources applied.

There are project timing and veg removal design criteria put in place so that there are no adverse effects from the project to northern spotted owl, northern spotted owl designated critical habitat, Larch Mountain salamander, California mountain kingsnake, Lewis woodpecker, western gray squirrel.

Although the project area has habitat that could be utilized northern spotted owls, the project maintains appropriate canopy closure in potential nesting and foraging areas and incorporates additional design criteria to ensure no adverse effects.

Although the project area has habitat that could be utilized by western gray squirrels, all active nests will have a 400 ft. buffer around them from March 1 through August 31.

D. The local government, in consultation with the State and federal wildlife biologists and/or botanists, shall use the following criteria in reviewing and evaluating the site plan to ensure that the proposed developments or uses do not compromise the integrity and function of or result in adverse affects to the wildlife or plant area or site:
(1) Published guidelines regarding the protection and management of the affected wildlife/plant species. Examples include: the Oregon Department of Forestry has prepared technical papers that include management guidelines for osprey and great blue heron; the Washington Department of Wildlife has prepared similar guidelines for a variety of species, including the western pond turtle, the peregrine falcon, and the Larch Mountain salamander.
(2) Physical characteristics of the subject parcel and vicinity, including topography and vegetation.
(3) Historic, current, and proposed uses in the vicinity of the sensitive wildlife/plant area or site.
(4) Existing condition of the wildlife/plant area or site and the surrounding habitat and the useful life of the area or site.
(5) In areas of winter range, habitat components, such as forage and thermal cover, important to the viability of the wildlife must be maintained or, if impacts are to occur, enhancement must mitigate the impacts so as to maintain overall values and function of winter range.

(6) The site plan is consistent with the "Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources" (Oregon Department of Fish and Wildlife 2000) and the Washington guidelines when they become finalized.
(7) The site plan activities coincide with periods when fish and wildlife are least sensitive to disturbance. These would include, among others, nesting and brooding periods (from nest building to fledgling of young) and those periods specified.
(8) The site plan illustrates that new developments and uses, including bridges, culverts, and utility corridors, shall not interfere with fish and wildlife passage.
(9) Maintain, protect, and enhance the integrity and function of Priority Habitats (such as old growth forests, talus slopes, and oak woodlands) as listed on the following Priority Habitats Table. This includes maintaining structural, species, and age diversity, maintaining connectivity within and between plant communities, and ensuring that cumulative impacts are considered in documenting integrity and function.

Table 11. Priority habitats

Priority Habitats	Criteria
Aspen stands	High fish and wildlife species diversity, limited availability, high vulnerability to habitat alteration.
Caves	Significant wildlife breeding habitat, limited availability, dependent species.
Old-growth forest	High fish and wildlife density, species diversity, breeding habitat, seasonal ranges, and limited and declining availability, high vulnerability.
Oregon white oak woodlands	Comparatively high fish and wildlife density, species diversity, declining availability, high vulnerability.
Prairies and steppe	Comparatively high fish and wildlife density, species diversity, important breeding habitat, declining and limited availability, high vulnerability.
Riparian	High fish and wildlife density, species diversity, breeding habitat, movement corridor, high vulnerability, dependent species.
Wetlands	High species density, high species diversity, important breeding habitat and seasonal ranges, limited availability, high vulnerability.
Snags and logs	High fish and wildlife density, species diversity, limited availability, high vulnerability, dependent species.
Talus	Limited availability, unique and dependent species, high vulnerability.
Cliffs	Significant breeding habitat, limited availability, dependent species.
Dunes	Unique species habitat, limited availability, high vulnerability, dependent species.

Finding: The proposals project design criteria, including buffers, will ensure the project does not compromise the integrity and function of sensitive plant species or Priority Habitats or cause adverse effects to federally listed species or their designated critical habitat, Forest Sensitive species, or Priority Habitats.

E. The wildlife/plant protection process may terminate if the local government, in consultation with the Forest Service and state wildlife agency or Heritage program, determines (1) the sensitive wildlife area or site is not active, or (2) the proposed use is not within the buffer zones and would not compromise the integrity of the wildlife/plant area or site, and (3) the proposed use is within the buffer and could be easily moved out of the buffer by simply modifying the project proposal (site plan modifications). If the project applicant accepts these recommendations, the local government shall incorporate them into its development review order and the wildlife/plant protection process may conclude.

Finding: This guideline does not apply to this project as the applicant is the federal government working on National Forest System lands.

F. If the above measures fail to eliminate the adverse effects, the proposed project shall be prohibited, unless the project applicant can meet the Practicable Alternative Test and prepare a mitigation plan to offset the adverse effects by deliberate restoration and enhancement.

Finding: Project Design Criteria will ensure there are no adverse effects. Guideline is met.

G. The local government shall submit a copy of all field surveys (if completed) and mitigation plans to the Forest Service and appropriate state agencies. The local government shall include all comments in the record of application and address any written comments submitted by the state and federal wildlife agency/heritage programs in its development review order. Based on the comments from the state and federal wildlife agency/heritage program, the local government shall make a final decision on whether the proposed use would be consistent with the wildlife/plant policies and guidelines. If the final decision contradicts the comments submitted by the state and federal wildlife agency/heritage program, the local government shall justify how it reached an opposing conclusion.

Finding: This proposal was reviewed by Forest Service botanist and sent to WADNR Heritage program. The project occurs outside of habitat for sensitive plant species Oregon Bolandra (Bolandra oregana) and other priority habitats have appropriate buffers. For wildlife, the project has received concurrence from WDFW and USFWS biologists.

H. The local government shall require the project applicant to revise the mitigation plan as necessary to ensure that the proposed use would not adversely affect a sensitive wildlife/plant area or site.

Finding: The proposals project design criteria, including buffers, will ensure the project does not compromise the integrity and function of sensitive plant species or Priority Habitats or cause adverse effects to federally listed species or their designated critical habitat, Forest Sensitive species, or Priority Habitats.

I. Determination of potential natural resources effects shall include consideration of cumulative effects of proposed developments within the following areas: 1) sites within 1,000 feet of sensitive wildlife areas and sites; and 2) sites within 1,000 feet of rare plants. (Added: U.S. Sec. Ag. concurrence 7/1/11)

Finding:

Affected Resource

The affected resource is federally listed northern spotted owl and it's designated critical habitat, Oregon white-oak woodlands Priority Habitat, Riparian Priority Habitat.

No plant species affected by this project.

Spatial Boundary

The spatial boundary is the 6th Field HUC Gray Creek-Columbia River (#170701051106), and the 6th Field HUC Lower Little White Salmon River (#170701050905).

Temporal Boundary

The temporal boundary is 20 years into the future – a minimum approximation of the value of this project.

Past Actions

The cumulative effects analysis includes an analysis of past actions by including them in the assessment of current conditions. Current conditions within the Columbia River Gorge have been impacted by innumerable actions over the last century (and beyond) and trying to isolate the individual actions that continue to have residual impacts would be nearly impossible. Providing the details of past actions on an individual basis would not be useful to predict the cumulative effects of the proposed action or alternatives. Focusing on individual actions would be less accurate than looking at existing conditions, because there is limited information on the environmental impacts of individual past actions, and one cannot reasonably identify each and every action over the last century that has contributed to current conditions. Additionally, focusing on the impacts of past human actions risks ignoring the important residual effects of past natural events, which may contribute to cumulative effects just as much as human actions. The current conditions serve as an aggregate of all past actions, so by looking at current conditions, we are sure to capture all the residual effects of past human actions and natural events, regardless of which particular action or event contributed those effects.

Present Actions

There are no known similar projects occurring in the watershed at this time.

Reasonably Foreseeable Future Actions

There are no known similar projects occurring in the watershed in the reasonably foreseeable future.

Cumulative Impacts

In summary, there are no cumulative effects from this project.

4. Soil Productivity

A. Soil productivity shall be protected using the following guidelines:
(1) A description or illustration showing the mitigation measures to control soil erosion and stream sedimentation.
(2) New developments and land uses shall control all soil movement within the area shown on the site plan.
(3) The soil area disturbed by new development or land uses, except for new cultivation, shall not exceed 15 percent of the project area.
(4) Within 1 year of project completion, 80 percent of the project area with surface disturbance shall be established with effective native ground cover species or other soil-stabilizing methods to prevent soil erosion until the area has 80 percent vegetative cover.

Finding: Per the project design criteria, not more than 15% of an activity areas soil productivity will be detrimentally disturbed. Additionally, areas disturbed by the pile burning and underburning, will be seeded with native seed mix. Guideline is met.

Practicable Alternative Test

1. An alternative site for a proposed use shall be considered practicable if it is available and the proposed use can be undertaken on that site after taking into consideration cost, technology, logistics, and overall project purposes. A practicable alternative does not exist if a project applicant satisfactorily demonstrates all of the following:

A. The basic purpose of the use cannot be reasonably accomplished using one or more other sites in the vicinity that would avoid or result in less adverse effects on wetlands, ponds, lakes, riparian areas, wildlife or plant areas and/or sites.
B. The basic purpose of the use cannot be reasonably accomplished by reducing its proposed size, scope, configuration, or density, or by changing the design of the use in a way that would avoid or result in less adverse effects on wetlands, ponds, lakes, riparian areas, wildlife or plant areas and/or sites.
C. Reasonable attempts were made to remove or accommodate constraints that caused a project applicant to reject alternatives to the proposed use. Such constraints include inadequate infrastructure, parcel size, and land use designations. If a land use designation or recreation intensity class is a constraint, an applicant must request a Management Plan

amendment to demonstrate that practicable alternatives do not exist.

Finding: A practicable alternative test was required as part of this project and found that there is no practicable alternative. If the water resource buffers were not treated, then if a fire were to start in the project area and reached the buffer, it would likely cause a high intensity fire, which would likely kill the riparian vegetation and result in excess sediment delivery and stream temperatures.

Mitigation Plan

1. Mitigation Plans shall be prepared when:

A. The proposed development or use is within a buffer zone (wetlands, ponds, lakes, riparian areas, wildlife or plant areas and/or sites).

B. There is no practicable alternative (see the "practicable alternative" test). 2. In all cases, Mitigation Plans are the responsibility of the applicant and shall be prepared by an appropriate professional (botanist/ecologist for plant sites, a wildlife/fish biologist for wildlife/fish sites, and a qualified professional for water resource sites).

Finding: A mitigation plan is required for this project.

3. The primary purpose of this information is to provide a basis for the project applicant to redesign the proposed use in a manner that protects sensitive water resources and wildlife/plant areas and sites, that maximizes his/her development options, and that mitigates, through restoration, enhancement, and replacement measures, impacts to the water resources and/or wildlife/plant area or site and/or buffer zones.

4. The applicant shall submit the mitigation plan to the local government. The local government shall submit a copy of the mitigation plan to the Forest Service, and appropriate state agencies. If the final decision contradicts the comments submitted by the state and federal wildlife agency/heritage program, the local government shall justify how it reached an opposing conclusion.

5. A project applicant shall demonstrate sufficient fiscal, technical, and administrative competence to successfully execute a mitigation plan involving wetland creation.

Finding: The mitigation plan was prepared by the Forest Service. Guideline is met.

6. Mitigation plans shall include maps, photographs, and text. The text shall:

A. Describe the biology and/or function of the sensitive resources (e.g. wildlife/plant species or wetland) that will be affected by a proposed use. An ecological assessment of the sensitive resource to be altered or destroyed and the condition of the resource that will result after restoration will be required. Reference published protection and management guidelines.

B. Describe the physical characteristics of the subject parcel, past, present, and future uses, and the past, present, and future potential impacts to the sensitive resources. Include the size, scope, configuration, or density of new uses being proposed within the buffer zone.

C. Explain the techniques that will be used to protect the sensitive resources and their surrounding habitat that will not be altered or destroyed (for example, delineation of core habitat of the sensitive wildlife/plant species and key components that are essential to maintain the long-term use and integrity of the wildlife/plant area or site).

D. Show how restoration, enhancement, and replacement (creation) measures will be applied to ensure that the proposed use results in minimum feasible impacts to sensitive resources, their buffer zones, and associated habitats.

E. Show how the proposed restoration, enhancement, or replacement (creation) mitigation measures are NOT alternatives to avoidance. A proposed development/use must first avoid a sensitive resource, and only if this is not possible should restoration, enhancement, or creation be considered as mitigation. In reviewing mitigation plans, the local government, appropriate state agencies, and Forest Service shall critically examine all proposals to ensure that they are indeed last resort options.

Finding: This project involves entering and completing work in both intermittent and perennial streams within the Drano project area. The streams that intersect the project area are generally steeper, headwater type confined streams with very little to no established floodplains and little to no riparian wetland development. No mapped wetlands, other than those identified as "riverine" and associated with mapped streams are identified within the project area per the National Wetland Inventory.

The project implements project design criteria to reduce impacts of project work on the sensitive resources within the area. These mitigations are aimed at protecting sensitive natural resources while conducting project work within the water resource buffer. This is important because by conducting project work within the water resource buffers fuel loads would be reduced within riparian areas, reducing risk of wildfire that would likely kill the riparian vegetation and result in excess sediment delivery and stream temperatures. The purpose of this mitigation is to ensure no net loss of water quality, natural drainage, fish/wildlife/plant habitat, and water resources.

This project designed as a resource enhancement project where all design criteria complement the proposed action and restoration activities. Maps included in the decision display where project design criteria for water resources applies.

7. At a minimum, a project applicant shall provide to the local government a progress report every 3 years that documents milestones, successes, problems, and contingency actions. Photographic monitoring stations shall be established and photographs shall be used to monitor all mitigation progress.

8. A final monitoring report shall be submitted to the local government for review upon completion of the restoration, enhancement, or replacement activity. This monitoring report shall document successes, problems encountered, resource recovery, status of any sensitive wildlife/plant species and shall demonstrate the success of restoration and/or enhancement actions. The local government shall submit copies of the monitoring report to the Forest

Service; who shall offer technical assistance to the local government in helping to evaluate the completion of the mitigation plan. In instances where restoration and enhancement efforts have failed, the monitoring process shall be extended until the applicant satisfies the restoration and enhancement guidelines.

9. Mitigation measures to offset impacts to resources and/or buffers shall result in no net loss of water quality, natural drainage, fish/wildlife/plant habitat, and water resources by addressing the following:

A. Restoration and enhancement efforts shall be completed no later than one year after the sensitive resource or buffer zone has been altered or destroyed, or as soon thereafter as is practicable.

B. All natural vegetation within the buffer zone shall be retained to the greatest extent practicable. Appropriate protection and maintenance techniques shall be applied, such as fencing, conservation buffers, livestock management, and noxious weed control. Within five years, at least 75 percent of the replacement vegetation must survive. All plantings must be with native plant species that replicate the original vegetation community.

C. Habitat that will be affected by either temporary or permanent uses shall be rehabilitated to a natural condition. Habitat shall be replicated in composition, structure, and function, including tree, shrub and herbaceous species, snags, pool-riffle ratios, substrata, and structures, such as large woody debris and boulders.

D. If this standard is not feasible or practical because of technical constraints, a sensitive resource of equal or greater benefit may be substituted, provided that no net loss of sensitive resource functions occurs and provided the local government, in consultation with the appropriate State and Federal agency, determine that such substitution is justified.

E. Sensitive plants that will be destroyed shall be transplanted or replaced, to the maximum extent practicable. Replacement is used here to mean the establishment of a particular plant species in areas of suitable habitat not affected by new uses. Replacement may be accomplished by seeds, cuttings, or other appropriate methods. Replacement shall occur as close to the original plant site as practicable. The project applicant shall ensure that at least 75 percent of the replacement plants survive 3 years after the date they are planted.

F. Nonstructural controls and natural processes shall be used to the greatest extent practicable.

(1) Bridges, roads, pipeline and utility corridors, and other water crossings shall be minimized and should serve multiple purposes and properties.

(2) Stream channels shall not be placed in culverts unless absolutely necessary for property access. Bridges are preferred for water crossings to reduce disruption to hydrologic and biologic functions. Culverts shall only be permitted if there are no practicable alternatives as demonstrated by the ‘Practicable Alternative Test’.

(3) Fish passage shall be protected from obstruction.

(4) Restoration of fish passage should occur wherever possible.

(5) Show location and nature of temporary and permanent control measures that shall be applied to minimize erosion and sedimentation when riparian areas are disturbed, including slope netting, berms and ditches, tree protection, sediment barriers,

infiltration systems, and culverts.

(6) Groundwater and surface water quality will not be degraded by the proposed use. Natural hydrologic conditions shall be maintained, restored, or enhanced in such a manner that replicates natural conditions, including current patterns (circulation, velocity, volume, and normal water fluctuation), natural stream channel and shoreline dimensions and materials, including slope, depth, width, length, cross-sectional profile, and gradient.

(7) Those portions of a proposed use that are not water-dependent or that have a practicable alternative will be located outside of stream, pond, and lake buffer zones.

(8) Streambank and shoreline stability shall be maintained or restored with natural vegetation.

(9) The size of restored, enhanced, and replacement (creation) wetlands shall equal or exceed the following ratios. The first number specifies the required acreage of replacement wetlands, and the second number specifies the acreage of wetlands altered or destroyed.

Restoration: 2: l
Creation: 3: l
Enhancement: 4: l

Finding: Mitigation measures as part of this project do not include activities designed to offset impacts to resources, rather they focus on protecting resources where project activities occur. Guideline is met.

G. Wetland creation mitigation shall be deemed complete when the wetland is self-functioning for 5 consecutive years. Self-functioning is defined by the expected function of the wetland as written in the mitigation plan. The monitoring report shall be submitted to the local government to ensure compliance. The Forest Service, in consultation with appropriate state agencies, shall extend technical assistance to the local government to help evaluate such reports and any subsequent activities associated with compliance.

Finding: There are no wetlands in the project area. This guideline does not apply.

H. Wetland restoration/enhancement can be mitigated successfully by donating appropriate funds to a non-profit wetland conservancy or land trust with explicit instructions that those funds are to be used specifically to purchase protection easements or fee title protection of appropriate wetlands acreage in or adjacent to the Columbia River Gorge meeting the ratios given above in Guideline 9.F.(9). These transactions shall be explained in detail in the Mitigation Plan and shall be fully monitored and documented in the monitoring report.

Finding: There are no wetlands in the project area. This guideline does not apply.

SMA Natural Resource Guidelines for Forest Practices

The Management Plan, Part II, Chapter 2 (Forest Land), SMA guidelines, states*:*

(5) Forest practices shall maintain the following in addition to applicable natural

resources guidelines in Part I, Chapter 3, SMA Natural Resources:

(a) Silvicultural prescriptions shall maintain the desired natural forest stand structures (tree species, spacing, layering, and mixture of sizes) based on forest health and ecosystem function requirements. Forest tree stand structure shall meet the requirements listed in the Desired Forest Structure and Pattern Table for each vegetation type. Forest tree stand structure is defined as the general structure of the forest in each vegetation type within which is found forest openings.

Finding: The following table addresses the applicable standards for the West Conifer forest type identified in the Desired Forest Structure and Pattern Table.

Table 12. Desired forest structure and pattern

		MP Requirements	Proposed	Finding
East Conifer	Forest Structure (Average % total canopy closure (cc))	40-80% canopy closure Understory layer less than 25% of total cc	60% of overstory averaged out across the cover type.	**Consistent**
	Forest Openings	Openings less than 1 acre Openings have 0 - 40% canopy closure Openings widely dispersed	Not to exceed 4% of widely dispersed, variable sized mosaic of irregular shapes blending with existing openings.	**Consistent**
	Leave Trees	No leave trees required	All units would retain at least 30% of existing trees/ acre averaged across each unit.	**Consistent**
	Average Down Wood	3 - 6 pieces greater than 20” dbh	1-4”: 2 tons/ac. 4-9”: 3 tons/ac (this would equate to ~50 trees per acre (tpa) sub 8” dbh). 10+”: 15 tons/ac (this would equate to ~25 tpa at 15” dbh). Within this 10+” category, at least 1-3 pieces of large woody debris should be maintained that are greater than 20” dbh and 30’ long.	**Consistent**

	Average Snags	5 snags at 10”-20” dbh and 3 snags greater than 20” dbh	At least 5 snags/ac that are 10-20” dbh and at least 3 snags/ac that are greater than 20” dbh.	**Consistent**

(b) Created forest openings shall be designed as mosaics not to exceed the limits defined as Desired in the Desired Forest Structure and Pattern Table unless proposed as a deviation as allowed under the scenic resource guideline in Review Uses 1.X.(4)(f).
(c) Snag and down wood requirements shall be maintained or created as listed in the Desired Forest Structure and Pattern Table for each vegetation type.
(d) If the treatment is proposed to deviate from the snag and down wood requirements based on forest health or ecosystem function requirements, a Stewardship Plan shall be required and shall show and prove why a deviation from the snag and down wood requirements is required.

Finding: The proposed project activities are consistent with the requirements outlined in the above table. Guideline is met.

G. Recreation Resources

The Management Plan, Part II, Chapter 4 (Recreation Resources), SMA guidelines, states:

1. New developments and land uses shall not displace existing recreational use.

Finding: There are no National Forest System trails or other recreational uses within the proposed project area that would be displaced by proposal. Guideline is met.

2. Recreation resources shall be protected from adverse effects by evaluating new developments and land uses as proposed in the site plan. An analysis of both onsite and offsite cumulative effects shall be required.

Finding: There are no National Forest System trails or other recreational uses within the proposed project area that would be displaced by proposal. Guideline is met.

3. New pedestrian or equestrian trails shall not have motorized uses, except for emergency services.

Finding: This guideline is not applicable. No new pedestrian or equestrian trails proposed as part of project.

4. Mitigation measures shall be provided to preclude adverse effects on the recreation resource.

5. The facility guidelines are intended to apply to individual recreation facilities. For the purposes of these guidelines, a cluster or grouping of recreational developments or

improvements located relatively close to one another is considered an individual recreation facility. Developments or improvements within the same recreation intensity class are considered as separate facilities if they are separated by at least 1/4 mile of undeveloped land (excluding trails, pathways, or access roads).

Finding: Proposed project area is within lands designated as Recreation Intensity Class 1 (Very Low Intensity). On SMA lands designated as RIC1, the emphasis is to provide opportunities for semi-primitive recreation. No recreation facilities are proposed.

6. New development and reconstruction of scenic routes (see Part III, Chapter 1: Recreation Development Plan) shall include provisions for bicycle lanes.

Finding: This guideline is not applicable. No new development or reconstruction of scenic routes is proposed.

7. A local government may grant a variance of up to 10 percent to the guidelines of Recreation Intensity Class 4 for parking and campground units upon demonstration that all of the following conditions exist:

   A. Demand and use levels for the proposed activity(s), particularly in the area where the site is proposed, are high and expected to remain so and/or increase. Statewide Comprehensive Outdoor Recreation Plan (SCORP) data and data from National Scenic Area recreation demand studies shall be relied upon to meet the criterion in the absence of current applicable studies.
   B. The proposed use is dependent on resources present at the site.
   C. Reasonable alternative sites offering similar opportunities, including those in Urban Areas, have been evaluated, and it has been demonstrated that the proposed use cannot be adequately accommodated elsewhere.
   D. The proposed use is consistent with the goals, objectives, and policies in this chapter.
   E. Through site design and/or mitigation measures, the proposed use can be implemented without adversely affecting scenic, natural, or cultural resources and adjacent land uses.
   F. Through site design and/or mitigation measures, the proposed use can be implemented without affecting treaty rights.
   G. Mass transportation shall be considered and implemented, if feasible, for all proposed variances to Recreation Intensity Class 4.

Finding: This guideline is not applicable. Project area is within lands designated as RIC1 and no variance is proposed.

8. Proposals to change the recreation intensity class of an area shall require a Management Plan amendment pursuant to policies 1 through 4 in "Amendment of the Management Plan" (Part IV, Chapter 1: Gorge Commission Role).

Finding: This guideline is not applicable. Project area is within lands designated as RIC1 and no variance is proposed.

SMA Provisions: Recreation Intensity Classes

This project is located within Recreation Intensity Class (RIC) 1. Guidelines related to RIC2, RIC3, and RIC4 are not applicable.

1. Recreation Intensity Class 1 (Very Low Intensity). The emphasis is to provide opportunities for semi-primitive recreation.

   A. Permitted uses are those in which people participate in outdoor activities to realize experiences such as solitude, tension reduction, and nature appreciation.
   B. The maximum site design capacity shall not exceed 35 people at one time on the site. The maximum design capacity for parking areas shall be 10 vehicles.
   C. The following uses may be permitted:
      (1) Trails and trailheads.
      (2) Parking areas.
      (3) Dispersed campsites accessible only by a trail.
      (4) Viewpoints and overlooks.
      (5) Picnic areas.
      (6) Signs.
      (7) Interpretive exhibits and displays.
      (8) Restrooms.

Finding: No developments are proposed as part of this project. The proposal meets the guidelines for projects within RIC 1.

H. Conclusion

The proposed Drano Stand and Wildlife Habitat Improvement Project is consistent with the National Scenic Area Management Plan Policy and Guidelines provided they meet the criteria and conditions listed in the Findings of Fact and Consistency Determination.