

**Riverside and White River Fires  
Rapid Assessment Team Report  
Mt. Hood National Forest  
Clackamas River and Barlow Ranger Districts  
October 29-30, 2020**



**Rapid Assessment Team (RAT) summary and recommendations for the  
Riverside and White River Fires on the Mt. Hood National Forest  
October 29-30, 2020**

This document makes a recommendation to the Forest on post-fire actions and helps assess various options based upon a very rapid, preliminary, non-binding assessment of initial information. The Forest has the option to mix, match and create new options and will make the determination of how to move forward, in conjunction with the Forest Leadership Team, Regional Leadership Team and the Directors of Natural Resources (NR) and Resource Planning and Monitoring (RPM). The mission of the RAT during its October 2020 review was to help the Mt. Hood National Forest assess salvage options and help prioritize post-fire restoration projects.

**CONTEXT**

Oregon experienced one of its worst fire seasons in western Oregon in close to a century with >850,000 acres burning along the Cascades in late summer 2020. Several of these fires, notably the Riverside, Beachie, Holiday Farm and Archie burned significant acres of private industrial timber land.

The Mt. Hood National Forest burned over 112,000 acres from four wildfires in late summer 2020 (Figure 1); the Riverside Fire on the Clackamas River Ranger District started in the early morning hours on September 8<sup>th</sup>, 2020 and is believed to be human-caused; the White River Fire on the Barlow Ranger District was started by lightning and was discovered on August 17, 2020; and both the Beachie Creek Fire (which began on the Willamette National Forest) and Lionshead Fire (which began on the Confederated Tribes of the Warm Springs Indian Reservation) were sparked by lightning on August 16, 2020 and were spread on to the Clackamas River Ranger District by the historic windstorm that began on September 7, 2020. In total, over 110,000 acres were burned, which is about 10% of the entire Forest. The focus of the RAT Report will be on the Riverside and White River Fires<sup>1</sup> (Table 1) due to time constraints and the need to focus resources as quickly as possible.

As was seen in other fires in the Region, the fires burned at mixed severity, however, a large portion of the acres burned had high basal area mortalities as a result of the fast moving, wind driven fire event. Approximately 44% of the Riverside Fire experienced >75% basal area loss (Figure 2, Table 3); for the forested sections of the White River Fire, approximately 30% of the area experienced >75% basal area loss (Figure 3, Table 3). This amount of high severity fire coupled with the high use recreation areas the fires burned through on the Forest (particularly in the Clackamas River corridor) will necessitate a large and expensive post fire restoration/recovery effort.

---

<sup>1</sup> The Beachie Creek Fire impacted a very small portion of the Forest, less than 600 acres. The Lionshead Fire burned over 17,000 acres on the south east corner of the Forest, including the Olallie Lake area.

**Table 1. Acres burned by land ownership in the Riverside and White River Fires on the Mt. Hood National Forest.**

<b>Riverside Fire</b>	
<b>OWNERSHIP</b>	<b>ACRES</b>
<b>MT. HOOD NF</b>	85,625
<b>NW OREGON BLM</b>	10,998
<b>STATE</b>	152
<b>PRIVATE</b>	41,088
<b>LOCAL GOVERNMENT</b>	262
<b>TOTAL ACRES BURNED</b>	138,126
<b>White River Fire</b>	
<b>Mt. HOOD NF</b>	8,591
<b>PRINEVILLE BLM</b>	1,701
<b>PRIVATE</b>	3,333
<b>STATE</b>	3,867
<b>TOTAL ACRES BURNED</b>	9,851

**FOREST SUPERVISOR – LEADERS INTENT**

District Ranger Kameron Sam (Barlow and Hood River) and Jackie Groce (Clackamas River) expressed that the Rapid Assessment Team’s work is an important step to informing an integrated response to the fires the Forest and community have experienced. They would like the RAT to consider the following, as the team moves forward and develops recommendations:

1. Assessment of roadside danger tree removal needs:
  - a. Outside of areas under contract such as: Riverside Fire Suppression and Suppression Repair Danger Tree Removal contract (appx 53 miles) and BAER contracts.
  - b. Some areas are currently under interdisciplinary team (IDT) review, such as the area within White River fire boundary. Additional recommendations for White River area are welcome.
  - c. Other areas in need of danger tree removal.
2. Assessment of awarded timber contract burned areas and opportunities or recommendations for moving forward.
3. Assessment of not-yet-awarded timber sale areas that are impacted by fire, and recommendations for moving forward.
4. Assessment of area salvage opportunities within:
  - a. Accessible areas (i.e., well established open NFS road systems access the area).
  - b. Inaccessible areas (i.e., no open NFS road systems access the area or roads accessing the area would likely need considerable repair or reconstruction prior to haul, but would otherwise be suitable for salvage opportunities).
  - c. Pros and cons of salvage/no salvage in either areas.
5. Assessment of developed recreation site hazard tree needs/priority areas.
6. Assessment of Regional-level NEPA analysis for post-fire planting and recommendations.
  - a. Funds are obligated for planting within the White River fire area for Spring 2022.

Rapid Assessment Team Summary and Recommendations for the 2020 Fires on the Mt. Hood National Forest

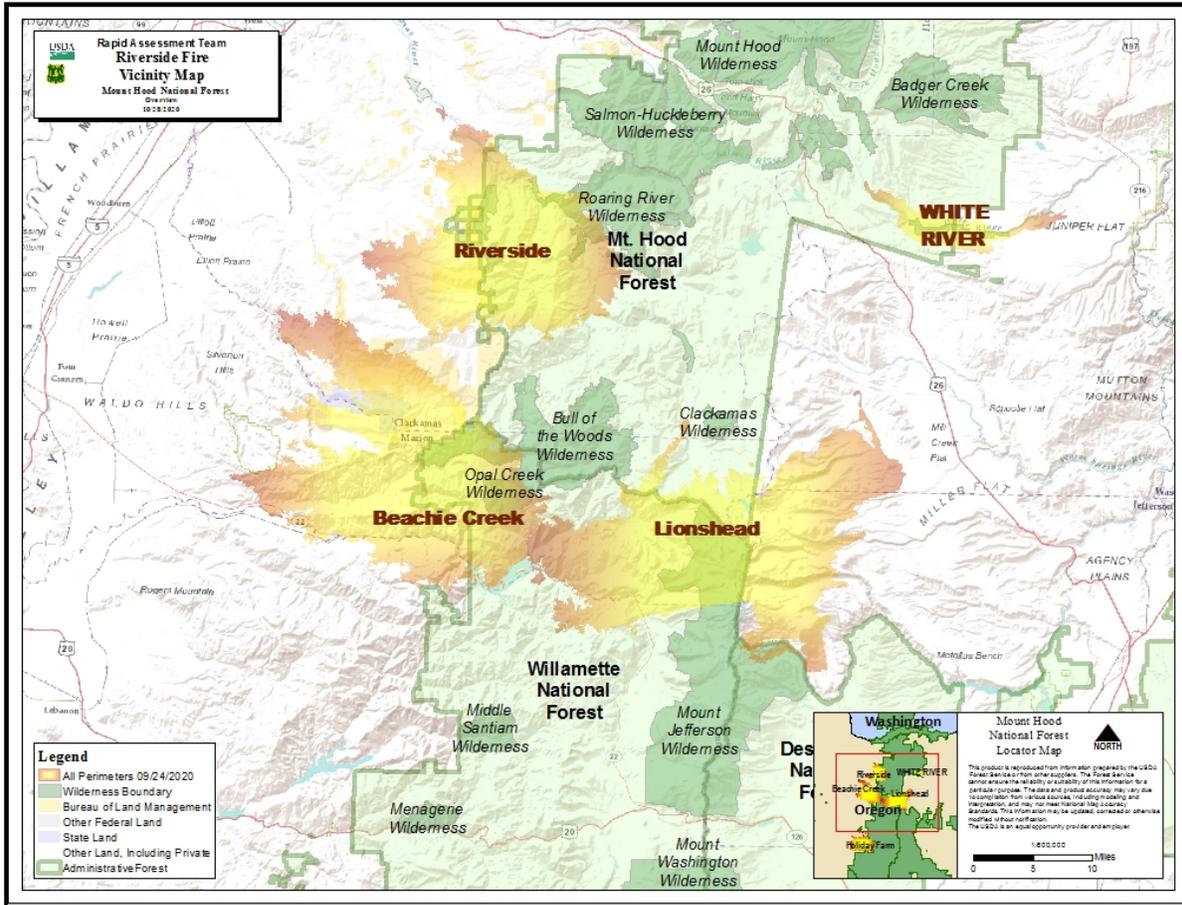


Figure 1. Locator map for the wildfires on the Mt. Hood National Forest.

Table 2. Acres of each fire by Northwest Forest Plan (NWFP) Land Use Allocations. Note that the Wild and Scenic River corridor and riparian reserves double count acres as they overlay Northwest Forest Plan allocations.

Fire Name	Total acres on Forest Service land	Wilderness (CR)	Wild and Scenic (CR)	Administratively Withdrawn	Late Successional Reserve	NSO Core (LSR4)	Matrix	Riparian Reserves
Riverside	85,625	10,947	13,380	768	24,066	1750	57,825	32,895
White River	8,591	1,779	2,464	333	2,152	6	4,518	1,389
<b>Grand Total</b>	<b>94,216</b>	<b>12,726</b>	<b>15,844</b>	<b>1,101</b>	<b>26,218</b>	<b>1,756</b>	<b>62,343</b>	<b>34,284</b>

Rapid Assessment Team Summary and Recommendations for the 2020 Fires on the Mt. Hood National Forest

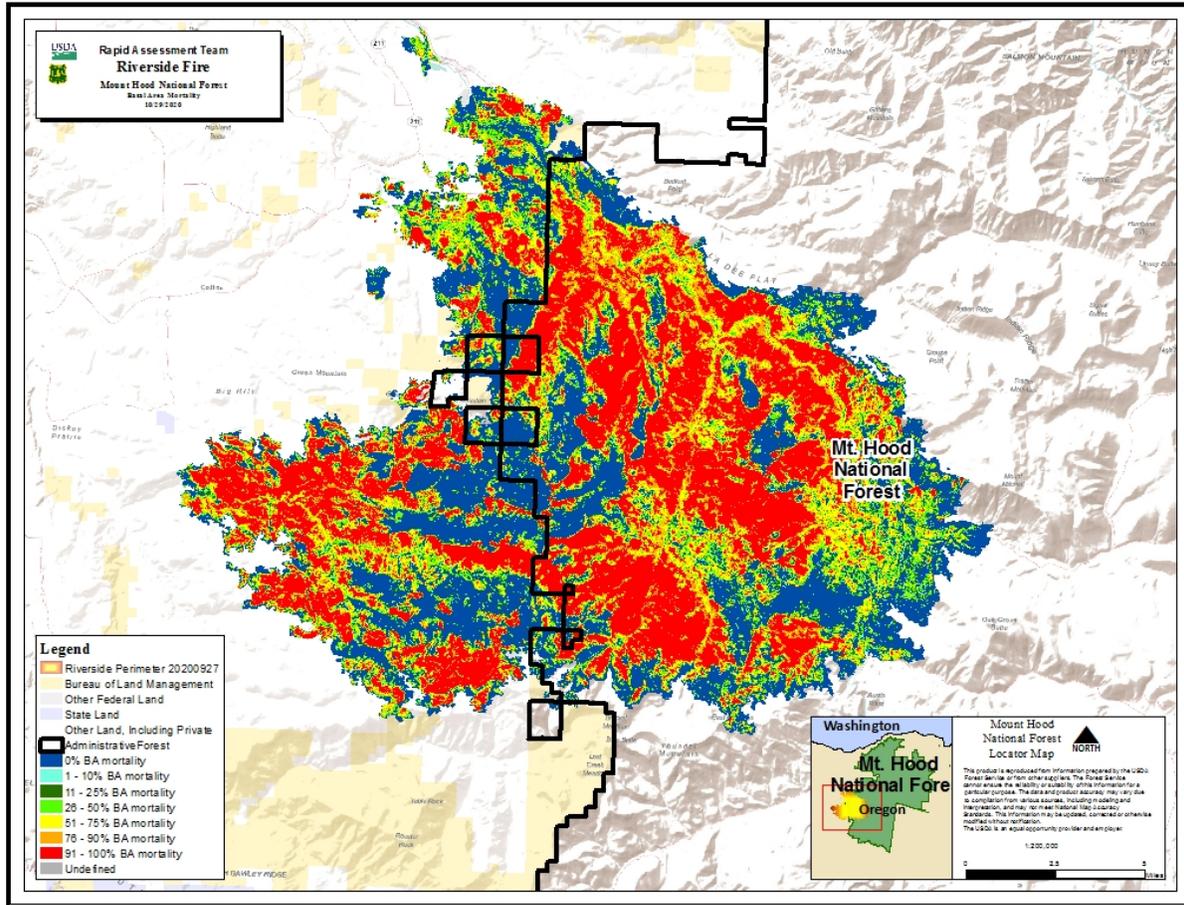


Figure 2. Riverside Fire basal area mortality map.

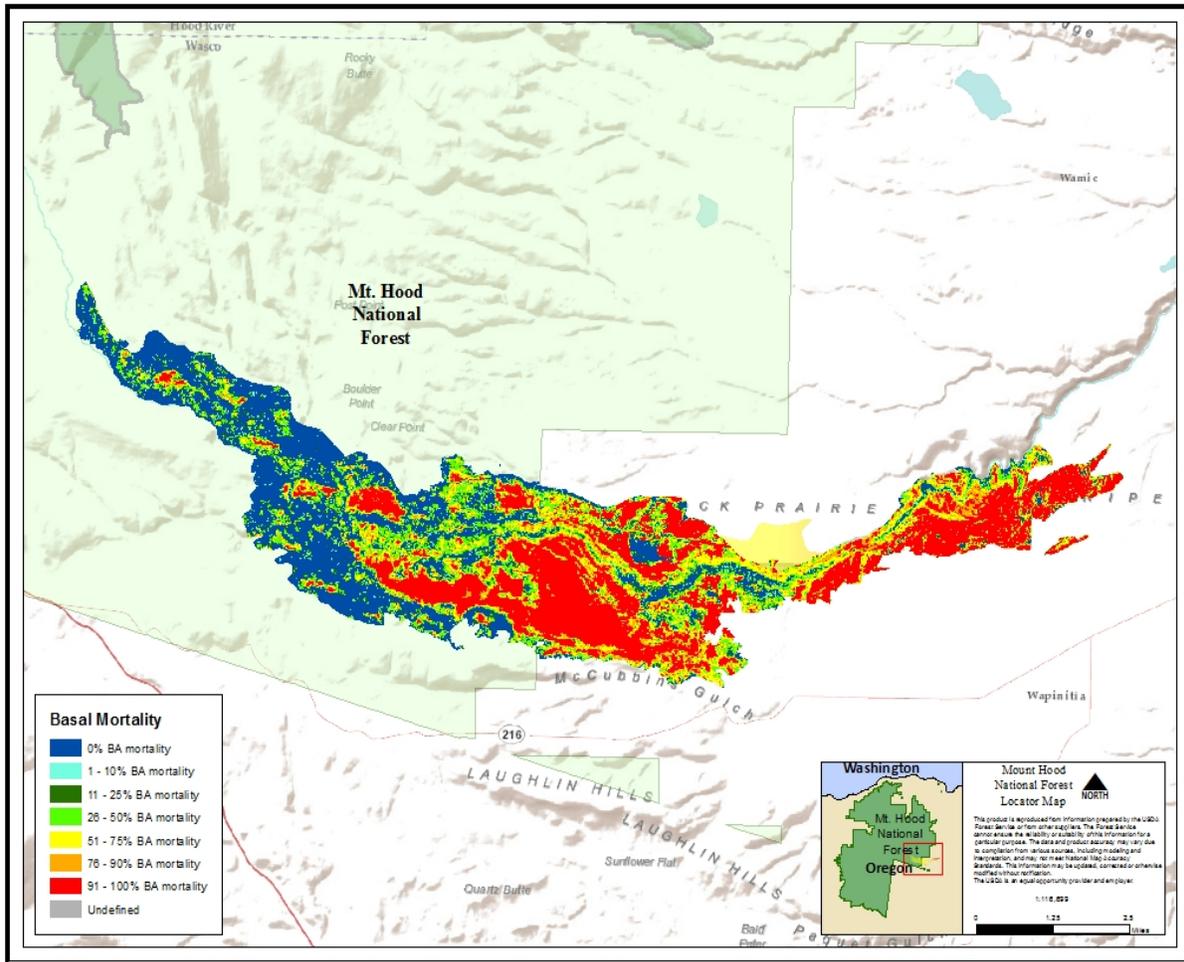


Figure 3. White River Fire basal area mortality map.

Table 3. Preliminary basal area loss analysis for the Riverside and White Fires on the Mt. Hood National Forest in 2020.

Fires	<25% Basal Area Mortality		25-50% Basal Area Mortality		50-75% Basal Area Mortality		> 75% Basal Area Mortality		Grand Total
	Acres	% of fire	Acres	% of fire	Acres	% of fire	Acres	% of fire	
Riverside	46,848	34%	12,528	9%	18,396	13%	60,348	43%	138,126
White River	5,289	44%	978	8%	2,096	17%	3,619	30%	12,017*

\*note that 5,429 acres were undefined BA mortality because the vegetation type was not forested.

**WILDLIFE**

***Northern spotted owl***

*Designated Critical Habitat*

Both fires burned within northern spotted owl critical habitat. There are approximately 29,433 acres of critical habitat within the Riverside Fire perimeter consisting of 2,878 acres within West Cascades South subunit 1 (WCS-1) and 26,555 acres within West Cascades South subunit 2 (WCS-2) as noted in Table 4. There are approximately 8,713 acres of critical habitat within the White River Fire perimeter, all within the East Cascades North subunit 7 (ECN-7).

The Riverside Fire burned 3% of the Western Cascades South Subunit 1 (WCS 1) and 17.5% of the Western Cascades South Subunit 2 (WCS 2) northern spotted owl critical habitat, and the White River Fire burned 6% of ECN 7 in 2020. In total, 37,159 acres within WCS-1 and 2 in the Riverside Fire experienced >50% basal area mortality and 2,386 acres of the White River Fire in ECN-7 experienced >50% basal area mortality (Table 4). Cumulatively, both fires removed approximately 39% of the suitable habitat present prior to the fires (82% of suitable habitat removed in the White River Fire and 37% removed in the Riverside Fire).

**Table 4. Acres of Northern Spotted Owl Critical Habitat burned in the Riverside and White River Fires.**

<b>Fire</b>	<b>Critical Habitat Unit</b>	<b>Basal Area Mortality Class</b>	<b>Acres</b>	<b>Percent</b>		
Riverside	Western Cascades South (WCS 1)	0% BA mortality	867	30%		
		1 - 10% BA mortality	64	2%		
		11 - 25% BA mortality	137	5%		
		26 - 50% BA mortality	293	10%		
		51 - 75% BA mortality	520	18%		
		76 - 90% BA mortality	350	12%		
		91 - 100% BA mortality	648	23%		
		<b>Riverside Total</b>				
		<b>29,433</b>				
	Western Cascades South (WCS 2)	0% BA mortality	5,874	22%		
		1 - 10% BA mortality	530	2%		
		11 - 25% BA mortality	993	4%		
		26 - 50% BA mortality	2,099	8%		
		51 - 75% BA mortality	3,230	12%		
		76 - 90% BA mortality	2,675	10%		
		91 - 100% BA mortality	11,155	42%		
		<b>Riverside Total</b>				
		<b>29,433</b>				
<b>Fire</b>	<b>Critical Habitat Unit (Subunit)</b>	<b>Basal Area Mortality Class</b>	<b>Acres</b>	<b>Percent</b>		
White River	Eastern Cascades North (ECN 7)	0% BA mortality	4,130	47%		
		1 - 10% BA mortality	370	4%		
		11 - 25% BA mortality	667	8%		

Rapid Assessment Team Summary and Recommendations for the 2020 Fires on the Mt. Hood National Forest

Fire	Critical Habitat Unit	Basal Area Mortality Class	Acres	Percent
		26 - 50% BA mortality	1,160	13%
		51 - 75% BA mortality	842	10%
		76 - 90% BA mortality	365	4%
		91 - 100% BA mortality	1,179	14%
<b>White River Total</b>			<b>8,713</b>	

*Suitable Habitat and Owl Home Ranges*

A total of 30 known northern spotted owl core sites (core = 500 acres around an activity center; home range is a 1.2 mile radius) were affected by the Riverside Fire and three were affected by the White River Fire. A total of 5,012 acres of nesting, roosting and foraging (NRF) habitat was lost within the core areas which represents 51% of all NRF habitat available in the cores within the fire perimeters (range is roughly 32% suitable habitat removed to 100% removed within individual core areas).

These highly burned owl cores present an opportunity to accelerate forest recovery and should be considered for some level of reforestation. Ray Davis, Regional Monitoring Lead for Older Forests and Spotted Owls, will be providing updated post-fire spotted owl habitat layers for the Forest to use in current and future planning efforts.

*Impacted Planning Efforts*

North Clack Integrated Planning Area (Clackamas River RD): while largely on the periphery of the Riverside Fire, this planning effort originally used the NLAA (Not Likely to Adversely Affect) programmatic biological assessment and biological opinion. This planning area did not impact designated critical habitat but does overlap approximately 4 home ranges. Some of these home ranges were impacted by the fire based on mapping presented to the Rapid Assessment Team, however it is uncertain if the actual suitable habitat within the home range was impacted. Effects determinations for these home ranges may need revisiting considering changed conditions and possible new cumulative effects.

Goat EA (Clackamas River RD): this planning area has ongoing sales. There is no designated critical habitat within the sale areas. The Nanny and Gruff sale areas appear to overlap a home range. Effects determinations for these home ranges may need revisiting considering changed conditions and possible new cumulative effects.

Grove EA (Clackamas River RD): this planning area has ongoing sales. It appears the Lake sale overlaps one home range, and the fire has some impacts. There is designated critical habitat within the area. Effects determinations for this home range may need revisiting considering changed conditions and possible new cumulative effects, as well as conclusions made to critical habitat.

Crystal Clear Restoration Project (“CCR” on the Barlow RD): the original decision for this planning area was withdrawn, requiring a new analysis even before the White River Fire. Any new analysis would incorporate the changed habitat conditions affecting spotted owls, and any new consultation needs. The

Forest had identified areas for potential salvage within the fire perimeter. Two adjoining areas overlap a spotted owl home range and designated critical habitat.

Because separate effects calls are made to designated Critical Habitat and to the species (through suitable habitat and home range impacts) as part of the biological evaluation/assessment process, the Forest, in conjunction with the Willamette Province Level 1 Team (includes the Willamette National Forest and representation from the US Fish and Wildlife Service), plan to have discussions regarding whether or not these changed conditions within the critical habitat subunits will warrant revising the current programmatic Biological Assessments (BAs) that cover consultation requirements for the projects currently undertaken and near-future planning.

To summarize, because of the extent and severity of the changed conditions to not only suitable owl habitat but also designated Critical Habitat, the viability and applicability of the programmatic biological assessments (both for not likely to adversely affect and likely to adversely affect) will be reviewed as well as the rationale for the determinations made within the individual project evaluations/assessments. This review process will determine the nature and extent to re-initiating consultation taking into account the fires direct, indirect and cumulative impacts to owl home ranges, suitable habitat, and critical habitat.

### ***Wolves***

The White River Fire did burn through an area that wolves from the White River Pack move through but did not directly impact any known dens or rendezvous sites. Fire impacts to the Deer Winter Range Allocation on the eastern portion of the fire on NFS lands pose concern to prey for wolves. Proposals for access (e.g. hazard tree) and area salvage should consider the effects on big game and indirectly wolves. There is no known established wolf pack in the vicinity of the Riverside Fire.

Recent communications from the USFWS indicated that on November 3<sup>rd</sup> of this year the gray wolf would be delisted in the lower 48 states. Assuming this goes into effect as planned, it would be a change from management prior to the fires. Restoration efforts that improve conditions for deer and elk (e.g. road density management, forage, and reforestation for hiding cover) can ultimately improve habitat for wolves.

### ***Regional Sensitive, Survey & Manage, and Red Tree Voles***

The Mount Hood recently signed a decision for the North Clack Integrated Vegetation Project, which is located just to the north of the Riverside Fire. While a portion of the project area within the fire perimeter had greater than 50% basal area mortality, the planning area did analyze for impacts to red tree voles along with other threatened, endangered and sensitive (TES) species and Survey & Manage species effects. The existing decisions with timber sales currently under contract (e.g. Grove and Goat Mountain Thin EAs) did not contain habitat for these other species or the actions fell within the Pechman Exemptions.

It is recommended that wildlife biologists working on any changed conditions analyses reach out to discuss the process with Carol Hughes, the Regional Special Status/Sensitive Species Program Manager.

### ***Wildlife Habitat Restoration Opportunities***

With the severity of the Riverside Fire, it is very likely that Clackamas River and Fish Creek watersheds will remain in an early seral habitat condition for decades. Similarly, the highest severity area of the White River Fire occurred in proximity to the forest boundary along the White River. This amount of

early seral habitat, along with providing roaded access, makes this an area with high potential for invasive weed expansion into the Forest. There is an opportunity to consider more extensive seeding of native grasses palatable for big game, as well as including flowers and forbs that could provide improved nectar and pollen sources for Regional Forester's sensitive pollinator species like the Western bumble bee.

Hazard tree abatement along roads provide the opportunity to assess the need of the road when weighed against the value and effort to maintain it. Generally allowing roadbeds to close (i.e. not maintain or re-open them) naturally – particularly if they are not contributing sediment or landslide potential to intact portions of habitat – can reduce human disturbance to wildlife species, thereby improving the habitat. The Forest Service Manual allows for the option to close the road in lieu of removing hazard trees and this should be considered an option particularly in allocations outside of scheduled timber harvest (e.g. LSRs). Similar processes in management approaches would also apply to developed recreation sites by using this event as an opportunity to evaluate the suitability of restoring a developed or dispersed recreation site. These decisions (roads and recreation sites) would have wildlife trade-offs.

### ***Snags and Downed Wood***

Due to the intensity and extent of the Riverside Fire and White River Fire, in conjunction with the overlap from the Lionshead and Beechie Creek Fires on the Willamette National Forest, nearly 10% of the Mount Hood National Forest has burned in 2020. For the Riverside Fire a majority of the forested area burned at greater than 76% basal area mortality. This degree of mortality generally consumes existing snags and logs as well as adds a large number of snags (various sizes) now and in the future will add a large number of logs as snags fall over time. For the White River Fire, a majority of the fire had greater than 50% basal area mortality, with relatively fewer acres on NFS land burning at the greater than 76% basal area mortality; suggesting more of a mosaic of conditions within the fire area.

For the Clackamas River Ranger District, snag abundance at the landscape level will likely be above the 80% tolerance level for quite some time. Over time as these snags fall, there will be large gaps in snag recruitment which could impact outyear planning. Conversely, our rapid analysis suggests the White River Fire contributed a range of snag densities that may not be outside of reference conditions for the watershed or the Barlow Ranger District.

A distribution analysis using the DecAID tool was not completed for this report due in part to the obvious large quantity of dead wood contributed from the Riverside Fire on the west side of the Mt. Hood National Forest. There is a regional effort to update the data that informs the distribution analysis to take into account the 2017 GNN data, as well as region-wide updates to account for/include all wildfires in the region since 2017. Future project planning, either fire-related (hazard tree abatement, area salvage, or replacement volume for active timber sale contracts) or not, should use this updated data to apply best available science.

Due to the severity of the Riverside Fire in particular, it would be beneficial to leave some larger diameter (>20") logs within potential roadside danger tree and potential salvage units to meet downed wood retention levels, because in the area of high severity burn it is likely that some downed wood was partially consumed (e.g. made smaller in length and width) or totally consumed. As stated above, the Region will provide an updated snag and downed wood layer for use in future project DecAID analyses to help inform current and future vegetation management project planning; please reach out to Josh Chapman, Regional Wildlife Program Leader, for that information as it becomes available.

## SOILS, HYDROLOGY AND FISHERIES

### *Riverside Fire*

The Riverside Fire comprises about 138,000 acres of land in the Molalla/Pudding River and Clackamas River subbasins, 62% of which are managed by the Forest Service. The watersheds affected by the fire support many important water/aquatic resources on and downstream of the Forest. These include municipal water supplies for the cities of Clackamas, Oregon City, Lake Oswego, Estacada, Molalla, Canby, and Colton. In addition, ESA-listed fish including Chinook salmon, coho salmon and steelhead trout are present in streams and rivers within and downstream of the fire, including Fish Creek and the Clackamas River.

Prior to the fire, all of the affected watersheds were generally classified as either functioning properly or functioning-at-risk and were improving as a result of active management and natural recovery stemming from 25 years of NWFP implementation. Importantly, however, some critical watershed processes, aquatic habitats and water quality were still recovering from legacy impacts associated with extensive road building, timber harvest on unstable slopes and in riparian areas, removal of large woody debris (LWD) from stream channels and stream channelization. Some of these effects were especially pronounced in Fish Creek, a Key Watershed that is the most geologically unstable watershed on the Forest and was the focus of a substantial, long-term watershed and stream restoration program. Seventy-one miles of stream listed as impaired under the Clean Water Act are within the fire perimeter.

The Riverside Fire burned soils at high severity in 12% of the area and moderate severity in another 40% of the landscape. The rest of the fire area was classified as either low soil burn severity (35%) or unburned (13%). Soil burn severities vary greatly between individual subwatersheds, with four subwatersheds (Upper Clear Creek, Cot Creek-Oak Grove Fork, Pot Creek, Roaring River) having mostly low severity or unburned conditions and four others (Fish Creek, South Fork Clackamas River, Three Lynx Creek, Helion) having about 40-65% of their areas burned at moderate or high severity. Due to the relatively high burn severity and steepness of the landscape, erosion risk in the Riverside Fire area is generally high: 38% of the landscape has high or very high erosion risk; 37% has moderate risk; and 15% has low risk. The fire is also expected to increase peak flows. These are expected to be somewhat modest at larger watershed scales (e.g., 4% increase in 5-year flood magnitude for Clackamas River at North Fork Reservoir, 13% increase Clackamas River at Three Lynx PGE hydro-electric facility), but substantial in some tributaries with smaller drainage areas that burned severely (e.g., 63% increase for Fish Creek; >100% increase in some other locales). While elevated surface erosion rates are expected to decline relatively rapidly (e.g., one to a couple years), elevated peak flows and mass wasting risk (e.g., landslides and debris flows) will persist for a couple of decades.

The fire also severely impacted vast areas of riparian reserves (nearly 33,000 acres, of which over 19,500 acres burned at greater than 50% basal area mortality), which will elevate stream temperatures until shade is restored as the forest regrows. Widespread mortality of trees in riparian zones and unstable areas will substantially increase LWD to streams, which will greatly increase habitat complexity in many areas, including those that have been impacted by past management activities (e.g., Fish Creek). This increased LWD in streams and rivers will also increase hazards to forest infrastructure (e.g., roads and culverts) and infrastructure owned and operated by other entities (e.g., PGE reservoir). Elevated stream temperatures and increased sediment and nutrient delivery may increase the incidence of toxic blue-green algae and other algae in the fire-affected watersheds.

There are 255 miles of NFS road in the fire area, the vast majority (228 miles) of which are Maintenance Level (ML) I and II roads. Other entities manage almost 500 more miles of road in the fire area. Post-fire effects, including increased peak flows, mass wasting and LWD pose substantial risks to this critical infrastructure. Equally, inadequately managed road systems can substantially increase post-fire effects in some areas (e.g., unstable terrains).

#### *White River Fire*

The White River fire burned 17,412 acres in the Lower Deschutes River subbasin, including about 8,900 acres of NFS lands. Most of the fire (11,159 acres) occurred in the Middle White River subwatershed, where 64% of the catchment area was burned. All other subwatersheds affected by the fire had <10% of their areas burned. The watersheds affected by the fire support some important water/aquatic resources on and downstream of the Forest. These include agricultural water supplies for the local irrigation districts around Pine Grove, Juniper Flats, Smock Prairie, and Wamic. In addition, White River is directly tributary to the Deschutes River and the Shearers Falls tribal fishing grounds, where traditional and subsistence harvest of Chinook Salmon and steelhead trout take place. The White River watershed is a NWFP Key Watershed and designated as a Wild and Scenic River.

Similar to the Riverside Fire area, all of the affected watersheds were generally classified as either functioning properly or functioning-at-risk and were improving as a result of active management and natural recovery stemming from 25 years of NWFP implementation. Importantly, however, some critical watershed processes, aquatic habitats and water quality were still recovering from legacy impacts. However, less than 1 mile of stream in the fire area is listed as impaired under the Clean Water Act. Soil burn severity was relatively low: 2% of the area was burned at high severity and 19% was burned at moderate severity, while 63% of the landscape was burned at low severity. Another 15% of the fire perimeter was unburned. As a result of this low soil burn severity, relatively gentle slopes (<20%) and inherently low surface erosion potential, post-fire erosion rates are not expected to exceed background levels. Similarly, the increases in post-fire peak flows are expected to be modest (e.g., <5% for 5-year flood events).

The fire also impacted about 1,400 acres of Riparian Reserves, with about 292 acres burning at greater than 50% basal area mortality. While this will likely increase stream temperatures to some degree, the overall variable nature of the burn (mortality, severity) on NFS lands may over time improve aquatic and riparian conditions by increasing habitat variability and complexity.

There are 35 miles of NFS road in the fire area, almost all (31 miles) of which are Maintenance Level II roads. Other entities manage another 26 miles of road in the fire area.

#### **Recommendations**

- Capacity
  - Strongly consider the capacity of the earth and aquatic scientist cadre on the Forest when planning post-fire management activities. While the Forest's existing cadre is composed of very skilled professionals, its size is fairly limited and existing, pre-fire workload is high. The fire itself, BAER activities, and pending post-fire management activities are likely to severely strain this capacity. In particular, soils capacity is severely constrained, which may limit the ability of the Forest to fully address some of the critical issues (e.g., erosion) described above. Considering and managing this staff capacity is especially important, given the very

high value and visibility of water and aquatic resources affected by the fire, the potential consequences of post-fire management activities and significant issues related to maintaining consistency with NWFP and the Aquatic Conservation Strategy.

- Forest Plan
  - For all activities, including hazard/danger tree management and potential salvage, follow applicable Forest Plan standards and guidelines and develop specific project design criteria (PDCs) to fully implement those standards and guidelines, and Water Quality Best Management Practices (BMPs). Within fire affected areas, normal operations and maintenance and PDCs/BMPs should reflect the changes in soil stability, flood risk and sediment transport described above.
  - Per NWFP, any post-fire management should be conducted in a manner that does not retard or prevent attainment of the nine (9) Aquatic Conservation Strategy Objectives (ACSOs). This includes maintaining or restoring critical watershed processes and conditions (e.g., sediment, temperature and LWD regimes: aquatic habitat complexity; stream channel integrity; water quality) that can be substantially influenced by fire and could be affected by future post-fire management. Fire size and severity, combined with much greater landscape sensitivity (e.g., unstable terrains, high stream density), make issues associated with ACS consistency much more challenging in the Riverside Fire area than in the White River.
  - Post-fire management activities, especially in Key Watersheds such as Fish Creek and White River, should be informed by the findings and recommendations of the relevant Watershed Analyses (WA), other applicable assessments and newly acquired data. Particular focus should be directed towards the findings of the Fish Creek Watershed Analysis (WA) and subsequent analyses, which documented adverse impacts from past management activities and very high erosion risks that can be substantially increased by natural and human disturbances (e.g., fire, timber harvest and road management). Similar WA findings and recommendations likely exist for some other parts of the Riverside Fire, where comparable conditions are likely.
- Tree Felling and Large Woody Debris Management
  - In areas where trees, including hazard/danger trees, are felled, limit additional erosion by minimizing soil disturbance in critical areas and retaining or applying sufficient ground cover and enabling its natural recovery.
  - To the degree that life and property issues allow, retain standing trees in riparian reserves (including unstable and potentially unstable areas), so as to facilitate recruitment to adjacent and downstream habitats. Avoid removal of large woody material in debris flow prone areas, as this can increase debris flow runout length. Where wood has been removed or burned, fall standing dead trees into adjacent streams where possible. This should be done below road-stream crossings and where risks to other downstream values are low to moderate. See NWFP Standard and Guideline TM-1 for important details regarding vegetation management in riparian reserves after fires and other large disturbances.
  - The recruitment of LWD required to move towards ACSOs will need to be balanced with safety issues associated with recreationists (e.g., boaters and floaters) in high use areas like the Wild and Scenic Clackamas River. This will be an ongoing challenge for perhaps a decade or more.
  - Consider directing some large wood (e.g., from hazard/danger tree felling by the Forest and ODOT and/or suppression decks) to future stream habitat restoration projects throughout the Forest or on other Federal or private lands working through partnerships and other authorities such as the Good Neighbor Authority.

- Where possible, focus revegetation efforts in riparian areas and unstable areas, so as to reduce erosion rates and provide for future recruitment of LWD and to provide shade.
- Road Management
  - Management of the road system is generally a substantial concern and even more so in the post-fire environment. Particular attention to the road system is warranted in the Riverside Fire area, where 228 miles of ML1 and ML2 roads are present. Where possible, the Forest should seek opportunities to: 1) ensure that roads currently in ML1 status are stabilized to the degree possible; 2) where appropriate, move some ML2 roads into ML1 status and ensure that needed treatments are implemented; and 3) stormproof the ML2 roads that will remain open. While BAER is funding some of this work, additional work is needed. Particular attention should be focused on increasing the frequency and durability of cross drains, waterbars, and rolling dips; upsizing culverts; and managing debris. Given that vast areas of the Riverside Fire are susceptible to accelerated erosion and LWD recruitment, many road-stream crossings are at risk of failure regardless of their capacity. As such, effort should be focused on reducing the consequences of such failures by, for example, reducing or eliminating streamflow diversion potential at road-stream crossings.
  - The Forest's wet-weather operating standards for roads should be reviewed in light of the current conditions and emphasized, as appropriate, during any post-fire management activities.
  - Aquatic organisms and habitats are much more resilient to disturbances when they are connected. As such, the Forest should seek opportunities to provide fish passage at existing barriers within and downstream of the fire area. Such crossings generally provide the added benefit of increased flow capacity. The Regional Forest fish barrier and distribution databases, combined with the post-fire flow and erosion assessments, can be used to help prioritize that work.
- Recreation Management
  - The vast, burned landscape associated with Riverside Fire poses substantial recreational challenges in the near-term (e.g., safety; increased use in unburned areas of the Forest) and both challenges and opportunities in long-term. Near-term actions will largely be focused on safety via hazard/danger tree management and recommendations for those activities are described above. In the long-term, the fire may present opportunities to move towards a more sustainable recreation infrastructure by, for example, relocating facilities away from especially sensitive aquatic environments.
- Monitoring, communication and coordination
  - Work with USGS and state local entities to enable monitoring of water quality effects, particularly in those areas most likely to impact critical drinking water supplies for significant populations. Work to maintain or establish clear and consistent lines of communication with these entities about fire and potential post-fire management effects, so as to avoid potential 'surprises' regarding impacts to this essential and highly visible resource. Importantly, such increased efforts may require sustained emphasis for a long period of time (e.g., a decade or more), since some critical watershed processes (e.g., mass wasting) are not likely recover quickly.
  - Additional attention on monitoring and managing hazardous algal blooms may be warranted, especially in areas where such blooms already occur and are frequented by recreationists and/or are near water supply intakes.

## REFORESTATION

Reforestation is more than tree planting. Reforestation efforts generally are a continuum that might range from 100% natural regeneration to 100% planting, depending on the land management objectives and seed source availability.

The most basic role of a silviculturist, per the National Forest Management Act (NFMA), is to identify the species composition, stocking level, growth rate and other stand conditions needed to meet the land management direction. When our emphasis was more on single-species management in the past and our reforestation was primarily harvest-based, these items were commonly reduced down to stocking level without much attention (if any) to species composition or other stand conditions.

### ***General Regional Priorities for Reforestation***

The Regional Forester is responsible for setting general priorities for reforestation; his letter of direction was signed in 2018 and was re-sent to Forest Silviculturists recently. Our highest priority in the region is reestablishment of disease-resistant five-needle pines (western white, sugar, whitebark) and Port-Orford-cedar that have been impacted by mortality from invasive diseases. Their restoration is important for ecosystem resilience to disturbance and climate change and for ecosystem function. In some cases, these may be the only species that we plant because natural regeneration will be appropriate for the other tree species. The letter includes other general priorities and details of national policy on reforestation after disturbance and salvage.

### ***Post-Disturbance Reforestation Assessment***

Forest Service Policy requires a post-disturbance reforestation assessment. This is a living document that is modified as additional site-specific information becomes available. The initial assessment for a large fire is usually based on remote sensing information to quickly identify whether there is a reforestation need or not, and if that need will be met through planting, natural regeneration, or natural recovery (or some combination of those three). The NFMA requires us to report acres of reforestation need annually to Congress, so this initial assessment is very important to have some estimate of reforestation need at the end of the fiscal year. Areas stay in the FACTS database as a reforestation need until they are certified as satisfactorily stocked.

The Mt. Hood NF has already completed the initial post-disturbance reforestation assessment on the White River Fire, and this has formed the basis of the sowing request that the Forest submitted for nursery sowing in Spring of 2021. The Forest is working on the assessment for the Riverside Fire. The White River Fire assessment was well-done and has been shared with other forests in the region as a good example to use for their assessments.

### ***Policy on Preparation of Silvicultural Diagnoses and Prescriptions***

The post-disturbance reforestation assessment serves as a silvicultural diagnosis and, per agency policy, must be prepared or approved by a Forest Service Certified Silviculturist. Policy also requires that site-specific reforestation prescriptions be prepared or approved by a Forest Service Certified Silviculturist. Regardless of the purpose of the planting, a silviculturist can help resource specialists identify the appropriate seed source, stock type, and other specifications for planting to meet the project objectives. Reforestation in particular is a multi-step process that involves living materials that can easily have their survival potential reduced due to improper handling or planting.

### ***Riparian Planting***

Special attention may be needed for adequate genetic diversity in riparian planting. Some riparian hardwoods reproduce clonally by plant parts that travel downstream. In some cases, the genetic diversity of hardwood trees may be very narrow, so if these trees are used for seed collection or cutting collection, the new plantings will not have sufficient genetic diversity. The Area Geneticist or local silviculturist can help ensure that hardwood plantings have adequate genetic diversity.

### ***Partnerships***

Partnerships are a key part of post-disturbance reforestation in Region 6. Forests that use regionally-managed post-disturbance reforestation funds are required to submit reforestation partnership proposals to help leverage additional funds to cover the cost of tree seedlings. Region 6 has been very successful in getting projects funded, and we are recognized by the Washington Office (WO) for our riparian restoration proposals and other specialized reforestation projects. The region received \$1.1 million in partnership funds in FY20 and 100% of our proposals were funded. We expect to receive at least that much in FY21, depending on the value of the proposals that we submit.

### ***Trillion Tree Initiative***

On January 20, 2020, the President announced that the United States would be joining the World Economic Forum Trillion Tree Initiative to grow and conserve one trillion trees worldwide by 2030. On October 13, 2020, the President signed an Executive Order that established an Interagency Council to help advance the initiative. The focus of this initiative is the ability of reforestation to sequester carbon as a natural climate solution that provides additional benefits like wildlife habitat, watershed protection, and wood products. There is no additional funding for this at this time, but several bills have been introduced in Congress that would provide some additional funding. In some bills that additional funding is aimed at reducing the Forest Service's "reforestation backlog", while other bills focus on carbon sequestration and forest management practices to conserve trees.

### ***Prioritization of Seed/Seedlings to Address Reforestation Needs from the 2020 Wildfires***

Based on remote sensing, approximately 500,000 acres of Forest Service managed land was burned by wildfires in 2020 in Region 6. Of that, approximately 200,000 acres have at least 75% of the basal area killed by fire. Due to the historic wind event under which the fires burned, this is a greater proportion of 75% basal area mortality than we usually see. That 200,000 acres will more than double our existing reforestation needs in the region.

If the Forest needs additional seed or seedlings to meet high priority tree planting needs, the Area Geneticists are developing a tool to identify transfer limits for all Region 6 Forest Service Seed Lots. The Regional Geneticist has also developed agreements with other forest land management agencies to use or purchase their seed. The Forest should work with their Area Geneticist, Andy Bower, to identify other potential seed sources and work with the National Forests or other entities that have that seed to use on the Mt. Hood. If prioritization of seedlings is needed, the Regional Silviculturist can help facilitate that process. The Region recognizes that there may be a shortage of seeds/seedlings due to the reforestation needs on public and private lands. In addition, the demand for reforestation contractors may strain available resources.

### ***Planting of Unsalvaged Areas with Standing Dead Trees***

The most common situation in Region 6 where we plant unsalvaged areas is where managed stands have burned and the trees are not large enough to salvage profitably. Many forests have also planted trees under larger standing dead trees. Safety of employees and contractors is of high importance, and

this can be dealt with through a Job Hazard Analysis/Risk Assessment and/or selective felling of dead trees to create safer places to plant and to conduct follow-up surveys. Earlier efforts to plant under larger standing dead trees in the region often run into overriding safety issues due to deterioration of the dead trees if planting is delayed more than 3-4 years or when it is time to do post-planting stocking surveys. In the case of stocking surveys, this can potentially be addressed through the use of UAS (drones). Any non-salvaged areas to be planted should be a high priority for planting; it is important to note that there are large areas of the Riverside Fire that are inaccessible, particularly in the Fish Creek watershed.

### ***Protection of the Planting Investment***

Tree planting is very expensive when you consider the cost of cone surveys, cone collection, seedlings, pre-planting surveys, contract preparation, contract administration, planting costs, and survey costs. With the increasing frequency of reburns in the region, it is important to consider live and dead fuel management at the landscape and at the stand scale to help assure that at least some of the planted trees can survive the next fire. Wider/irregular spacing of planted tree seedlings, rearrangement of fuels, and early use of prescribed burning can help at the stand scale.

### ***Regional-level NEPA Analysis for Tree Planting***

The Regional Aquatic Restoration EA, which had its decision signed in early 2020, can be used to cover any planting activities in riparian areas.

Some forests impacted by the 2020 fires are planning to start tree planting in 2021. This means that any regional-level NEPA analysis for tree planting would need to be completed in the next 3-4 months. The Mt. Hood NF does not plan to start planting until 2022, so it may make more sense for the Mt. Hood to prepare its own tree planting NEPA analysis.

## **RECREATION, SCENIC RESOURCES, WILD AND SCENIC RIVER CORRIDOR AND WILDERNESS**

The Riverside, White River, and Lionshead fire each impacted recreation opportunities on the Mt. Hood National Forest. The fires affected gateway recreation corridors accessing recreation opportunities along many stretches of road and waterways, affecting both developed and dispersed recreation settings including associated and adjacent infrastructure. Affected infrastructure include campgrounds and constructed features, Day Use Areas, trailheads, trail bridges, trails, and boat launches.

The fire burned some sites so severely that it may not be prudent to consider replacing or rebuilding infrastructure in the same location, as the setting's context contributing to the original attraction for site has been lost, at least until overstory vegetation is reestablished. Other areas may not have been as affected. Salvage and reforestation in these areas could aid in meeting required Visual Quality Objectives (VQO) consistent with the Land and Resource Management Plan and any pertinent Wild and Scenic River Management Plans.

Shifts in patterns and intensity of recreation use are likely to occur. Recreation infrastructure and sites lost due to fires (and/or site or area closures) will result in a reduced supply of recreation opportunities and settings. Fires will create increased needs for trail maintenance along areas affected by fire, which includes increased downed trees requiring log out, etc. However, changes to settings conditions due to the fires may not result in these areas providing desired recreation settings.

Consider investing in other trail maintenance and improvement in the near term to satisfy demand for trail experiences until landscapes and trail networks in areas affected by the fire have stabilized and revegetation has started to occur, etc. However, due to the historic wind event, blow down along trails and at other recreation facilities may limit the ability of the Forest to invest in other areas. Consider how salvage treatments for larger areas can benefit trails and trail settings as well as developed recreation sites and settings. Consider opportunities to work with other recreation providers and partners to address increases in trail maintenance needs for those affected trails with the greatest use and sustained demand in settings with less intensity of fire severity or extent.

In collaboration with and support from the Regional Office seek opportunities to replace lost recreation infrastructure, trail bridges, develop recreation site amenities (toilets, signage, tables, fire rings) in locations where decision are made to replace in kind. New infrastructure should be located and designed to meet the Forest Service Outdoor Recreation Accessibility Guidelines. Similarly, in collaboration with and support from the Regional Office, seek resources to do more trail repair, restoration, slope stabilization, and trail bed armoring. Where conditions warrant considerations of relocated portions of trail or creating new segments of trail to access existing trail networks not affected by fire, keep in mind opportunities for creating more miles of sustainable trail that meet Forest Service Trails Accessibility Guidelines.

**Developed Recreation Sites**

Actions in developed recreation sites (Table 5) should prioritize immediate health and safety issues, including hazard tree/danger trees, hazmat cleanup/remediation, and site security. The Forest should consider site specifics before blanketly removing hazard trees and consider the likelihood that the site will be reopened for use or reconstructed in the same location. A recommendation to quickly try to determine whether or not to focus on the hazard in a particularly site could be a “yes/no/maybe” analysis, where the forest would remove hazards from an area that was determined to “yes” be likely to reopen, or to be rebuilt in the same location.

**Table 5: Developed recreation sites affected by the Riverside Fire.**

Site Type	Site
TH	Cripple Creek Trail #703 Trailhead
TH	Alder Flat Trail #574 Trailhead
TH	Fish Creek Trailhead
CG	Riverside CG
CG	Rainbow CG
CG	Ripplebrook CG
CG	Sunstrip CG
CG	Indian Henry CG
CG	Roaring River CG
CG	Fish Creek CG
CG	Armstrong CG
CG	Lockaby CG
CG	Carter Bridge CG
CG	Lazy Bend CG
BL	Hole in The Wall Boat Access Site

Site Type	Site
DU	Carter Bridge Day Use / Picnic Area
DU	Big Eddy Day Use / Boat Access Site
BL	Moore Creek Boat Access Site

**Wilderness**

Over 13,000 acres of designated wilderness were affected by the White River and Riverside Fires (Tables 6 and 7). Given limited resources, prioritize repair efforts for trails leading into wilderness areas and trails with substantial trailhead infrastructure. Look for opportunities to partner with local groups and partners to help with wilderness appropriate projects.

For trails in wilderness, prior to reconstructing impacted trails, consider whether the trail’s location is sustainable in terms of frequency/cost of maintenance, ability to maintain with non-motorized equipment and non-mechanical transport, and its contribution to wilderness character (See FSM 2323.23(f)). A Minimum Requirements Analysis, documented through a Minimum Requirements Decision Guide (MRDG), should be completed if any use of motorized equipment or mechanical transport is considered.

Inform visitors of potential hazards through websites, signs at trailheads, and targeted outreach to hunters through ODFW. Hazard tree abatement may be needed at trailheads (outside of wilderness).

**Table 6: Acres of Wilderness areas affected by the Riverside Fire.**

WILDERNESS NAME	0% BA mortality	1 - 10% BA mortality	11 - 25% BA mortality	26 - 50% BA mortality	51 - 75% BA mortality	76 - 90% BA mortality	91 - 100% BA mortality	Grand Total
Clackamas	690	64	108	248	562	799	2485	4955
Roaring River	1699	149	290	596	872	666	1818	6090
Grand Total	2389	213	398	844	1434	1465	4302	11046

**Table 7: Wilderness Areas affected by the White River Fire.**

WILDERNESS NAME	0% BA mortality	1 - 10% BA mortality	11 - 25% BA mortality	26 - 50% BA mortality	51 - 75% BA mortality	76 - 90% BA mortality	91 - 100% BA mortality	Grand Total
Lower White River	436	67	134	307	301	131	371	1747
Lower White River (BLM)	161	32	72	180	262	107	289	1125
Grand Total	597	99	206	487	562	238	660	2872

**Trails**

About 33 miles of trails were affected by the Riverside Fire, while about 21 miles of trails were impacted within the boundary of the White River Fire, including two OHV areas (Tables 8 and 9). As noted above, where possible consider investing in trail maintenance and improvement in areas not impacted by fire in the near term to satisfy demand for trail experiences until landscape and trail networks in areas affected

by the fire have stabilized and revegetation has started to occur, etc. Consider how salvage treatments for larger areas can benefit trails and trail settings as well as developed recreation sites and settings. Consider opportunities to work with other recreation providers and partners to address increases in trail maintenance for those affected trails with the greatest use and sustained demand in settings with less intensity of fire severity or extent.

**Table 8: Miles of Motorized and Non-Motorized Trails Affected by the Riverside Fire.**

<b>Riverside Miles Trail Motorized and Non-Motorized w/in Fire Boundary</b>	
Designed Use	Miles Total
4WD>50 - FOUR-WHEEL DRIVE VEHICLE >50"	4
ATV - ALL TERRAIN VEHICLE	6
HIKE - HIKER/PEDESTRIAN	16
PACK - PACK AND SADDLE	8
Grand Total	33

**Table 9: Miles of Motorized and Non-Motorized Trails Affected by the White River Fire.**

<b>White River Miles Trail Motorized and Non-Motorized w/in Fire Boundary</b>	
Designed Use	Miles Total
ATV - ALL TERRAIN VEHICLE	18
BIKE - BICYCLE	1
SNOMO - SNOWMOBILE	2
Grand Total	21

**Wild & Scenic Rivers**

The Riverside Fire affected the following Wild & Scenic River (WSR) corridors: Clackamas, Collawash, Fish Creek, Roaring River, South Fork Clackamas River, and the White River Fire affected the White River corridor (Tables 10 and 11). Funding and resources are needed for addressing the Wild and Scenic River Corridors, including plans for salvage (where appropriate) and revegetation; downed wood recruitment where needed; and removal of log jams for safe recreational boating, river launches, etc.

**Table 10: Miles of Wild & Scenic River affected by the Riverside Fire; please note that this table does not capture the impacts to the corridor, as only miles of river are displayed.**

WSR RIVER NAME	0% BA mortality	1 - 10% BA mortality	11 - 25% BA mortality	26 - 50% BA mortality	51 - 75% BA mortality	76 - 90% BA mortality	91 - 100% BA mortality	Grand Total (miles)
Clackamas	2	1	3	7	9	1	0	23
Collawash	0							0
Fish Creek	1		0	1	6	3	0	11
Roaring	1	0	0	1	0	0	0	3
South Fork Clackamas			0	0	0	2	2	4
Grand Total	4	1	3	9	15	6	2	41

**Table 11: Miles of Wild & Scenic River corridors affected by the White River Fire.**

<b>WSR RIVER NAME</b>	<b>0% BA mortality</b>	<b>1 - 10% BA mortality</b>	<b>11 - 25% BA mortality</b>	<b>26 - 50% BA mortality</b>	<b>51 - 75% BA mortality</b>	<b>76 - 90% BA mortality</b>	<b>91 - 100% BA mortality</b>	<b>Grand Total (miles)</b>
White River	7	1	2	4	2	1	0	17
Grand Total	7	1	2	4	2	1	0	17

Wild and Scenic Rivers are managed in accordance with the Wild and Scenic Rivers Act of 1968, subsequent designating legislation, Forest Service Manual 2354, Land and Resource Management Plans, and Comprehensive River Management Plans, when they are completed. Wild and Scenic Rivers are designated to preserve free flow, water quality, and outstandingly remarkable values (ORVs), which should be protected when danger tree removal is considered. Each segment of river is uniquely classified as Wild, Scenic, or Recreational, all of which require specific administration. Emergency danger tree removal requires quick response by the river administering agency, while at the same time, all efforts should be made to protect river values where possible. Where danger tree situations may be anticipated in the future (especially in dispersed and/or developed recreation sites, including boat launch areas for white water rafting), advanced planning is recommended to determine whether actions can be accomplished without having direct and adverse effects on river values.

***Sense of Place***

Consider opportunities for an all lands-shared stewardship approach to recreation planning for the Clackamas River corridor to assist with decisions regarding replacement and repair of recreation assets. Opportunities for coordinated place-based project submittals through the recently created National Asset Management Program<sup>2</sup> (NAMP) process, combined Great American Outdoors Act (GAOA), Federal Lands Transportation Program (FLTP), and Capital Improvement Plan (CIP) project proposals) may be feasible. Other place-based opportunities for other travel- transportation related improvements the future that may involve other jurisdictions, such as county and state (such as through Federal Lands Access Program, potential Byways grants available through currently proposed language within the reauthorization of transportation bill, etc.). Collaboration efforts around post-fire restoration and future fire mitigation activities are shown to be more important in areas where there is a strong place attachment, such as is true along the 220-mile West Cascade Scenic Byway, which runs from Estacada, to Detroit, then on to McKenzie Bridge and Westfir; this Byway was impacted not only by the Riverside Fire, but the Beachie Creek Fire, Lionshead Fire and Holiday Farm Fire. Consider utilizing the energy and concern around restoration as a catalyst to continue and reinvigorate the grass-roots scenic byway management across all jurisdictions, particularly with Clackamas County and the State of Oregon.

<sup>2</sup> The Agency is undertaking a comprehensive, holistic approach to management of available funding sources to maintain, restore and improve its physical infrastructure and assets. Submittal of all infrastructure projects in FY 21 for the Comprehensive Capital Improvement Plan (CCIP), the Great American Outdoors Act (GAOA) - National Parks and Public Land Legacy Restoration Fund program and the Federal Land Transportation Program (FLTP) is now consolidated through one portal as part of the newly named National Asset Management Program (NAMP).

### ***Visual Quality/Scenic Character***

Fire suppression efforts may have created noticeable visual impacts to valued natural appearing settings (such as high stumps from hazard-danger tree removals and such). Where it is not already accounted for through BAER or other means, efforts are needed to identify funding and resources to address suppression repair and roadside danger tree removal mitigation along the West Cascades Scenic Byway, following guidelines outlined by Forest Landscape Architect-Recreation Program Manager.

In collaboration with and support from the Regional Office, continue to consult with the Oregon Department of Transportation (ODOT) on opportunities to influence visual mitigations of emergency related road work to meet visual quality/scenic byway objectives, such as:

- future danger/hazard tree removal to be done through statewide contract;
- planting and seeding for slope stabilization and erosion control;
- rock fall mitigation and fill slope stabilization;
- guard rail and other barrier replacements;
- replacement of signage.

When considering salvage opportunities, consider the location and extent of where salvage may be occurring on lands bordering Forest Service managed lands to minimize potential for unnatural lines or patterns on the landscape. This would include danger tree removals associated with utility line corridors, which is likely to increase the visibility of unnatural patterns on the landscape.

The vastness of the severity of the fire, fire suppression activities and danger tree removal may have created an existing condition that does not necessarily meet visual quality objectives. This may result in more difficulty with meeting Forest Plan standards for visual quality for any proposed salvage activities. An assumption is that even more of the view shed is visible now as well and will be more visible because of high severity fire that has removed the canopy layer that might have previously screened areas beyond the foreground from view. We recommend working with Regional Office to identify resources for developing a view shed corridor plan for Highway 224. Consistent with direction within the Mt. Hood National Forest Land and Resource Management Plan, the view shed Corridor Plan would help to address short and long-term goals for maintaining, enhancing and restoring scenic character along the Byway, including plans for danger tree removal, salvage logging, and revegetation. Components of this would include:

- visibility (seen area) analysis;
- consistency with Wild and Scenic River Corridor plan and outstandingly remarkable values (ORVs);
- opportunities to enhance hardwoods where appropriate for visual variety;
- opportunities for restoration, forest resiliency, and to maintain created openings for views;
- dividing the Byway into design cells organized around distinctive conditions;
- include landscape character elements, existing and desired scenic experience, and management opportunities;
- Consider use of Forest Landscape Analysis and Design handbook (FLAD) as a tool for long term restoration, recovery and corridor management strategy.

Due to their proximity to both Wild and Scenic River and Byway corridors, salvage and reforestation efforts along high use areas such as Highway 224, and other high use locations, could aid in recovery and enhancement of VQOs and ORVs. Similarly, reforestation along portions of the Byway on Forest Road

46 where it was affected by the Lionshead Fire could aid in reestablishing desired vegetation, helping to meet desired conditions and goals of VQOs and the Scenic Byway Corridor Management Plan.

***Priority Considerations for Recreation - Summary***

- Seek means to address the imminent health and safety issues related to fire impacts as described in the BAER reports, such as hazard/danger trees, hazardous material, and site closures/security
- Seek means to *address visual mitigation of danger /hazard tree work not accomplished through BAER or other means*; including opportunities to still influence the ODOT statewide contract, future roadside CE work, and similar efforts.
- *When considering opportunities for salvage and revegetation along roadsides, within developed recreation site, and portions of scenic byway and WSR view sheds to maintain, enhance or restore desired scenic conditions:*
  - Salvage and reforestation efforts along high use locations could aid in recovery and/or enhancement of VQOs/ ORVs;
  - Well-designed salvage and reforestation in areas of high intensity fire areas could aid in meeting required Visual Quality Objectives consistent with the Mt. Hood National Forest Plan, WSR plans, and West Cascade National Scenic Byway Corridor Plan, and sustainable recreation goals.
- *Repair and/or replacement of lost recreation infrastructure where not already accomplished through BAER or other means, as prioritized locally.*
- Shifts in patterns and intensity of recreation use are likely to occur. Recreation infrastructure and sites lost due to fires (and/or site or area closures) will result in a reduced supply of recreation opportunities and settings. Work with the Regional Office and other recreation providers for *mid-level recreation planning post-fire to seek sustainable solutions for recreation infrastructure, access, etc.*
- Funding and resources are needed for addressing the Wild and Scenic River Corridors, including plans for salvage (where appropriate) and revegetation, downed wood recruitment where needed, removal of log jams for safe recreational boating, river launches, etc.
- *Identify resources for developing a view shed corridor plan for Highway 224.* Consistent with direction within the Mt. Hood National Forest Land and Resource Management Plan, the View shed Corridor Plan would help to address short and long-term goals for maintaining, enhancing and restoring scenic character along the Byway, including plans for danger tree removal, salvage logging, and revegetation, as well as recreation infrastructure.

**INVENTORIED ROADLESS AREAS**

The 2001 Roadless Area Conservation Rule (RACR) established protection for inventoried roadless areas (IRAs); the rule generally prohibits road construction and timber harvest, with some exceptions that require review by the Regional Forester. One IRA was impacted by the Riverside Fire - the Roaring River IRA (2,523 acres). About 855 acres burned with greater than 50% basal area mortality, while not quite half of the IRA (1,109 acres) was unburned. There were no IRAs affected by the White River Fire.

Appendix C of the Final Environmental Impact Statement for the Mt. Hood National Forest Land and Resource Management Plan describes the special features of the roadless area; access to this IRA is limited. Recreation uses include hiking, camping, fishing and opportunities for solitude.

Timber may not be cut, sold or removed in IRAs, except as described in the regulation at 36 CFR 294.13(b). In general, timber cutting must be infrequent, generally small diameter, and must be needed to maintain or improve one or more of the nine roadless area characteristics as defined by the roadless rule. In addition, timber can only be cut if needed to improve TES habitat; to maintain or restore the characteristics of ecosystem composition and structure, such as to reduce the risk of uncharacteristic wildfire effects, within the range of variability that would be expected to occur under natural disturbance regimes.

The IRA was incorporated into the Roaring River Wilderness; as such, tree felling is not likely to occur. However, if there are needs to fall trees in order to protect human life and safety at a developed or dispersed recreation site, any tree cutting in the IRA would need to be reviewed by the Regional Forester prior to undertaking the activity.

### **CULTURAL/HERITAGE RESOURCES**

Limited adverse impacts to cultural/heritage resources occurred as a result of the White River Fire. According to the BAER Report, two cultural resources (Keeps Mill Flume and Barlow Road) are within low-severity burn areas. The Barlow Road Historic District includes the road itself and the surrounding area (roughly 500-800 feet on both sides of the road). The part of the historic district affected by the fire is between FS Road 4885 (at Forest Creek Campground) and the White River bridge (east of White River Campground). Non-historic interpretive Oregon Trail marker posts & small signs for the springs along the hill were affected; these were all made of engraved wood and replacement would be desirable. There are approximately 15 large trees down across the road, and about 100 danger/hazard trees along the sides of it. Ideally, removal of the down trees and danger/hazard trees would involve heavy equipment staying on the road prism and not turning or otherwise causing discernable impacts to the roadbed.

The Riverside Fire exposed a variety of lithic scatters. According to the BAER Report, "Burn severity in these areas are moderate and locations are prone to increased wind throw that will disturb sites and unearth artifacts." Cultural sites could be protected by dropping select trees where windthrow can disturb the site and expose artifacts and scattering slash to obscure the sites to prevent removal of artifacts and vandalism.

Any additional work identified post-BAER will need to result in an adjustment of priorities by forest personnel and/or additional qualified personnel will be needed to address any area salvage, restoration and additional danger/hazard tree felling and salvage. The Mt. Hood currently has a Forest Archeologist and two zoned Archeologists. If significant additional heritage clearance is needed for restoration or salvage activities, the Forest may need to do one or more emergency hire actions to be able to meet the needs. If the decision is to pursue salvage in addition to a green program, Forest heritage resources would be severely taxed.

### **LANDS**

Approximately 131 miles of boundary lines exist within the Riverside Fire perimeter, while about 3 miles of boundary lines exist within the perimeter of the White River Fire; the degree of damage is unknown at this time and the Region 6 Lands Zone will assess the damage. Any salvage units that are located near the boundary need to be assessed for boundary line work prior to layout to ensure that the NFS boundary has been appropriately delineated.

About 40 miles of powerlines managed by Portland General Electric (PGE) were affected by the fire. Approximately miles powerline burned with greater than 50% basal area mortality. PGE is currently working on falling and decking danger trees under emergency authority; work is expected to continue over the winter.

## **ROADS**

The Riverside Fire contains approximately 255 miles of NFS roads are within the fire area of which 61 miles are currently closed, while the White River Fire has about 35 miles of road of which only 2 miles are closed (Table 12). After the BAER treatments and danger tree treatments are completed, additional road work, including danger tree falling, will be needed for post-fire repair/restoration. Throughout the road systems in both fires the Forest expects to see an increase in rock fall, debris flows, and down trees. Other anticipated treatments include installation of hazard signs, emergency road closure, storm inspection and response, continued road maintenance from rock fall/debris and upsizing some culverts. In both fire areas, BEAR has funded Burned Area Warning signs to alert the public to the potential for tree hazards.

### ***Road Prioritization Post-fire***

During suppression and with the recently approved blanket purchase agreement (BPA) on the Riverside Fire, danger tree treatments along some high priority roads have been started. Highway 224 is being treated for danger trees by the Oregon Department of Transportation (ODOT) and the BPA on the Riverside Fire is addressing the Road 46. The Forest is also in the process of treating other roads in conjunction with the BLM under the BPA; these roads are currently being prioritized by the Forest. The White River Fire has more NFS roads at higher maintenance levels and BEAR identified Road 4800 as a high priority as it is the main access between State Highway 35 and the towns of Tygh Valley and Wamic. Additionally, the Historic Barlow Road is important for cultural and heritage resources as noted previously. Two miles of this road are within the fire perimeter area. BEAR identified that this section of road was in low severity burn areas.

For the roads not addressed during suppression, BAER or with the BPA, it is recommended that the Forest develop a process that includes how they will work within current budget and workforce realities to prioritize roads for danger tree abatement; this process should also include criteria for determining whether or not those danger trees will be removed or retained. The prioritization should also include roads impacted by the Lionshead Fire. Prioritization of road systems for treatment of danger trees is covered under the FSM R6 supplement 7730-2007-2 and should also consider decisions made through Travel Management Planning and the current Motor Vehicle Use Map (MVUM). Although addressing danger trees along roads can be covered as part of routine maintenance, the Forest will need to address consultation and seasonal restrictions, such as those that apply for the northern spotted owl.

### **Recommended prioritization criteria:**

1. Arterials and collectors should be the highest priority using the following hierarchy:
  - a. Long-duration exposure areas like vistas, pullouts, or other places where people are encouraged to stop or any other place where people are exposed for more than 15 minutes. Additionally, places where work activity occurs post-fire for a long duration of time, like culvert replacement or repair, or other road maintenance activities. Some of these high priority areas may have been taken care of with BAER, however, this will require good tracking efforts so high priority areas are not missed or overlooked.

- b. Short-duration exposure areas, like intersections or places where the exposure is up to 15 minutes, such as stop signs. Some of these high priority areas may have been taken care of with BAER, however, this will require good tracking efforts so high priority areas are not missed or overlooked.
  - c. Intermittent but high frequency exposure, like high traffic roads for public commuters, timber haul routes, or limited site distance areas (sharp corners).
  - d. Stratification of roads based on identified roadside fuel breaks is also recommended. Roads that can provide logical fuel breaks should be considered for higher priority designation than those with lesser fuel break potential.
  - e. Areas with low traffic volumes.
  - f. Within this framework, areas with higher basal area mortality levels should be considered for treatment above areas that could be more easily handled through time. Additionally, areas with low intensity fire where western red cedar, true firs, or western hemlock are the primary species, high levels of mortality are likely if the duff was consumed and tree roots were killed (See Hood et al. 2020 for estimating probability of tree survival post fire).
2. All open roads from the current MVUM in the fire area, regardless of maintenance level, should be prioritized and included in the plan for treatment. Roads that have been permanently closed should not be considered for treatment.
  3. Road maintenance level should not be used as the sole means of prioritization due to past adjustments of road maintenance levels based upon budget restrictions. Instead, prioritize based on above hierarchy, in consultation with wildlife and aquatic specialists as described previously.
  4. Close high priority roads where danger trees cannot be mitigated. Use the closure order process recently finalized by the RO.

**Table 12. Miles of roads by basal area mortality by operational maintenance level.**

<b>Riverside Fire Roads</b>	<b>Low Basal Area Mortality &lt; 50%</b>	<b>Moderate Basal Area Mortality 51-75%</b>	<b>High Basal Area Mortality &gt;75%</b>	<b>Grand Total</b>
1 - BASIC CUSTODIAL CARE (CLOSED)	33.1	9.5	18.9	61.5
2 - HIGH CLEARANCE VEHICLES	98.6	23.4	52.3	174.3
3 - SUITABLE FOR PASSENGER CARS	9.5	2.4	0.8	12.7
4 - MODERATE DEGREE OF USER COMFORT	3.55	1.93	0.17	5.65
5 - HIGH DEGREE OF USER COMFORT	9.6	10.1	3.8	23.5
<b>Grand Total</b>	<b>154.35</b>	<b>47.33</b>	<b>75.97</b>	<b>277.65</b>
<b>White River Fire Roads</b>	<b>Low Basal Area Mortality &lt; 50%</b>	<b>Moderate Basal Area Mortality 51-75%</b>	<b>High Basal Area Mortality &gt;75%</b>	<b>Grand Total</b>
1 - BASIC CUSTODIAL CARE (CLOSED)	1	0	1	2
2 - HIGH CLEARANCE VEHICLES	25	2	4	31
5 - HIGH DEGREE OF USER COMFORT	1	0	0	2
<b>Grand Total - Miles</b>	<b>27</b>	<b>2</b>	<b>5</b>	<b>35</b>

### ***Recommendations for danger and hazard tree abatement in LSR***

For danger and hazard tree removal along roadways and in developed recreations sites within the LSR, the NWFP standards and guidelines do allow for tree felling. If felled trees are left on-site, a DecAid analysis is not needed. If the trees will be sold, an updated DecAid analysis is required (see previous discussion under wildlife regarding snags and down wood). The sale and removal of these materials is limited by the following:

- For snags and logs located in campgrounds, the material can be removed and sold, where appropriate.
- Along roads and trails, the following applies: where there is a deficit of large woody material (LWM), danger/hazard snags can be felled, but must be left on site. In areas where there is not a deficit of LWM, there is more latitude to remove the felled trees; consider retaining the material, unless retaining the material would be considered a safety issue or would contribute to excess fuel loads that would present a fire hazard. In areas with very high mortality along roads, LWM and snag levels are likely high; as such, removal of felled danger trees is warranted.

### ***Categorical Exclusions for Hazard Trees at Trail Heads***

Routine hazard tree mitigation at trail heads may be authorized under the repair and maintenance of recreation sites and facilities categorical exclusion (CE). Although routine hazard tree mitigation is covered under this CE, the Forest still needs to address consultation and seasonal restrictions, such as for northern spotted owl for felling and/or removal of hazard trees.

### ***Hazard Trees in Developed Recreation Sites***

Hazard trees in recreation sites and developed sites should be assessed following the guidelines provided in the *Field Guide for Hazard-Tree Identification and Mitigation on Developed Sites in Oregon and Washington Forests*. This includes the roads and trails within the perimeter of the developed sites. Trees along roads leading up to recreation sites and developed sites should be evaluated using *Field Guide for Danger-Tree Identification and Response along Forest Roads and Work Sites in Oregon and Washington* (Filip et al. 2016).

Many recreation sites, especially campgrounds, in the Riverside Fire experienced a stand replacing fire. Filip et al. (2014) identifies dead trees as having a high potential for failure. Trees in these recreation sites that are dead will need to be mitigated before sites can be considered for opening. Due to the large number of trees impacted it is recommended that these sites be prioritized for treatment.

### ***Probability of Tree Mortality***

Because tree mortality in burned areas is often delayed post-fire (Filip et al. 2007) some type of prediction of which trees may die post-fire is often desired to avoid multiple salvage entries. Post-fire marking guidelines have recently been developed specifically for Oregon and Washington and represent a compellation of the most recent scientific information on potential tree mortality following fires. The Post-fire Assessment of Tree Status and Marking Guidelines for Conifers of Oregon and Washington (Hood et al. 2020) is available at [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd814664.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd814664.pdf).

### ***Memorandum of Understanding with ODOT***

The identification and treatment of danger trees are addressed in the MOU in place with ODOT that addresses the planning, construction, operation, and maintenance of state highways on National Forest

Land. ODOT has agreed to use the Filip et al. 2016 field guide for identifying danger trees and have sent employees to the danger tree trainings annually since the MOU was signed.

## **TIMBER**

The Riverside and White River Fires burned over timber sales<sup>3</sup> that were sold and awarded, active stewardship contracts, active timber sales, unsold timber sales, planned timber sales, and one planning area that the Forest had conducted pre-planning surveys and analysis. The degree of impact to each unit affected by fire is not yet known. The Forest will need to work closely with the Regional Office as they proceed through their changed conditions analysis to determine the appropriate course of action for each existing contract.

### ***Removal of Suppression Decks***

Log decks created during suppression and suppression repair can be removed under emergency suppression activities (36 CFR 220.4(b)). The Forest should document their rationale for needing to remove the log decks in an expedited manner. A memorandum to project implementers/letter to the file (file codes 5100/2430), signed by the District Ranger or Forest Supervisor, is adequate documentation. Once the letter is signed proceed to Gate 1. Appraisals must address both timber property value and for Oregon and California (O&C) Railroad lands, stumpage distribution requirements must be included. Consider the 2400-2 contract forms as the primary form for deck sales. Utilize a 2400-3, 4, or 6 where necessary to ensure protection of resources and distribution of funds.

To expedite the removal of decked material, one advertisement may be used for multiple sales. Consider posting or mailing a “pre-advertisement” notice to inform potential bidders of upcoming sales. Sales may be advertised for 14 days due to the emergency need to move the wood for suppression repair. It is recommended to keep mandatory deposits on brush disposal and road maintenance at the minimum required for the work. Purchaser performance for road maintenance is preferred. Due to limited access, a system of authorization or escorting potential bidders may be necessary during the advertisement period.

### ***Awarded Timber Sale and Stewardship Contracts***

Seven awarded timber sale and stewardship contracts were impacted by the 2020 fires. The Goat Mountain Thin Environmental Assessment (EA) planning area contains three timber and stewardship sales with units affected by the Riverside Fire. Rapid Assessment of Vegetation Condition (RAVG) data overlaid on to sale and contract area maps show high variability in basal area mortality between individual units within each sale. Significant portions of both the Nanny and Gruff timber sales are mapped with 50% or greater basal area mortality and fire mapped in each unit, whereas the Goat Stew sale area has units with high basal area mortality, low basal area mortality, and units unaffected by fire.

The Grove Thin EA planning area contains the Lake Timber Sale with impacts varying from unaffected units on the east side of the sale to high mortality units on the west side. The Spike Timber Sale from the Hunter Integrated Resource Project EA planning area has fire encroachment in one unit with low to zero mapped basal area mortality. The Slow Timber Sale from the Lemiti Fuels Reduction Project EA was not impacted directly by the Riverside Fire, but has decked material from contingency lines that needs addressed.

---

<sup>3</sup> See Appendix 1.

Catastrophic damage modifications are likely in the Goat Stew, Nanny, Gruff, and Lake Timber Sale areas. Field evaluation is necessary due to the variability, scope and scale of burn severity in each of these contract areas. Opportunities to include damaged timber to existing contracts by mutual agreement appears to exist within the four sale areas. The Forest Contracting Officer should work with purchasers and contractors on gaining access to the sale areas to evaluate conditions. Safety is paramount, but initial evaluations of the sales has urgency due to time of year and potential to be snowed out of the area.

Two unawarded timber sales from the North Clack Integrated Resource Project EA planning area have fire encroachment with mixed severity. The Riverside Fire moved into the southern area of the Tie Timber Sale with edges of units mapped with high basal area mortality but most of the impacted areas show low to zero impact. The Rail Timber Sale area has units impacted by low severity fire mapped with minimal basal area mortality. These were planned FY21 sales and will need ground verification and an evaluation of changed conditions, with any adjustments made prior to advertising.

The White River Fire impacted two awarded stewardship sales within the Crystal Clear Restoration (CCR) EA project area. The Ahoy Stewardship Sale was heavily impacted by fire with about half of the contract area with basal area mortality mapped at 50% or greater. Approximately one quarter of the remaining acreage shows low to zero basal area mortality and one quarter with no impacts mapped. Bilge Stewardship has mixed severity fire mapped in the northern units with approximately 60% of the contract area not impacted. Two additional future contract areas, Pirate and Rum, have mixed severity fire encroachment as well.

The awarded contracts in the CCR planning area are unique because the Forest was required to withdraw the decision, based on an adverse ruling from the Ninth Circuit Court prior to the fires burning through the planning area. The Forest will need to continue working with the Regional Office and the Office of General Counsel (OGC) on addressing the awarded contracts due to the vacated decision. Catastrophic damage modifications generally won't apply because the original causation that stopped operations was the Ninth Circuit Court's ruling. Suppression decks may be sold under 36 CFR 220.4(b); any area or roadside salvage may be considered where appropriate to facilitate post-fire planting, rehabilitation, and reduce fuel loading in the Pine Grove Wildland Urban Interface (WUI). A new NEPA analysis would be required.

### ***Oregon and California Railroad Grant Lands***

After years of argument over management authority for Oregon and California Railroad (O&C) grant lands between Agencies, the Cordon-Ellsworth Act of 1954 (43 US Code 1181g) provided that the O&C Lands within the boundaries of the NFS would be managed as O&C Lands by the Forest Service. The Act stated that these lands would be managed as National Forest System lands, subject to all laws, rules, and regulations applicable to the national forests apart from the distribution of timber receipts. The distribution of timber receipts would follow the 1937 O&C Act.

The Riverside Fire area has over 30,000 acres of O&C lands located within the fire perimeter. Salvage in the matrix land allocation within O&C lands will provide direct economic benefits to the Clackamas County O&C accounts. Salvage potential as part of catastrophic damage modifications, roadside salvage, or area salvage harvest to recover economic value is in line with both matrix allocations from the LRMP, as amended and O&C land designations. The White River Fire area does not contain O&C lands.

Salvage opportunities on O&C lands should be considered where appropriate to help promote reforestation and reduce fuel loading, in addition to the economic benefits. Extensive work has been completed in the past to remove roads and stabilize areas of the Fish Creek drainage, eliminating access to matrix and O&C lands within this key watershed. Previous decisions, interagency agreements and partnerships, completed restoration work and consideration of the recommendations of the Fish Creek Watershed Analysis will need heavy consideration when determining salvage options in Fish Creek drainage.

### ***Matrix (Other than O&C)***

There are approximately 40,000 acres within the matrix land use allocation, aside from O&C lands, in the perimeter of the Riverside Fire and 4,500 acres of matrix within the White River fire. The White River Fire provides a concentrated location for an area salvage opportunity in support of the recovery of timber value and meeting land management plan and WUI objectives, but needs to consider wildlife impacts as noted previously. There are additional areas where roadside salvage and salvage along OHV and other recreation trails may meet objectives while using the timber value to accomplish the work. Logging systems in the potential salvage areas in White River will likely be ground-based due to the minimal slopes.

Matrix lands within the Riverside Fire area are located in the Goat Mountain and South Fork Clackamas areas, as well as the Fish Creek Watershed, and are also found in Cultus Creek and in the La Dee Flat area. Because Fish Creek is a Key Watershed and access is limited as noted above, salvage options in this area must be carefully balanced with aquatic restoration efforts and the sensitivity of the watershed to erosion processes.

### ***Industry Capacity***

The Region has experienced catastrophic fires at a historic scope and scale, affecting private, State, Tribal, Bureau of Land Management (BLM), and other ownerships including six national forests. The BLM has authorities and requirements for salvage operations within their land management plans and has begun moving wood to mills in the Interstate 5 corridor. The private timber holdings are also salvaging burned wood from the fire as well as green blowdown from the wind event to maximize economic recovery. The strong timber market in 2020 provided a financial opportunity for landowners, purchasers, and operators to maximize return with green timber but is starting to decline as economic pressures increase and housing starts are slowing for the winter.

This situation can be a challenge to sell salvaged wood from NFS lands as mills are expecting high volumes of private and BLM timber in the next six to nine months. Fire-damaged wood requires special attention and extensive cleaning of mills to remove the char and carbon that is hard on saws and equipment. Once mills finish processing the influx of fire-damaged wood, they are likely to return to green wood quickly. If salvaging burned NFS timber is delayed or slow, the window will close quickly, as burned wood deteriorates quickly, and the ability to meet objectives may be lost with no-bid sales and no economic recovery.

Industry capacity is not limited to mill capacity. Known issues exist with hiring laborers, truck drivers, and other woods workers for field operations (including reforestation crews). Low unemployment rates and urban growth along the Interstate 5 corridor prior to the 2020 pandemic have led to widespread shortages of woods workers. Equipment capacity has been a limitation for several years with logging equipment being very expensive to own and operate. Significant losses of logging equipment during the fires needs to be considered along with industry capacity to ensure operational success.

## **WORKFORCE CAPACITY**

The Mt. Hood NF was moving towards developing a pipeline of planned vegetation restoration projects (the out-year Whale planning area was almost completely affected by the Riverside Fire), and this fire season will set them back due to time lost managing the fires and now the need to reprioritize ongoing projects with the needs around post fire recovery. The employees on the Forest have worked incredibly hard over the last few months on wildfire suppression and repair, BAER, post-fire restoration and planning; adding in the impacts from dealing with COVID-19 means that many employees are stretched close to beyond capacity. There are vacancies in soils, engineering is shorthanded, the archaeological staff would be stretched thin with added work, and planning is at capacity, particularly given the amount of litigation the Forest has seen.

The Forest understands that they would have to set aside some of their work in order to accomplish restoration and salvage, particularly if an EA were pursued. Focusing on roadside hazard trees/danger trees and using CEs to accomplish any salvage work may allow the Forest to continue with their regular program of work with only minimal or moderate impacts to capacity. Careful considerations on the effects of pursuing a larger salvage effort to their workforce capacities in pursuing their current vegetation restoration program will need to be made. The risk of litigation if salvage were pursued would also need to be seriously considered. In addition, as noted below, all existing NEPA decisions<sup>4</sup> will need to be reviewed because of the changed conditions of the forest.

## **OPTIONS FOR THE FOREST TO CONSIDER**

All options listed below are predicated on the need to conduct a changed conditions analysis for the Goat Mountain Thin EA, Grove Thin EA, North Clack Integrated Resource Project EA, Hunter Integrated Resource Project EA and Lemiti Fuels Reduction Project EA; the Forest must also consider any workload associated with the withdrawal of the Crystal Clear Restoration Project EA Decision Notice. In addition, all options need to consider the recommendations noted in each resource section of this report, in particular for aquatics, wildlife, roads and recreation, as those recommendations may constrain/limit proposed actions due to the need to protect resource values at risk because of the impacts of the fires.

The Forest has also expressed a desire for the region to form strike teams to provide NEPA support or multi-unit environmental analyses. Those discussions are being held at the regional level and no decisions have been made. As such, the options presented here focus on what the Forest might consider without regional strike teams or NEPA efforts.

### **Option 1 (Least Complex):**

- Complete BAER implementation and the changed conditions analysis for the existing EAs<sup>5</sup>. There will need to be a hard look at changed condition updates for the NEPA (for NSO consultation, cumulative effects, etc.), specialist reports and existing consultation with both the USFWS and NOAA for all projects.
- Use the existing decision under the Region 6 Aquatic Restoration EA for riparian planting (both streamside and unstable areas).

---

<sup>4</sup> All NEPA decisions should be reviewed, including decisions made with Categorical Exclusions/Decision Memos.

<sup>5</sup> See Appendix 2 and 3 for details.

- Complete one Forest-wide CE for road, trail<sup>6</sup> and landline danger tree abatement for the roads not treated through suppression related danger tree felling. A supporting record and decision memo are not required, but at least a project record is recommended. Use category 36 CFR 220.6(d)(4) to complete work on the remaining untreated roads that are identified to be maintained as open per the Forest's Motor Vehicle Use Map. Follow the R6 Field Guide for Danger Tree Identification and Response along with R6 FSM supplement 7730-2007-2. These documents are available at: <http://fsweb.r6.fs.fed.us/natural-resources/rapid-assessment-teams/>

**Pros**

- No need for notice, comment or objection and an Emergency Situation Determination (ESD<sup>7</sup>) is not needed (only scoping is needed).
- Quickest means of addressing danger trees.
- Most focused level of analysis for specialists.
- Best addresses the forest's limited workforce capacity.
- Addresses immediate need to assess existing NEPA decisions and how best to move forward with existing sales/contracts.
- Could address Olallie Lake area.

**Cons**

- Does not address comprehensive recreation planning for the Clackamas River Recreationshed.
- Some risk of litigation around selling danger trees created by roadside danger tree treatments and hazard trees from recreation/administrative sites.
- This does not look holistically at the integrated post-fire restoration needs.
- The Forest does not have access to the Riverside Fire area at this time and will not have an inventory of the danger tree felling needs for some time; this could delay work in the White River Fire area, which has been assessed for danger tree felling needs.
- This does not address the potential desire to recoup some value from the burned trees to benefit Wasco County (area salvage).
- This does not address potential salvage from O&C lands, which could benefit Clackamas County.

**Option 2 (Less complexity, larger scale):**

- Complete BAER implementation and the changed conditions analysis for the existing EAs<sup>8</sup>. There will need to be a hard look at changed condition updates for the NEPA (for NSO consultation, cumulative effects, etc.), specialist reports and existing consultation with both the USFWS and NOAA for all projects.
- Complete multiple/combined CE's<sup>9</sup> for post-fire rehabilitation activities, use category 220.6(e)(11) post-fire rehabilitation activities up to 4,200 acres, category 220.6(d)(4) for danger trees along roads, and category 220.6(e)(5) for reforestation<sup>10</sup>; use the existing decision under the Region 6 Aquatic Restoration EA for riparian planting (riparian reserves, which include streamside and unstable areas). Consider one CE for the Riverside Fire and one CE for the White

---

<sup>6</sup> The hazard/danger tree felling noted here is only related to trailheads, not the trail system, and includes trail crews doing other work such as bridge repair.

<sup>7</sup> See Appendix 4 for details on ESDs.

<sup>8</sup> See Appendix 2 and 3 for details.

<sup>9</sup> See Appendix 4 for a list of all potential CEs that can be used after a fire.

<sup>10</sup> Assumes the region will not do a region-wide CE/EA for reforestation.

River Fire; a decision memo and supporting record would be required for both CEs. The post-fire rehabilitation CE requires implementation within three years post-fire. Completing NEPA at this time would provide for implementation when funding opportunities arise, including projects identified by the Forest:

- i. Reforestation for first one to two years;
  - ii. Out year weed treatments;
  - iii. Developed recreation areas – replacement/repair/hazard mitigation. Focus the analysis on the Clackamas River Corridor and other high use recreation sites (OHV trails).
- The Forest can complete a reforestation CE in a couple of years to address future reforestation needs as well once additional seedlings have grown and can be procured.

**Pros**

- No need for notice, comment or objection and an Emergency Situation Determination (ESD<sup>11</sup>) is not needed (only scoping is needed).
- Quickest means of addressing immediate recovery needs.
- Most focused level of analysis for specialists.
- Best addresses the forest's limited workforce capacity.
- Addresses immediate need to assess existing NEPA decisions and how best to move forward with existing sales/contracts.
- Could address Olallie Lake area with reforestation CE only.

**Cons**

- Does not address comprehensive recreation planning for the Clackamas River Recreationshed.
- Some risk of litigation around selling danger trees created by roadside danger tree treatments and hazard trees from recreation/administrative sites.
- This does not look holistically at the integrated post-fire restoration needs.
- This does not address the potential desire to recoup some value from the burned trees to benefit Wasco County (area salvage).
- This does not address potential salvage from O&C lands, which could benefit Clackamas County.

**Option 3 (Multiple CEs):**

- Complete BAER implementation and the changed conditions analysis for the existing EAs<sup>12</sup>. There will need to be a hard look at changed condition updates for the NEPA (for NSO consultation, cumulative effects, etc.), specialist reports and existing consultation with both the USFWS and NOAA for all projects.
- Complete one Forest-wide CE for road, trail<sup>13</sup> and landline danger tree abatement for the roads not treated through suppression related danger tree felling; close roads and trails until dangers are abated. A supporting record and decision memo are not required, but at least a project record is recommended. Use category 36 CFR 220.6(d)(4) to complete work on the remaining untreated roads that are identified to be maintained as open per the Forest's Motor Vehicle Use Map; consult as needed. Follow the R6 Field Guide for Danger Tree Identification and Response

---

<sup>11</sup> See Appendix 4 for details on ESDs.

<sup>12</sup> See Appendix 2 and 3 for details.

<sup>13</sup> The hazard/danger tree falling is only related to trailheads, not the trail system, and includes trail crews doing other work such as bridge repair.

along with R6 FSM supplement 7730-2007-2. These documents are available at:

<http://fsweb.r6.fs.fed.us/natural-resources/rapid-assessment-teams/>

- Complete one Forest-wide CE for hazard tree abatement at recreation sites and facilities, as well as administrative sites; close these areas until hazards are abated. Use category 36 CFR 220.6(d)(5) for recreation sites and facilities and use category 36 CFR 220.6(d)(3) for administrative sites. A supporting record and decision memo are not required, but at least a project record is recommended. Consultation may need to be included for this CE as well. Hazard tree evaluation in effected recreation sites and developed sites should be completed following the guidelines provided in: Field Guide for Hazard-Tree Identification and Mitigation on Developed Sites in Oregon and Washington Forests, R6-NR-TP-021-2013. These documents are available at: <http://fsweb.r6.fs.fed.us/natural-resources/rapid-assessment-teams/>
- Complete multiple/combined CE's<sup>14</sup> for post-fire rehabilitation activities, use category 220.6(e)(11) post-fire rehabilitation activities up to 4,200 acres, category 220.6(d)(4) for roads and category 220.6(e)(5) for reforestation<sup>15</sup>; use the existing decision under the Region 6 Aquatic Restoration EA for riparian planting (riparian reserves, which include streamside and unstable areas). Consider one CE for the Riverside Fire and one CE for the White River Fire; a decision memo and supporting record would be required for both CEs. The post-fire rehabilitation CE requires implementation within three years post-fire. Completing NEPA at this time would provide for implementation when funding opportunities arise, including projects identified by the Forest:
  - iv. Reforestation for first one to two years;
  - v. Out year weed treatments;
  - vi. Developed recreation areas – replacement/repair/hazard mitigation. Focus the analysis on the Clackamas River Corridor and other high use recreation sites (OHV trails).
  - vii. Can include roadside danger tree treatments and road repair.
- The Forest can complete a reforestation CE in a couple of years to address future reforestation needs as well once additional seedlings have grown and can be procured.
- Complete one CE for less than 250-acre area salvage for the White River Fire, using category 36 CFR 220.6(e)(13), which limits salvage of dead and dying trees to 250 acres, with no more than ½ mile of temporary road construction; a decision memo and supporting record are required.

### **Pros**

- No need for notice, comment or objection and an ESD is not needed (only scoping is required).
- Quickest means of addressing immediate recovery needs.
- Most focused level of analysis for specialists.
- Addresses Wasco County's interest in recouping timber value.
- Would focus salvage largely on Matrix land, increasing the likelihood of successful implementation.
- Somewhat addresses the Forest capacity and workload concerns.
- Addresses immediate need to assess existing NEPA decisions and how best to move forward with existing sales/contracts.
- Could address Olallie Lake area.

---

<sup>14</sup> See Appendix 4 for a list of all potential CEs that can be used after a fire.

<sup>15</sup> Assumes the region will not do a region-wide CE/EA for reforestation.

### **Cons**

- The interconnected nature of the proximity of the proposed CE's does present analysis challenges for effects<sup>16</sup>.
- Does not address comprehensive recreation planning for the Clackamas River Recreationshed.
- Some risk of litigation around selling danger trees created by roadside danger tree treatments and hazard trees from recreation/administrative sites.
- Segmenting the analysis across multiple CE's potentially does not allow for the same level of public engagement as an EA would allow for.
- Does not address longer term reforestation needs and will require an additional stand improvement CE in future years.
- The area identified for potential salvage in the White River Fire may not be appropriate/viable given potential impacts to the northern spotted owl (it appeared to be within or adjacent to an owl home range).
- Will likely have to do project-specific consultation for salvage.

### **Option 4 (Focused EA for Riverside Fire, CEs for White River Fire):**

- Complete BAER implementation and the changed conditions analysis for the existing EAs<sup>17</sup>. There will need to be a hard look at changed condition updates for the NEPA (for NSO consultation, cumulative effects, etc.), specialist reports and existing consultation with both the USFWS and NOAA for all projects.
- Develop a focused post-fire restoration EA for the Riverside Fire with a small, focused area salvage component (salvage in Matrix land that overlaps with O&C lands). Restoration activities could include reforestation, recreation site and roadside maintenance needs, (trails, trailheads, and campgrounds), instream wood placement, roads, etc.<sup>18</sup>. Request an Emergency Situation Determination<sup>19</sup> (ESD) from the Chief for this project to accelerate the implementation of the salvage.
- Complete one/two CE for post-fire rehabilitation activities for the White River Fire, use category 220.6(e)(11) post-fire rehabilitation activities up to 4,200 acres, category 220.6(d)(4) for roads and/or category 220.6(e)(5) for reforestation. A supporting record and decision memo are required.
- Complete one CE for less than 250-acre area salvage for the White River Fire, using category 36 CFR 220.6(e)(13), which limits salvage of dead and dying trees to 250 acres, with no more than ½ mile of temporary road construction; a decision memo and supporting record are required.

### **Pros**

- An EA could address restoration needs along the Clackamas River corridor in a more holistic, integrated fashion focusing on needed restoration, as well as recouping some economic value from salvaging trees.

---

<sup>16</sup> The 2020 Council on Environmental Quality Regulations (CEQ) deleted the reference to cumulative effects; however, the description of effects that should be analyzed include those effects that occur at the same time and place as the proposed action or alternatives and may include effects that are later in time or farther removed in distance from the proposed action or alternatives.

<sup>17</sup> See Appendix 2 and 3 for details.

<sup>18</sup> The scope of the proposed action will be based on what does not get funded by BAER; unfunded restoration needs are listed in Appendix 1.

<sup>19</sup> See Appendix 4 for information on ESDs.

- Provides more opportunity to address restoration and enhancement of visual quality and recreation settings objectives along the Clackamas Wild and Scenic River Corridor.
- Minimizes the risk of litigation from danger tree removal efforts given the recent Region 5 court decision.
- Allows for more robust public engagement.
- Allows the Forest to address all potential restoration needs, as well as salvage opportunities.
- Would be able to use existing data from Whale and other analyses to inform the planning effort.
- Addresses immediate need to assess existing NEPA decisions and how best to move forward with existing sales/contracts.

**Cons**

- An EA would require more specialist engagement and analysis of an already extended workforce; additional staffing through detailers or via contractors would likely be needed.
- The planning would take more time and would require an ESD determination from the Chief to be able to implement next summer.
- The extended timeframe could lead to wood quality deterioration.
- The extended timeframe could also increase the risk of no bid sales due to wood deterioration and or market saturation.
- Will require more public engagement.
- Litigation risk from local community may likely be elevated if area salvage is pursued.
- May not incorporate Olallie Lake, as it is outside of the Riverside Fire's perimeter.
- The area identified for potential salvage in the White River Fire may not be appropriate/viable given potential impacts to the northern spotted owl (it appeared to be within or adjacent to an owl home range).

**Option 5 (Large-Scale Planning, Most Complex):**

- Complete BAER implementation and the changed conditions analysis for the existing EAs<sup>20</sup>. There will need to be a hard look at changed condition updates for the NEPA (for NSO consultation, cumulative effects, etc.), specialist reports and existing consultation with both the USFWS and NOAA for all projects.
- Develop a large-scale post-fire restoration and salvage EA or EIS for the Riverside Fire with an area salvage component (salvage in Matrix land that overlaps with O&C lands); include a comprehensive recreation component that addresses restoration activities such as recreation site and road maintenance needs (trails, trailheads, and campgrounds); include restoration needs such as reforestation and instream wood placement, etc.<sup>21</sup>. Request an Emergency Situation Determination<sup>22</sup> (ESD) from the Chief for this project to accelerate the implementation of the salvage portion of the project.
- Complete one/two CE for post-fire rehabilitation activities for the White River Fire, use category 220.6(e)(11) post-fire rehabilitation activities up to 4,200 acres, 36 CFR 220.6(d)(4) for roads and/or category 220.6(e)(5) for reforestation. A supporting record and decision memo are required.

---

<sup>20</sup> See Appendix 2 and 3 for details.

<sup>21</sup> The scope of the proposed action will be based on what does not get funded by BAER.

<sup>22</sup> See Appendix 4 for information on ESDs.

- Complete one CE for less than 250-acre area salvage for the White River Fire, using category 36 CFR 220.6(e)(13), which limits salvage of dead and dying trees to 250 acres, with no more than ½ mile of temporary road construction; a decision memo and supporting record are required.

***Pros***

- A large-scale analysis would address restoration needs and recoups economic value from salvaging trees.
- Provides more opportunity to address restoration and enhancement of visual quality and recreation settings objectives along the Clackamas Wild and Scenic River Corridor.
- Allows for robust public engagement.
- Allows the Forest to address all potential restoration needs, as well as salvage opportunities.
- Would be able to use existing data from Whale and other analyses to inform the planning effort.
- Addresses immediate need to assess existing NEPA decisions and how best to move forward with existing sales/contracts.

***Cons***

- A large-scale planning effort would require extensive specialist engagement and analysis of an already extended workforce; additional staffing through detailers or via contractors would definitely be needed.
- The planning could take well over one year and would require an ESD determination from the Chief to be able to implement the salvage portion of the project.
- The extended timeframe could lead to wood quality deterioration.
- The extended timeframe could also increase the risk of no bid sales due to wood deterioration and or market saturation.
- Will require more public engagement.
- Litigation risk from local community may likely be elevated.
- Consultation would be required.
- Does not address Olallie Lake, as it is outside of the Riverside Fire's perimeter.

***RAT Recommendation***

Because of the complexity and need to address restoration of the Clackamas River corridor, the RAT has two recommendations: First, we believe the focused EA for the Riverside Fire and White River CEs (Option 4) would address the full extent of restoration needs. This option would give the Forest a more robust opportunity to disclose the impacts of restoration activities, as well as conduct a focused salvage effort to meet the sociopolitical needs of the County and communities where O&C lands are present. The ecological needs of the Forest would also be met. We recognize that to make this option viable, additional capacity would be needed.

A focused EA would allow the Forest to frame the EA as a plan for the recovery of the Clackamas River drainage in an interdisciplinary fashion so that recreation infrastructure, view sheds, riparian and terrestrial restoration needs, reforestation needs and a focused salvage efforts can be fully disclosed and discussed with the public. This approach will also allow the Forest to consider alternatives to address different community concerns or interests. If this option is pursued, the RAT strongly recommends a focused approach to salvage to limit the time spent in reconnaissance and planning and to limit the controversy around the EA. This approach would require strong and direct leadership from both the line officer and team leader in order to keep the EA focused and meet the timeline for implementing the project next summer.

Second, if the Forest does not receive additional assistance, then we recommend Option 2, which would allow the Forest to address existing contracts and address post-fire rehabilitation needs on both fires. This option fully considers the existing workforce and capacity issues, and still address immediate danger tree issues, restoration needs, and addresses recreation-related issues.

**RAT Members/RO Staff**

Debbie Anderson, Regional Administrative Review Coordinator, Team Lead and NEPA assistance  
Barbara Webb, Wildlife Biologist and DecAID Advisor Center of Excellence  
Kraig Kidwell, Regional Program Lead for Sale Preparation, Valuation and Contracts  
Robyn Darbyshire, Regional Silviculturist  
Brian Staab, Regional Hydrologist  
Shawnee Hinman, Recreation Special Uses Program Manager  
Marcy Anderson, Regional EADM, NEPA Lead  
Kristen Chadwick, Plant Pathologist  
Marin Palmer, Acting Assistant Director, Natural Resources  
Mike Spisak, Acting Director, Natural Resources  
Whitney Vonada, DRM GIS point of contact  
Charles Cowley, DRM GIS point of contact

**Mt. Hood National Forest Staff**

Christy Cheyne, Deputy Forest Supervisor (Detail)  
Jackie Groce, Clackamas River District Ranger  
Kameron Sam, Hood River and Barlow District Ranger  
Brad Goehring, Forest Natural Resource Staff Officer  
Michelle Lombardo, Forest Environmental Coordinator  
Amber Sprinkle, Forest Planner  
Ashley Popham, East Zone Environmental Coordinator  
Jim Roden, West Zone Environmental Coordinator  
Chad Atwood, Forest Silviculturist and Terrestrial Program Manager  
Tyler Anderson, East Zone FMO  
Tyson Cross, Wilderness, Trails, OHV  
Jeremy Evans, Recreation and Special Uses  
Jane Dalgliesh, Supervisory District Fish Biologist  
Lisa Garrigues, Assistant Silviculturist, East Zone  
Andrew Geist, West Zone Timber Management Assistant  
Jeff Goldberg, West Zone Wildlife Biologist  
Peter Huppi, Project Engineer  
Jeremy Goers, West Zone FMO  
Josh Kenfield, Timber COR  
Christopher Martin, Geological Technical Engineer  
Ryan Matz, Recreation Technician  
Christina Mead, East Zone Botanist  
Phil Monsanto, West Zone Silviculturist  
Todd Parker, Hydrologist  
Nicholas Reep, Forestry Technician  
Todd Reinwald, Forest Soil and Water Program Manager  
Emily Rush, GIS

**Rapid Assessment Team Summary and Recommendations for the 2020 Fires on the Mt. Hood National Forest**

Darcy Saiget, Fish Biologist  
Andy Tierney, East Zone TMA  
Patty Walcott, East Zone Wildlife Biologist  
Upekala Wijayratne, Ecologist

**APPENDIX 1. ENVIRONMENTAL ASSESSMENTS AND TIMBER SALES IMPACTED BY THE FIRES**

**TABLE 1. AWARDED CONTRACTS WITHIN FIRE PERIMETERS OR FIRE CONTINGENCY LINES.**

<b>RIVERSIDE FIRE – CLACKAMAS RIVER RANGER DISTRICT</b>		
<b>NEPA Decision</b>	<b>Sale Name</b>	<b>Comments</b>
Goat Thin	Goat Stew	There is a high variability in basal area mortality in some units; and some units were unaffected by the fire.
	Nanny	A significant portion of the units burned with 50% or greater basal area mortality.
	Gruff	A significant portion of the units burned with 50% or greater basal area mortality.
Grove	Lake	There is a high variability in basal area mortality in some units; and some of the eastern units were unaffected by fire.
<b>LIONSHEAD FIRE – CLACKAMAS RIVER RANGER DISTRICT</b>		
<b>NEPA Decision</b>	<b>Sale Name</b>	<b>Comments</b>
Hunter	Spike	There is fire encroachment in one unit with low to no mapped basal area mortality. Trees were cut along roads as a contingency line. Units likely affected by contingency line are: 115, 116, 118, 130, and 132.
	Buck	There was no fire in any of the units, but trees were cut along roads as a contingency line. Units likely affected by the contingency line are: 92 and 104.
Lemiti	Slow	There was no fire in any of the units, but trees were cut along roads as a contingency line. Units likely affected by the contingency line are: 8, 10, 13, 14, 16, 20, 22, 29, 30, 31, and 32.
<b>WHITE RIVER FIRE – BARLOW RANGER DISTRICT</b>		
<b>NEPA Decision</b>	<b>Sale Name</b>	<b>Comments</b>
CCR	Ahoy*	Half of the area burned with 50% or greater basal area mortality; a quarter of the area burned with low to zero basal area mortality; and one quarter of area was not impacted by the fire.
	Bilge*	The northern units burned with a mixed severity; approximately 60% of contract area was not impacted by fire.

\*With the CCR decision withdrawn, these sales currently have no NEPA decision.

**TABLE 2. FUTURE CONTRACTS WITHIN FIRE PERIMETERS OR FIRE CONTINGENCY LINES.**

<b>RIVERSIDE FIRE – CLACKAMAS RIVER RANGER DISTRICT</b>		
<b>NEPA Decision</b>	<b>Sale Name</b>	<b>Comments</b>
North Clack	Rail	There was only a low severity burn in some units with minimal basal area mortality.
	Car	Only a small portion was affected with a low severity burn.
	Tie	Some edges of the units experienced a high basal area mortality, but most units were unaffected. Trees were cut along roads as a contingency line. Units likely affected by the contingency line are: 66, 68, 70, and 78.
<b>WHITE RIVER FIRE – BARLOW RANGER DISTRICT</b>		
<b>NEPA Decision</b>	<b>Sale Name</b>	<b>Comments</b>
CCR	Pirate*	Mixed severity fire encroached on a small portion of the contract area.
	Rum*	Mixed severity fire encroached on a small portion of the contract area.

\*With the CCR decision withdrawn, these sales currently have no NEPA decision.

**TABLE 3. EXISTING & FUTURE CONTRACTS NOT WITHIN FIRE PERIMETER AND WITH NO NEPA DECISION**

<b>WHITE RIVER FIRE – BARLOW RANGER DISTRICT</b>			
<b>NEPA Decision</b>	<b>Sale Name</b>	<b>Acres within Fire Perimeter</b>	<b>Total Acres in Sale</b>
Crystal Clear Restoration	Scallywag	0 (0%)	1714
	Swab	0 (0%)	2706
	Plank	0 (0%)	740

**TABLE 4. EXISTING & FUTURE CONTRACTS ADJACENT TO FIRE PERIMETERS WITH NEPA DECISIONS THAT REQUIRE REVIEW UNDER FSH 1909.15, CHAPTER 10, SECTION 18.1\***

<b>RIVERSIDE FIRE – CLACKAMAS RIVER RANGER DISTRICT</b>		
<b>NEPA Decision</b>	<b>Sale Adjacent to Fire Perimeter</b>	<b>Total Acres in Sale</b>
Goat Mountain Thin	TBA	TBA
Grove Thin	Lake	TBA
North Clack Integrated Resource Project	Cab	TBA
	Car	TBA
	Track	TBA
<b>LIONSHEAD – CLACKAMAS RIVER RANGER DISTRICT</b>		
<b>NEPA Decision</b>	<b>Sale Adjacent to Fire Perimeter</b>	<b>Total Acres in Sale</b>
Hunter Integrated Resource Project	Buck	TBA
	Fawn	TBA
	Doe	TBA
Lemiti Fuels Reduction Project	Slow	TBA

\*FSH direction states that if changed circumstances relating to the environmental impacts of a proposed action come to the attention of the responsible official after a decision has been made, then the responsible official should review the information carefully to determine if a correction, supplement, or revision to the original decision. See Appendix 2 and 3.

## Appendix 2. Section 18 Reviews Existing NEPA Decisions

A number of NEPA project areas were affected by the fires to varying extents. Because they have current or planned timber sale units within or adjacent to the fire perimeters, NEPA decisions for the following vegetation management analyses will require changed condition analyses prior to any post-fire implementation (please note that all existing decisions, regardless of resource area, should be assessed for changed conditions):

- Goat Mountain Thin EA
- Grove Thin EA
- Hunter Integrated Resource Project EA
- North Clack Integrated Resource Project EA
- Lemiti Fuels Reduction Project EA

Conducting Section 18 interdisciplinary reviews of these analyses and documenting them in Supplemental Information Reports, or SIRs (see Appendix 3 for an example of a SIR) would be a validation of a decision conducted under the NEPA process for an action that still needs to be implemented. A SIR is a report to examine new information in light of the original decision. The conclusion must support the original decision. If the decision needs to be modified or changed; then a supplemental EA or supplemental EIS has to be done (FSH 1909.15 18.1). It is important that the original decision is still valid, and that the NEPA supporting that document has not gone stale in light of the changed circumstances caused by the fire season in 2020. This process can be used to examine new or changed information that arises after the signing of a decision. Examples of new information that should be considered in a SIR for this project include but are not limited to; a watershed impacts up and downstream of the project area, transportation needs for fire restoration, recreation impacts, and TES species such as the northern spotted owl & red tree vole. The interdisciplinary review should be conducted to determine if the decision is still valid even under the new information. If not, the NEPA process will have to be initiated to change the decision made in the final Decision Notice.

The SIR Interdisciplinary process can be manageable if the team working on it relies on the BAER & READ resources developed and used by the fire as well as the documentation prepared by the Forest as a part of the Rapid Assessment Team process. However, in this particular situation the Forest is faced with analysis of the five NEPA decisions as well as determining courses of action related to the Crystal Clear Restoration Project area (decision withdrawn by court order) and the Whale Project area (100% within the perimeter of the Riverside Fire, which was cancelled after two years of pre-NEPA survey work because of the extent of the changed conditions). The Forest may not have the capacity to complete five SIRs and address its green program and outyear NEPA all at once and will need to prioritize accordingly.

It is worth mentioning what a SIR is not. A SIR is not a NEPA or substitute for NEPA rather a SIR is a report that only assesses whether the current NEPA for a project/action is still valid. A SIR cannot be used to change the NEPA decision. A SIR cannot make up for stale NEPA. A SIR is not an opportunity to conduct a new analysis that was sufficiently done to inform the decision.

If the SIR determines that supplemental analysis or a change to the decision is required, the Mt. Hood National Forest must follow FSH 1909.15 18.4 for reconsideration of decisions based on an EA and Finding of No Significant Impact (FONSI):

- Use errata sheets to make simple corrections.
- Supplement or revise an EA if the interdisciplinary review of new information or changed circumstances indicates that changes in the EA are needed to address environmental concerns that have a bearing on the action or its impacts.
- Upon completion of the supplemented or revised EA, prepare a new finding of no significant impact (FONSI) which addresses the effects of the action. Reconsider the original decision; and, based upon the EA and FONSI, issue a new decision notice or document that the original decision is to remain in effect and unchanged. A new decision notice may address all or a portion of the original decision. Follow the instructions in chapter 40.
- If, based on the supplemented or revised EA, the proposed action may have a significant effect, issue a notice of intent to prepare an EIS. Follow the instructions in chapter 20.

**APPENDIX 3. SUPPLEMENTAL INFORMATION REPORT:**

SUPPLEMENTAL INFORMATION REPORT  
USDA Forest Service  
[NAME OF] NATIONAL FOREST  
[District] RANGER DISTRICT

[Project Name]

Date

This Supplemental Information Report (SIR) will become part of the project record and is not a stand-alone analysis or decision. Rather, it documents whether the original decision and analysis is still valid and applicable given the new or changed information as it relates to the effects.

[Project Name] on the [District] Ranger District was originally signed on [Date of Decision] by [Name of Responsible Official and Title]. [Reason for the SIR]

[Describe Selected Action, any Changed conditions]

[If true use statement if not reword to describe changes] There are no changes proposed to the selected actions for the project. Additional measures based on specialist review may be required to accommodate changed conditions, but are still within the scope of the original intent and decision.

Measures that are considered for changed conditions include:

- [list]

**Consideration of Effects**

Based upon Forest Service Handbook 1909.15 (Chapter 10 Section 18 – “*Review and Documentation of New Information Received After Decision Has Been Made*”), if new information or changed circumstances relating to the environmental impacts of a proposed action come to the attention of the responsible official after a decision has been made and prior to completion of the approved program or project, the responsible official should review the information carefully to determine its importance. Consideration should be given to whether or not the new information or changed circumstances are within the scope and range of effects considered in the original analysis and decision.

This SIR does not constitute a National Environmental Policy Act (NEPA) decision nor does it intend to fulfill the requirements for a revised or supplemental NEPA analysis. This SIR does not intend to correct deficiencies in the original environmental documentation nor change a decision. (*See FSH 1909.15 Chapter 10, Section 18.1*)

Interdisciplinary Team Review, Findings and Summary are provided in the attached form.

**Decision**

[pick one]

**Rapid Assessment Team Summary and Recommendations for the 2020 Fires on the Mt. Hood National Forest**

- Based upon the findings presented to me, I have determined that that the analysis and decision for the project remains sufficient and valid, and that the project may be implemented under the existing decision.
- Based upon the findings presented to me, I have determined that the analysis and decision for the project is not sufficient and therefore additional NEPA needs to be initiated.

---

Responsible Official signature

Date

**FSH 1909.15 - SECTION 18 PROJECT REVIEW  
Supplemental Information Report (SIR)**

PROJECT NAME:

DECISION DATE:

REVIEW DATE:

**This form is to document that there are no changed conditions or new information that would require changes to an existing environmental analysis. Each specialist provides input to acknowledge whether a revised or supplemental NEPA analysis is or is not needed.**

**Sections are based on the issues analyzed in the EA and whether there are any changed conditions and whether those changed conditions would change the conclusions for the analysis, and if so is there a need to change the decision.**

**1) Soil Condition**

Comments:

Specialist:

Title:

**2) Streams and Watershed Conditions**

Comments:

Specialist:

Title:

**3) Transportation System**

Comments:

Specialist:

Title:

**4) Wildlife**

Comments:

Specialist:

Title:

**5) Rare Plants**

Comments:

Specialist:

Title:

**6) Wildlife, Rare Plants, Fish and Aquatic Species**

Comments:

Specialist:

Title:

**7) Fish and Aquatic Species**

Comments:

Specialist:

Title:

**8) Recreational Uses**

Comments:

Specialist:

Title:

**9) Forest Scenery**

Comments:

Specialist:

Title:

**10) Heritage and Cultural Resources**

Comments:

Specialist:

Title: Archaeologist

**11) Range**

Comments:

Specialist:

Title:

**12) Timber**

Comments:

Specialist:

Title:

**13) Other**

Comments:

Specialist:

Title:

**14) Other Laws, Regulations, Forest Plan**

Comments:

Specialist:

Title:

Specialists in these resource areas have reviewed the new information or changed circumstances and have verified that the original NEPA analysis and disclosure regarding environmental effects is sufficient.

**HERITAGE RESOURCES**

Are effects on Native American religious or cultural sites, archaeological sites or historic properties generally the same as predicted in the existing NEPA document?

Yes  No

Explain:

**T&E FISH/WILDLIFE and PLANTS**

Are effects on threatened, endangered, proposed, sensitive species or critical habitat generally the same as predicted in the NEPA document?

Yes  No

Explain:

**PUBLIC HEALTH AND SAFETY**

Are effects on public health and safety generally the same as predicted in the NEPA document?

Yes  No

Explain:

**UNCERTAINTY OF EFFECTS**

Is the level of uncertainty or controversy over environmental effects of this action generally the same as predicted in the NEPA document?

Yes  No

Explain:

**UNIQUE CHARACTERISTICS OF THE GEOGRAPHIC AREA**

Are the effects on unique characteristics of the geographic area generally the same as predicted in the NEPA document? Unique characteristics include but are not limited to park lands, prime farm lands, wetlands, wilderness, wild and scenic rivers, and ecologically critical areas. (If the NEPA document indicates that there are no unique characteristics in the geographic area, then no effects were predicted.)

Yes  No

Explain:

**ENVIRONMENTAL LAWS**

Is the action still consistent with Federal, State, and local laws or requirements for the protection of the environment? Consider any new laws, regulations, ordinances. Consider whether or not any actual effects have exceeded predicted thresholds to the point of threatening to violate any environmental requirements.

Yes  No

Explain:

**NEPA COORDINATOR:**

Additional analysis is necessary?  No  Yes

#### **APPENDIX 4. NEPA Considerations for Post-fire Activities and Use of an Emergency Situation Determination**

##### ***Categorical Exclusions (CE)***

The final rule for the revised Forest Service 220 regulations does not have an expected publication date, so there are no new categories available for use at this time. The RO can provide a CE checklist/Decision Memo template if your unit does not already have one.

From FSH 1909.15 Chapter 30 & 36 CFR 220.6:

##### ***Categories of Actions for Which a Project or Case File and Decision Memo Are Not Required***

While these actions fall within the categories of actions for which a project or case file and decision memo are not required, it is recommended that a project file is retained, particularly given the potential for extensive work along many roads and around administrative and recreation facilities. As with all CEs, scoping is required. Documentation, including a well-supported rationale for danger and hazard tree identification, should be complete in the record. Documentation should include the method used to identify danger and hazard trees, the supporting science and data behind the identification method chosen, and a rationale for removal of those trees which are still green, but have been identified as danger/hazard trees for public health and safety.

Use of a categorical exclusion implies consistency with the unit Forest Plan, and, if applicable, other plan level guidance such as the Northwest Forest Plan.

36 CFR 220.6(d)(3) Repair and maintenance of administrative sites.

36 CFR 220.6(d)(4) Repair and maintenance of roads, trails, and landline boundaries.

36 CFR 220.6(d)(5) Repair and maintenance of recreation sites and facilities.

##### ***Categories of Actions for Which a Project or Case File and Decision Memo Are Required***

36 CFR 220.6(e)(5) Regeneration of an area to native tree species, including site preparation that does not involve the use of herbicides or result in vegetation type conversion.

36 CFR 220.6(e)(11) Post-fire rehabilitation activities, not to exceed 4,200 acres (such as tree planting, fence replacement, habitat restoration, heritage site restoration, repair of roads and trails, and repair of damage to minor facilities such as campgrounds), to repair or improve lands unlikely to recover to a management approved condition from wildland fire damage, or to repair or replace minor facilities damaged by fire. Such activities:

- i. Shall be conducted consistent with Agency and Departmental procedures and applicable land and resource management plans;
- ii. Shall not include the use of herbicides or pesticides or the construction of new permanent roads or other new permanent infrastructure; and
- iii. Shall be completed within 3 years following a wildland fire.

36 CFR 220.6(e)(13) Salvage of dead and/or dying trees not to exceed 250 acres, requiring no more than ½ mile of temporary road construction. The proposed action may include incidental removal of live or dead trees for landings, skid trails, and road clearing.

***For areas with high insect and disease spread potential due to fire-related tree damage and mortality:***

36 CFR 220.6(e)(14) Commercial and non-commercial sanitation harvest of trees to control insects or disease not to exceed 250 acres, requiring no more than ½ mile of temporary road construction, including removal of infested/infected trees and adjacent live uninfested/uninfected trees as determined necessary to control the spread of insects or disease. The proposed action may include incidental removal of live or dead trees for landings, skid trails, and road clearing.

HFRA Insect and Disease Infestation category: Section 8204 of the Agriculture Act of 2014 (Pub. L. 113-79) amended Title VI of the Healthy Forests Restoration Act of 2003 (HFRA) (16 U.S.C. 6591 et seq.) to add sections 602 and 603. Section 8407 of the Agriculture Improvement Act of 2018 (Pub. L. 115-334) later amended sections 602 and 603 to add hazardous fuels reduction projects to the types of projects that may be carried out under sections 602 and 603. Projects completed using the section 603 provisions are considered categorically excluded from the requirements of NEPA and evaluation of extraordinary circumstances is not required.

Projects may treat up to 3,000 acres when this category is used. A project file and decision memo are required. There are several other requirements which must be met to apply the HFRA insect and disease category. Work with the Regional Office if you are interested in using this category and you are not familiar with the limitations on its use.

***Compliance with other laws, regulations, and policies:***

Compliance with the Endangered Species Act (ESA) is required. Page 9 of the regional danger tree policy FSM-7730-2007-2 provides more detail. Forests will also need to be accountable for National Historic Preservation Act (NHPA) compliance for all hazard tree removal. Forest heritage staff can provide design criteria that can minimize impacts to known sites and areas with high site density. Additionally, forests should consult with the wildlife, botanist, fish, and soil scientist specialists when considering felling of danger trees. There may be a need for additional mitigation to protect these resources protected by other laws and to remain consistent with their forest plans.

Other laws, regulations, and policies may apply depending on the situation. Consult with your local environmental coordinator for additional guidance.

***Considering an action which would be covered in an EA or EIS?***

If your action does not fit within one of the above categories then consider using the EA/FONSI form developed by the national focused EA team found [here](#).

- The form needs some adjustment to reflect the 2020 revised CEQ regulations; however, for the most part it remains consistent with the revised regulations as not much changed for EAs with the revision.
- The biggest change is that we no longer have the FONSI context and intensity factors found in the 1978 CEQ regulations. Work with the RO to complete your FONSI until national direction is available.
- The form is appropriate for actions where we can support a call that the effects of the action are not significant with little additional data collection or documentation.
- We should already have sound support in our agency files regarding the proposed agency action in the affected ecosystems to show that effects from fire salvage or other post-fire activities

have not triggered significance in previous implementation. If a significant impact is expected then consider an EIS.

- If your action is going to require more in-depth documentation to evaluate the potential for significant impacts then use a standard EA or EA/FONSI template and process. Extremely large area salvage may require preparation of an EIS; please work with the RO prior to developing a proposal.

### ***Emergency Situation Determination (ESD)***

For FY21, it is the Region's expectation that all NEPA will be completed by the end of the third quarter in FY21 (June 30, 2021), so that implementation can begin in the fourth quarter. If an ESD is not requested, the objection period would have to start by mid-March to complete the process by the regional deadline. With an ESD, all consultation, ESD requests and NEPA would need to be done by June 30.

Under the 218 objection process, the preliminary or draft EA must be circulated for a 30-day comment period (which can be combined with scoping) and a draft EIS must be circulated for a 45-day comment period (minimum), which cannot be combined with scoping. Following consideration of comments, the final EA, response to comments (if prepared) and draft decision or final EIS and draft decision must be circulated for a 45-day objection period. After the objection period, the Reviewing Officer (next higher level official than the responsible official) has 45 days to issue a written response to the objections; the Reviewing Officer may take an additional 30 days if needed to respond to objections or resolve objection issues.

An Emergency Situation Determination (ESD<sup>23</sup>) may be requested from the Chief. These take a minimum of 6 to 8 weeks to complete (an average of 7 weeks is used in the calculations below), after the ESD has been reviewed by the Region. The Forest must make a formal request to the Regional Forester for the ESD, which then is forwarded to the WO by the Regional Forester via the Regional Administrative Review Coordinator. An ESD means that there is no objection period (you must tell the public an ESD has been requested early in the process) and the project is implemented immediately after the Decision Notice or Record of Decision is signed and the public is notified of the decision. ESD requests are not guaranteed to be granted and can be controversial with some members of the public.

#### Timelines for an EA or EIS (includes fieldwork, no ESD):

Preparing the EA or EIS (includes scoping):	90-210 days
Notice and Comment (if not combined with scoping for EAs):	30-45 days
Objection Period:	45 days
Objection Review/Resolution:	<u>45-75 days</u>
TOTAL	210-375 days

---

<sup>23</sup> Emergency Situation Determination – As per 36 CFR 218.21, the Chief and the Associate Chief of the Forest Service are authorized to make the determination that an emergency situation exists when immediate implementation of a decision is necessary to achieve one or more of the following: *Relief from hazards threatening human health and safety; Mitigation of threats to natural resources on NFS or adjacent lands; Avoiding a loss of commodity value sufficient to jeopardize the agency's ability to accomplish project objectives directly related to resource protection or restoration.* When it has been determined that an emergency situation exists, the proposed decision is not subject to the predecisional objection process. Implementation may proceed (1) Immediately after the decision is documented in a Decision Notice (DN) and notification of the public as described in 36 CFR 220.7(d); (2) Immediately after complying with the timeframes and publication requirements described in 40 CFR 1506.10(b)(2) when the decision is documented in a Record of Decision (ROD).

**Rapid Assessment Team Summary and Recommendations for the 2020 Fires on the Mt. Hood National Forest**

<u>Timelines for an EA or EIS (includes fieldwork, with ESD):</u>	
Preparing the EA or EIS (includes scoping):	90-210 days
Notice and Comment (if not combined with scoping for EAs):	30-45 days
ESD Requested (can be concurrent with comment period):	<u>56 days</u>
TOTAL	<b>176-311 days</b>