

3/8/21 House Special Committee on Wildfire Recovery

RESPONSES TO QUESTIONS FROM CHAIR CLEM – 3/11/21

The Natural and Cultural Resources Recovery Task Force (NCRRTF), representing State Recovery Function 7, is pleased to provide the following responses to Chair Clem's at the 3/8/21 House Committee presentation. Chair Clem posed the following questions:

- 1) What land ownerships need help with stabilization, restoration, and reforestation, taking into consideration replanting requirements such as those under the Oregon Forest Practices Act (FPA)?
- 2) What subset of these needs are included in the estimated \$57 million cost estimate for stabilization, restoration, and reforestation activities described in the presentation to the committee?
- 3) What additional, detailed information is available about the cost estimates?
- 4) Do opportunities exist for salvaged wood from state owned lands and/or private lands to be utilized to assist with rebuilding, given the high lumber cost facing survivors who are rebuilding home?

Response to Question 1

The NCRRTF has taken an 'all-lands' approach to post-fire recovery, including assessments. Given fire impacts such as burn severity, combined with post-fire risk such as soil erosion potential, the assessment work confirms that stabilization, restoration, and reforestation work is needed across ownerships including: private smaller acreage landowners, family forestland owners, tribal lands, state owned lands, industrial timberlands, and federally owned and managed lands.

In those instances where salvage logging occurs, the FPA requires subsequent replanting. However, on lands that a) are not salvaged for economic benefits (e.g., small acreage landowners with riverfront property who are simply removing burned trees to avoid human life/safety risk), b) are too severely burned to salvage, and/or c) included young forest stands (<30 years old) for which salvage is not economically viable, there is no replanting requirement. It is these land ownerships and situations for which the greatest need for assistance exists. In combination with stabilization and restoration, early analysis identifies that non-industrial (i.e., family forest landowners) will need the most assistance with reforestation (Table 1).

Table 1. Preliminary findings of the 2020 Labor Day Fire impacts on Private Industrial and Non-Industrial landowners, including the number of landowners impacted, acres burned, acres of younger stands burned (e.g., more susceptible to stand-replacing fires and lower salvage potential), and acres of younger stands that experienced >75% basal area mortality (BAER).

Ownership Type	Number of Landowners	Acres Burned	Acres of Younger Stands Burned [§]	Acres of Younger Stands Burned & >75% mortality [†]
Private Industrial	17	276,817	193,492	145,287
Private Non-Industrial	5,660	90,255	48,100	19,677
Total	5,777	367,072	241,592	164,964

[†]Mortality data limited to 5 fires. Acres reported here were estimated by multiplying acres burned (3rd column from left) times the proportion of acres of younger stands (>75% mortality) to total burned acres for the 5 fires.

[§]Acres for younger stands were based on conifer, hardwood, and mixed stands in the sapling/pole stage as of 2012 using Oregon State University's Gradient Nearest Neighbor (GNN) data (Ohmann and Gregory 2002). Open and

sparse coverage were also included, with the assumption that these areas were recent clearcuts prior to 2012. FERNs notification data were also used to adjust acreage based on clearcuts occurring from 2014-2020 (prior to Labor Day fires). We made the assumption that these areas experienced a clearcut.

Response to Questions 2 and 3

Table 2 outlines the cost breakdown for approximately \$86 million in funding requested to implement initial, on-the-ground actions. These actions address high-priority natural and cultural resources (NCR) recovery needs, and include stabilization, restoration, and reforestation. The requested funds would be help address NCR needs across 14 fire areas: Archie Creek, Beachie Creek, Holiday Farm, Riverside, 242, Almeda, Brattain, Echo Mountain, Indian Creek, Lionshead, Slater, South Obenchain, Thielsen, and White River.

While needs for high-priority recovery actions exist across multiple land ownerships, as noted above, state funding requested under this cost estimate would prioritize private smaller acreage landowners, family forestland owners, tribal lands, state owned lands, and, to a lesser extent, industrial timberlands. Federal lands would not be prioritized in this funding request, but rather are a focus of the companion Congressional funding request.

Specifically, three line items in Table 2 cover stabilization, restoration and reforestation. These items are shown gray shading and total approximately \$57 million. Footnotes provide more detail about the land ownerships and areas of impact that would be prioritized for this funding.

Action (across 14 fire areas)	Estimated cost¹
Soil stabilization, invasive species control, and fencing on nearly 25,000 acres and for 23 linear miles ²	\$41,000,000 ³
Riparian restoration / upland reforestation (including restoration plans) on over 5,500 acres ⁴	\$10,750,000 ³
Floodplain restoration/reconnection on over 300 acres	\$5,000,000
Development of tree seedling/nursery capacity and supply for riparian restoration and upland reforestation	\$5,000,000
Culverts and Roads <ul style="list-style-type: none"> - Culverts – nearly 160 total; ranging from simple to complex, with costs \$1,250-250,000 per culvert - Culvert cleaning and storm-proofing of roads – 218 mobilization days 	\$2,000,000
Hazard tree removal along private roads and waterways / riverine navigational hazards – 168 mobilization days	\$1,750,000
Closures / warning signs / community alerts	\$1,750,000
Geotechnical analysis	\$1,250,000
Drinking water (DW) supply related costs – 20 systems (combination of public and private) of greatest concern in ETART water quality report ⁵ for: <ul style="list-style-type: none"> - DW infrastructure intake protection and repair - DW system monitoring 	\$6,500,000 ⁶
Septic repairs for properties with highest need, with DEQ estimating <ul style="list-style-type: none"> - 500 minor repairs - 700 major repairs 	\$9,750,000
Cultural resources assessments in advance of natural resources recovery actions	\$1,250,000
TOTAL	\$86,000,000

¹ Technical assistance from agencies and/or funding program administration are built into the estimates.

² Based on estimated acreages for very high erosion potential areas across the 14 fires, and an assumption that 10% of these areas can be treated in next two years, given capacity, access, etc.

- ³ Recommend pooling costs allocated for a) Soil stabilization/etc. line item and b) Riparian restoration/upland reforestation line item to support efficiencies if staged projects (i.e., seeding and mulching followed by replanting and stewardship of seedlings) on individual properties are possible. This also accounts for different fire areas having received differing levels of early response during Fall/Winter of 2020-21 and now being restoration-ready.
- ⁴ Based on estimated acreages for very high erosion potential areas and areas with the most severe burn mortality across the 14 fires. Also, accounts for seedling supply needed for replanting in the coming two years and anticipated acreages that can be replanted with this supply. Finally, includes estimated restoration/reforestation costs of \$800-\$8,500 per acre, depending on type and location of on-the-ground work.
- ⁵ See https://gscdn.govshare.site/1aa8ace4addf06592a8d7dcb775413bf10fd1ec6/ETART_WQ_Report_Final.pdf.
- ⁶ The Potable Water Resources Task Force is working to further identify and better assess unmet drinking water needs, particularly related to drinking water systems and domestic well needs that are not eligible for existing funding programs; these generally include small private public water systems, small unregulated water systems, manufactured home parks that are a single customer of public water systems and domestic wells.

Additional Notes about the Detailed Cost Estimates and Funding Request

- Tree seedling/nursery capacity is a critically important issue to address if Oregon intends to successfully support NCR recovery in the coming years. Rough estimates are that somewhere between 80 and 140 million seedlings could be needed to reforest Oregon lands burned by wildfires in 2020. While these estimates are still preliminary the possible range of seedlings needed is two to three times the typical number of seedlings needed each year for reforestation in Oregon. Seedlings of forest timber species are in short supply. Other native plants for restoration planting (e.g., native hardwoods, shrubs, etc. for riparian restoration) have also been difficult to obtain. The seedling shortage is being felt most by small landowners. ODF has convened a working group with representatives from state and federal land management agencies, the forest and nursery industries, OSU Extension, and non-profit associations that serve small landowners to help address some of these needs. The seedling/nursery capacity funding request included in the table will expedite this work to the benefit of those landowners in greatest need of assistance with restoration and reforestation.
- Given that technical assistance and/or funding program administration is built into the cost estimates above, the Legislature may need to provide position authority to agencies that will serve as vehicles for this funding, in order to ensure staffing capacity to support funding, planning, and implementation with local communities.
- Drinking water supply related costs are an initial estimate of potential need. As described in footnote 6 of Table 2, the Potable Water Resources Task Force—convened by OHA, DEQ, and OEM—is further assessing detailed needs and cost estimates for drinking water supply related costs. Also, funding needs in Table 2 do not include estimated costs for repair of individual private wells. This topic falls outside of the scope of the Natural and Cultural Resources Recovery Task Force, so was not assessed. It is recommended that the Special House Committee on Wildfire Recovery reach out to the Potable Water Resources Task Force, which now is in the process of estimating recovery needs, to obtain 2-year cost estimates for well repair needs.

Response to Question 4

This response is currently under review from other agencies.