Comments during 3/22/21 Hearing of House Special Committee on Wildfire Recovery

RESPONSES TO QUESTIONS FROM CHAIR CLEM – 3/31/21

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 questions raised at the 3/22/21 House Committee presentation. Chair Clem posed several questions. Following are brief bulleted responses to these questions, followed by more detailed responses to each.

1) The $86 million funding request for natural resources seems high. What is the cost of work such as soil stabilization and replanting?
    - **Response**: Natural resource recovery actions range from $250 to $15,000 per acre. Early estimates suggest over 100,000 acres need some amount of recovery action.
2) Does the $86 million funding request reflect work that already has been done, or is the funding need for remaining work only?
    - **Response**: Very limited work has been completed to date and not across all fire areas. The $86 million is for new work which is not accounted for in state agency resources. Examples of the work completed and the remaining funding need are provided for the Almeda and Holiday Farm fire areas.
3) What amount has been spent on natural and cultural resources (NCR) recovery since the September 2020 fires?
    - **Response**: The NCRRTF is attempting to work with a variety of public and private funders, along with local partners, to better understand what resources have been allocated since Fall of 2020 and to develop a process for tracking this information into the future. However, limited capacity of local, tribal, state and federal partners to engage on this work is a challenge. Again, examples of funds expended to date are provided for Almeda and Holiday Farm fire areas.
4) Is it correct that the first year following a wildfire is the riskiest/most dangerous in terms of the post-fire impacts, and that work already completed or underway is addressing this?
    - **Response**: In addition to the immediate threats, geologic hazards assessments indicate that risks are more likely to occur during the coming years and up to 15 years post-fire. For example, shallow-landslide-initiated debris flows are more likely to occur roughly 3-15 years post-fire.

Response to Question 1, What is the cost of NCR work?

The diversity of activities included in natural resources recovery—for example, from simple work such as rapid detection and treatment of invasive species, to more complex work such as riparian and floodplain restoration and culvert replacements—is wide ranging. These various activities with differing levels of complexity result in a wide range of per-acre costs. In response to Chair Clem's question, approximate costs are provided below for example activities:

- Early detection and rapid response of invasive species = $250 per acre
- Soil stabilization, erosion control, and seeding = $2,750 per acre
- Upland replanting = $800 per acre
- Riparian restoration that achieves successful "free to grow" condition over 5 years = $8,500 per acre
- Floodplain restoration = $15,000 per acre

The NCRRTF response to Chair Clem (dated 3/11/21) noted that funding of part/all of the $86 million estimate would help to address NCR recovery 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—that burned over 1 million acres of land. Based on early assessments of post-fire impacts for a subset of these fires, estimates of burned areas with very high erosion potential stand at well over 100,000 acres. Areas with severe vegetation mortality that may not have salvageable timber—and, thus, not necessarily require replanting under the Oregon Forest Practices Act—are estimated to be as high as 160,000 acres.

The $86 million included (but was not limited to) activities between 2021 and 2023 such as:

- 25,000 acres of combined invasive species control and soil stabilization treatments;
- 5,550 acres of combined riparian restoration and upland reforestation treatments; and
- 300 acres of floodplain restoration.

The cost per acre estimates above combined with the scale of acreage to be treated in the coming few years results in estimated $86 million cost.

Response to Question 2, Would the funding cover completed or future work?

A very modest amount of immediate NCR recovery work has been completed since Labor Day 2020. In some locations, the fires continued to smolder and burn until November. Following that, challenges such as safe access to sites and risks such as hazardous waste and hazard trees slowed progress. In addition, local partners faced limited financial resources being available for this work. Resources such as those available through federal programs via the Farm Services Agency (FSA) and the Natural Resources Conservation Service (NRCS), and emergency fire grants from the Oregon Watershed Enhancement Board (OWEB), were utilized for immediate NCR recovery work. Given these realities, the $86 million estimate reflects future work that remains to be completed.

NCRRTF reached out to local partners in two fire impacted areas— Almeda (approx. 3,000 acres burned) and Holiday Farm (approx. 170,000 acres burned)—to provide more specific information about the work that has been completed to date and the remaining need. It is important to note that these two areas have pre-existing local collaborations that have enabled rapid mobilization to address post-fire recovery work. In addition, both of these areas have had the benefit of local contributors—such as the Eugene Water and Electric Board (EWEB) in the Holiday Farm area—that have helped fund immediate post-fire actions. Attachment A describes the situation facing the Almeda fire area in terms of NCR recovery needs in the coming three years. The Almeda Fire had a detrimental impact over a small area—about 3,000 acres—as compared with other fires that impacted over 100,000 acres. ***Nonetheless, the estimated funding gap between 2021 and 2023 for NCR recovery in the Almeda Fire area is over $3.7 million and excludes some costs (e.g., septic repair, drinking water intake repair (due to quick turnaround to prepare this response).***

Similarly, partners in the Holiday Farm Fire area provided information about work completed to date and remaining funding need (Attachment B). For the majority of actions—including, but not limited to, riparian and floodplain restoration and septic repair—little to no progress has been made on implementing the needed work. Also, funding sources to cover the majority of the work either have not yet been identified or pay for only a portion of the cost. Again, it is important to note that post-fire recovery in this area benefits from existing collaborations, which are described by the local partners as follows:

> "In response to the HFF, local partners quickly formed the Watershed Recovery Task Force to conduct watershed recovery and restoration activities on private property and non-federal public

lands to protect native habitats, water quality, and to support local economic recovery. The Task Force relies upon existing relationships and an operational framework established through the Pure Water Partners program, www.purewaterpartners.org."

In addition, the EWEB Board of Commissioners has committed to supporting a watershed recovery fee to help with post-fire NCR recovery. ***Yet, despite these advantages, partners in the Holiday Farm Fire area estimate that between 2021 and 2023, NCR recovery costs approximate $12 million.***

Taken together, the Almeda and Holiday Farm fire areas are facing nearly $16 million in NCR recovery needs between now and 2023. And this amount only accounts for two of the 14 fire areas included in the NCR recovery estimate of $86 million. Some other fire areas will not experience the benefits of existing collaborative partnerships and readily available non-federal funding sources to accelerate their ability to efficiently and effectively secure the resources needed for NCR recovery.

As noted in the 3/11/21 response to Chair Clem, while needs for high-priority recovery actions exist across multiple land ownerships, 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 are not prioritized in this funding request, but rather are a focus of the companion Congressional funding request that totals more than $545 million for remaining NCR and other post-fire recovery work.

Finally, the NCR recovery cost estimate includes needs such as those related to septic repair and replacement, given the potential connection to water-quality issues. As discussions continue among the House Special Committee on Wildfire Recovery about topics such as septic repair and replacement and possible funding to address these needs through other means in the coming months, the portion of the $86 million estimate dedicated to septic related needs could be reduced.

Response to Question 3, What has been spent on NCR recovery to date?

A comprehensive total of funding spent to date on NCR recovery across the 14 fire areas is not available. The NCRRTF is attempting to work with a variety of public and private funders, along with local partners, to better understand what resources have been allocated since Fall of 2020 and to develop a process for tracking this information into the future. However, limited capacity of local, tribal, state and federal partners to engage on this work has been a challenge. The $86 million estimate includes a small amount of technical assistance and program administration capacity to do exactly this type of work in coordination with community partners in the coming months and years.

For the purpose of this response, information from the Almeda and Holiday Farm fire areas can serve as examples about expenditures to date. In the case of Almeda, $600,000 was spent on NCR recovery in 2020, and another $220,000 has been secured, leaving the aforementioned funding gap at $3.7 million until 2023. For Holiday Farm, information from local partners indicates that nearly $2 million in funding has been secured for work that is underway or planned, with additional resources now expected from OWEB's new Watershed Recovery Fee. Other funding is pending or being explored, with a remaining funding gap of approximately $12 million between now and 2023.

In terms of funding programs that have been utilized by local partners for NCR recovery, these include, but are not limited to:

- FSA Emergency Forest Restoration Program,
- FSA Emergency Conservation Program,
- NRCS Environmental Quality Incentives Program,

- OWEB Emergency Fire Grants, and
- Various Federal Emergency Management Program (FEMA) programs.

Ultimately, additional funding to address NCR recovery across the 14 fire areas may be available through programs such as FEMA's Hazard Mitigation Grant Program or other sources. Several local partners, including those in the Almeda and Holiday Farm fire areas, have applied for such funding, but do not yet know the outcome of these funding requests. The $86 million cost estimate could decrease if and as additional federal funding is secured. That said, non-federal cost-share funding will be required to meet obligations under federal funding programs such as FEMA's, and most funding sources require some level of match.

Response to Question 4, Is the timeframe for greatest risk from post-fire hazards the first year, and has completed work addressed this?

The Erosion Threat Assessment/Reduction Team (ETART) reports completed a rapid assessment of post-wildfire geologic hazard assessments of the non-federal land portions across 4 fire areas (i.e., Holiday Farm, Beachie Creek, Riverside, and Archie Creek). Hazards assessed include debris flows, rockfall, shallow and deep landslides and related flash flooding that may adversely impact public safety and/or infrastructure.

These assessments of geologic hazards are important because the fires removed vegetation that keeps slopes and drainages intact, changed the structure and erosion potential of the soil, and altered the stability of the landscape. This work found that in addition to the immediate threats to human life/safety and infrastructure, geologic hazards are more likely to occur during the coming years and up to 15 years post-fire. For example, shallow-landslide-initiated debris flows that are more likely to occur roughly 3-15 years post-fire and are unlikely to be an immediate post-fire concern. An example of this is the recent landslide in the Columbia Gorge that occurred three years after fires occurred there.

It is important to note that not all properties were assessed, due to the rapid nature of these assessments. ETART reports identify some high-hazard areas that warrant further evaluation. By way of example, the Holiday Farm Fire ETART report notes that, "Portions of [the community of] Blue River are located below channels identified… as moderate and high potential for debris flows… further hazards evaluation is recommended for the K-12 school and structures located in or near channels with moderate to high debris flow hazards." Additional site-specific evaluation of geologic hazards would also include recommendations for site-specific mitigation, such as protecting homes and infrastructure from the impacts of large debris flows. Funding to help support additional analysis is included in the $86 million cost estimate.

ROGUE RIVER WATERSHED COUNCIL

MEMORANDUM

Date: 3/26/2021

To: Renee Davis, Oregon Watershed Enhancement Board

From: John Speece, Project Manager

Re: Legislative funding request / Post-fire recovery

In response to the information request from OWEB to partners in the Rogue working on the Almeda Fire Recovery, we've assembled cost information for a selection of items that you requested. The cost estimates were made by soliciting input from partner organizations, however, the estimates are not complete and represent a best-guess at this time.

In the Rogue, we were successful at organizing, mobilizing, and implementing post-fire actions. Those actions addressed immediate water quality concerns and included erosion control best management practices, seeding and mulching, and identifying high-risk areas for mobilization of toxic materials. This was possible by leveraging the previously existing partnerships and collaborative efforts that were built on trust.

Funding for actions implemented in 2020 came from governmental and quasi-governmental organizations. Those organizations were able to quickly reallocate previously obligated or unrestricted dollars. Based on early analysis of water quality data, those actions appear to have been successful. However, it has been demonstrated that post-fire water quality issues last through years 3 - 5 after a wildfire. In light of that, most of the actions will need to be repeated in 2021, 2022, and 2023.

In 2021, non-governmental and quasi-governmental organizations have been able to work with project funders to modify and/or amend previous agreements. This has provided partial funding for partners to continue implementing post-fire actions, however, only 40% of the projected funding for 2021. At this time, no funding is secure for 2022, and 2023.

FEMA and other funding applications have been submitted by Jackson County and local municipalities. The likelihood of receiving these highly competitive grants is unknown at this time. It's safe to assume that, regardless of the outcome of those applications, there will be a large funding gap to, at a minimum, address immediate water quality concerns as we enter 2021/2022 winter. Those water quality concerns range across all of the documented beneficial uses.

Rogue partners continue to meet bi-weekly to discuss the status of water quality, effectiveness of BMP's, monitoring needs, and plan for next fall and winter. Furthermore, local restoration practitioners are meeting monthly to discuss priority areas and appropriate restoration actions to balance the need for public safety with the needs of fish and wildlife populations, and overall watershed health.

If you'd like additional information or have questions please contact me.

Thanks,

John Speece | Project Manager
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Action Item	Funding submitted	Secured Funding	Units (acres)	2020	2021	2022	2023
Culvert repair and storm-proofing of roads					$150,000	$600,000	$500,000
Removal of hazard trees and navigational hazards in rivers				$75,000	$50,000	$50,000	$25,000
Warning signs for and closures of high-risk areas					$5,000	$5,000	$2,500
Geo-technical analysis of at-risk areas							
Seeding and erosion control	Y	N	300	$450,000	$350,000	$200,000	$200,000
Invasive species control	Y	N	300-500	$75,000	$100,000	$100,000	$75,000
Riparian and upland planting	Y	N	500		$75,000	$250,000	$300,000
Floodplain restoration - scoping / implementation	Y	N			$25,000	$350,000	$500,000
Protection and repair of drinking water intakes							
Monitoring of drinking water supplies					$5,000	$5,000	$5,000
Septic repair and replacement							
			Total	**$600,000**	**$760,000**	**$1,560,000**	**$1,607,500**
			Secured	**$600,000**	**$221,750**	**$0**	**$0**
			Funding Gap	**$0**	**$538,250**	**$1,560,000**	**$1,607,500**
				Secured 2021 Funding:	.33 of seeding and erosion control		
					.5 of invasive species control		
					.75 of riparian and upland planting		
				2022 - 2023 Funding:	No funding secured at this time		

Holiday Farm Fire Watershed Recovery Needs

March 2021

Project Category	Funding Required	Source	Percent Complete
Culvert Repair (1) Upsize 3 Culverts with high potential for failure per ETARTS	$26,000 $2.8M	FEMA public assistance @ 75% FEMA HMG Request ***(pending)***	100% 0%
Hazard Tree/Storm Clean Up/Signage	$400,000	FEMA public assistance @75%	90%
Geo-Tech Analysis - LiDAR of Fire Area - Landslide Risk Analysis - Lower River Floodplain Risk Assessment	 $300,000 $150.000 $175,000	 - USGS 3DEP Grant @ 50%/local partners match ($151k from EWEB) - FEMA CTP grant ***(pending)*** - FEMA CTP grant ***(pending)***	 5% (scoping) 0% 0%
Septic Repair and Replacement (~100 priority riparian properties)	$1.5 M	EWEB has zero interest loan program for up to $20k/system but uptake of voluntary loan uncertain – Grant fund preferred for outdated/ineffective systems and limited income residents	0%
Drinking Water Intake Repairs (Blue River Wells)	$500,000	FEMA Public Assistance @ 75% /Private Insurance	90%
Orenco modular STEP sewer system (Blue River proper)	$3 – $5M (50+ properties)	None identified	0%
Septic Repairs (Blue River Proper)	$1M (40 – 50 properties)	None identified	0%
Water Quality Monitoring & GIS Analysis	$270 k/year or $1.35 M for 5 years	None identified	In-place/on-going

Holiday Farm Fire Watershed Recovery Needs

March 2021

Project Category	Funding Required (all over next 4 years)	Source	Percent Complete
Erosion control (private and non-federal public)	$450,000	- FEMA Public Assistance @ 75% for 2020/2021 work - EWEB Watershed Recovery Fee	80%
Riparian restoration (private and non- federal public)	$1.625M	- EWEB Watershed Recovery Fee - Arbor Day Foundation/BEF grant - ODF Fire Recovery grant	10% (100 acres replanted and ~200 acres in monitoring)
Noxious Weed Early Detection Rapid Response program	$800,000	BLM RAC grant request for $100k ***(2021 only/pending)***	0%
Naturescaping/Firewise Landscaping on residential properties	$500,000	Lane County Firewise Program - $100k/year *(no funding request yet; requires amendment to County Code)*	0%
Floodplain Restoration (private and federal)	$8M	- $4M FEMA HMG request in progress (75% funding if successful)	0%
Floodplain Acquisitions (private residential & key industrial timber lands)	$10M	- EWEB Watershed Recovery Fee - McKenzie River Trust philanthropic donations for portion	5% (3 properties in negotiation)
Tribal Staffing	$1.4M	None Identified	0%
Project Management (non-EWEB)	$1.5M	- EWEB Watershed Recovery Fee (75% of cost) - PWP Agency Contributions - OWEB - Lane Workforce Partnership	On-going
Materials & Supplies/Travel	$650,000	EWEB Watershed Recovery Fee (40% of cost)	On-going