

POST-FIRE RESPONSE PLAN

EAST BEACH ROAD FIRE

OLYMPIC NATIONAL PARK, WASHINGTON



Submitted by:  Digitally signed by MARY
CREACHBAUM
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M. Sarah Creachbaum, Superintendent



SEPTEMBER 2020



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Unit Summary Information

Unit Name	Olympic National Park
Unit Identifier	WA-ONP
NPS Region	Columbia - Pacific Northwest

Fire Summary Information

Fire Name	East Beach Road Fire
Fire Number	WA-OLP=000112
Fire Code	NB86
Detection Date/Cause	July 29, 2020 / Human Caused
Date Contained	N/A
Acreage	84.7 acres NPS = 81.39 acres Private = 3.31 acres

Account Number

Emergency Stabilization, FY20-21

Fund	20XP112585
Cost Center	PPPWOLYMF1
Functional Area	PF220ES85.RM0000
WBS	PF.FENB86020.00.1

Burned Area Rehabilitation, FY21, FY22, FY23: ACCOUNT NUMBER(S) TBD

Team Members

Position	Name & Affiliation
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FIRE SUMMARY	Todd Rankin, Olympic National Park
ROADS ASSESSMENT	Skip Willoughby, Olympic National Park
WATERSHED ASSESSMENT	Dana Butler, Justin Urresti, Olympic National Forest
HAZARD TREE ASSESSMENT	Collin McAvinchey, NPS North Coast/Cascades Network
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EXECUTIVE SUMMARY

Introduction

The East Beach Road Fire impacted 85 acres of mixed-age Douglas-fir-western hemlock forest between July 29 and August 7, 2020. The burned area is a steep, south-facing slope located between Lake Crescent and the northern boundary of Olympic National Park. The slope serves as both viewshed and watershed protection for Lake Crescent. East Beach Road is a narrow (1+ lane) paved county road that forms the southern boundary of the fire. It connects State Highway 101 with State Highway 112 and provides the only road access to the north end of Lake Crescent for park visitors and private property owners. Private properties within the park boundary consist primarily of permanent structures for vacation or year-round occupancy.

Policy and Guidance

This post-fire response plan has been prepared for the East Beach Road Fire at Olympic National Park. It includes both Burned Area Emergency Response (BAER) and Burned Area Rehabilitation (BAR) prescriptions. The plan was developed in accordance with Department of the Interior and National Park Service (NPS) policy and guidance, including:

- *Office of Wildland Fire (OWF) Policy Memorandum 2016-01 (Post-Wildfire Recovery Program and Policy Changes)* [LINK](#)
- *Interagency Standards for Fire and Fire Aviation Operations, 2020* [LINK](#)
- *NPS Reference Manual 18 (Chapter 18), 2019* [LINK](#)
- *NPS Wildland Fire & Aviation Management Business Rules, FY20* [LINK](#)
- *Interagency Burned Area Emergency Response Guidebook (Version 4.0, 2006)* [LINK](#)
- *Interagency Burned Area Rehabilitation Guidebook (Version 1.3)* [LINK](#).

The primary objectives of the BAER program are to assess the need for and prescribe cost-effective post-fire stabilization measures necessary to protect human life, property, and critical natural and cultural resources from imminent (<1 year) threats caused by wildfire. The BAR program is intended to protect resources by repairing or improving burned landscapes unlikely to recover naturally to desired management conditions and to repair or replace fire-damaged minor assets. BAER and BAR are conducted in accordance with approved land management plans and policies, and all relevant federal, state and local laws and regulations.

BAER and BAR are intended to address imminent and short-term threats caused by wildfire; neither program is responsible for long-term management or rectifying deficiencies that existed prior to the fire. Department of the Interior and NPS BAER policy echoes federal wildland fire policy regarding protection priorities: human safety is first, and property and critical natural and cultural resources are ranked based on the relative values to be protected, commensurate with emergency stabilization and rehabilitation costs.

The basis of the BAER and BAR assessment process is identifying, evaluating, and protecting values at risk (VAR), including human safety, properties, capital improvements and natural and cultural resources, that are located within and downstream of burned areas and impacted by fire and/or vulnerable to post-fire conditions. When evaluating a given VAR, consideration is given to the probability of damaging events occurring, the magnitude of potential consequences, and the feasibility to mitigate damage.

The BAR program is restricted to the Bureaus of the Department of the Interior and provides funding to repair or improve lands damaged directly by wildland fire. Allowable actions under BAR include eradication of invasive species and the replacement or repair of minor, non-safety related infrastructure impacted by wildland fire. BAR is financed from a non-emergency funding source, and the urgency of BAR treatments is less than that of BAER. BAR treatments may extend up to three years from the date of the fire.

Local Management Plans

Pertinent approved land and resource management plans and other documents that guided the preparation of this plan include:

- Olympic National Park Final General Management Plan and EIS (2008)
- Olympic National Park Fire Management Plan (2005)

Assessments and Specifications

Four specifications are proposed to address emergency post-fire issues on the East Beach Road Fire in FY20-FY21. These are summarized in the table below and described in greater detail by subject matter area.

This report also includes one non-emergency specifications for Burned Area Rehabilitation (BAR) funding to address longer-term issues of ecological recovery.

EMERGENCY STABILIZATION: SUMMARY OF TREATMENTS/ACTIVITIES AND COSTS

SPEC #	TITLE	UNIT	UNIT COST	# OF UNITS	WORK AGENT	FY20	FY21	FY22	COSTS
O-1	Prepare Post-fire Response Plan	Plan	\$4,466	1	F	\$4,466	-	-	\$4,466
V-1	Assess & Mitigate Hazard Trees	Tree	\$628.31	8	F, S	-	\$5,207	TBD	\$5,207
W-1	Maintain Area Closure	Year	\$21,460	1	F	-	\$20,860	TBD	\$20,860
F-1	Structure Protection	Lin Ft	\$79.21	375	F	\$26,168	\$3,160	-	\$29,328
F-2	Clean Ditches & Culverts	Year	\$35,100	1	F	-	\$35,100	TBD	\$35,100
TOTAL COSTS						\$30,634.00	\$64,327.00	TBD	\$94,961.00

BURNED AREA REHABILITATION: SUMMARY OF TREATMENTS/ACTIVITIES AND COSTS

SPEC #	TITLE	UNIT	UNIT COST	# OF UNITS	WORK AGENT	FY21	FY22	FY23	COSTS
V-2	Invasive Plant Detection & Treatment	Acre	\$170	85	F	\$5,000	\$4,640	\$4,640	\$14,280
TOTAL COSTS						\$5,000	\$4,640	\$4,640	\$14,280

Values at Risk (VAR)

Issues and recommendations for specific East Beach Road Fire-related VAR are summarized in the table below.

VAR	Specific Issue(s)	Recommendation(s)
East Beach Road and related infrastructure	Rocks and trees falling from burned slopes above blocking the road, clogging ditches and culverts, or damaging a public utility power line	<u>ES treatments</u> : Close East Beach Road to public use until slopes stabilize. Clear ditches and culverts. Fell hazard trees that could reach the road or power line.
Private property, including residential structures	Rocks and trees falling from steep burned slopes	<u>ES treatment</u> : Install Jersey barriers along road to stop rolling debris from burned slopes above from impacting private homes
Forest ecosystem and recovery	Invasive plants becoming established in burned area and preventing recovery of native forest flora	<u>Non-emergency treatments</u> of invasive plants occurring along East Beach Road and the other margins of the fire

Plan Organization

This plan includes a narrative summary of the East Beach Road Fire, followed by in-depth, resource-specific burned area assessments and itemized specifications for BAER and BAR treatments and activities. Appendixes containing supporting documents appear at the end of the plan.

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East Beach Road Fire Post-Fire Response Plan

FIRE NARRATIVE



Start Date and Cause

The East Beach Road Fire was first reported at approximately 16:00 hours on July 29, 2020. The point of origin was determined to be 48.0936 N / 123.7775 W within Olympic National Park, between Lake Crescent and the northern park boundary. The fire is suspected to be human-ignited although the cause and origin of the fire remain under investigation.

Fuels and Weather

The fire burned primarily on a steep, south facing, forested slope. The vegetation type is a closed-canopy, mixed conifer forest of Douglas-fir, western hemlock, and western redcedar, with scattered bigleaf maple and madrone. The understory is dominated by dense salal (*Gaultheria shallon*) shrubs. Fuels were mixed and heavy, with a thick continuous layer of organic duff covering the rocky slope. Logs and snags provided discontinuous heavier fuels. Salal is highly flammable and can act as a ladder fuel to lower tree branches.

Although the summer of 2020 was in general cooler and wetter than normal, ERC values at the time of ignition were at the 90th percentile based on the Tom Creek RAWS located 12 miles from the fire point of origin (Figure 1). The ERC for the East Olympic Fire Danger Rating Area based on a several RAWS stations was near the 80th percentile. However, the fire started at the bottom of a steep southern aspect on a day with temperatures approaching 80°F and humidity between 35% and 45%. (Toms Creek RAWS station data,). Wind/slope alignment along with the heavy fuel type allowed the fire to quickly establish and move upslope to the north. The days following the ignition were very warm and dry with active fire behavior observed.

Initial Attack/Response

Multiple resources were dispatched in response to the initial report of fire, including personnel from NPS fire and law enforcement, Washington Department of Natural Resources Wildfire Division (DNR), and Clallam County Fire Districts 2 and 4. DNR was the first on scene and estimated the fire at 1 acre and growing rapidly. Fire behavior was active with 3- to 5-foot flame lengths at the head of the fire and 1- to 2-foot flame lengths on the flanks. The fire had wind/slope alignment as was rapidly moving upslope away from the road and the numerous structures located along Lake Crescent. Single tree torching was observed. Additional resources were immediately ordered including helicopters for bucket work and DNR inmate crews. The decision to engage a full suppression response was made immediately, due to the proximity of the fire to private property and state forest land.

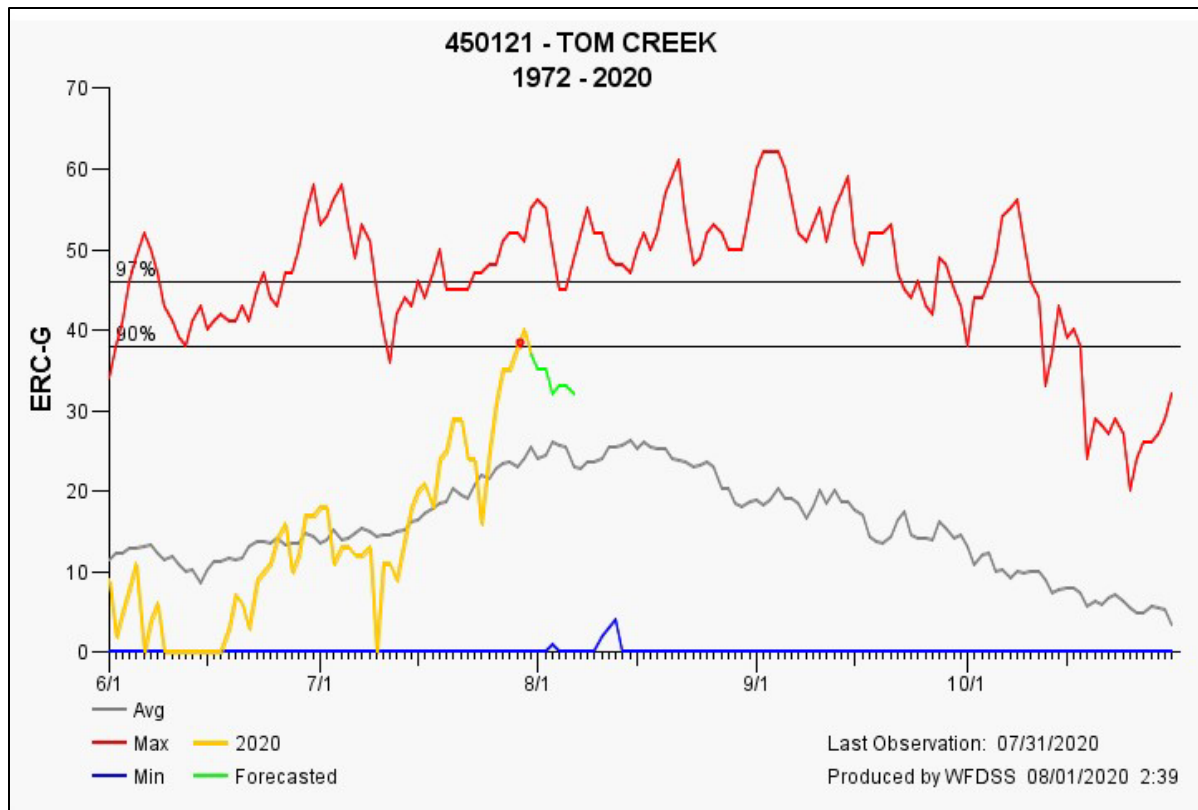


Figure 1. Energy-Release Component (ERC) values from a RAWS station located 12 miles from the East Beach Road Fire. The ERC value on the day the fire started reached the 90% level.

Initial attack operations were not successful as the fire quickly established itself. The fire was estimated at 20 acres by 22:00 hours on July 29. A type 4 incident commander focused operations on public safety and containment on the lower (southern) portion of the fire. East Beach Road was closed to public access and an attempt was made to de-energize the power line going through the fire area. NPS law enforcement rangers and County road department staff assisted with these efforts.

The fire burned actively through the night. On July 30, it was apparent that the fire was exceeding a type 4 organization. By mid-day on the 30th the Western Washington IMT3 was ordered. Given the extreme terrain and heavy fuel type, additional resources were ordered, including Type 1 crews and aircraft. By the end of July 30, the fire was estimated at 30-40 acres (Figure 2). Additional hotshot crews, Type 1 and 2 helicopters, and numerous other resources were ordered to bolster suppression operations.

The IMT3 was in briefed the morning of July 31 with transfer of command at the end of shift that day. The fire was estimated at 50-60 acres late on the 31st. All crews were engaged and made good progress with constructing fire lines on the flanks as well as scouting options for the upper portions of the fire. A planning perimeter was established (Figure 3).



Figure 2. Aerial view of the East Beach Road at 1300 hours on July 30, 2020. East Beach Road is the roadway visible close to the lakeshore. Madrona Day Use Area is the large bare spot on the shore. Several private properties below the fire are indicated by the presence of docks and other structures.

On August 1, the IMT3 set up an Incident Command Post at the Crescent School in Joyce, WA. Cooler weather with higher humidity set in on August 2, creating conditions that were favorable for moderating fire behavior and allowing crews to meet the operational objectives. The full IMT3 organization stayed in place until August 5. At one point, five aircraft and more than 200 personnel were assigned to the fire (Figure 4). On August 5, the incident transitioned to a short IMT3 organization with a significant reduction in personnel and equipment. It was further reduced to a type 4 organization on August 10. On August 19, with no activity evident on the fire margins for more than a week, the fire was put on patrol status at 85 acres and 98% containment.

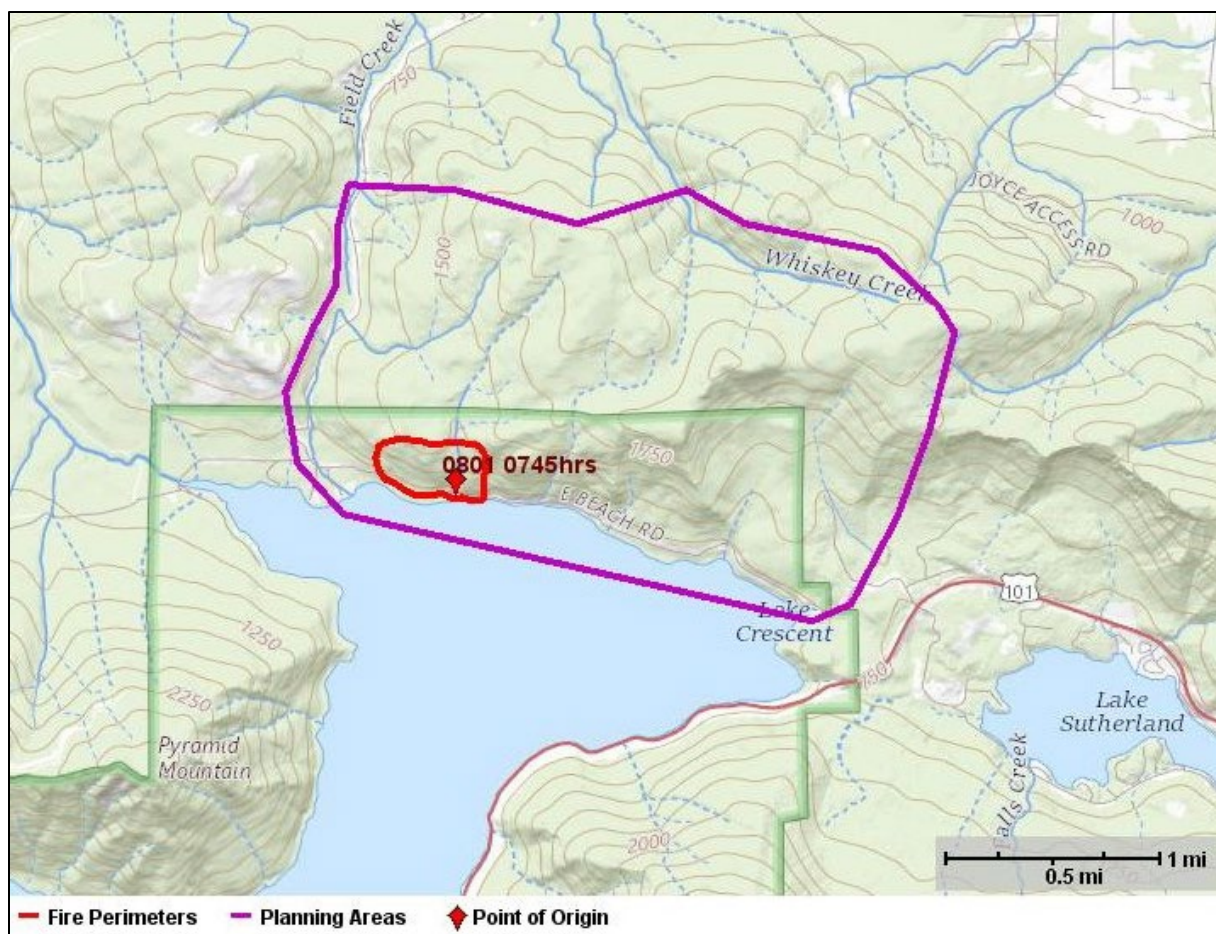


Figure 3. Map showing the location of the East Beach Road Fire (red line) on August 1, with the fire planning boundary (purple line) in relation to the park boundary (green line) and Lake Crescent.

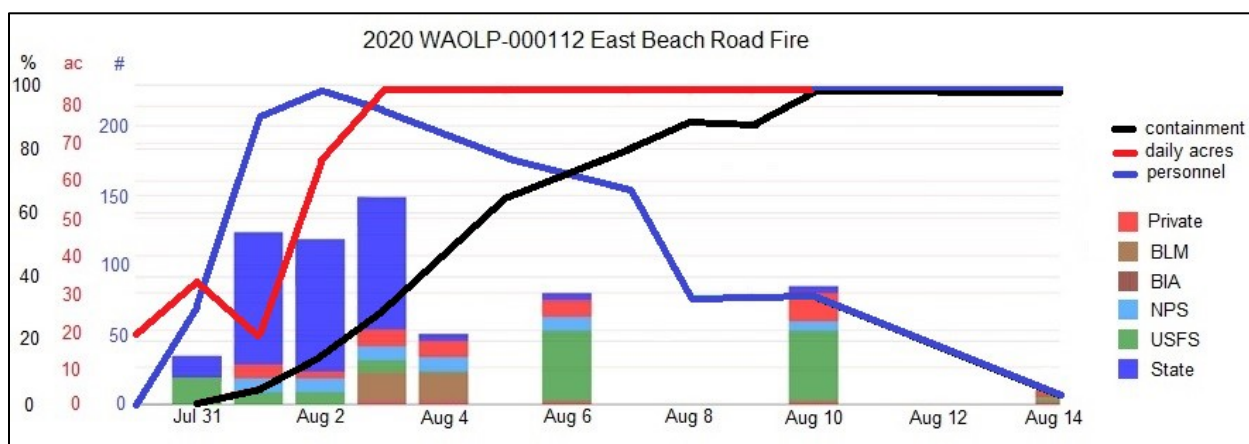


Figure 4. Progression timeline for the East Beach Road Fire showing personnel commitment (blue line), fire spread (red line), and containment (black line). The vertical columns indicate the number and agency affiliation of resources assigned to the fire.

Summary of Suppression Impacts and Damage Repairs

Suppression impacts were minimal, thanks in part to the effectiveness of aerial and ground resources in applying water to prevent it from becoming a canopy fire. The onset of cooler, moist weather only four days after ignition also helped to limit fire extent and damage. A perimeter hand line 4-6 feet wide surrounds 98% of the fire (Figure 5); the remaining perimeter was too steep for personnel to access safely. Because of the steepness of the slope, water bars were installed every 20-30 feet along the hand line. Trees were cut as needed to protect firefighter safety or to prevent burning trees from falling across containment lines. Suppression repair will restore the hand lines to their original contour and rake litter and branches over the top of the repair.

Resource issues were minimal. A resource advisor worked with the fallers to ensure that trees providing potential nesting habitat for federally listed (Threatened) marbled murrelet were preserved wherever possible. A tree known to have been used as a nest by re-introduced fishers was likewise flagged and avoided.

With the loss of much understory vegetation on very steep slopes, burned trees, surface rock, and soil began falling onto the road below, creating hazardous conditions for anyone using East Beach Road. On August 20 the park closed public access to the section of East Beach Road that is within the park boundary, as well as the East Beach and Madrona recreation areas (Appendix B). The park closure is indefinite. In coordination with the park closure, the Clallam County Commissioners passed a resolution on August 25 to close East Beach Road between Highway 101 and Log Cabin Resort to everyone but residents (Appendix B) through at least May 31, 2021. The closures were necessary due to ongoing hazards from rocks and trees falling from the burned area toward East Beach Road.

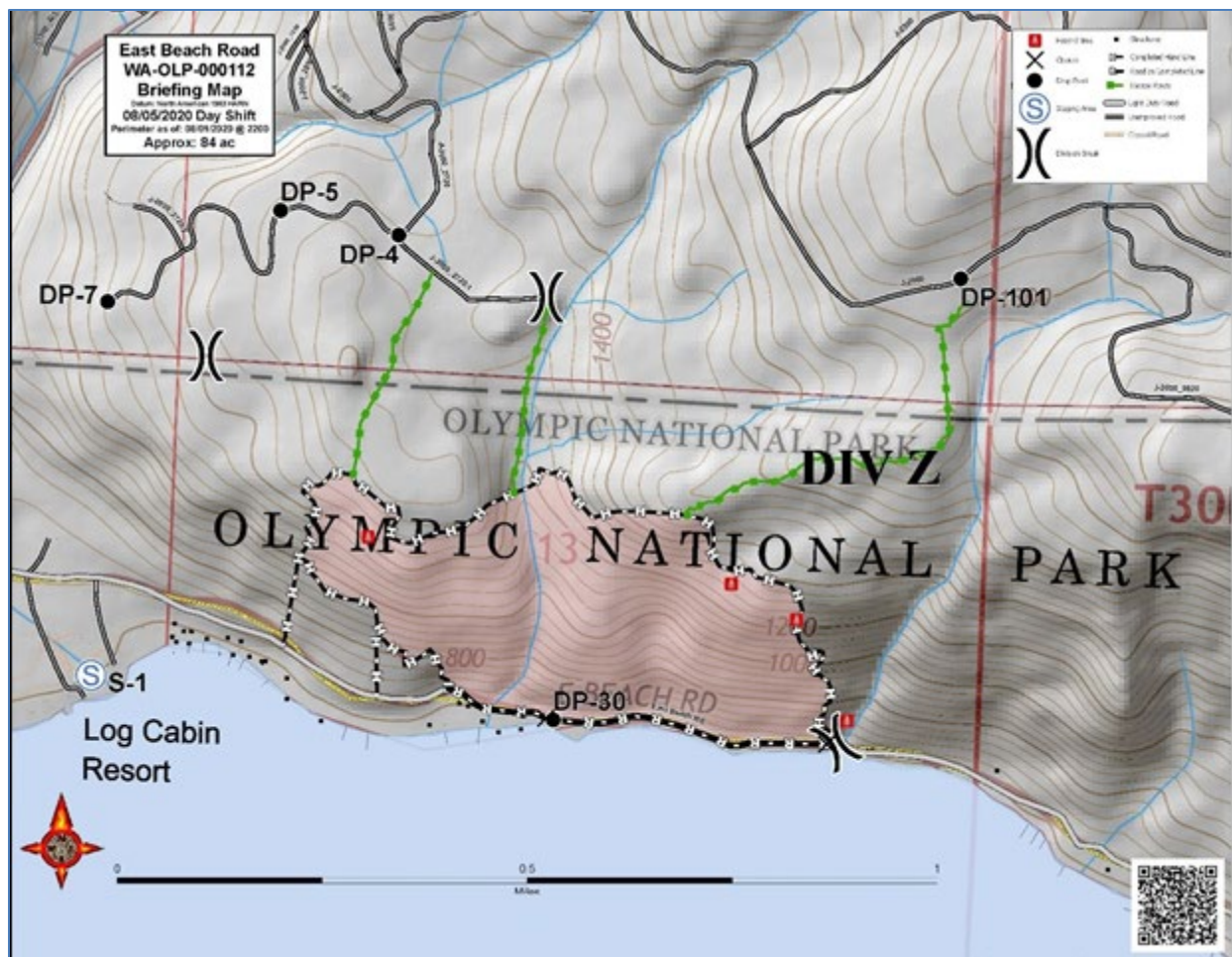


Figure 5. Map showing the final extent of the East Beach Road fire (pink shading), perimeter hand line (black-and-white line), and escape routes (green lines). East Beach Road forms the southern boundary of the fire and the small black dots along the lake shore are private homes. DP30 is the Madrona Day Use Area.

Burned Area Assessments



EAST BEACH ROAD FIRE Post-Fire Response Plan

WATERSHED ASSESSMENT



OBJECTIVES

Olympic National Park requested assistance from Olympic National Forest hydrology and soils staff to field verify the Burned Area Reflectance Classification (BARC) imagery and identify possible threats to values. This Watershed BAER report identifies likely post-fire watershed responses and some possible mitigations to protect values at risk.

ISSUES

- The fire burned a steep, inherently unstable colluvial slope
- Rocks and trees have been falling from the burned slope onto East Beach Road since the fire started
- Homes and utilities on East Beach Road are potentially at risk from falling material

BACKGROUND

This section describes burn severity and potential for long term effects to the soil resource within the East Beach Fire. The fire perimeter is located within the jurisdiction of the Olympic National Park and at the time of this assessment the fire had burned approximately 85 acres.

BARC (Burned Area Reflectance Classification, Figure 6) analysis, combined with a rapid field assessment within the East Beach fire perimeter (Table W1) yielded a determination of 55% low burn severity (**light blue**), 40% unburned/very low (**green**) burn severity, and approximately 5% moderate (**yellow**) burn intensity. Less than 1% of the area within the burn perimeter classified as high severity, mostly concentrated within the areas mapped as moderate severity.

Ground cover removal within the East Beach Fire was generally low to moderate due to the high pre-fire shrub and tree canopy density, as well as a high resident woody debris component present within this ecosystem. Recovery of soil productivity within low to moderate burn severity areas is expected to increase within the first years after the fire and continue for up to five years.

Table W1: Extent of differing degrees of soil burn severity for the East Beach Road Fire.

Rating	Acres	Percent of total
High	<1	<1
Moderate	4	4
Low	47	55
Unburned/Very Low	34	40
Total	85	100

Overall site conditions limit the effectiveness of typical post-fire soil productivity/soil stability treatments such as log erosion barriers using snags or mulching. **These treatments are not recommended.** Treatments should instead focus on protecting East Beach Road through concrete barriers, road culvert protection/overflow structures, and effective road closures during high precipitation and rain on snow events. The area typically gets close to 60 inches of rain per year with heavy rains starting in late October or sooner. Recommended prescriptions should be implemented before October 1 if possible, to ensure adequate protection of values.

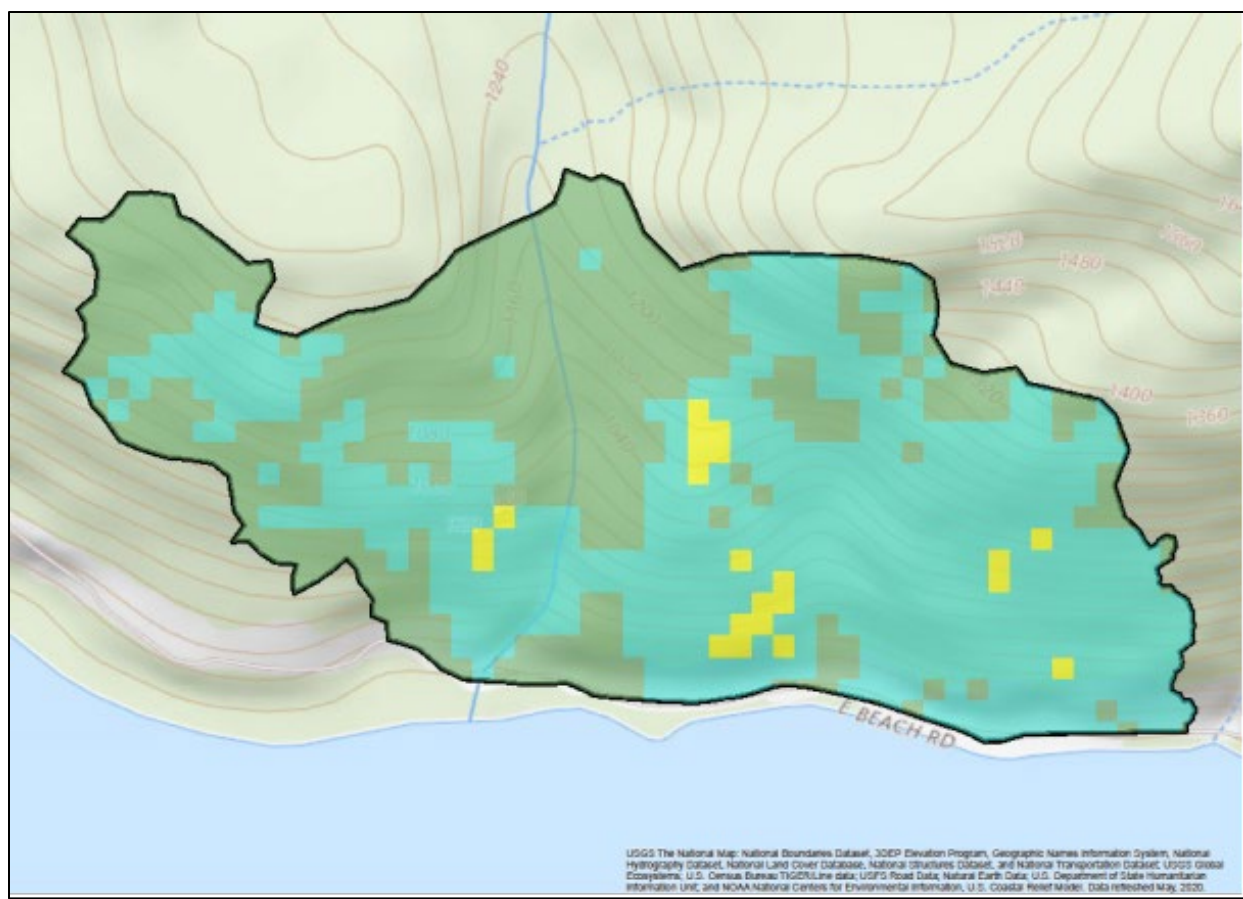


Figure 6: East Beach Fire BARC map. The colors indicate estimates of soil burn severity.

RECONNAISSANCE METHODS

We began by examining the Burned Area Reflectance Classification (BARC) map that was created by remote sensing experts at the U.S. Geological Survey. The map was developed using pre- and post-fire satellite images to rapidly classify and map burn severity. The map identifies the fire perimeter, acres burned, and an estimate of soil burn severity. This information helps us to prioritize sites to visit within the burned area. LiDAR and topographic maps were used to familiarize the team with topography and slope breaks.

The BAER team leader, Fire Incident Commander and local Olympic National Park staff shared information about known historical watershed processes (rockfall) and potential values at risk (road infrastructure, utilities, homes, and recreation areas).

We visited Low and Moderate burn severity areas at the top of the slope break and from the bottom of the hillslope on 8/21/2020. In the field, we looked at the extent of the damage to vegetation and soils.

FINDINGS

The goal of BAER work is to identify critical values at risk (unacceptable threats to life and property) and identify emergency actions to reduce this risk and to assist the watershed in recovery of critical stabilizing vegetation. Since the fire was a lower burn intensity, damage to the soils was moderate, and natural recovery within a reasonable timeframe (years to a few decades) is expected. Field observations concluded that large sections of ground within the moderate burn severity have extensive areas of rock outcrop, scree and talus chutes, and large colluvial surface stones and boulders. These conditions limit the formation of deep-seated, post-fire surface soil hydrophobicity and preclude a long-term negative effect to soil productivity due to burn severity. **No hillslope treatments are recommended.**

The fire line was dug by hand and due to the adjacent vegetated hillslope conditions and high rock content of the soil, the handline is not expected to be a significant source of sediment. **Natural recovery is expected, and no additional restoration of these fire management features are recommended.**

There are, however, many boulders and large burned trees that are likely to come down over the next several years. The hillslopes are very steep, and the area is prone to high wind events. When they fall, these boulders and trees will cause erosion and soil, trees and rocks to be deposited on East Beach Road. **Falling trees and rocks are unacceptable threats to human life and safety and infrastructure that require emergency treatment.**

RECOMMENDATIONS

The primary recommended treatment is to keep people out of harm's way through a temporary road and burned area closure. We recommended **that the area remain closed to public travel**, at least seasonally, during winter rainstorms, rain on snow events and freeze/thaw periods until vegetation recovery results in a noticeable reduction of rocks and trees falling into the road. **This will take several years.** Other treatments (recommended below) should be implemented as soon as it is safe to do so and before the first damage-producing storms.

Residents who live in the area, essential residential services such as postal delivery and trash pickup, Park staff, emergency responders, and other people permitted to enter the area should be made aware of the increased risks and consider providing hard hats to individuals without access to this type of PPE. Messaging should convey that is important that people who visit the area should not be out of their vehicle or linger below the hazardous areas. Consider a communication plan to keep residents, the County, utility companies and the Park informed if the road becomes impassable.

Prescription 1: Signage should be posted all around the burned area warning of potential hazards. Figures 7 and 8 are examples of signage that has proved effective. Specification W-1 addresses this prescription.



Figure 7: Examples of warning signs.



Figure 8: Example of USFS burned area warning sign – work with local decision makers to include appropriate information in a similar format.

We recommend storm patrols conducted at regular intervals and after storms to monitor the need for cleaning the drainage ditches, culvert inlets and to clean up any debris that makes it onto the road or clogs the road drainage system (Figure 9). These treatments are intended to ensure proper road drainage and to avoid any damage from water overtopping the road and damaging the fill slope.

Prescription 2: Stage a piece of heavy machinery nearby and authorize overtime for emergency response in order to keep the road passable. East Beach Road is a county snow route and provides the only road access to private properties along this section of Lake Crescent. Specification F-2 addresses this prescription.



Figure 9: Regular storm patrol and drainage ditch/culvert clean out will keep the road passable as well as protecting the road surface and fill slope.

Prescription 3: Increase protection of private residences (Figure 10) with additional jersey barriers on the far edge of the road or consider moving the existing protective row of barriers (Figure 11) into the middle of the road to allow for a larger volume of debris to be caught. Consider utilizing a taller wall of ECO Blocks for greater protection to the homes located just below the burned area (Figure 12). Specification F-1 addresses this prescription.



Figure 10: Picture of private home and utilities at risk from rockfall and treefall.

Prescription 4: Storm patrols should document damage to utility infrastructure and have regular communication with the utility company to alert repair needs. Specification F-2 addresses this prescription.



Figure 11: Several homes appear to be directly in the path of potential rock- and treefall. The existing line of Jersey barriers at the edge of the road provides some critical protection.



Figure 12: Example of an ECO Block wall that could be stacked up to provide greater protection to homes/values at risk below the burned area.

PREPARER(S)

Justin Urresti, Soil Scientist, United States Forest Service, Olympic National Forest

Dana Butler, Hydrologist, United States Forest Service, Olympic National Forest

EAST BEACH ROAD FIRE

Post-Fire Response Plan

FACILITIES ASSESSMENT



OBJECTIVES

- Identify the potential for life-safety threats and property damage resulting from post-fire conditions
- Evaluate the drainage function of ditches and culverts along East Beach Road within the burned area
- Recommend actions to protect life, property, and infrastructure (road and utilities)

ISSUES

- Material falling from the burned slope, including rain-induced debris flows, could impact private homes, the county road, and park infrastructure
- Debris falling from the burned slope may endanger travelers on the road as well as blocking access to private lands
- The ditch lining the inside of the road is clogged with debris fallen from the burned slope, reducing its capacity to buffer the road from falling debris and to carry runoff away from the road prism

BACKGROUND

The East Beach Fire burned 85 acres of rough, steep terrain adjacent to the north end of Lake Crescent. A half-mile segment of East Beach Road forms the southern boundary of the fire. Maintenance of this road segment is the responsibility of the Clallam County Public Works Roads Department. The road links state highways 101 and 112 and provides the sole access to private lakeshore properties as well as three developed NPS recreation areas – East Beach, Log Cabin Resort, and the new Madrona Day Use Area.

A Memorandum of Agreement signed in 2014 assigns primary responsibility for maintenance of East Beach Road within the park to Clallam County (Appendix B). OLYM is responsible for managing hazard trees and park staff may be called upon to assist in extreme circumstances or when the County lacks funding to carry out its assigned duties. The OLYM Roads Crew assisted Clallam County with clearing fallen trees and rocks from the road during fire operations. Once the immediate danger of fire was past, the County and NPS road crews worked together to reduce potential of fallen debris of impacting personal property as well as providing safe road travel for residents. Several large rocks came down the slope that could have caused extensive damage to private property. The NPS set a row of park-owned Jersey barriers along the road edge adjacent to private structures to mitigate this threat.

The County has supported and responded to the needs of residents as well as fire operation requests. They dedicated a loader to be used to keep road access cleared of the trees, limbs and rock fall that has occurred since the start of the fire. The loader remains onsite.

RECONNAISSANCE METHODS

- On July 30, NPS Roads staff met with the Incident Commander, the County Road Supervisor and NPS law enforcement rangers to assess damage to the road and debris fall resulting from the active fire. Walked the road and noted fallen material filling roadside ditches
- On August 11, NPS Roads staff met with the Incident Commander, the Chief Ranger, the County Public Works Engineer, County Road Supervisor, and BAER Team Coordinator. The major topic of discussion was how to mitigate hazards from fire-damaged slopes, how to protect the public, and how to manage long-term maintenance issues that will be required. Walked the road again

- On August 17, NPS Roads staff revisited the site and took photos of debris fall and potential hazards

FINDINGS

Currently the road shoulder and ditches are full of rock fall, trees, and limb debris caused by fire activity (Figure 13). It is anticipated that these conditions will continue or worsen, and the hillside will continue to unravel as this area is prone to heavy rains and winds throughout the fall, winter and spring seasons.



Figure 13. East Beach Road ditch filled with slope debris.

RECOMMENDATIONS

Two specifications are prescribed to address emergency post-fire issues associated with East Beach Road and adjacent private property. In addition to maintaining the road closures that are already in place (Specification W-1):

We recommend **installing additional concrete barriers along the road edge** to protect structures on private property at the base of the burned slope from debris (rocks and trees) rolling down the slope (Specification F-1).

We recommend **cleaning the ditch and culverts** along the road immediately below the fire, as well as **monitoring** the road and removing fallen material as it accumulates. This will help to protect the road from the increased runoff, debris flows or rockfalls coming down the burned slopes during winter storm events (Specification F-2). Under this specification, equipment will be supplied by NPS, while the monitoring and ditch clearing will be accomplished by Clallam County Roads Department staff.

CONSULTATIONS

Ross Tyler and Adam Roening, Clallam County Public Works / Road Department

PREPARER

Skip Willoughby, Olympic National Park Roads Supervisor

EAST BEACH ROAD FIRE

Post-Fire Response Plan

HAZARD TREE ASSESSMENT



OBJECTIVES

- Evaluate hazard trees that could impact East Beach Road, the overhead public utility power line, or private structures on inholdings within the fire boundary
- Recommend actions to minimize the hazards to life and property posed by fire-damaged trees

ISSUES

- Trees on the steep burned slopes above East Beach Road need to be evaluated for their potential to fail and strike the road, overhead power lines adjacent to the road, or structures on private property adjacent to the fire.

BACKGROUND

For the purposes of this assessment, a hazard tree is any tree with recognizable defects that could cause it to fail and is within striking distance of a target of value. Hazard trees are evaluated for likelihood of failure using USFS guidelines for rating tree hazards (Filip et al. 2014). Targets of value include structures, utilities, and areas where people congregate.

East Beach Road provides access to three popular Olympic National Park recreation sites as well as many private lakeshore properties. One recreation site (the Madrona Day Use Area) and four private properties are most likely to be affected by hazard trees resulting from the East Beach Road Fire. Both the recreation site and the private properties are on East Beach Road adjacent to the southern boundary of the fire (Figure 14).

The Madrona Day Use Area provides parking, picnic tables, and access to the lake for boaters and swimmers. The private properties include homes, docks, and outbuildings. Some are occupied year-round; most are occupied seasonally or occasionally as family vacation cabins. An overhead power line paralleling East Beach Road provides electricity to the homes in this section of the lake shore; the power line goes underground just east of the Madrona Day Use Area.

Before the fire, the slopes above East Beach Road were forested with a closed-canopy, mixed-age stand of Douglas-fir, western redcedar, and western hemlock, with scattered madrone and bigleaf maple. The largest trees reach more than 120 feet in height and 40 inches in diameter.

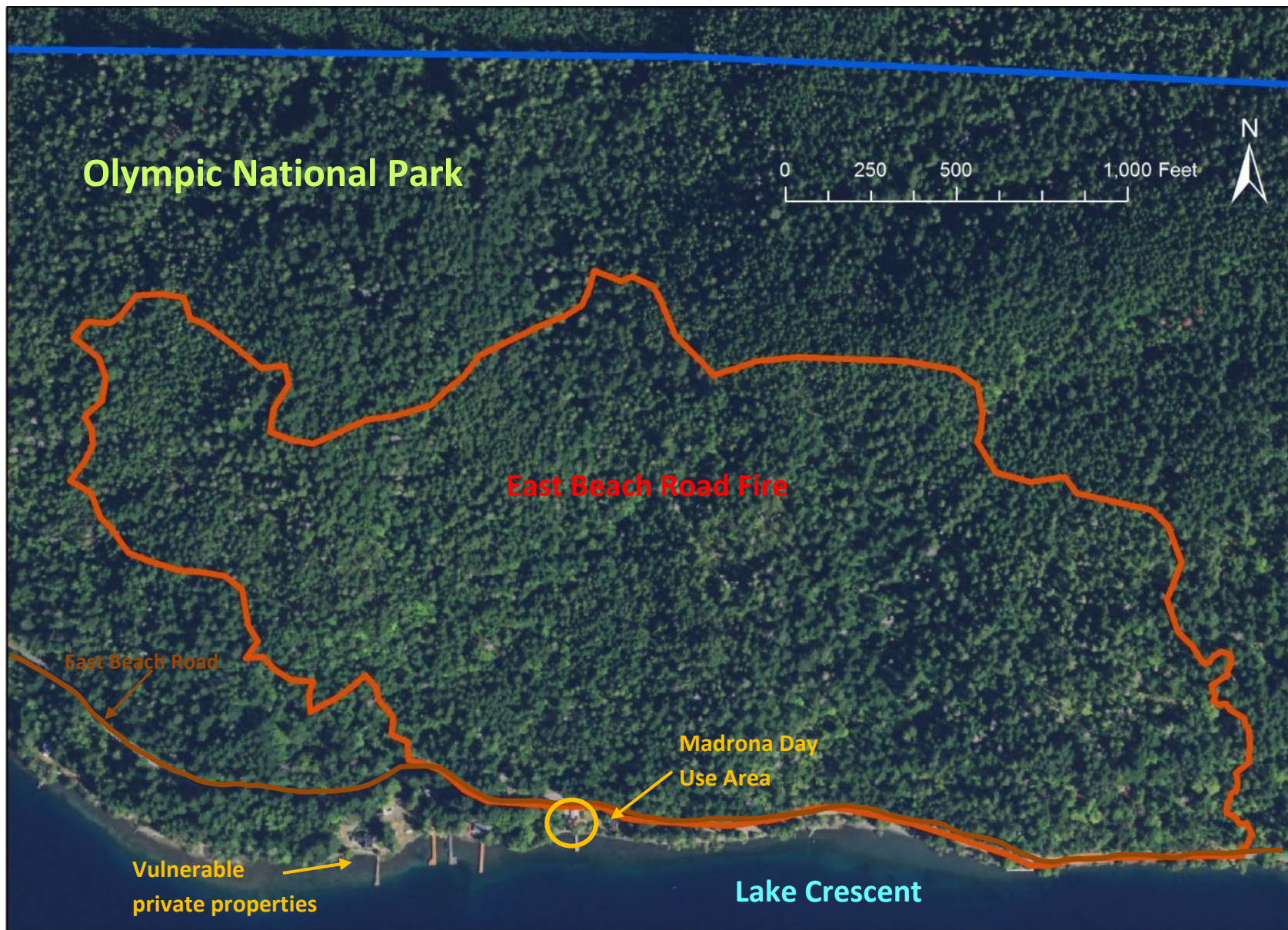


Figure 14. The East Beach Road Fire (red line) occupies a steep slope between Lake Crescent and the park boundary (blue line). The private properties most likely to be affected by falling trees are the four that are immediately west of the Madrona Day Use Area.

RECONNAISSANCE METHODS

Field reconnaissance for hazard trees was conducted on August 18 by Janet Coles, Olympic National Park botanist and hazard tree program coordinator, and Collin McAvinchey, hazard tree technician. Both members of the reconnaissance team have extensive experience identifying hazard trees in the Pacific Northwest. We focused our survey on a section of the fire adjacent to East Beach Road because the values at risk (private structures, the overhead power line, and the national park recreation site at Madrona Beach) are concentrated there. We traversed the lower third of the slope (up to 300 feet above the road) and inspected the roots and boles of all obviously burned trees. Because the slope is so steep, the concern was not only for trees that could directly impact the road, power lines, or structures in falling, but also for trees that could slide or roll into these features.

In consuming litter on the forest floor, the fire also exposed and burned the roots of many trees. The trees we marked for removal had at least 50% of their roots exposed and burned (Figure 15). Although most of these trees are still alive, their roots are so badly damaged that they must be considered structurally unstable and will likely be dead within a few months. Dead trees are at high risk of failure. We also marked for removal trees with significant fire damage to anchoring roots, especially anchor roots on the upslope side of the tree.



Figure 15. A western hemlock with more than 50% of its roots exposed and burned and significant fire damage to the bark.

FINDINGS

During fire operations, some fire-weakened trees within the fire perimeter were removed to protect firefighter safety. We identified eight standing trees on the lower burned slope that were damaged badly enough that they are likely to fall in the next year and could impact private property or the overhead power line in falling (Table H1). Dozens of additional trees in the same area show moderate fire damage and may die over the next few years, at which time they would become hazards with potential to impact life and property and will need to be removed.

Table H1. Characteristics of the eight trees recommended for immediate removal to mitigate life and safety concerns.

Tree #	Species	DBH	Status	Target	Defects/Issues	Location
1	PSME	27"	Live	House, road	75% roots are exposed, burned.	60' upslope from house closest to the road
2	PSME	13"	Dead	road, house	Fire-killed	110' upslope from road
3	PSME	26.5"	Live	House, road	Conks on trunk starting 15' above ground on uphill side of tree. Leans downslope, will need rigging	220' upslope from road; at upper edge of band of large trees
4	THPL	14.5" 9.5"	Live	House	75% roots are exposed, burned.	Near lower west edge of fire, 200' upslope from road
5	TSHE	16.5"	Live	Power line	50%+ roots are exposed and burned, including upslope anchor roots.	20' upslope from road
6	TSHE	33.5"	Snag	Power line	Tree is a snag that has been dead for several years. Several nearby trees were cut during the fire	40' above road, between house and west end of Madrona Day Use Area.
7	PSME	19.5"	Live	Power line	Major anchoring root on uphill side is exposed and burned through	At top of roadcut at westernmost pullout at Madrona Day Use Area
8	PSME	32"	Live	Power line	Main anchor root on uphill side is exposed and burned; slope below tree has eroded away	Flagged maple on roadside immediately below tree. Will be a difficult fall

We observed many additional trees with varying degrees of root damage but did not mark them for removal because their only target is East Beach Road. The road has been closed to public access for the foreseeable future. If these trees fail, they will impact the road but are unlikely to cause damage to life or property as a result. The risks to fallers of removing these trees is greater than the benefit gained by removing them. If at any time the road is proposed for reopening to general public use, we would re-survey the road and remove any trees that could strike a vehicle on the road.

RECOMMENDATIONS

Specifications

We recommend the removal of eight trees before the onset of the fall-winter storm season (Specification V-1). These trees have been significantly compromised by the fire so that they are likely to fail when exposed to storm winds typical of this area. If left in place, any of these trees would be likely to cause significant damage to private property or the overhead power line in falling. If the structures are occupied, falling trees could cause injury or death; if they damage the power line, electric service would be disrupted for lakeshore residents and/or another fire could result.

Because trees damaged by fire may die over the next several years, future re-assessments and treatments may be necessary. Initial removals should occur in FY20. Treatment monitoring with additional assessments and treatments as needed would occur in FY21-23.

REFERENCES

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National Park Service, Pacific West Region. 2015. *Directive PW-062, Hazard Tree Management*. Dated February 18.

PREPARER

Janet Coles, Supervisory Botanist and Hazard Tree Coordinator, Olympic National Park

EAST BEACH ROAD FIRE Post-Fire Response Plan

INVASIVE PLANT ASSESSMENT



OBJECTIVES

- Evaluate the potential for non-native invasive plant incursion into native plant communities within the fire boundaries
- Recommend actions to prevent the introduction and control the spread of invasive plant species

ISSUES

- Eighteen state-, county-, and park-listed noxious (invasive) plant species are known to occur within or immediately adjacent to the burn boundaries. All have the potential to spread by seed or rhizomes into mineral soil exposed by the fire.
- If these noxious plants invade the understory, they will prevent the re-establishment of native forbs, shrubs, and tree species, thereby impacting the ecological integrity of this section of the national park.

BACKGROUND

The terms “invasive plant” and “noxious weed” are used in this report as meaning any non-native plant species that has the capacity to

- Become established in areas disturbed by excavation, construction, or fire
- Spread readily and rapidly into undisturbed areas
- Disrupt ecological processes and/or exclude or outcompete native plant species
- Prevent the re-establishment of native plants in a disturbed area

Lists of noxious weeds are maintained by the State of Washington, Clallam County, and Olympic National Park; control of many of these species is required by state law. Invasive plant species may be introduced to a natural area incidentally, by animals carrying them in from adjacent managed lands and by vehicles using roadways, or they may be introduced deliberately, as horticultural or landscape plantings. The eighteen invasive plant species known to occur in or adjacent to the East Beach Road Fire (Table V1) come from both sources. Incidentally introduced species include Scots broom, herb-Robert, St. John’s-wort, Canada thistle, Himalayan blackberry, and meadow knapweed. Horticultural or escaped landscape species include common periwinkle, English ivy, foxglove, Aaron’s beard, and peavine, all of which were commonly planted by cabin owners along the shore of Lake Crescent.

Before the East Beach Road Fire, the road and lakeshore properties acquired by the NPS had been treated for years by county and NPS weed specialists. The purpose of treatments was twofold and reflects the reasons for including invasive plant treatments in this post-fire recovery plan. The first purpose in treating invasive plants is to prevent the spread of these species into native plant communities. The second purpose is to allow the recovery of disturbed lands to native plant species. Although these treatments have been effective in reducing the abundance of invasive plants, a noxious weed seed bank persists in the soil; continued treatments are necessary for the foreseeable future to prevent these species from spreading.

RECONNAISSANCE METHODS

Direct observations of noxious weeds in relation to the burn area were made by BAER team members by walking the fire perimeter where accessible. Most of the information in this assessment was derived from databases managed by the Clallam County Noxious Weed Management Board, the North Coast and Cascades Network Invasive Plant Management Team, and Olympic National Park.

FINDINGS

Our field surveys and our review of existing data for East Beach Road and its immediate vicinity yielded records of 18 state, county and park-listed noxious weed species (Table V1, Figure 16a, Figure 16b). Most the records are from the margins of East Beach Road, with a few from former private lakefront properties that have been acquired by the park.

Table V1. Eighteen County- and Park-listed noxious weeds are known to occur in the immediate vicinity of the fire. Fire response data are from the Fire Effects Information database (<https://www.feis-crs.org/feis>).

Scientific Name	Common Name	Life Form	Response to Fire	Effective Treatment
<i>Centaurea x moncktonii</i>	Meadow knapweed	Perennial herb	Re-sprouts readily, seeds prefer bare mineral soil	Aminopyralid
<i>Cirsium arvense</i>	Canada thistle	Perennial herb	Re-sprouts readily, prefers moist bare mineral soil	Aminopyralid
<i>Cirsium vulgare</i>	Bull thistle	Monocarpic herb	Wind-dispersed, seeds prefer bare mineral soil	Hand-pull
<i>Convolvulus arvensis</i>	Bindweed	Perennial vine	Re-sprouts readily, fire stimulates germination	Triclopyr
<i>Cytisus scoparius</i>	Scots broom	Perennial shrub	Re-sprouts readily, fire stimulates germination	Weed wrench, Triclopyr
<i>Daphne laureola</i>	Laurel spurge	Perennial shrub	Re-sprouts readily	Imazapyr
<i>Digitalis purpurea</i>	Foxglove	Monocarpic herb	No information	Hand-pull, glyphosate
<i>Geranium robertianum</i>	Herb-Robert	Annual Herb	No information	Hand-pull
<i>Hedera helix</i>	English ivy	Perennial vine	Fire kills plants	Triclopyr
<i>Hypericum calycinum</i>	Aaron's beard	Perennial herb	No information	Aminopyralid
<i>Hypericum perforatum</i>	St. John's-wort	Perennial forb	Re-sprouts readily	Triclopyr, Imazapyr
<i>Lamium galeobdolon</i>	Yellow archangel	Perennial herb	No information	Triclopyr, Imazapyr
<i>Lathyrus latifolius</i>	Peavine	Perennial herb	Re-sprouts readily	Aminopyralid
<i>Lathyrus sylvestris</i>	Flat peavine	Perennial herb	Re-sprouts readily	Aminopyralid
<i>Leucanthemum vulgare</i>	Oxeye daisy	Perennial herb	No information	Aminopyralid
<i>Rubus bifrons</i>	Himalayan blackberry	Perennial shrub	Re-sprouts readily, seeds prefer bare mineral soil	Triclopyr
<i>Senecio jacobaea</i>	Tansy ragwort	Monocarpic herb	No information	Hand-pull
<i>Vinca major</i>	Common periwinkle	Perennial vine	Re-sprouts readily	Triclopyr, Imazapyr



Figure 16a. Partly burned Scots broom just upslope from East Beach Road.



Figure 16b. Peavine on the edge of East Beach Road opposite the burned slope.

RECOMMENDATIONS

We recommend thorough surveys for and aggressive treatments of all noxious weeds that appear within or immediately adjacent to the fire boundary. Controlling the noxious weeds will give the native shrub and herbaceous vegetation the best chance at becoming re-established and restoring the structure, composition, and function of the native forest ecosystem.

Specifications

Invasive plant control is not necessary as an Emergency Stabilization action. One non-emergency specification (V-2) contains a prescription to address post-fire invasive plant issues. This specification is directed toward the BAR funding source. Over the next three growing seasons (FY21-23), trained technicians will survey for invasive non-native plants, focusing on the margins of the fire and especially along East Beach Road. Any noxious weed found during these surveys will be treated by the most effective method available (e.g., Peachy 2020), whether it be mechanical (hand pulling or digging) or chemical (foliar spray, cut stump treatment, or pre-emergent treatment). The primary objective of noxious weed treatments is to reduce their capacity to out-compete native vegetation in the exposed mineral soils of the burned area.

We will map and record the location and density of each invasive plant species encountered, as well as the treatment applied to it. This will enable us to track the effectiveness of our treatments and to adjust them if necessary.

Non-Specification

It is entirely possible that there is a latent seed bank of invasive plants on the burned slope that will only become evident now that the native shrub and forb cover has been removed by fire. We will be vigilant in searching for new invasive plant species in addition to those on the list contained in this report.

REFERENCES

Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Missoula Fire Sciences Laboratory (Producer). Available: www.fs.fed.us/database/feis/plants/fern/polmun/all.html [Accessed August 13, 2020]

Peachey, E., editor. 2020. Pacific Northwest Weed Management Handbook. Corvallis, OR: Oregon State University.

CONSULTATIONS

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PREPARER(S)

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EAST BEACH ROAD FIRE
Post-Fire Response Plan

Specifications



EMERGENCY STABILIZATION: SUMMARY OF TREATMENTS/ACTIVITIES AND COSTS

SPEC #	TITLE	UNIT	UNIT COST	# OF UNITS	WORK AGENT	FY20	FY21	FY22	COSTS
O-1	Prepare Post-fire Response Plan	Plan	\$4,466	1	F	\$4,466	-	-	\$4,466
F-1	Structure Protection	Lin Ft	\$79.21	375	F	\$26,168	\$3,160	-	\$29,328
F-2	Clean Ditches & Culverts	Year	\$35,100	1	F	-	\$35,100	TBD	\$35,100
V-1	Assess & Mitigate Hazard Trees	Tree	\$628.31	8	F, S	-	\$5,207	TBD	\$5,207
W-1	Maintain Area Closure	Year	\$21,460	1	F	-	\$20,860	TBD	\$20,860
TOTAL COSTS						\$30,634.00	\$64,327.00	TBD	\$94,961.00

BURNED AREA REHABILITATION: SUMMARY OF TREATMENTS/ACTIVITIES AND COSTS

SPEC #	TITLE	UNIT	UNIT COST	# OF UNITS	WORK AGENT	FY21	FY22	FY23	COSTS
V-2	Invasive Plant Detection & Treatment	Acre	\$170	85	F	\$5,000	\$4,640	\$4,640	\$14,280
TOTAL COSTS						\$5,000	\$4,640	\$4,640	\$14,280

PART F - INDIVIDUAL SPECIFICATIONS

TREATMENT/ACTIVITY NAME	East Beach Rd Fire BAER/BAR Plan Prep	PART E SPECIFICATION #	O-1
NFPORS TREATMENT CATEGORY*	Planning	FISCAL YEAR(S) (list each year):	2020
NFPORS TREATMENT TYPE*	ES/BAER Plan	WUI? Y/N	Y
IMPACTED COMMUNITIES AT RISK	East Beach Road cabins	IMPACTED T&E SPECIES	None

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

WORK TO BE DONE (describe or attach exact specifications of work to be done):

General Description: Specialists from Olympic National Park and Olympic National Forest developed the BAER/BAR plan for the East Beach Road Fire. Team members developed assessments and specifications independently and submitted them to the Plan Coordinator for final editing.

Location/ (Suitable) Sites: The team worked out of their home units (Port Angeles, Forks, Olympia, WA), making day trips to the fire for field assessments.

Design/Construction Specifications: Complete a BAER/BAR Plan (Post-fire response plan) for the East Beach Road Fire.

Purpose of Treatment Specifications (relate to damage/change caused by fire): This specification describes the costs associated with the planning activity undertaken to develop the BAER/BAR Plan for the East Beach Road Fire. No treatments are prescribed under this specification.

Treatment Effectiveness Monitoring Proposed: Not applicable.

Treatment consistent with Agency Land Management Plan (identify which plan): Olympic NP General Management Plan (2008).

LABOR, MATERIALS AND OTHER COST:

PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).		QUANTITY	UNIT PRICE	AMOUNT
+ -	NOTE: GRADES and COST/HR AVAILABLE UPON REQUEST			
+ -	Natural Resource Staff (McAvinchey)	1	\$234.50	\$234.50
+ -	Watershed Staff (Butler, Urresti - USFS)	1	\$0.00	\$0.00
+ -	Facilities Staff (Willoughby)	1	\$403.00	\$403.00
+ -	Writing, editing, compliance, distribution (Coles, Gray)	1	\$3,828.50	\$3,828.50
TOTAL PERSONNEL SERVICE COSTS				\$4,466.00
EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.		QUANTITY	UNIT PRICE	AMOUNT
+ -	N/A			
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COSTS				

MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):		QUANTITY	UNIT PRICE	AMOUNT
+	N/A			
-				
TOTAL MATERIALS AND SUPPLY COSTS				
TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):		QUANTITY	UNIT PRICE	AMOUNT
+	N/A			
-				
TOTAL TRAVEL COSTS				
CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):		QUANTITY	UNIT PRICE	AMOUNT
+	N/A			
-				
TOTAL CONTRACT COSTS				

SPECIFICATION COST SUMMARY

	FISCAL YEAR	PLANNED INITIATION DATE	PLANNED COMPLETION DATE	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COSTS
+	2020	08/16/2020	08/31/2020	F	Plan	\$4,466.00	1	\$4,466.00
-								
SUMMARY COST TOTAL								\$4,466.00
Difference should be zero (SUMMARY COST TOTAL - SPECIFICATION TOTAL)								\$0.00
SPECIFICATION TOTAL								\$4,466.00

Work Agent: C=Coop Agreement, F=Force Account, G=Grantee, P=Permittees, S=Service Contract, T=Timber Sales Purchaser, V=Volunteer

SOURCE COST ESTIMATE

1. Estimate obtained from 2-3 independent contractual sources.	☐ P	E	M
	☐ T	C	F
2. Documented cost figures from similar project work obtained from local agency sources.	☒ P	E	M
	☐ T	C	F
3. Estimate supported by cost guides from independent sources or other federal agencies	☐ P	E	M
	☐ T	C	F
4. Estimates based upon government wage rates and material cost.	☒ P	E	M
	☐ T	C	F
5. No cost estimate required - cost charged to Fire Suppression Account	☐ P	E	M
	☐ T	C	F

P = Personnel Services, E = Equipment M = Materials/Supplies, T = Travel, C = Contract, F = Suppression

RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT

Assessments and specifications for emergency treatments, rehabilitation treatments, and future assessments needs for (1) watershed response, (2) invasive plants, (3) hazard trees, (4) protection of private property.

PART F - INDIVIDUAL SPECIFICATIONS

TREATMENT/ACTIVITY NAME	Install Jersey Barriers	PART E SPECIFICATION #	F-1
NFPORS TREATMENT CATEGORY*	Human Life and Safety	FISCAL YEAR(S) (list each year):	2020 (purchase) 2021 (install)
NFPORS TREATMENT TYPE*	Protective Fence Barriers	WUI? Y/N	Y
IMPACTED COMMUNITIES AT RISK	East Beach Road Cabins	IMPACTED T&E SPECIES	N/A

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

WORK TO BE DONE (describe or attach exact specifications of work to be done):

General Description: Use heavy equipment to install a line of Jersey barriers along East Beach Road to help prevent trees, rocks, and small debris flows falling from the burned slope from impacting private homes and property.

Location/ (Suitable) Sites: East Beach Road in Clallam County, Washington.

Design/Construction Specifications: Install approximately 450 feet of Jersey barriers along the section of road that is within the fire boundary and adjacent to private residences. Seventy-five feet of barrier that the park had on hand has already been put in place.

Purpose of Treatment Specifications (relate to damage/change caused by fire): To provide a protection wall to help prevent wood and rock debris generated by the burned slope from damaging private residences. It is urgent that this barrier be erected before the onset of the rainy season (October-November).

Treatment Reasonableness and Cost Effectiveness: Adding this barrier will reduce the potential for costly damage to private property.

Treatment Effectiveness Monitoring Proposed: The barrier will be inspected after storm events and debris cleared away as needed (Specification F-4). Treatment consistent with Agency Land Management Plan (identify which plan): Olympic NP General Management Plan (2008).

LABOR, MATERIALS AND OTHER COST:

PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).		QUANTITY	UNIT PRICE	AMOUNT
+	WG-10 Engineering Equipment Operator for two days to set barriers	20	\$50.00	\$1,000.00
-				
+	WG-08 Engineering Equipment Operator for two days to assist	20	\$40.00	\$800.00
-				
TOTAL PERSONNEL SERVICE COSTS				\$1,800.00
EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.		QUANTITY	UNIT PRICE	AMOUNT
+	Rental Loader to set barriers - Rent 1 loader for 2 days	2	\$680.00	\$1,360.00
-				
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COSTS				\$1,360.00
MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):		QUANTITY	UNIT PRICE	AMOUNT
+	Jersey Barriers 375 LF	375	\$69.78	\$26,167.50
-				

TOTAL MATERIALS AND SUPPLY COSTS				\$26,167.50		
TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):			QUANTITY	UNIT PRICE	AMOUNT	
+	N/A					
-						
TOTAL TRAVEL COSTS						
CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):			QUANTITY	UNIT PRICE	AMOUNT	
+	N/A					
-						
TOTAL CONTRACT COSTS						

SPECIFICATION COST SUMMARY

	FISCAL YEAR	PLANNED INITIATION DATE	PLANNED COMPLETION DATE	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COSTS
+	2020	10/12/2020	10/30/2020	F	Linear ft	\$78.21	375	\$29,327.50
-								
SUMMARY COST TOTAL								\$29,327.50
Difference should be zero (SUMMARY COST TOTAL - SPECIFICATION TOTAL)								\$0.00
SPECIFICATION TOTAL								\$29,327.50

Work Agent: C=Coop Agreement, F=Force Account, G=Grantee, P=Permittees, S=Service Contract, T=Timber Sales Purchaser, V=Volunteer

SOURCE COST ESTIMATE

1.	Estimate obtained from 2-3 independent contractual sources.	☐ P	☐ E	☐ M
		☐ T	☐ C	☐ F
2.	Documented cost figures from similar project work obtained from local agency sources.	☐ P	☐ E	☐ M
		☐ T	☐ C	☐ F
3.	Estimate supported by cost guides from independent sources or other federal agencies	☐ P	☒ E	☐ M
		☐ T	☐ C	☐ F
4.	Estimates based upon government wage rates and material cost.	☒ P	☒ E	☐ M
		☐ T	☐ C	☐ F
5.	No cost estimate required - cost charged to Fire Suppression Account	☐ P	☐ E	☐ M
		☐ T	☐ C	☐ F

P = Personnel Services, E = Equipment M = Materials/Supplies, T = Travel, C = Contract, F = Suppression

RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT

PART F - INDIVIDUAL SPECIFICATIONS

TREATMENT/ACTIVITY NAME	Clear and Monitor Ditches and Culverts	PART E SPECIFICATION #	F-2
NFPORS TREATMENT CATEGORY*	Human Life and Safety	FISCAL YEAR(S) (list each year):	2021
NFPORS TREATMENT TYPE*	Road Stabilization	WUI? Y/N	Y
IMPACTED COMMUNITIES AT RISK	East Beach Road Cabins	IMPACTED T&E SPECIES	N/A

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

WORK TO BE DONE (describe or attach exact specifications of work to be done):

General Description: Use heavy equipment to clean the ditches and culverts along the section of East Beach Road directly affected by fire. Monitor the ditches and culverts throughout the rainy season (October through May) and remove accumulated material fallen from burned slopes as needed to protect the road. Location/ (Suitable) Sites: East Beach Road in Clallam County, Washington Design/Construction Specifications: Use heavy equipment (excavator, loader, dump trucks) to clean and haul away logs, boulders, and soil that filled the ditches and blocked culverts during and immediately after the fire. Clallam County Roads Department will provide most of the labor, with assistance from the ONP Road Crew. Removed material will be hauled away and disposed of outside the park. As neither the park nor the County has heavy machinery to dedicate to this project and hauling machinery every time a cleaning is needed is not practical, rent a suitable piece of machinery for the rainy season. Purpose of Treatment Specifications (relate to damage/change caused by fire): East Beach Road provides the only road access to private properties within Olympic NP and is an important connector between state highways 101 and 112. Since the fire, ditches and culverts along the 1/2 mile stretch of road immediately adjacent to the fire have filled with rocks, dirt, and trees fallen from the steep burned slopes above. It is urgent that this material be cleared and proper drainage re-established before the winter rains begin in October-November. It is extremely important that the ditches/culverts be kept clear throughout the rainy season to allow runoff to flow away from the road and to protect the road from erosion. This area gets approximately 60 inches of rain a year. Treatment Reasonableness and Cost Effectiveness: Clearing ditches and culverts is the most cost-effective way to protect the road and prevent costly erosion damage. This approach is more technically feasible than other approaches, such as greatly enlarging the ditches to catch falling material (the ROW is too narrow and it would result in over-steepening the base of the burned slope). Treatment Effectiveness Monitoring Proposed: Storm patrols will monitor conditions with the onset of the rainy season and initiate additional clearing and cleanup as needed. Good communication already established with local property owners will ensure that cleanup occurs as needed. Patrols will also assess the condition of the road and road shoulders to detect if damage is occurring and alter patrol frequency as needed. Depending on the rate of vegetation recovery on the burned slope, it may be necessary to extend treatments beyond FY21. Treatment consistent with Agency Land Management Plan: Olympic National Park General Management Plan (2008).

LABOR, MATERIALS AND OTHER COST:

PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).		QUANTITY	UNIT PRICE	AMOUNT
+	Engineering Equipment Operator per hour to assist when Clallam County Roads staff are not available and the work is urgent.	40	\$45.00	\$1,800.00
-				
+	Clallam County is contributing approximately \$20,000 in-kind staff costs and equipment in FY21 to clean and haul materials and conduct monitoring of the road system within the burned area through the winter.			
-				
TOTAL PERSONNEL SERVICE COSTS				\$1,800.00

EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.		QUANTITY	UNIT PRICE	AMOUNT
+	Rental of a Cat 930 loader per month.	6	\$5,290.00	\$31,740.00
-				
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COSTS				\$31,740.00
MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):		QUANTITY	UNIT PRICE	AMOUNT
+	Fuel @ \$2.60 per gal x 100 gal. per month	600	\$2.60	\$1,560.00
-				
TOTAL MATERIALS AND SUPPLY COSTS				\$1,560.00
TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):		QUANTITY	UNIT PRICE	AMOUNT
+	N/A			
-				
TOTAL TRAVEL COSTS				
CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):		QUANTITY	UNIT PRICE	AMOUNT
+	N/A			
-				
TOTAL CONTRACT COSTS				

SPECIFICATION COST SUMMARY

	FISCAL YEAR	PLANNED INITIATION DATE	PLANNED COMPLETION DATE	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COSTS
+	2021	10/01/2020	05/01/2021	F	Event	\$35,100.00	1	\$35,100.00
-								
SUMMARY COST TOTAL								\$35,100.00
Difference should be zero (SUMMARY COST TOTAL - SPECIFICATION TOTAL)								\$0.00
SPECIFICATION TOTAL								\$35,100.00

Work Agent: C=Coop Agreement, F=Force Account, G=Grantee, P=Permittees, S=Service Contract, T=Timber Sales Purchaser, V=Volunteer

SOURCE COST ESTIMATE

1. Estimate obtained from 2-3 independent contractual sources.	☐ P	E	M
	☐ T	C	F
2. Documented cost figures from similar project work obtained from local agency sources.	☐ P	E	M
	☐ T	C	F
3. Estimate supported by cost guides from independent sources or other federal agencies	☐ P	E	M
	☐ T	C	F
4. Estimates based upon government wage rates and material cost.	☒ P	E	☒ M
	☐ T	C	F

5. No cost estimate required - cost charged to Fire Suppression Account

☐	P	E	M
☐	T	C	F

P = Personnel Services, E = Equipment M = Materials/Supplies, T = Travel, C = Contract, F = Suppression

RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT

See Post-fire Rehabilitation Plan.

PART F - INDIVIDUAL SPECIFICATIONS

TREATMENT/ACTIVITY NAME	Hazard Tree Assessment/Mitigation	PART E SPECIFICATION #	V-1
NFPORS TREATMENT CATEGORY*	Human Life and Safety	FISCAL YEAR(S) (list each year):	2021
NFPORS TREATMENT TYPE*	Hazard Removal – Other	WUI? Y/N	Y
IMPACTED COMMUNITIES AT RISK	East Beach Road Cabins	IMPACTED T&E SPECIES	N/A

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

WORK TO BE DONE (describe or attach exact specifications of work to be done):

General Description: This specification prescribes treatments to mitigate the risks posed by fire-damaged trees to private property and to a public utility overhead power line. Location/ (Suitable) Sites: The lower 250 feet of the burned slope immediately above private homes and an overhead power line on East Beach Road. Design/Construction Specifications: Hazard tree assessment follows the PWR directive for Hazard Trees (2015) and uses the risk and target rating criteria established by Filip, et al. (2014). Mitigation will follow established NPS procedures for falling hazard trees using qualified fallers and riggers. Purpose of Treatment Specifications (relate to damage/change caused by fire): To mitigate threats to life and property posed by trees damaged by fire that are likely to fail and strike stationary targets of high value. Treatment Reasonableness and Cost Effectiveness: The eight trees marked for removal are the minimum needed to mitigate immediate hazards to life and property. Costs are based on current prevailing wage and contract costs. Effectiveness Monitoring Proposed: We will monitor the slope throughout the fall and winter months for additional trees that may require removal to protect life and property (e.g. trees that die as a result of fire damage). We will amend the specification if monitoring indicates the need for further assessments or mitigations. Treatment consistent with Agency Land Management Plan: Olympic National Park General Management Plan (2008).

LABOR, MATERIALS AND OTHER COST:

PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).		QUANTITY	UNIT PRICE	AMOUNT
+	GS-7/2 Hazard Tree Technician - tree assessment (per hour)	7	\$33.50	\$234.50
-				
+	GS-9/4 Faller (Trails Crew) - mitigation (per hour)	20	\$42.65	\$853.00
-				
+	GS-7/4 Rigger (Trails Crew) - mitigation (per hour)	20	\$39.75	\$795.00
-				
+	GS5/1 Swamper (Trails Crew)- mitigation (per hour)	20	\$27.20	\$544.00
-				
TOTAL PERSONNEL SERVICE COSTS				\$2,426.50
EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.		QUANTITY	UNIT PRICE	AMOUNT
+	N/A			
-				
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COSTS				

MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):		QUANTITY	UNIT PRICE	AMOUNT
+	Chainsaw gas, bar oil, chain (per event)	1	\$100.00	\$100.00
-				
TOTAL MATERIALS AND SUPPLY COSTS				\$100.00
TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):		QUANTITY	UNIT PRICE	AMOUNT
+	N/A			
-				
TOTAL TRAVEL COSTS				
CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):		QUANTITY	UNIT PRICE	AMOUNT
+	Tree services contractor to remove tree #8	1	\$2,500.00	\$2,500.00
-				
TOTAL CONTRACT COSTS				\$2,500.00

SPECIFICATION COST SUMMARY

	FISCAL YEAR	PLANNED INITIATION DATE	PLANNED COMPLETION DATE	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COSTS
+	2021	10/01/2020	10/30/2020	F, S	8	\$628.31	8	\$5,026.50
-								
SUMMARY COST TOTAL								\$5,026.50
Difference should be zero (SUMMARY COST TOTAL - SPECIFICATION TOTAL)								\$0.00
SPECIFICATION TOTAL								\$5,026.50

Work Agent: C=Coop Agreement, F=Force Account, G=Grantee, P=Permittees, S=Service Contract, T=Timber Sales Purchaser, V=Volunteer

SOURCE COST ESTIMATE

1.	Estimate obtained from 2-3 independent contractual sources.	☐ P	☐ E	☐ M
		☐ T	☐ C	☐ F
2.	Documented cost figures from similar project work obtained from local agency sources.	☐ P	☐ E	☐ M
		☐ T	☒ C	☐ F
3.	Estimate supported by cost guides from independent sources or other federal agencies	☐ P	☐ E	☐ M
		☐ T	☐ C	☐ F
4.	Estimates based upon government wage rates and material cost.	☒ P	☐ E	☐ M
		☐ T	☐ C	☐ F
5.	No cost estimate required - cost charged to Fire Suppression Account	☐ P	☐ E	☐ M
		☐ T	☐ C	☐ F

P = Personnel Services, E = Equipment M = Materials/Supplies, T = Travel, C = Contract, F = Suppression

RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT

See Hazard Tree Assessment in Post-Fire Response Plan

PART F - INDIVIDUAL SPECIFICATIONS

TREATMENT/ACTIVITY NAME	Maintain East Beach Road Closure	PART E SPECIFICATION #	W-1
NFPORS TREATMENT CATEGORY*	Human Life and Safety	FISCAL YEAR(S) (list each year):	2021 (poss. extension to 2022 and 2023)
NFPORS TREATMENT TYPE*	Closures	WUI? Y/N	Y
IMPACTED COMMUNITIES AT RISK	East Beach Road Cabins	IMPACTED T&E SPECIES	N/A

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

WORK TO BE DONE (describe or attach exact specifications of work to be done):

General Description: Signs, physical barriers, and increased law-enforcement presence are necessary to protect the public from the hazards of rocks and burned debris falling onto East Beach Road from the burned area. Either end of the closure will be signed and the closure effected by a barrier designed to exclude the general public while allowing access by park and county staff, residents, and essential services. Park law enforcement will increase its presence during busy summer months to assess the condition of the road (i.e., fallen debris on road) as well as to ensure that the public stays out of the danger zone.

Location / (Suitable) Sites: East Beach Road between Log Cabin turnoff and East Beach turnoff.

Design/Construction Specifications: In order to reduce the public's exposure to tree- and rockfall from adjacent burned slopes, the ONP Superintendent closed the East Beach area (Log Cabin Resort to East Beach) indefinitely on 8/20/20. The corresponding section of county road was closed to the general public by order of the Clallam County Commissioners on 8/24/20. A hard closure (e.g., immobile barrier) is not possible because East Beach Road provides the only road access to private property within the park. The close area includes two OLYM recreation sites that area extremely popular in the summer. We have already experienced numerous visitors violating the closure to use these recreation sites or to walk or cycle the road.

Purpose of Treatment Specifications (relate to damage/change caused by fire): To protect the general public from hazards created by rocks and trees falling from burned slopes onto East Beach Road.

Treatment Reasonableness and Cost Effectiveness: This represents the minimum resources necessary to effect a "soft" closure of the road and recreation sites to the public but not to residents. The park or the County will supply the materials needed to block the road and will install signs.

Treatment Effectiveness Monitoring Proposed: The number of visitor contacts recorded by park LE staff within the closure will provide effectiveness monitoring. If the proposed measures are ineffective, stronger measures (such as a locked pipe gate or ecology block barrier) will be proposed and an amended specification submitted. If the closure is extended for a longer period we will submit an amended specification.

Treatment consistent with Agency Land Management Plan (identify which plan): Olympic NP General Management Plan (2008). Park Superintendents have the authority to effect temporary closures for safety or resource protection as outlined within the Superintendent's Compendium.

LABOR, MATERIALS AND OTHER COST:

PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).		QUANTITY	UNIT PRICE	AMOUNT
+	GS-5 seasonal LE Ranger to enforce closures during the summer visitation season (3/4 time, per pay period, May through October 2021)	12	\$1,555.00	\$18,660.00
-				
TOTAL PERSONNEL SERVICE COSTS				\$18,660.00
EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.		QUANTITY	UNIT PRICE	AMOUNT
+				
-				
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COSTS				

MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):		QUANTITY	UNIT PRICE	AMOUNT
+	Closure signs, two at each end of the closure with extras in case of vandalism or theft	8	\$250.00	\$2,000.00
-				
+	Posts for mounting signs	4	\$50.00	\$200.00
-				
TOTAL MATERIALS AND SUPPLY COSTS				\$2,200.00
TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):		QUANTITY	UNIT PRICE	AMOUNT
+	N/A			
-				
TOTAL TRAVEL COSTS				
CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):		QUANTITY	UNIT PRICE	AMOUNT
+	N/A			
-				
TOTAL CONTRACT COSTS				

SPECIFICATION COST SUMMARY

	FISCAL YEAR	PLANNED INITIATION DATE	PLANNED COMPLETION DATE	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COSTS
+	2021	5/1/2021	10/30/2021	F	1	\$20,860.00	1	\$20,860.00
-								
SUMMARY COST TOTAL								\$20,860.00
Difference should be zero (SUMMARY COST TOTAL - SPECIFICATION TOTAL)								\$0.00
SPECIFICATION TOTAL								\$20,860.00

Work Agent: C=Coop Agreement, F=Force Account, G=Grantee, P=Permittees, S=Service Contract, T=Timber Sales Purchaser, V=Volunteer

SOURCE COST ESTIMATE

1.	Estimate obtained from 2-3 independent contractual sources.	☐ P	☐ E	☐ M
		☐ T	☐ C	☐ F
2.	Documented cost figures from similar project work obtained from local agency sources.	☐ P	☐ E	☐ M
		☐ T	☐ C	☐ F
3.	Estimate supported by cost guides from independent sources or other federal agencies	☐ P	☐ E	☐ M
		☐ T	☐ C	☐ F
4.	Estimates based upon government wage rates and material cost.	☒ P	☒ E	☒ M
		☐ T	☐ C	☐ F
5.	No cost estimate required - cost charged to Fire Suppression Account	☐ P	☐ E	☐ M
		☐ T	☐ C	☐ F

P = Personnel Services, E = Equipment M = Materials/Supplies, T = Travel, C = Contract, F = Suppression

RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT

PART F - INDIVIDUAL SPECIFICATIONS

TREATMENT/ACTIVITY NAME	Invasive Plant Species BAR	PART E SPECIFICATION #	V-2 (BAR)
NFPORS TREATMENT CATEGORY*	Invasive Species	FISCAL YEAR(S) (list each year):	2021, 2022, 2023
NFPORS TREATMENT TYPE*	Chemical Treatment	WUI? Y/N	Y
IMPACTED COMMUNITIES AT RISK	N/A	IMPACTED T&E SPECIES	None

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

WORK TO BE DONE (describe or attach exact specifications of work to be done):

General Description: Assess and treat invasive plant species within and adjacent to the East Beach Road fire perimeter. Populations of weeds are expected to increase in the newly exposed ground and especially along lower slopes adjacent to East Beach Road.

Location/ (Suitable) Sites: Olympic National Park, East Beach section of Lake Crescent, within and adjacent to the East Beach Road Fire boundary.

Design/Construction Specifications: Assessments will be conducted by park staff in the early spring. Herbicide treatments will be applied by a 4- person seasonal field crew in late spring, mid-summer, and early fall. Invasive plants will be treated by chemical and/or mechanical means appropriate for each species.

Purpose of Treatment Specifications (relate to damage/change caused by fire): Prevent the establishment and spread of exotic invasive plants within Olympic National Park. Burned ground is susceptible to invasion and spread by noxious weeds; at least four species of state- and county-listed noxious weeds are known to occur within the burned area boundary.

Treatment Reasonableness and Cost Effectiveness: Treatments will be limited to the perimeter of the burn area, both for worker safety and because the edges are where invasive plants are known (along the road) or most likely (along the perimeter hand line) to occur. Cost effectiveness is achieved by using an established park invasive plant management crew that is experienced with treating the species and familiar with the area.

Treatment Effectiveness Monitoring Proposed: Treatments are recorded using ESRI ArcCollector. Each year, as treated areas are revisited, we will note whether the invasive plant treated the prior year is present, absent, or has spread. Treatment methods will be adjusted as necessary to achieve maximum effect and control.

Treatment consistent with Agency Land Management Plan (identify which plan): Olympic NP Final General Management Plan (2008).

LABOR, MATERIALS AND OTHER COST:

PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).		QUANTITY	UNIT PRICE	AMOUNT
+	GS-6/1 Seasonal Invasive Plant Crew Lead @ \$26/hr x 60 hours x 3 fiscal years	1	\$4,680.00	\$4,680.00
-				
+	GS-5/1 Seasonal Invasive Plant Crew Members @22.5/hr x 40 hours x 3 fiscal years	3	\$2,700.00	\$8,100.00
-				
TOTAL PERSONNEL SERVICE COSTS				\$12,780.00
EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.		QUANTITY	UNIT PRICE	AMOUNT
+	None	0	\$0.00	\$0.00
-				

TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COSTS				\$0.00
MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):		QUANTITY	UNIT PRICE	AMOUNT
+	Herbicides per year	3	\$350.00	\$1,050.00
-				
+	Hand tools, PPE, spare backpack sprayer parts per year	3	\$150.00	\$450.00
-				
TOTAL MATERIALS AND SUPPLY COSTS				\$1,500.00
TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):		QUANTITY	UNIT PRICE	AMOUNT
+	None	0		\$0.00
-				
TOTAL TRAVEL COSTS				\$0.00
CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):		QUANTITY	UNIT PRICE	AMOUNT
+	None	0		\$0.00
-				
TOTAL CONTRACT COSTS				\$0.00

SPECIFICATION COST SUMMARY

	FISCAL YEAR	PLANNED INITIATION DATE	PLANNED COMPLETION DATE	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COSTS
+	2021	3/1/2021	9/30/2021	F	Acres	\$58.82	85	\$4,999.70
-								
+	2022	3/1/2022	9/30/2022	F	Acres	\$54.59	85	\$4,640.15
-								
+	2023	3/1/2023	9/30/2023	F	Acres	\$54.59	85	\$4,640.15
-								
SUMMARY COST TOTAL								\$14,280.00
Difference should be zero (SUMMARY COST TOTAL - SPECIFICATION TOTAL)								\$0.00
SPECIFICATION TOTAL								\$14,280.00

Work Agent: C=Coop Agreement, F=Force Account, G=Grantee, P=Permittees, S=Service Contract, T=Timber Sales Purchaser, V=Volunteer

SOURCE COST ESTIMATE

1. Estimate obtained from 2-3 independent contractual sources.	☐ P	E	M
	☐ T	C	F
2. Documented cost figures from similar project work obtained from local agency sources.	☐ P	E	M
	☐ T	C	F

3.	Estimate supported by cost guides from independent sources or other federal agencies	☐ P	E	M
		☐ T	C	F
4.	Estimates based upon government wage rates and material cost.	☒ P	☒ E	M
		☐ T	C	F
5.	No cost estimate required - cost charged to Fire Suppression Account	☐ P	E	M
		☐ T	C	F

P = Personnel Services, E = Equipment M = Materials/Supplies, T = Travel, C = Contract, F = Suppression

RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT

See assessment for maps and other documentation.

EAST BEACH ROAD FIRE
Post-Fire Response Plan

Appendixes



APPENDIX A

Environmental Compliance



Federal Environmental Compliance Responsibilities

The East Beach Road Fire Post-Fire Response Plan includes recommendations for Burned Area Emergency Response (BAER) and Burned Area Rehabilitation (BAR) mitigation actions. All actions that are prescribed, funded, or implemented on park lands are subject to compliance with the *National Environmental Policy Act* (NEPA) in accordance with the guidelines provided by the *Council on Environmental Quality (CEQ) Regulations (40 CFR 1500-1508)*. This Appendix documents the BAER Team considerations of NEPA compliance requirements for prescribed emergency stabilization, rehabilitation and monitoring actions described in this plan for NPS lands affected by the East Beach Road Fire, Olympic National Park, Washington.

This plan identifies specific emergency stabilization, rehabilitation, and monitoring actions and recommendations designed to mitigate damages to resources as a result of the East Beach Road Fire. The park must complete separate NEPA analyses and compliance for fire response activities not addressed in this plan.

Agency Specific Guidance: This NEPA documentation has been developed in accordance with National Park Service specific guidelines. Emergency stabilization and rehabilitation actions proposed on National Park Service lands, involving the agencies permitting, funding, or implementation, must comply with regulations set forth in the *Department of the Interior Manual Part 516 (DM 12)*.

Related Plans

Olympic National Park General Management Plan (GMP), 2008. This plan recognizes fire as a natural process and identifies the park's Fire Management Plan as the primary document guiding management of fire. A stated goal of the GMP is to restore and maintain natural fire regimes except when suppression actions are necessary to comply with air quality regulations, to protect listed species, cultural resources, or the safety of life and property.

Olympic National Park Foundation Document, 2012. This document calls out fire as a primary natural modifier of Olympic Peninsula forests and subalpine habitats.

Olympic National Park Fire Management Plan, 2005. This plan provides guidance for emergency stabilization and non-emergency rehabilitation actions taken following wildfires to prevent unacceptable resource degradation or to minimize threats to life or property resulting from the fire. These actions include protection, repair, rehabilitation and/or replacement of resources and facilities damaged by wildland fire or its suppression.

Pacific West Region Hazard Tree Management Policy, revised 2015. This document describes the responsibility of park units to manage tree hazards and provides guidance for developing park hazard tree management programs.

Cumulative Impact Analysis

The emergency stabilization and rehabilitation treatments for the East Beach Road Fire, as proposed in this plan, do not result in an intensity of impact (i.e., major ground disturbance) that would cumulatively constitute a significant impact on the quality of the environment. Treatments are consistent with park management plans and associated environmental compliance documents of the NPS, and the categorical exclusions documented below.

No direct or indirect unavoidable adverse impacts to the biological or physical environment would result from the implementation of the East Beach Road Fire Post-Fire Response Plan.

Summary of Compliance Documentation Relevant to the East Beach Post-Fire Response Plan

The following table summarizes the existing NEPA or NHPA compliance in place for the BAER/BAR treatments proposed for the East Beach Road Fire. One treatment may require informal consultation with the US Fish and Wildlife Service because of potential impacts to marbled murrelet nesting habitat.

Treatment or Action	NEPA documentation (EIS, EA, or CE)	Assessment Category	Findings of Significance
O-1: BAER/BAR Plan Production	DO-12 CE: 3.3 G.1	Administration	No Significant Impact; NHPA No Potential to Cause Effect
W-1: East Beach Road and Recreation Site Closure	Superintendent's Determination to Change (36 CFR 1.5)	Watershed	No Significant Impact; NHPA No Potential to Cause Effect
F-1: Structure Protection/Barrier Placement	DO-12 CE: 3.3 G.1	Facility	Less than 4,200 acres; No Significant Impact; NHPA No Effect
F-2: Install Supplemental Culvert replacement	DO-12 CE: 3.3 G.1	Facility	Less than 4,200 acres; No Significant Impact; NHPA No Effect
F-3: Road and Culvert Cleaning	DO-12 CE: 3.3 G.1	Facility	Less than 4,200 acres; No Significant Impact; NHPA No Effect
F-4: Ongoing Ditch & Culvert Cleaning	DO-12 CE: 3.3 G.1	Facility	Less than 4,200 acres; No Significant Impact; NHPA No Effect
V-1: Hazard Tree Assessment and Mitigation	DO-12 CE: 3.3 G.1; PWR Hazard Tree Directive	Vegetation	No Significant Impact; requires continuation of emergency consultation with USFWS
V-2: Invasive Species Control	DO-12 CE: 3.3 E.2;	Vegetation	No Significant Impact; NHPA No Effect

DOI Exceptions to Categorical Exclusions

Council on Environmental Quality Regulations at 40 CFR 1508.4 require agencies to consider whether routine actions involve extraordinary circumstances that, per NEPA, trigger an agency to prepare additional documentation as to the significance of the effects. If it is determined that any of the exceptions listed in the table below apply to a proposed action, that action may not be categorically excluded, and an EA or an EIS must be prepared. The list below is a Department of the Interior list that applies to all DOI agencies (516 DM 2, Appendix 2). All treatments in this Plan have been compared against the list of Extraordinary Circumstances (below) and were found not to trigger any exceptions.

Yes	No	Extraordinary circumstances. Would this action...
	X	Have significant impacts on public health or safety?
	X	Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas?
	X	Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA Section 102(2)(E)]?
	X	Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?
	X	Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?
	X	Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects?
	X	Have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by either the bureau?
	X	Have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species?
	X	Violate a Federal law, or a State, local, or tribal law or requirement imposed for the protection of the environment?
	X	Have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898)?
	X	Limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (Executive Order 13007)?
	X	Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112)?

Consultations

David Conca, Cultural Resources Program Manager, Olympic NP
Dr. Patricia Happe, Wildlife Biologist, Olympic NP
Bill Vogel, U.S. Fish and Wildlife Service Ecological Services Division
Nelson Siefkin, PWR BAER Coordinator, National Park Service

All BAER and BAR treatments will be presented to the OLYM Interdisciplinary Team for review and discussion of the recommended compliance requirements described above prior to initiation of any of the actions.

The park initiated emergency consultation with the US Fish and Wildlife Service for federally listed marbled murrelet and northern spotted owl at the time of fire ignition and during the development of this plan. Upon completion of this BAER plan USFWS will be consulted to inform them of proposed BAER/BAR actions as a continuation of the emergency consultation.

The Washington State Historic Preservation Officer will be contacted.

Bill White, Lower Elwha Klallam Tribe Archeologist, was contacted on August 29, 2020 regarding the actions proposed in the plan. The Lower Elwha Klallam Tribal archeologist highly recommends sharing the plan with tribal fisheries staff for their review.

Prepared by: Janet Coles, EBR BAER Team Coordinator and Laura Gray, Olympic National Park Compliance Office, August 2020

Conclusion

I have reviewed the treatments in the East Beach Road Post-Fire Response Plan in accordance with the criteria above. Those actions which require additional environmental review will be analyzed and appropriate NEPA compliance completed before they can be implemented; those actions with approved existing compliance would not involve any significant environmental effect and are approved for initiation. Burned area emergency response team technical specialists have completed necessary coordination and consultation to ensure compliance with the National Historic Preservation Act, Endangered Species Act, Clean Water Act and other Federal, State and local environment review requirements.

Approved:

Superintendent, Olympic National Park

Date



ASSESSMENT OF ACTIONS HAVING AN EFFECT ON HISTORIC PROPERTIES

A. DESCRIPTION OF UNDERTAKING

1. **Park:** Olympic National Park

2. **Project Description:**

Project Name: East Beach Road Fire Post-Fire Response Plan

Prepared by: David Conca **Date Prepared:** 08/27/2020 **Telephone:** (360) 565-3053

PEPC Project Number: 97263

Locations:

County, State: Clallam, WA

Describe project:

Description will be added as soon as the information is received.

The East Beach Road Fire burned 84 acres of Olympic National Park between July 29 and August 2, 2020. The fire burned a very steep, rocky, forested slope; at the base of the slope immediately adjacent to the burn boundary are a county road (East Beach Road), a NPS day-use facility (Madrona Day Use Area) and four private properties.

The East Beach Road Post-Fire Response plan outlines emergency (short-term) and non-emergency (longer-term) activities to be undertaken to protect, stabilize, repair, or rehabilitate infrastructure and natural resources affected by the fire.

Area of potential effects (as defined in 36 CFR 800.16[d])

3. **Has the area of potential effects been surveyed to identify historic properties?**

☐ No
☒ Yes

Source or reference:

4. **Potentially Affected Resource(s):**

Archeological Resources Present: No

Historical Structures/Resources Present: No

Cultural Landscapes Present: No

Ethnographic Resources Present: No

5. **The proposed action will: (check as many as apply)**

☐ Destroy, remove, or alter features/elements from a historic structure
☐ Replace historic features/elements in kind

- No Add non-historic features/elements to a historic structure
- No Alter or remove features/elements of a historic setting or environment (inc. terrain)
- No Add non-historic features/elements (inc. visual, audible, or atmospheric) to a historic setting or cultural landscape
- No Disturb, destroy, or make archeological resources inaccessible
- No Disturb, destroy, or make ethnographic resources inaccessible
- No Potentially affect presently unidentified cultural resources
- No Begin or contribute to deterioration of historic features, terrain, setting, landscape elements, or archeological or ethnographic resources
- No Involve a real property transaction (exchange, sale, or lease of land or structures)
- Other (please specify): _____

6. Supporting Study Data:

(Attach if feasible; if action is in a plan, EA or EIS, give name and project or page number.)

B. REVIEWS BY CULTURAL RESOURCE SPECIALISTS

The park 106 coordinator requested review by the park's cultural resource specialist/advisors as indicated by check-off boxes or as follows:

[X] 106 Advisor

Name: David Conca

Date: 08/27/2020

Check if project does not involve ground disturbance []

Assessment of Effect: No Potential to Cause Effect X No Historic Properties Affected No Adverse Effect Adverse Effect X Streamlined Review

Recommendations for conditions or stipulations:

Doc Method: Streamlined Review (PA)

Streamlined Activity:

7. Hazardous Fuel and Fire Management

[X] Archeologist

Name: David Conca

Date: 08/27/2020

Check if project does not involve ground disturbance []

Assessment of Effect: No Potential to Cause Effect X No Historic Properties Affected No Adverse Effect Adverse Effect X Streamlined Review

Recommendations for conditions or stipulations:

Doc Method: Streamlined Review (PA)

Streamlined Activity:

7. Hazardous Fuel and Fire Management

No Reviews From: Curator, Historical Architect, Historian, Other Advisor, Anthropologist, Historical Landscape Architect

C. PARK SECTION 106 COORDINATOR'S REVIEW AND RECOMMENDATIONS

1. Assessment of Effect:

☐ No Potential to Cause Effects
☒ No Historic Properties Affected
☐ No Adverse Effect
☐ Adverse Effect

2. Documentation Method:

☐ A. Standard 36 CFR Part 800 Consultation

Further consultation under 36 CFR Part 800 is needed.

☒ B. Streamlined Review Under the 2008 Servicewide Programmatic Agreement (PA)

The above action meets all conditions for a streamlined review under section III of the 2008 Servicewide PA for Section 106 compliance.

Applicable Streamlined Review Criteria

(Specify 1-16 of the list of streamlined review criteria.)

7. Hazardous Fuel and Fire Management.

☐ C. Undertaking Related to Park Specific or Another Agreement

The proposed undertaking is covered for Section 106 purposes under another document such as a park, region or statewide agreement established in accord with 36 CFR 800.7 or 36 CFR 800.14.

☐ D. Combined NEPA/NHPA Process

Process and documentation required for the preparation of an EA/FONSI or an EIS/ROD to comply with Section 106 is in accord with 36 CFR 800.8.c.

☐ E. Memo to Project File

3. Consultation Information

SHPO Required: No

SHPO Sent:

SHPO Received:

THPO Required:

THPO Sent:

THPO Received:

SHPO/THPO Notes:

Advisory Council Participating: No

Advisory Council Notes:

Additional Consulting Parties: No

4. Stipulations and Conditions: Following are listed any stipulations or conditions necessary to ensure that the assessment of effect above is consistent with 36 CFR Part 800 criteria of effect or to avoid or reduce potential adverse effects.

5. Mitigations/Treatment Measures: Measures to prevent or minimize loss or impairment of historic/prehistoric properties: (Remember that setting, location, and use may be relevant.)

No Assessment of Effect mitigations identified.

6. Assessment of Effect Notes:

D. RECOMMENDED BY PARK SECTION 106 COORDINATOR:

Compliance Specialist:

NHPA Specialist

David Conca

DAVID CONCA

Digitally signed by DAVID CONCA
Date: 2020.08.27 07:22:52 -07'00'

Date: _____

E. SUPERINTENDENT'S APPROVAL

The proposed work conforms to the NPS *Management Policies* and *Cultural Resource Management Guideline*, and I have reviewed and approve the recommendations, stipulations, or conditions noted in Section C of this form.

Signature

Superintendent: _____ **Date:** _____

Sarah Creachbaum

APPENDIX B

East Beach Road Supplemental Materials



DETERMINATION TO CHANGE OLYMPIC NATIONAL PARK REGULATIONS

Consistent with applicable legislation and Federal administrative policies, and based upon a determination that such action is necessary for the maintenance of public health and safety, protection of environmental or scenic values, protection of natural or cultural resources, aid to scientific research, implementation of management responsibilities, equitable allocation and use of facilities, or the avoidance of conflict among visitor use activities, the Superintendent makes the following changes to Olympic National Park regulations:

Regulation change:

36 CFR §1.5 – VISITING HOURS, PUBLIC USE LIMITS, CLOSURES, AND AREA DESIGNATIONS FOR SPECIFIC USES OR ACTIVITIES

(a)(1) The following visiting hours, public use limits, and closures are established:

Closures:

- The following areas are closed to all public access:
 - East Beach Road from the park boundary just east of the East Beach Day Use Area to Log Cabin Resort
 - All park land located uphill/upslope of East Beach Road extending north and west to the park boundaries
 - All park land, beaches, and day use areas located between East Beach Road and Lake Crescent. Lake Crescent remains open to water-based activities.
 - Local residents are exempt from this closure. Residents are allowed to access their private property up to 2 miles west of Highway 101 along East Beach Road or east from Log Cabin Resort up to an identified interior closure just before Madrona Day Use area. Residential access may be limited at times based on observed or predicted hazardous conditions.

2. Previous regulation(s) affected by this change:

36 CFR §1.5 – VISITING HOURS, PUBLIC USE LIMITS, CLOSURES, AND AREA DESIGNATIONS FOR SPECIFIC USES OR ACTIVITIES

- These areas are normally open to public access.

3. Date of adoption: August 21, 2020

4. Reasons for change:

The East Beach Fire has created unstable debris on the steep slopes above East Beach Road. This closure is to maintain the safety of park visitors due these hazards and allow for continued post-fire work in this area.

5. Effective date(s):

Beginning on August 21, 2020 until further notice

6. Authority for adoption: Code of Federal Regulations 36 CFR 1.5

Superintendent, Olympic National Park

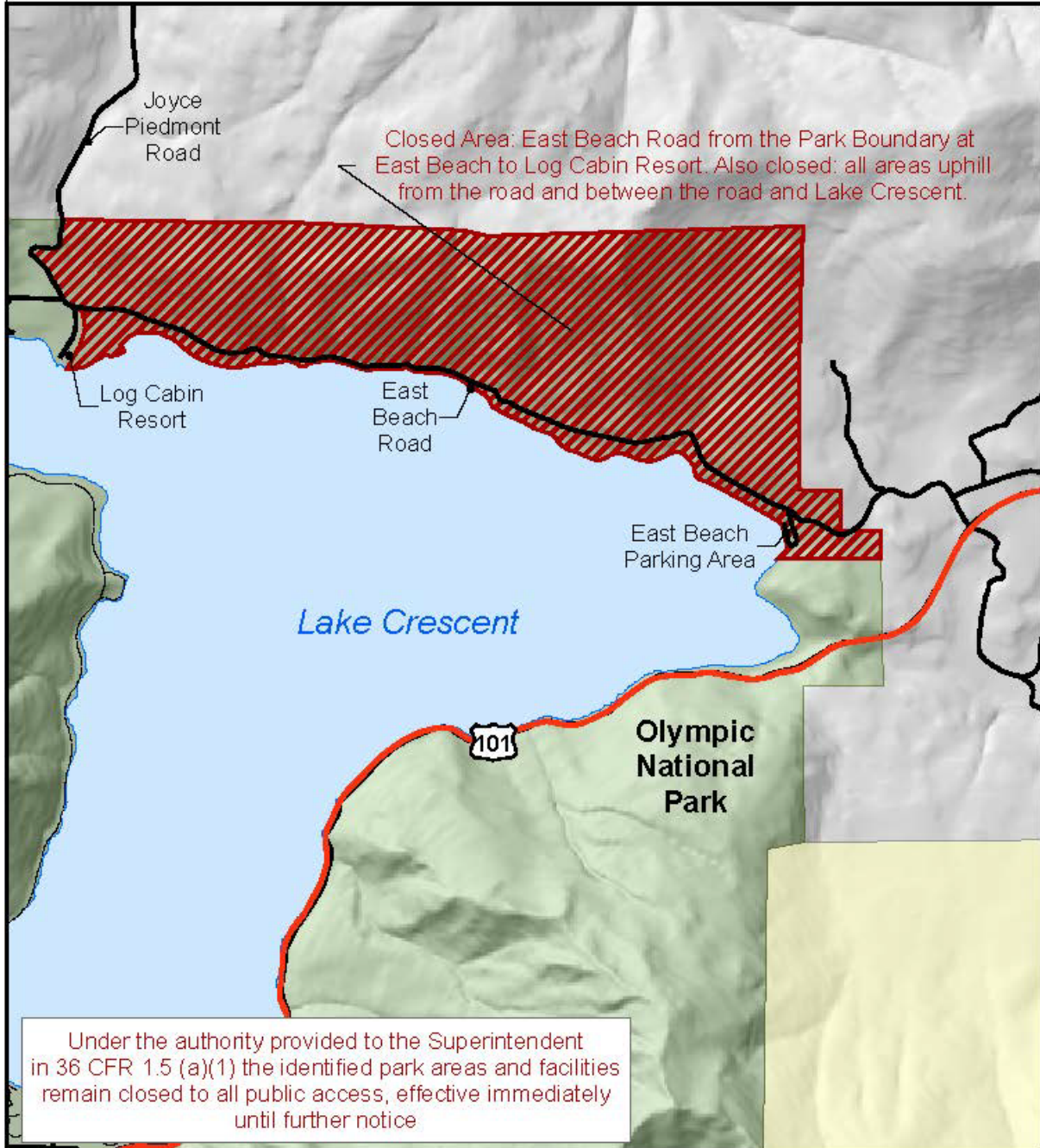
MARY CREACHBAUM

Digitally signed by MARY
CREACHBAUM
Date: 2020.08.20 18:12:12 -07'00'

Date:



East Beach Road Area Closure



Produced by Olympic NP GIS, August 2020



0 0.25 0.5 Miles



CR RESOLUTION 5, 2020

DECLARING THE TEMPORARY CLOSURE OF EAST BEACH ROAD
ROAD NO. 92210

THE BOARD OF CLALLAM COUNTY COMMISSIONERS finds as follows:

1. Due to long term concerns regarding post fire slope stability the County Engineer is recommending that the East Beach Road remain closed, effective immediately, until May 31, 2021, or until such time as it has been determined that the road is safe for public use. It has been determined that East Beach Road remain closed from its intersection with U.S. Hwy 101 (M.P. 0.00) to the access road to the Log Cabin Resort (approximately M.P. 3.16). The Clallam County Road Department will continue to coordinate, and work with the Olympic National Park evaluate the slope stability, and determine what, if any measures may be taken to minimize slope instability.
2. Accommodations will be made for the private land in-holders, Agency contractors and emergency vehicles if it is determined that access is needed during the closure period.

NOW, THEREFORE, BE IT RESOLVED by the Board of Clallam County Commissioners, in consideration of the above findings of fact:

1. That East Beach Road shall be closed completely to the public between milepost 0.00 and milepost 3.16 until construction activities are complete or May 31, 2021, whichever comes first.
2. That the private land in-holders, Agency contractors and emergency vehicles will still have access during this closure period.
3. That the Public Works Department post and publish notices as required by R.C.W. 47.48.020.

PASSED AND ADOPTED this 25th day of August 2020

BOARD OF CLALLAM COUNTY COMMISSIONERS

Mark Ozias, Chair

Randy Johnson

Bill Peach

ATTEST:

Morgan A. Gores
Lori Gores, CMC, Clerk of the Board



Please Publish: August 28, 2020

Please Bill: Clallam County Public Works/Road Department
223 East Fourth Street, Suite 6
Port Angeles, WA 98362-3000

J:\Users\mpeters2\Resolutions\2020 Res Closure of East Beach Rd.doc

**Memorandum of Understanding
between
The United States Department of the Interior
National Park Service
Olympic National Park
and
The County of Clallam**

This Agreement is entered into by and between Olympic National Park, National Park Service, and the County of Clallam, Washington.

ARTICLE I—BACKGROUND AND OBJECTIVES

The United States Department of the Interior, National Park Service (the NPS), acting by and through the Superintendent, Olympic National Park (the Park), administers approximately 922,626 acres within the counties of Clallam, Jefferson, and Grays Harbor. All or portions of East Beach Road, Joyce Piedmont Road, Camp David Jr. Road, Heart of the Hills Parkway, Hoko Ozette Road and Lake Dawn Road lie within the exterior boundaries of Clallam County (the County) and the Olympic National Park. The County and the Park agree that both parties should be involved in the management of these roads. The County and the Park agree that a minimal maintenance program can ensure safe road conditions for the public and extend the life of the road. They further agree that the implementation of timely and effective maintenance projects is the key to operating a safe transportation system.

East Beach Road, Joyce Piedmont Road, Hoko-Ozette Road, and Lake Dawn Road are paved County roads. Camp David Jr. Road, a gravel road, and Heart of the Hills Parkway, a paved road, belong to the Park.

The Park and the County both agree that the roads mentioned above must be maintained to provide proper access to both visitors of the Park and residents of the County. This Agreement documents the intent between the Park the County to perform maintenance and mutual assistance between the parties and does not obligate funds.

ARTICLE II—AUTHORITY

- A. **Federal:** This Agreement is entered into pursuant to 16 U.S.C. § 1-3.
- B. **County:** RCW 36.89.050—"A county may finance, acquire, construct, develop, improve, maintain and operate any open space, park, recreation and community facilities, public health and safety facilities, storm water control facilities and highways authorized by this chapter either solely or in conjunction with one or more governmental agencies."

ARTICLE III - STATEMENT OF WORK

- A. **The Park agrees, for the roads described in Article I above to:**

1. On East Beach Road and Joyce Piedmont Roads, the Park will perform hazard tree evaluations and removals in a timely manner when notified by the County.
2. On Camp David Junior Road to perform all road maintenance.
3. On Heart of the Hills Parkway, plow and sand the road Friday, Saturday and Sunday, when required for snow removal and/or ice control and perform all general road maintenance.
4. On Lake Dawn road, plow and sand road Friday, Saturday, and Sunday, when required for snow removal and/or ice control.
5. On Hoko-Ozette Road, the Park will perform hazard tree evaluations and removals in a timely manner when notified by the County.

B. The County agrees, for the roads described in Article I above to:

1. On East Beach Road and Joyce Piedmont Roads, the County will perform all maintenance.
2. On Lake Dawn Road, plow and sand Monday, Tuesday, Wednesday, and Thursday when required for snow and ice control, and perform all general road maintenance.
3. On Heart of the Hills Parkway, plow and sand Monday, Tuesday, Wednesday, and Thursday when required for snow and ice control.
4. Notify the Park of any hazard trees that come to their attention.
5. On Hoko-Ozette Road, the County will perform all maintenance.

C. The Park and the County Jointly Agree, for the roads described in Article I above:

1. That maintenance activities identified in Sections A and B above shall be performed by the responsible party without compensation from the other party.
2. That additional maintenance activities identified pursuant to the procedures set forth in this section shall be performed by the responsible party without compensation from the other party.
3. To conduct a planning meeting during September of each year to discuss mutual operations and agree on an annual work plan that shall include, but is not limited to, snow removal activities and planned maintenance activities. The meetings shall specifically describe current roadway conditions and identify a timeframe to start the

planning process for road maintenance. The annual work plan shall be formalized in a written document and will include, for each party, maintenance responsibilities not otherwise set forth above with associated costs. Key Officials, *infra*, shall be jointly responsible for scheduling of the meeting and for drafting and distribution of the work plan. Additional work may be considered via addenda to the annual work plan, agreed to in writing by both parties, should the necessity arise for such work at any time during the year.

4. The parties shall notify one another if funding becomes unavailable to work the contemplated annual plan or any resulting addenda. If such an event arises, then the parties will meet promptly to reallocate or redistribute responsibilities. The parties shall each be responsible for any work that has already been performed. Either party may, at its own discretion, perform work assigned to the other party, but is in no way obligated to do so.
5. Whenever conditions arise that pose extreme threats to human life or property, either agency may take immediate corrective measures.
6. That all road maintenance activities shall be performed in a manner acceptable to both agencies as determined at the annual work plan meeting.
7. That during a significant weather event, in the interest of efficiency, both agencies' Local/Coordinating Official, *infra*, remains in close communication regarding the coordination of coverage of road maintenance under this agreement.

ARTICLE IV - TERM OF AGREEMENT

This Agreement will become effective upon final signature and shall continue in full force and effect for five years. This Agreement may be extended in increments of five year periods upon mutual written consent between the Park and the County.

ARTICLE V - KEY OFFICIALS

- A. Key officials are essential to ensure maximum coordination and communications between the parties and the work being performed. They are:

1. **For the Park:**

Signatory/Administrative

Superintendent
Olympic National Park
600 E. Park Avenue
Port Angeles, Washington 98362
Telephone: 360-565-3004
Fax: 360-565-3015

Local/Coordinating

Chief of Facility Management
Olympic National Park
600 E. Park Avenue
Port Angeles, Washington 98362
Telephone: 360-565-3150
Fax: 360-565-3015

Engineering Equipment Operator Supervisor
Olympic National Park
600 E. Park Avenue
Port Angeles, Washington 98362
Telephone: 360-565-3175
Fax: 360-565-3015

2. For the County:

Administrative and Local/Coordinating

County Engineer
223 E. 4th Street, Suite 6
Port Angeles, Washington 98362
Telephone: 360-417-2448
Fax: 360-417-2513

- B. **Communications** - The County will address any communication regarding this Agreement to the Chief of Facility Management with a copy to the Superintendent. Communications that relate solely to routine operational matters described in the current work plan may be sent only to the Chief of Facility Management.
- C. **Changes in Key Officials** – Neither the Park nor the County may make any permanent change in a key official without written notice to the other party reasonably in advance of the proposed change.

ARTICLE VI – LIABILITY

- A. The NPS/Park shall be liable, to the extent allowed by law, including the Federal Tort Claims Act, for claims for personal injuries or property damage resulting from the negligent or wrongful acts or omissions of any employees, subcontractors or agents of the NPS/Park while acting within the scope of their employment, arising out of this Agreement.
- B. Clallam County shall be liable, to the extent allowed by law, including all applicable state and federal laws, for personal injuries or property damage resulting from the negligent or

wrongful acts or omissions of any County employees, elected officials, subcontractors or agents while acting within the scope of their employment, arising out of this Agreement.

- C. Clallam County and the NPS/Park shall cooperate to the fullest extent possible in the investigation and defense of any claims that may be filed with the NPS/Park or the County by a third party, arising out of this Agreement.

ARTICLE VII – ACCESS TO RECORDS

A. Access to Records

1. The parties agree to keep and maintain records concerning this Agreement, and afford the other party access to such records pursuant to a written request to the extent allowed by applicable law. The parties recognize the records maintained and exchanged pursuant to this agreement may be disclosed to the public pursuant to the Freedom of Information Act and/or Washington's Public Records Act.
2. The Park will give the County or any authorized representative the right to examine any records related to this Agreement that otherwise would be available to the County under the *Freedom of Information Act*, 5 U.S.C. §552.

ARTICLE VIII - PROPERTY UTILIZATION

- A. **Loaned Equipment** – Equipment required to perform the work of this Agreement may be loaned by one party to the other upon prior approval by the perspective Local/Coordinating and/or Key Officials. Each party shall retain title to its respective Equipment. Moreover, each party shall take reasonable steps to protect the loaned property of the other party and take steps to return said property in the same condition as received, normal wear and tear excepted. In the event of an emergency or unforeseen conditions, the parties agree to immediately return equipment upon demand, notwithstanding previously-arranged return dates. Equipment operators shall be fully qualified in accordance with the certification program applicable to their employer or by law. Unauthorized use by either party is not permitted.

ARTICLE IX – MODIFICATION AND TERMINATION

- A. This Agreement may be modified only by a written instrument executed by the parties.
- B. Either party may terminate this Agreement by providing the other party with thirty (30) days advance written notice. In the event that one party provides the other party with notice of its intention to terminate, the parties will meet promptly to discuss the reasons for the notice and to try to resolve their differences.

ARTICLE X – STANDARD CLAUSES

- A. **Civil Rights** - During the performance of this Agreement, the participants agree to abide by the terms of U.S. Department of the Interior - Civil Rights Assurance Certification, non-discrimination and will not discriminate against any person because of race, color, religion, sex, or national origin. The participants will take affirmative action to ensure that applicants are employed without regard to their race, color, sexual orientation, national origin, disabilities, religion, age, or sex.
- B. **Promotions** - The County will not publicize, or otherwise circulate, promotional material (such as advertisements, brochures, press releases, speeches, still and motion pictures, articles, manuscripts or other publications) which states or implies Governmental, Departmental, Bureau, or Government employees endorsement of product, service, or position which the repository represents. No release of information relating to the Agreement may state or imply that the Government approves of the County's work product, or considers the County's work product to be superior to other products or services.
- C. **Anti-Deficiency Act** - 31 U.S.C. § 1341 - Nothing contained in this Agreement shall be construed as binding the NPS to expend in any one fiscal year any sum in excess of appropriations made by Congress for the purposes of this Agreement for that fiscal year, or other obligation for the further expenditure of money in excess of such appropriations.

ARTICLE XI - SIGNATURES

IN WITNESS WHEREOF, the parties hereto executed this Agreement on the date(s) set forth below:

FOR CLALLAM COUNTY

FOR THE NATIONAL PARK SERVICE



Michael C. Chapman
Chairman
Board of Clallam County Commissioners

10/14/14

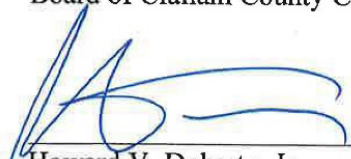
Date



M. Sarah Creachbaum
Superintendent
Olympic National Park

10/16/14

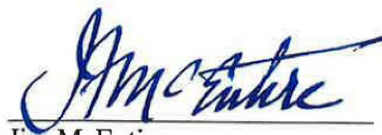
Date



Howard V. Doherty, Jr.
Board of Clallam County Commissioners

10/14/14

Date



Jim McEntire
Board of Clallam County Commissioners

10/14/14

Date