



Post-Fire BAER Assessment Burned Area Emergency Response (BAER) Information Brief

CentralWashingtonFireRecovery.info



Left Hand Fire – Values at Risk Matrix and Treatments

September 2019

EMERGENCY DETERMINATION

The BAER team began assessing the area for post-fire emergencies in August 2019. In that time the team has identified the following values at risk to post-fire threats. Interim reports may be submitted as additional assessments are completed. The risk matrix below, Exhibit 2 of Interim Directive No.: 2520-2014-1 was used to evaluate the Risk Level for each value identified during Assessment.

Probability of Damage or Loss	Magnitude of Consequences		
	Major	Moderate	Minor
	RISK		
Very Likely	Very high	Very High	Low
Likely	Very High	High	Low
Possible	High	Intermediate	Low
Unlikely	Intermediate	Low	Very Low

The table on the following pages is a summary of the values within and adjacent to the Left Hand Fire area, the threats to those values, the probability of damage or loss, magnitude of consequences and the resulting level of risk. In summary, the burned area includes an extensive and heavily used road and trail network, critical habitat for ESA-listed bull trout and chinook salmon and steelhead habitat, as well as sensitive plant communities.

Appendix 1 - Left Hand BAER - FS Critical Value Table

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High / Very High Risk							
Intermediate Risk							
Low / Very Low Risk							
Critical Value	Threat to Value	Probability of Damage or Loss	Magnitude of Consequence	Risk	Treatment	Notes	
Roads intersecting fire boundary	Potential of snags, felling of trees, flooding or other unforeseen timing of hazards	Likely, Roads within moderate/high burn severity	Major, concern for safety including potential travel delays	Very High	2 Signs - 1 on 1702 and one on 1720	Signs will be placed at road and fire boundary intersections on 1702 and 1720 roads.	
Snomobile trails intersecting fire boundary	Potential of snags, felling of trees, flooding or other unforeseen timing of hazards	Likely, Roads within moderate/high burn severity	Major, concern for safety including potential travel delays	Very High	1 Trail Sign	Sign will be placed on the Rock Creek Groomed Trail that enters the burned area.	
FSR 170200 road prism ML3, 0.000 miles in or below high/moderate burn area	Elevated runoff and dry ravel from moderate-high SBS burned hillslopes	Unlikely- Road travels through or is below Low to unburn soil severity.	Major- Loss of road prism and increased sedimentation into Rock Creek that affects fish critical habitat	Intermediate	Intermediate rating does not warrant BAER treatment under BAER policy as it is property, not life and safety	Risk rating does not warrant treatment	
FSR 172000 road prism ML3, 0.288 miles in or below high/moderate burn area	Elevated runoff and dry ravel from moderate-high SBS burned hillslopes	Likely, Roads within moderate/high burn severity	Major- Loss of road prism and increased sedimentation into Rock Creek that affects fish critical habitat	High	No BAER treatment, road repair is being handled by suppression repair	Suppression Repair doing road repairs	
FSR 170200 road prism ML2 0.254 miles in or below high/moderate burn area	Potential scour in high flows	Likely, Crossing at major drainage	Moderate- Loss of road prism and increased sedimentation into Rock Creek that affects fish critical habitat	High	Construct 1 armored dip at major drainage crossing	Hydro model at crossing estimated to have almost double flow in post fire conditions	
FSR 1702552 road prism ML2 0.020 miles in or below high/moderate burn area	Potential scour in high flows	Likely, Crossing at major drainage	Moderate- Loss of road prism and increased sedimentation into Rock Creek that affects fish critical habitat	High	Construct 1 armored dip at major drainage crossing	Hydro model at crossing estimated to have almost double flow in post fire conditions	
FSR 1702556 road prism ML2 0.162 miles in or below high/moderate burn area	Elevated runoff and dry ravel from moderate-high SBS burned hillslopes	Very Likely, increased flow and large woody debris in draws and culverts could erode roadway at point of flow	Moderate- Loss of road prism and increased sedimentation into Left Hand Fork that affects fish critical habitat	Very High	Construct 1 Armored Dips and 1 Rolling Dip	Road is adjacent to Left Hand Fork that empties into Rock Creek and failure would cause increased sedimentation into Creek that serves as critical T&E habitat	
FSR 1721000 road prism ML2 0.119 miles in or below high/moderate burn area	Elevated runoff and dry ravel from moderate-high SBS burned hillslopes	Likely, increased flow and large woody debris in draws and culverts could erode roadway at point of flow	Moderate- Loss of road prism and increased sedimentation into Left Hand Fork that affects fish critical habitat	High	Construct 2 Armored Dips	Road is adjacent to Left Hand Fork that empties into Rock Creek and failure would cause increased sedimentation into Creek that serves as critical T&E habitat	

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Intermediate Risk							
Low / Very Low Risk							
Critical Value	Threat to Value	Probability of Damage or Loss	Magnitude of Consequence	Risk	Treatment	Notes	
FSR 1721558 road prism ML2 0.135 miles in or below high/moderate burn area	Elevated runoff and dry ravel from moderate-high SBS burned hillslopes	Likely, increased flow and large woody debris in draws and culverts could erode roadway at point of flow	Moderate- Loss of road prism and increased sedimentation into Left Hand Fork that affects fish critical habitat	High	Construct 1 Armored Dips	Road is adjacent to Left Hand Fork that empties into Rock Creek and failure would cause increased sedimentation into Creek that serves as critical T&E habitat	
ML 2 Roads not surveyed, Further assessment required.	Potential scour in high flows	Likely, increased flow and large woody debris in draws and culverts will overtop roadway	Moderate- Loss of road prism and increased sedimentation into drainage that affects fish critical habitat	Intermediate	To be determined	Road was not surveyed due to time constraints or was inaccessible. Further evaluation necessary.	
ML 1 Roads not surveyed, Further assessment required.	Potential scour in high flows	Possible- Roads within minimal burn severity.	Minor- Loss of road prism and increased sedimentation into drainage that affects fish critical habitat	Low	To be determined	Road was not surveyed due to time constraints or was inaccessible. Further evaluation necessary.	
Cultural and Heritage Resources Sites	Loss of scientific data present at archaeological sites due to erosion and looting	Unlikely	Moderate	Low	Intermediate Risk to resource does not warrant treatment		
Soil productivity and hydrologic function	Loss of ash cap and surface soil through erosion and debris flows, decreased infiltration, damming and sedimentation of waterways	Likely: areas of steep slopes, highly erodible soils, loss of canopy and ground cover, increased runoff and loss of water control at stream crossings	Moderate: loss of ash cap is not recoverable, short-term recoverable effects to hydrologic function at the whole watershed level, stream crossings at risk from hyper-concentrated flow, floating debris, loss of control of water,	High	No land treatment recommended--no cost-effective treatment available; treat roads to minimize post-fire debris dam potential and crossings, channel scour, increased erosion and sedimentation to stream		
Cutthroat trout and sculpin are known to occupy reaches of Left Hand Creek in the burned area, therefore there is potential for threatened steelhead. There is no identified Critical or Essential Habitat identified in the fire area.	Loss of habitat due to excess runoff, sedimentation, increased turbidity, and duration and magnitude of sediment load	Very Likely	Minor	Low	Intermediate Risk to resource does not warrant treatment		

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	Critical Value	Threat to Value	Probability of Damage or Loss	Magnitude of Consequence	Risk	Treatment	Notes
	Native Plant Communities	Invasive plant spread and establishment	Very Likely	Moderate	Very High	22 acres of suppression repair EDRR for dozer line, staging areas and roads used as contingency lines on which significant ground disturbance (blading) has occurred. 44 acres of EDRR in areas of moderate and high burn severity at risk for establishment of non-natives	Monitoring of the adjacent 2016 Rock Creek Fire shows that invasives established in areas of low, moderate and high soils burn severity, therefore assume risk of spread in this area. 51 acres of dozer line was constructed across ownerships. Treatment is proposed only for NFS lands.