



Central Washington 2012 Wildfires Burned Area Emergency Response (BAER) Information Brief – October 19, 2012

BAER Information: (208) 398-3348

YAKIMA COMPLEX Burned-Area (BAER) Report (FS-2500-8)

Fire Background

The Yakima Complex of fires started on Saturday, September 8, 2012, during a significant lightning storm. The fires burned a total of 2,300 acres in Yakima and Kittitas counties, Washington. The largest fire within the complex is the Wild Rose Fire. The other smaller fires are French Cabin Creek, Gold Hill, Kettle Creek, (located in the William O. Douglas Wilderness area), and Hell Creek (located in the Goat Rocks Wilderness area) fires.

The Yakima Complex is currently 90% contained. The Forest's fire managers have not yet declared a date for the fires in this complex to be considered fully controlled.

FS-2500-8 Burned-Area Report -- Analysis

A Forest Service Burned-Area Report, that included the BAER assessment team's analysis of the burned area and recommended emergency treatments, was submitted to the Pacific Northwest (Region 6) Regional Forester by the Forest Supervisor for the Okanogan-Wenatchee National Forest on October 15, 2012:

Total burned acres analyzed: 2,208 acres (2,158 acres of NFS land; 50 acres of State land) in the following watersheds: Tieton River-Naches River, and Little Naches River.

There are 4.3 miles of intermittent streams within the burned area.

There are no roads and 2.0 miles of trails within the burned area.

On October 5, the U.S. Forest Service Remote Sensing Application Center (RSAC) in Salt Lake City, Utah, provided the BAER team with an initial Burned Area Reflectance Classification (BARC) satellite imagery map. The team utilized aerial reconnaissance flights and field surveys to finalize a soil burn severity map for each of the large wildfires.

There are 225 acres of high soil burn severity (9%), 4 acres of moderate soil burn severity (0%), and 1,979 acres of low soil burn severity/unburned (91%).

Due to the size of the fire, depth of hydrophobic effects and topography of the fire area; only the high soil burn severity areas were determined to have strong contiguous water repellency.

The post-fire area has an erosion potential of 49 tons of erosion per acre from a 24-hour/25-year storm event of 3.3 inches. There is potential for accelerated sedimentation from the effects of the fire. The increased erosion can result in downstream sedimentation, which can bulk flows resulting in increased flooding impacts. This sediment may impair critical habitat for Threatened and Endangered (T&E) species. The loss of soil can impair soil productivity in the short and potentially long-term future.

It is estimated that the burned area has a 5-year recovery period to re-establish vegetation. The major concern for vegetative recovery and, in turn, hydrologic recovery is in the high severity burn areas.

Identified Values-at-Risk

Threats to the values-at-risk listed below are analyzed by the BAER team for impacts from the potential for increased water flows, loss of water control, increase sediment delivery, increased debris flow, establishment of invasive weeds, and habitat degradation for federally threatened species exist.

A risk matrix (Probability of Damage or Loss and the Magnitude of Consequences) was used to evaluate the risk level for each value identified during the BAER assessment:

Human Life/Safety

There is no imminent threats within and adjacent to the burned watersheds of the fire area.

Property

ROADS: The fires within the Yakima Complex have very little or no road access, or directly affect roads outside of the Forest boundary (US Highway 12); therefore, these fires were not surveyed by the BAER Engineers.

TRAILS: There were no critical values or emergency threats identified to trails and/or recreation values for the Yakima Complex.

Natural Resources

SOILS: High and moderate soil burn severity in all complexes may impact soil productivity. It is assumed that both severity classes will react similarly and are considered to produce an erosion potential that will create a loss to soil productivity. The majority of the area is too gentle to warrant emergency treatment, when soil burn severity mapping is compared with acceptable slopes for treatment (20% to 50%). The remaining acreages were too small to justify purchase of supplies, mobilization of equipment. Since this is a rapid assessment it is recommended that the Forest conduct additional survey to see if any ground treatments are warranted, especially within the areas of high soil burn severity that are under green canopy.

HYDROLOGY: The potential values at risk identified include road and trail infrastructure, human life and safety, and water quality, due to increased bulk flows. The hydrologic models

within the Yakima Fire Complex show increased peak flows. While there are large percentage changes in the Wild Rose Fire burned area, the absolute magnitude of the amount of flows that are anticipated, is not expected to cause widespread problems within the landform. However, a large scale event may produce floods capable of impacting the highway and campground.

T&E PLANTS: Impact of the fire and fire suppression activities on federally and state listed plant species may reduce a species existing distribution and result in a loss of species viability or create significant trends towards federal listing.

NOXIOUS WEEDS: The areas that had high severity fires are at a greater risk for invasion by noxious weeds species. Both noxious weed seeds present in the seed bank soil layer and those introduced during suppression efforts pose a high risk of replacing the native plant community, thus affecting the entire succession of post burn plant communities. The weeds identified to be controlled are all known to benefit by fire through increased seed germination and being highly competitive in bare and disturbed soils.

THREATENED AND ENDANGERED (T&E) WILDLIFE: The species known to occur in or near the fire complexes include the northern spotted owl (*Strix occidentalis caurina*), and a suite of wide-ranging carnivores: gray wolf (*Canis lupus*), North American wolverine (*Gulo gulo*), Canada lynx (*Lynx canadensis*), and grizzly bear (*Ursus arctos horribilis*). Wide ranging carnivore species were not likely directly impacted by the fire. They are mobile and are generally able to escape a fire, although, disturbance from the fire itself and suppression activities, as well as habitat loss, may have displaced individual animals. Although spotted owl habitat may be found across a large portion of the National Forest, proposed treatments have focused on the Wenatchee Complex and Table Mountain Fire.

T&E FISHERIES: One fire was examined within the Yakima Complex (Wild Rose) and BAER treatments are unlikely to reduce effects on listed fish habitat.

Cultural Resources

A total of four cultural resource sites were identified as “potential values at risk” within the fire perimeter. GIS analysis using the BARC severity layer shows that all four sites occur in unburned/low burn severity. Following field surveys, it was determined that none of these sites are at risk of damage from post-fire effects, erosion or information loss.

Emergency Stabilization Treatments

Treatment Objectives

LAND TREATMENTS

Noxious Weeds

Due to the small size, lack of accessibility and/or the low probability of invasive species occurring in the fires of the Yakima Complex, these fires are no emergency treatments are recommended in this report but will be proposed in the spring 2013 with an interim report.

Recommended Emergency Treatments

No emergency treatments wer recommended for the Yakima Complex in this report but may be proposed in the spring 2012 with an interim report.

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Central Washington BAER Team information is available at <http://inciweb.org/incident/3292/>.
Also, follow us on Twitter at <http://twitter.com/OkaWenNF>.

