Forests in the Gorge: Building Resilience in a Changing Climate

Glenn Ahrens, OSU Extension Forestry & Natural Resources
Forests in the Columbia River Gorge and NSA

• forest types, fire regimes and fire return intervals.
• drought, fires, and other forest trends in the region,
• forest health, pests and pathogens.
For most forests in the Gorge, it is a matter of “when” not “if” fire returns.

<table>
<thead>
<tr>
<th>Forest Type</th>
<th>Fire Return Interval (years)</th>
<th>Fire Severity Tree Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oregon white oak woodland</td>
<td>2-50</td>
<td>Low</td>
</tr>
<tr>
<td>Ponderosa Pine</td>
<td>4-25</td>
<td>Low</td>
</tr>
<tr>
<td>Douglas-fir (Willamette Valley foothills, eastern CR Gorge)</td>
<td>50-150</td>
<td>Mixed</td>
</tr>
<tr>
<td>Douglas-fir/western hemlock</td>
<td>100-400</td>
<td>High</td>
</tr>
<tr>
<td>Lodgepole Pine</td>
<td>80-200</td>
<td>High</td>
</tr>
<tr>
<td>Subalpine forest</td>
<td>100+</td>
<td>High</td>
</tr>
</tbody>
</table>

http://www.fs.fed.us/database/feis/fire_regime_table/PNVG_fire_regime_table.html#PacificNorthwest
Figure 5.4—Geographic distribution of vegetation zones across Columbia River Gorge National Scenic Area.
Figure 3. Current (left) and future (right) moisture stress levels based on water balance deficit. Low levels are associated with moist and cold forest types, high with dry forest types, and very high with woodland or shrub-steppe. Future climate is based on a business as usual greenhouse gas emissions scenario (RCP 8.5).
Forests in the Columbia River Gorge and NSA

• Ecological resilience – understanding the different forest types.
• Coping with drought, pests, fire – understanding vulnerability and causal factors.
• Forest health/restoration – planning and implementing actions based on our knowledge and understanding.
Landscape Scale Forest Management for fire resistance/resilience and health

• DNR 20-Year Forest Health Strategic Plan for eastern Washington: https://www.dnr.wa.gov/ForestHealthPlan

• Klamath-Lake Forest Health Partnership https://catalog.extension.oregonstate.edu/pnw707
20-Year Forest Health Strategic Plan: Central and Eastern Washington
**Planning Area Highlights**

- This planning area is primarily dry forest land surrounding the lower Klickitat River. Non-forest vegetation is an important component of areas east and south of the Klickitat River.
Figure 9. Landscape treatment priority is based on three metrics of forest health – forest fire risk (Fig. 1), drought vulnerability (Fig. 3), overabundant forest structure (Fig. 4) – as well as wildfire transmission to homes (Fig. 8).
Planning and Implementing Cross-boundary, Landscape-scale Restoration and Wildfire Risk Reduction Projects

A Guide to Achieving the Goals of the National Cohesive Wildland Fire Management Strategy

Daniel Lowrey, Amy Marlowe, Craig Blom, Kellie Corben, Emily Jane Davis, Michael Douglas, David F. Ferguson, Lee Fladderjohn, Kaye Johnson, Ned Livingston, Jason Pettigrew, Gene Rogers, Marcel Schreder, Dan Shoun, and Leigh Ann Whadenburg
CHILOQUIN COMMUNITY FOREST & FIRE PROJECT

OVERVIEW
The Chiloquin Community Forest and Fire Project (CCFFP) will restore forest health and resiliency on 32,000 acres of private forestland near Chiloquin, Oregon, by engaging the community and implementing phased treatment of overstocked dry-type forests. The entire area is high-risk for wildland fire as identified in the Chiloquin Community and Klamath County Wildfire Protection Plans.

OUTREACH
Outreach, education, and engagement of the 2,850 landowners in the project area is a multi-year effort that will build a stakeholder base to promote forest management and maintain treated areas for long-term community benefits. KLFHP reaches out to landowners through mailings, meetings, workshops, phone calls, social media, and in-person discussions. All outreach contacts, permissions, and site-visits are captured in a project database that is georeferenced and linked to taxlot information, vegetation data, and wildfire risk assessments.

MAPPING
In spring 2017, a preliminary analysis of all private lands in the project area was completed using high resolution aerial imagery. This mapping, done at 1:15,850 scale, delineates stand boundaries and includes an initial classification of overstory cover type, age, and density. In summer and fall 2017, field validation of forest mapping was conducted by public roads and on properties where landowners were engaged and had granted permission. Stands were classified as high, moderate, and low priority for forest health and fire risk to communities.
Map of the Chiloquin Community Forest and Fire Project

Chiloquin Community Forest and Fire Project: Landowner Outreach and Education Plan

Ownership Categories (forested parcels only)
- Category 1: Subdivisions with Home Owners Association (HOA) or Road District (RD)
- Category 2: Subdivisions without HOA
- Category 3: Mid-sized Tax Lots (<10 acres)
- Category 4: Larger Tax Lots (>10 acres)
- Not Forested


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Landscape Scale Forest Management for fire resistance/resilience and health

• facilitate restoration projects on public and private forestland in through education outreach and diverse partnerships.

• assist in achieving fire resistance, fire response, forest health, wildlife habitat, and other objectives

• on private land on a landscape-scale, in association with public lands.
Community resilience: Reducing fire risk, preparing homes and communities

- Programs available to landowners, other agencies in the Gorge
- State and federal programs in the Gorge
- OSU Extension regional fire specialist - facilitating partnerships to plan and implement resilience work
Keeping Your Home and Property Safe from Wildfire

A Defensible Space and Fuel Reduction Guide for Homeowners and Landowners

Max Bennett, Stephen Fitzgerald, Alicia Jones, Kara Baylog

EM 9184
December 2017
FIREWISE USA
Residents Reducing Wildfire Risk

- Utilize Firewise resources and local contacts to help you.
- Assessment of Home Ignition Zone and adjacent landscaping or woodlands.
- Implementation of wildfire preparation
Oregon Resources

Oregon Department of Forestry Online Resources:
https://www.oregon.gov/odf/Pages/index.aspx
Fire: https://www.oregon.gov/odf/Fire/Pages/default.aspx
Fire Prevention:
https://www.oregon.gov/odf/fire/Pages/fireprevention.aspx

Oregon Department of Forestry
The Dalles Unit (541) 296-4626 www.odfcentraloregon.com

Oregon State University Extension https://extension.oregonstate.edu/find-us
Washington Resources

Department of Natural Resources (DNR)
- Forest Resiliency Division - wd@dnr.wa.gov; 360-902-1300
- Forest Regulation Division - fpd@dnr.wa.gov; 360-902-1400
- Pacific Cascades Region (westside) pacific-cascade.region@dnr.wa.gov; 360-577-2025; Castle Rock, WA
- Southeast Region (eastside) southeast.region@dnr.wa.gov; 509-925-8510; Ellensburg, WA

Washington State University Extension - https://extension.wsu.edu/locations/
Incentives and resources – Farm Bill

U.S. Department of Agriculture and Natural Resources Conservation Service (NRCS)

- Conservation programs - Environmental Quality Incentives Program (EQIP), Regional Conservation Partnership Program (RCPP) and Healthy Forests Reserve Program (HFRP)

- Markets and innovation - Community Wood Energy Program (CWEP) and the Timber Innovation Act (TIA)

- U.S. Forest Service Landscape Scale Restoration program

- Cross-boundary project grants to reduce hazardous fuels

NRCS The Dalles Service Center
2325 River Road, #3, The Dalles, Oregon 97058
Phone: (541) 298-8559

NRCS Goldendale Service Center
1107 South Columbus Avenue, Goldendale, WA 98620-9268
Phone: (509) 773-5822

NRCS Hood River County Field Office
6780 Hwy 35, Parkdale, OR 97041
Phone: 541-352-1037
Conservation Districts

Oregon Soil & Water Conservation Districts

East Multnomah Soil and Water Conservation District
Portland, OR | Phone: 503 222-SOIL
Website: www.emswcd.org | Email: andrew@emswcd.org

Hood River Soil and Water Conservation District
3007 Experiment Station Drive Hood River, OR
Phone: 541 386-4588 (call first)
Website: www.hoodriverswcd.org | Email: info@hoodriverswcd.org

Wasco County Soil and Water Conservation District
2325 River Road, Suite 3 The Dalles, OR
Phone: 541 296-6178 Ext. 3
Website: www.wascoswcd.org | Email: wasco.swcd@oacd.org

Sherman County Soil and Water Conservation District
302 Scott Avenue | P.O. Box 405, Moro, OR
http://sherman.oacd.org/ Phone: (541) 565-3551

Washington Conservation Districts

Clark County Conservation District
(360) 859-4780 | 813 West Main Street, Suite 106 Battle Ground, WA 98604 | staff@clarkcd.org

Underwood Conservation District
Office: 170 NW Lincoln, White Salmon, WA 98672
Phone: (509) 493-1936 | Email: info@ucdwa.org

Central Klickitat Conservation District
1107 S Columbus Ave, Goldendale, Washington 98620
Phone: (509) 773-5823 EXT 5 | Monday - Friday 8:00 - 4:00 | cdoffice@ckcd.org
The Forestry & Natural Resources Extension Fire Program assists in identifying landscapes in highest need of a strategic focus of resources.

https://extension.oregonstate.edu/fire-program
OSU Extension Contact

Glenn Ahrens, OSU Extension Forester
Clackamas, Marion, & Hood River Counties
503-655-8631  glenn.ahrens@oregonstate.edu

Resources from tonight’s program will be emailed to all participants