

COLUMBIA RIVER GORGE NSA

**5-YEAR ACTION PLAN
FOR IMPROVING FOREST RESILIENCY**



Introduction

This document is in response to the April 19 request for our 5-year plan for accelerating vegetative treatments that change condition class. The Columbia River Gorge National Scenic Area (CRGNSA) is unique. Landownership within the CRGNSA is mixed with state, private, federal and tribal ownerships. National Forest is interwoven with these other ownerships. This document presents a preliminary plan for management of the forested 70 thousand acres of National Forest System lands within the CRGNSA.

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PART I-ASSESSMENT

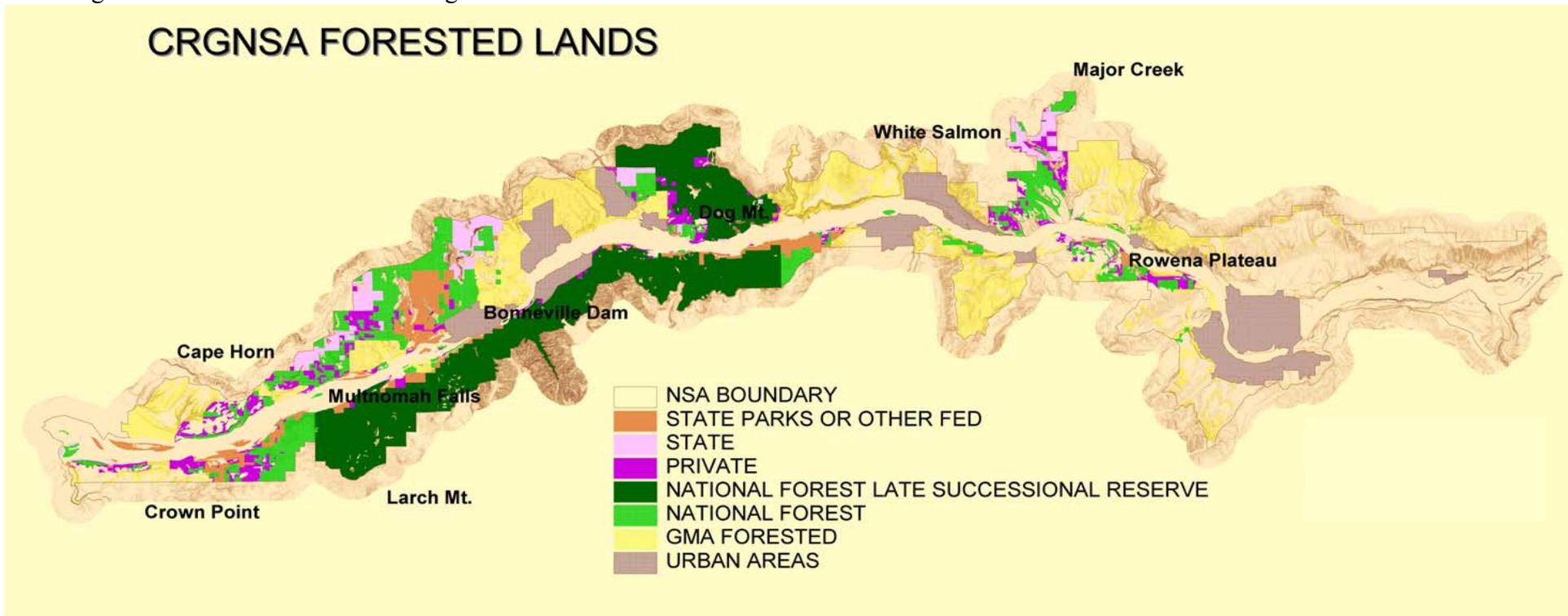
Introduction

The CRGNSA was assessed by an interdisciplinary team using a combination of field knowledge, existing databases, GIS layers, and previous assessments to develop a series of maps indicating the condition of the forest ecosystems with respect to the degree of resiliency to risk of catastrophic fire, drought, insect infestation, or stand conversion.

The Gorge was chiseled by a dramatic series of floods, known as the Bretz floods, about 10,000 years ago. These floods created the dramatic basalt cliffs, waterfalls, and steep mountain sides of the Gorge as we see it today. The Gorge acts as a low elevation east-west corridor through the Cascade Mountain chain. On the west side, rain fall varies between 30 and over 100 inches/year, supporting vigorous conifer forest communities. On the east side of the Cascades, rain fall drops from over 100 inches to under 10 inches/year within 40 miles. The conifer communities transition to oak/pine communities and finally become grass-steppe near The Dalles. As a result of all of these factors, the Gorge contains a diverse set of vegetation communities underlain by a diverse topography together providing a diversity of habitats for a large variety of plants and wildlife.

The north-facing Oregon side of the Gorge tends to be shaded, cooler, and wetter, while the southern aspects of the Washington side are warmer and drier. Fire was the most important disturbance process which means that fire suppression has changed the disturbance regimes and the mixed ownership pattern means that these changes affect both people and wildlife.

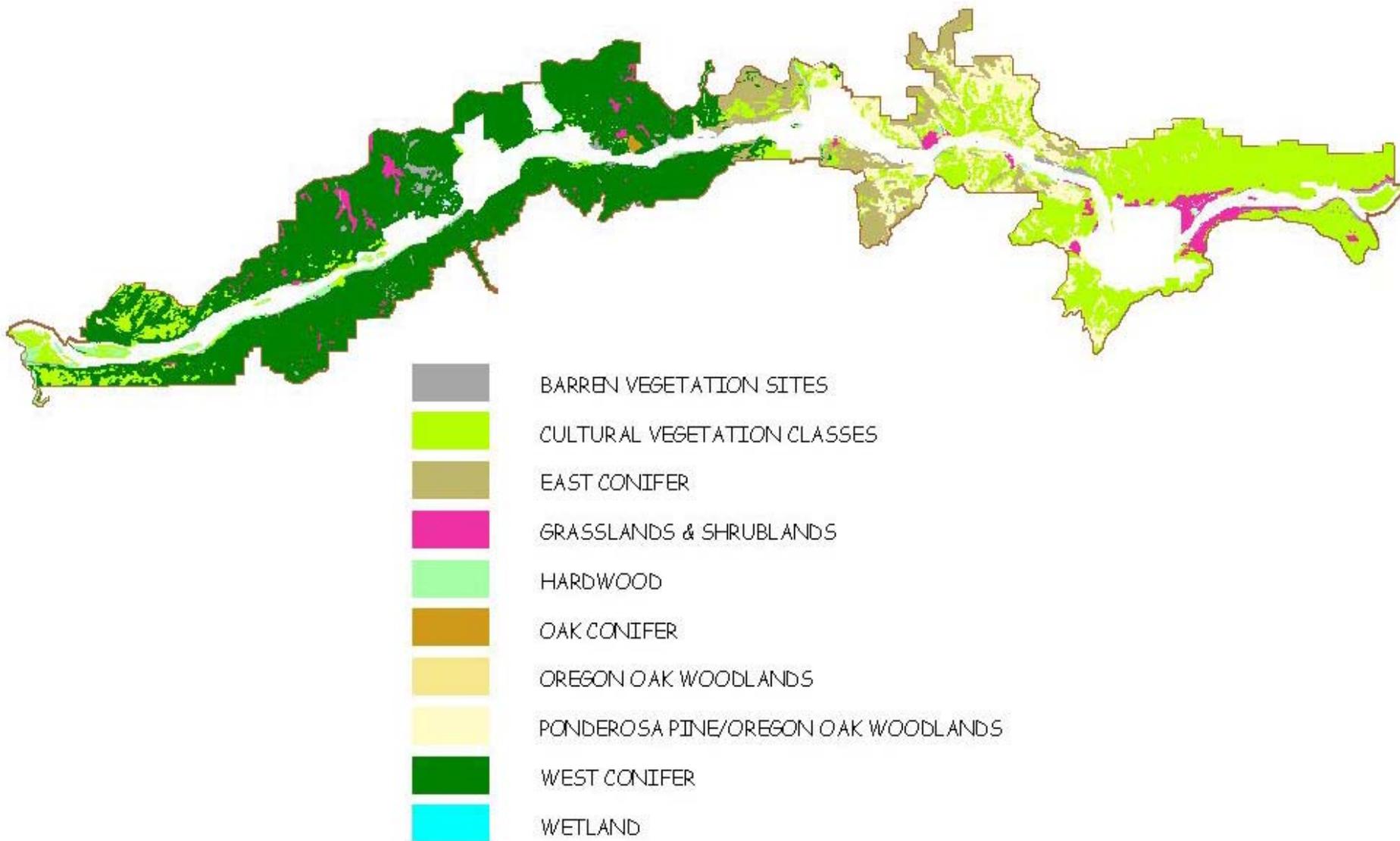
The map shown below depicts the basic land ownership of the CRGNSA. The large blocks of National Forest System lands are primarily in Oregon on the western end of the Gorge:



Vegetation Types

The map below depicts the major vegetation types of the Scenic Area. Western coniferous forests with patchy stand replacement fire regimes transition to under-burning forests of large trees and few disturbance-caused openings. The transition zone begins near Wind and Shellrock mountains:

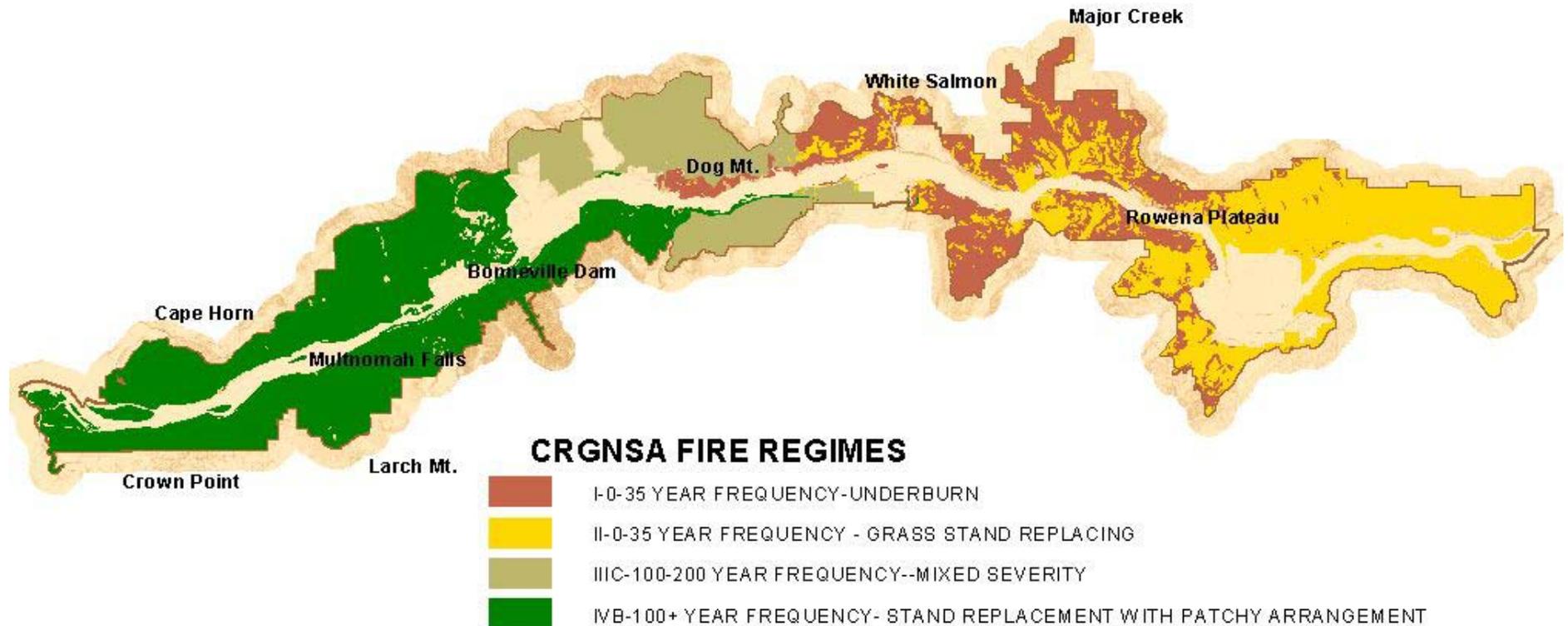
CRGNSA VEGETATION TYPES



Fire Regimes

The following table summarizes the possible natural fire regimes used by the interdisciplinary team to determine which fire regimes were represented in the CRGNSA. The map depicts the subset of natural fire regimes represented:

Fire Regime	Frequency	Severity
I	0-35 years	Low severity (underburn)
II	0-35 years	High severity (stand-replacing)
III A	< 50 years	Mixed severity
III B	50-100 years	Mixed severity
III C	100-200 years	Mixed severity
IV B	100+ years	High severity (stand-replacing), patchy arrangement
IV C	100-200 years	High severity (stand-replacement)
V A	200-400 years	High severity (stand-replacing)
V B	400+ years	High severity (stand-replacing)

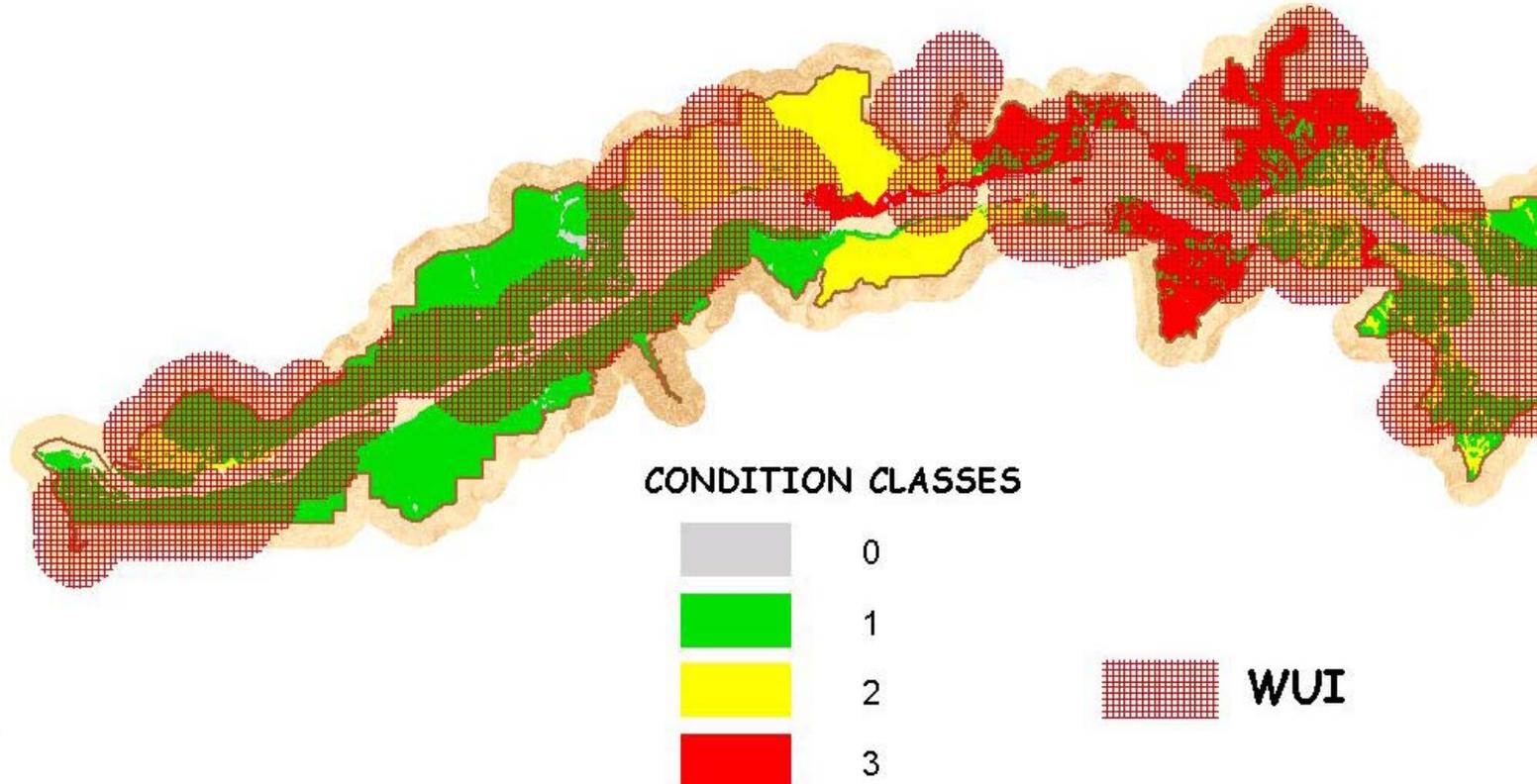


Condition Class

The table below summarizes each fire regime, its condition class, and whether or not it is located in the wildland-urban interface: Wildland-Urban interface defined as 1.5 miles from an at-risk community as per HFRA.

CRGNSA NATIONAL FOREST SYSTEM LANDS AT RISK			
FIRE REGIME	CONDITION CLASS*	WUI	ACRES at Risk
I	2	Y	1,572
I	3	N	660
I	3	Y	4,387
III C	2	N	9,636
III C	2	Y	4,061
IV B	1	Y	5,268
(TOTAL FORESTED ACRES:70,000) TOTAL AT RISK:			25,584

- * **Condition Class 1**-Minimally altered fire regime, moderate risk for losing key ecosystem components, little change to pattern, size, frequency, or severity of fires.
- Condition Class 2**-Moderately altered fire regime, moderate risk for losing key ecosystem components, moderate change to pattern, size, frequency, or severity of fires.
- Condition Class 3**-Significantly altered fire regime, high risk for losing key ecosystem components, dramatic change to pattern, size, frequency, or severity of fires.

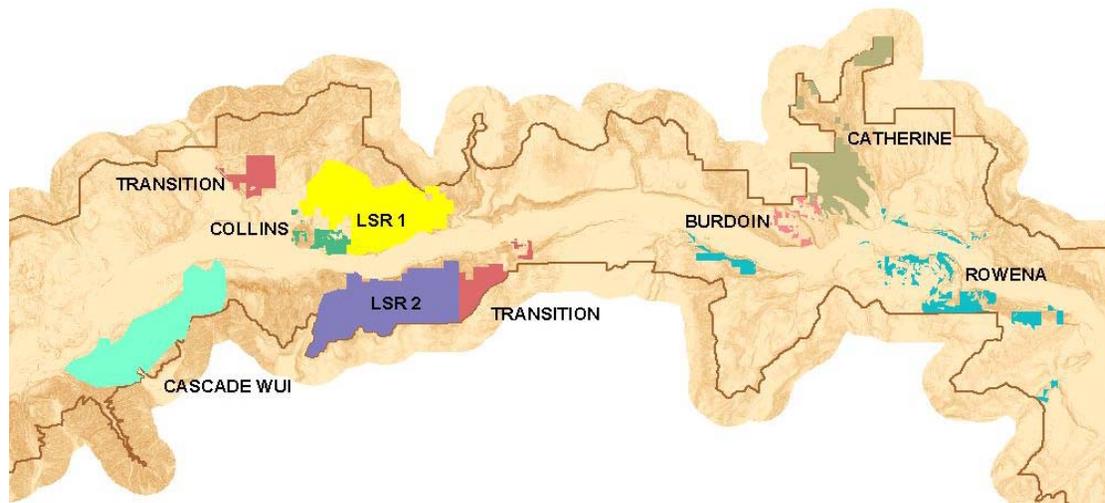
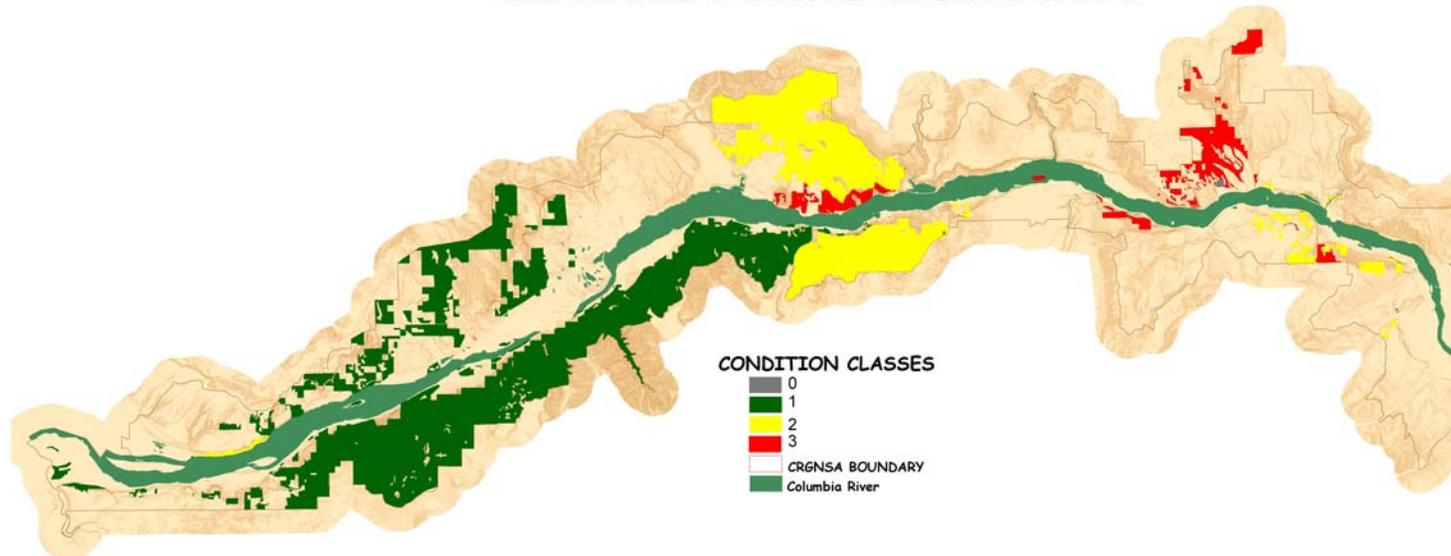


Conclusion

There are approximately 25,000 acres of National forest in the CRGNSA at risk for losing key ecosystem components or located within a wildland-urban interface. These areas were divided into treatment areas from 2,000 to 6,000 acres in size for purposes of prioritization, planning, collaboration, and development of a variety of implementation options. The maps below depict the condition of the NFS lands and the proposed treatment areas:

PART II-MAP OF TREATMENT AREAS

CONDITION CLASSES NATIONAL FOREST SYSTEM LANDS IN CRGNSA



TREATMENT AREA ACRES	
BURDOIN	137
CASCADE WUI	5200
CATHERINE	3200
COLLINS	1500
LSR 1	6100
LSR 2	5900
ROWENA	2300
TRANSITION	2100

PART III-COLLABORATION, COOPERATION, AND COMMUNICATION

Project Planning

The project priority and schedule table on page 12 lists each treatment area and the planned data collection, planning, implementation, and prescribed fire maintenance years. The project planning size was modeled after the successful Medford District BLM projects presented at the Creating Fire Resilient Landscapes conference. Planning a larger area allows more flexibility and variety of implementation methods. It also means that most of our environmental documents will most likely be EAs. This is probably the best course in the CRGNSA as the interested public will be more comfortable with using the conventional processes. Each project will be formally monitored and the monitoring results will be applied to the next treatment unit.

Implementation Tools

Planning larger areas will allow the use of long term Stewardship contracting. We anticipate each planning area will contain a combination of force account work, volunteer work, conventional contracting and Stewardship contracting. The treatment units are planned for maintenance of desired conditions using prescribed fire, rather than repeating mechanical treatments.

Cooperation

The Table on page 10 lists each treatment area along with the potential partners and interested parties. Please refer to that chart to align a treatment area with potential partners and for a more complete list of potential partners. Described below are current relationships the Forest Service developed in the CRGNSA regarding fire prevention and vegetation treatment needs and priorities:

City of Cascade Locks and City of White Salmon

CRGNSA staff is currently contributing to meetings concerning fire prevention (including fuels management) organized by city planners in addition the regular meetings of the Columbia Gorge Local Coordinating Group.

Burdoin Mt. Residents

The Burdoin Mt. project was coordinated with the efforts of local residents on Burdoin Mt. to reduce fuel loading around their homes. The upper half of this treatment area is scheduled in this document to be completed in 2005.

Oregon Department of Transportation

CRGNSA staff is currently offering technical assistance to ODOT's forester in order to facilitate their efforts to treat and control vegetation when necessary to protect safety along the Interstate 84. The establishment of this relationship will contribute a new line of communication concerning treatment needs on National Forest System Lands.

Rowena Dell Homeowners Association

CRGNSA NF System lands border the housing development in Rowena Dell. We are working with the neighborhood association on the establishment of a permit to allow them to keep fuels down on NF lands surrounding the development. We are planning fuels reduction on NF at a larger landscape level surrounding the area.

Gifford Pinchot and Mt. Hood National Forest

The CRGNSA Vegetation team includes employees from the Gifford Pinchot NF in order to share skills. In addition, the CRGNSA fire staff assists both the Mt. Hood NF and the GPNF on meeting their prescribed burning targets. We have agreed to move people and money where the work is needed as the basis of our contingency planning.

WADNR and ODF Firewise Landscaping and Defensible Space and National Fire Plan Grants

Our staff is cooperating with these agencies in order to help them navigate the complex planning regulations in the CRGNSA. We are also planning our treatment units to coincide with the efforts of communities actively taking advantage of this program.

WDFW

We have developed a relationship with Washington State Fish and Wildlife regarding prescriptions for restoring oak woodlands.

Communication Plan

The primary communication and education plan objective is to identify and involve key internal and external audiences who are crucial in successful program implementation in a collaborative manner. A public involvement and education plan will be developed to inform, involve, and educate communities, special interests groups, local, state and federal agency partners, tribal governments, adjacent forests, elected officials, and the residents within the Columbia River Gorge National Scenic Area.

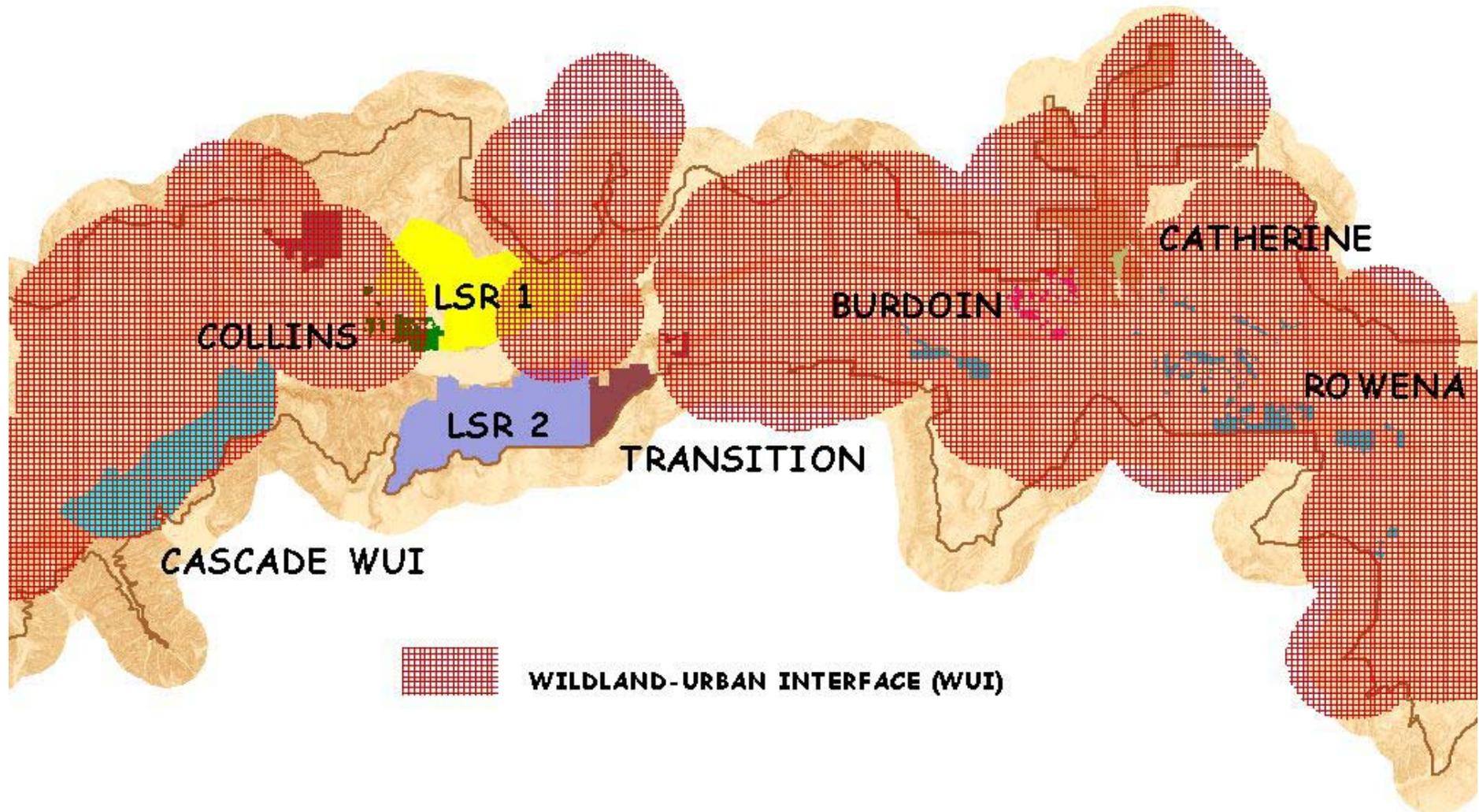
An important part of this plan will be the development of demonstration plots for each treatment area and monitoring trips with the public after each project is complete.

A variety of additional methods may be utilized depending on the desired outcome and the level of involvement identified. These actions may include: newsletters; news releases; public workshops; field trips with adjacent landowners, elected officials and others; volunteer work parties; media field trips; quarterly proposed project newsletter notification; and information posted to unit website.

It is essential to communicate broadly with all affected interests within and outside of the CRGNSA to attain support and acceptance of activities that will produce a positive change to the vegetative landscape of the Columbia River Gorge.

TREATMENT AREA	TOOLS	COMMERCIAL COMPONENT	PARTNERS AND COLLABORATION
BURDOIN	MECH	FIREWOOD	Gifford Pinchot NF, Neighbors participating in fire-wise projects with Washington State Department of Natural Resources (DNR), Washington State Department of Fish and Wildlife (WDFW), Friends of the Columbia River Gorge (Friends), City of White Salmon, Bingen, other interested public.
ROWENA	MECH/UNDRBUR N	FIREWOOD	Gifford Pinchot NF, Oregon State Parks, Oregon Department of Forestry (ODF), Rowena Dell Neighborhood Association, City of the Dalles, Hood River, Mosier, Friends, other interested public.
CATHERINE	MECH	YES	Gifford Pinchot NF, Neighbors participating in fire-wise projects with DNR, WDFW, Friends, City of White Salmon and Bingen, other interested public.
COLLINS	MECH	YES	Gifford Pinchot NF, Neighbors participating in fire-wise projects with DNR, WDFW, Friends, Home Valley, other interested public.
CASCADE WUI	MECH	YES	Gifford Pinchot NF, Mt. Hood NF, City of Cascade Locks, ODF, Oregon State Parks, Oregon Dept of Transportation (ODOT), Friends, other interested public.
TRANSITION	MECH	YES	Gifford Pinchot NF, Mt. Hood NF, City of Cascade Locks, ODF, Oregon State Parks, Oregon Department of Transportation (ODOT), Friends, Home Valley, other interested public.
LSR 1	MECH	YES	Gifford Pinchot NF, Neighbors participating in fire-wise projects with DNR, WDFW, Friends, Home Valley, other interested public.
LSR 2	MECH	YES	Gifford Pinchot NF, Mt. Hood NF, City of Cascade Locks, ODF, Oregon State Parks, Oregon Dept of Transportation (ODOT), Friends, other interested public.

CRGNSA PROJECTS IN WILDLAND-URBAN INTERFACE



PART IV-PROJECT PRIORITY AND SCHEDULE

The table below lists the treatment areas and priority as depicted by implementation year. Prioritization was based on fire regime, condition class, location within a WUI, and known contingencies such as community involvement in concurrent projects. Priorities may change due to flexibility in contingency planning. Each treatment area except Burdoin will require survey data collection and planning beginning in 2005. Planning is complete for the Burdoin project:

FR	C C	TREATMENT AREA	TOOLS	COMMERCIAL COMPONENT	ACRES	YEAR DATA	YEA R PLA N	YEAR IMPLEMET	YEAR MAINT BURN
I	3	BURDOIN	MECH	FIREWOOD	137	2001	2002	2005	2010
I	2	ROWENA	MECH/UNDRBUR N	FIREWOOD	1572	2005	2006	2007	2012
I	3	ROWENA	MECH/UNDRBUR N	FIREWOOD	711	2005	2006	2007	2012
I	3	CATHERINE	MECH	YES	2800	2007	2008	2009	2014
I	3	COLLINS	MECH	YES	468	2009	2010	2011	2016
IIIC	2	COLLINS	MECH	YES	847	2009	2010	2011	2016
IVB	1	CASCADE WUI	MECH	YES	5265	2011	2012	2013	2018
I	3	TRANSITION	MECH	YES	2	2013	2014	2015	2020
IIIC	2	TRANSITION	MECH	YES	2120	2013	2014	2015	2020
I	3	LSR 1	MECH	YES	931	2015	2016	2017	2024
IIIC	2	LSR 1	MECH	YES	4970	2015	2016	2017	2024
IIIC	2	LSR 2	MECH	YES	5761	2017	2018	2019	2026
				TOTAL ACRES	25,584				

PART V-SMOKE MANAGEMENT AND SAFETY ISSUES

Smoke Management

Activities that create smoke emissions will follow Oregon and Washington Smoke Management and Implementation Plans. Generally this will require registering the planned burn, inputting the planned acreage amounts and locations, and reporting actual activity accomplishments. Currently the program used to track and transmit this information is FASTRACS.

1. Location of Class I Air Sheds: The Mt. Adams Wilderness on the Gifford Pinchot National Forest and the Mark O. Hatfield and the Mt Hood Wilderness on the Mt. Hood National Forest are the only Class I Air Sheds in the vicinity of the Columbia River Gorge National Scenic Area.

Visibility Plan for Class 1 Areas (OAR 340-20-047, Section 5.2) The Mt. Hood and Gifford Pinchot National Forests maintain Visibility Plans for these Class 1 Areas.

2. The entire Columbia River Gorge National Scenic Area is considered a smoke sensitive area.
3. Smoke Emission Reduction and Management. The Environmental Protection Agency (EPA) has identified seven items to be addressed in NEPA documents if prescribed fire is planned for fuel treatment (Regional guidance letter June, 1992, Appendix VII, A, 3). Consistent with this guidance the Columbia River Gorge National Scenic Area addresses the following in its NEPA documents:
 - a. Describe alternative fuel treatments considered and reasons why they were not selected over prescribed fire.
 - b. Quantify fuels to be burned (acres, tons, types).
 - c. Describe types of burns (broadcast, piles, understory, etc.)
 - d. Describe measures taken to reduce emissions (fuels moisture content, site preparation, removal of some debris (PUM, YUM, whole tree yarding, etc).
 - e. Quantify the amount of PM10 and PM2.5 emissions to be released (Fastracs, consume).
 - f. Describe the regulatory/permit requirements for burning.
 - g. Provide a qualitative description of air quality impacts of burning activities, focusing on new or increased impacts on down wind communities, visibility impacts in Class I Wilderness, etc.

Reporting Processes

FASTRACS

The software program FASTRACS will be used to meet our requirement to report prescribed fire smoke management information to the States of Oregon and Washington. Registering, planning and reporting accomplishment of prescribed fire activities will be accomplished using FASTRACS. Information in the database is shared at regional and national levels and therefore must be accurate and up to date. The database will be updated with accomplishment information within 2 weeks of completing an activity.

Smoke from all management-ignited burning will be reported. Coordination with surrounding units and Forests is essential for the successful management of emissions that occur during peak periods of activity.

The Prescribed Fire Manager is responsible for ensuring that the data is properly entered into the database, prior to the burn, the day of the burn, and following completion. This work may be delegated to the assigned Burn Boss or other knowledgeable personnel.

FASTRACS program and required updates are currently available on the RO Fire and aviation page:
<http://fsweb1.r6.fs.fed.us/fastracs/> The FASTRACS handbook and detailed instructions are also available at this site.

Operational Requirements

Models

Dispersion models exist to help plan and project smoke dispersion. NFSPuff3 is currently the best model when used with metrological information obtained from the MM5 Model. Others exist and more are in the design phase. To download a copy of NFSP log on to <http://www.atmos.washington.edu/~harrison/nfspuff3/> to obtain MMF log on to <http://www.atmos.washington.edu/~harrison/nfspuff3/mm5/> this will provide the necessary modeled wind vectors to run the model.

Forecasts

Smoke dispersal forecasts are provided by ODF and are available via the Internet. For multiple day burns or on marginal days it is recommended that they be contacted for additional guidance and consultation concerning the burn.

Safety and Risk Assessment

The Columbia River Gorge National Scenic Area adheres to current safety regulations and guidelines regarding prescribed fire field operations and work/rest. References include; 5100 Manuals, Health and Safety Code Handbook, Interagency Standards for Fire and Aviation Operations, and the latest National and Regional supplements regarding prescribed fire safety and standards.

Scheduling priorities between fuels projects and wildland fire suppression needs is not anticipated to be problem in the gorge as burn windows typically close near the end of June and remain closed through mid October.