



USDA
Forest
Service

Rowena Plan



Columbia
River Gorge
National
Scenic Area

Columbia River Gorge National Scenic Area

September 2005

2005



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ABSTRACT

The Rowena Plan sets broad direction for lands in the Rowena Special Management Area (SMA) in Wasco County, Oregon. The Plan fulfills the requirements of a watershed analysis and an SMA Open Space Plan. This document compiles relevant information on the natural, scenic, cultural, recreational resources and social aspects of this area. A description of current conditions is followed by a description of 'reference' conditions (those pre-dating the arrival of Europeans). A 'syntheses' attempts to reconcile the current and reference conditions, and set the stage for a Desired Future Condition. Recommendations to achieve the Desired Future Condition, and a list of specific potential projects are provided. All proposals on non- National Forest lands are at the discretion of the landowner.

ROWENA PLANNING TEAM

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The Rowena Plan meets the requirements of an Open Space Plan and a Watershed Analysis.

/s/ Daniel T. Harkenrider

Daniel T. Harkenrider
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Date: September 30, 2005

TABLE OF CONTENTS

<u>Page</u>	<u>Section</u>
1	Introduction
4	Issues and Key Questions
10	Administration
6	Existing Conditions
34	Reference Conditions
38	Synthesis
40	Aquatic Conservation Strategy
43	Recreation Feasibility Analysis
48	Desired Future Condition
51	Recommendations
57	Potential Future Projects
57	Data Gaps
58	Sources

<u>Page</u>	<u>List of Figures</u>
2	Figure 1: Rowena Planning Area
7	Figure 2: Land Ownership Rowena Planning Area
8	Figure 3: Land Use Designations Rowena Planning Area
9	Figure 4: Map of 6 th field watersheds analyzed in the Mosier Creek Watershed Assessment
10	Figure 5: Map showing the location of the planning area in relationship with the 6 th field watershed boundaries. Watershed names are shown as well.
15	Figure 6: Existing Vegetation
16	Figure 7: CRGNSA Fire Regimes
17	Figure 8: Rowena Fire Regimes
18	Figure 9: CRGNSA Fire Condition Class
19	Figure 10: Rowena Fire Condition Class
23	Figure 11: Key Viewing Areas
24	Figure 12: Important Viewscapes
47	Figure 13: Roads and Potential Trailheads (general locations)

<u>Page</u>	<u>List of Tables</u>
6	Table 1: Land Ownership and Land Use Designations
12	Table 2: Watershed Condition Summary
16	Table 3: Natural Fire Regimes
18	Table 4: CRGNSA Fire Condition Class
26	Table 5. Forest Service Property Structures within the Rowena Planning Area
26	Table 6. State and County Roads within the Planning Area
27	Table 7. National Forest System Roads (NFSR) and Connected Roads Other Than Table 6
28	Table 8. Rock Quarries within the Rowena Planning Area
49	Table 9: Desired Species and Size Composition of Pine-Oak Douglas Fir
50	Table 10: Desired Species and Size Composition of East Conifer
50	Table 11: Desired Species and Size Composition of Oak-Pine Woodlands

INTRODUCTION

Purpose of the Rowena Plan

The Forest Service developed this plan for the Rowena area which:

- 1) fulfills the requirements of a Special Management Area (SMA) Open Space Plan for the SMA Open Space lands in all ownerships,
- 2) fulfills the requirements of a watershed analysis for National Forest lands in the portion of planning area within the boundaries of the Northwest Forest Plan and,
- 3) provides broad direction for management of all National Forest lands in the Rowena area, including all designations other than Open Space and lands outside the boundaries of the Northwest Forest Plan.

The Rowena Plan is not a “decision” document. It provides *broad* direction. Recommendations for specific proposals typically require further analysis for consistency with the Columbia River Gorge National Scenic Area (CRGNSA) Plan, either by Wasco County on non-federal lands, or by the Forest Service on federal lands, and NEPA analysis and documentation on federal lands. Activities on non-National Forest lands are at the complete discretion of the property owner. The National Scenic Area Manager reviews the Rowena Plan to ensure it meets the requirements of an Open Space Plan and of a watershed analysis.

Location

The Rowena Plan area consists of the Rowena Special Management Area (SMA) and National Forest lands adjacent to the Rowena SMA. It includes areas commonly referred to as “Rowena”, “Memaloose” and “Seven Mile Hill.” The Rowena Plan sets direction within this area for Open Space lands in all ownerships and for all National Forest lands in all land use designations (see Figure 1 next page).

Background

The Management Plan for the Columbia River Gorge National Scenic Area (CRGNSA Plan) requires an Open Space Plan to set overall management direction on lands designated SMA Open Space before any new land uses and developments can occur. About 2,200 acres of the planning area are designated SMA Open Space. The Rowena Plan fulfills the requirements of an Open Space Plan.

The 1994 Northwest Forest Plan requires a watershed analysis to be completed on certain National Forest lands, such as riparian reserves, before any land management activities can take place. About 1,400 acres of the planning area are within the boundaries of the Northwest Forest Plan, and a number of intermittent streams in this area have a 100 ft riparian reserve. The Rowena Plan fulfills the requirements of a watershed analysis for the lands within the boundaries of the Northwest Forest Plan. The analysis area for the Rowena Plan includes the “Rowena Creek” and “Rowena Columbia Tribs” subwatersheds.

Rowena Plan

USDA Forest Service, Columbia River Gorge National Scenic Area

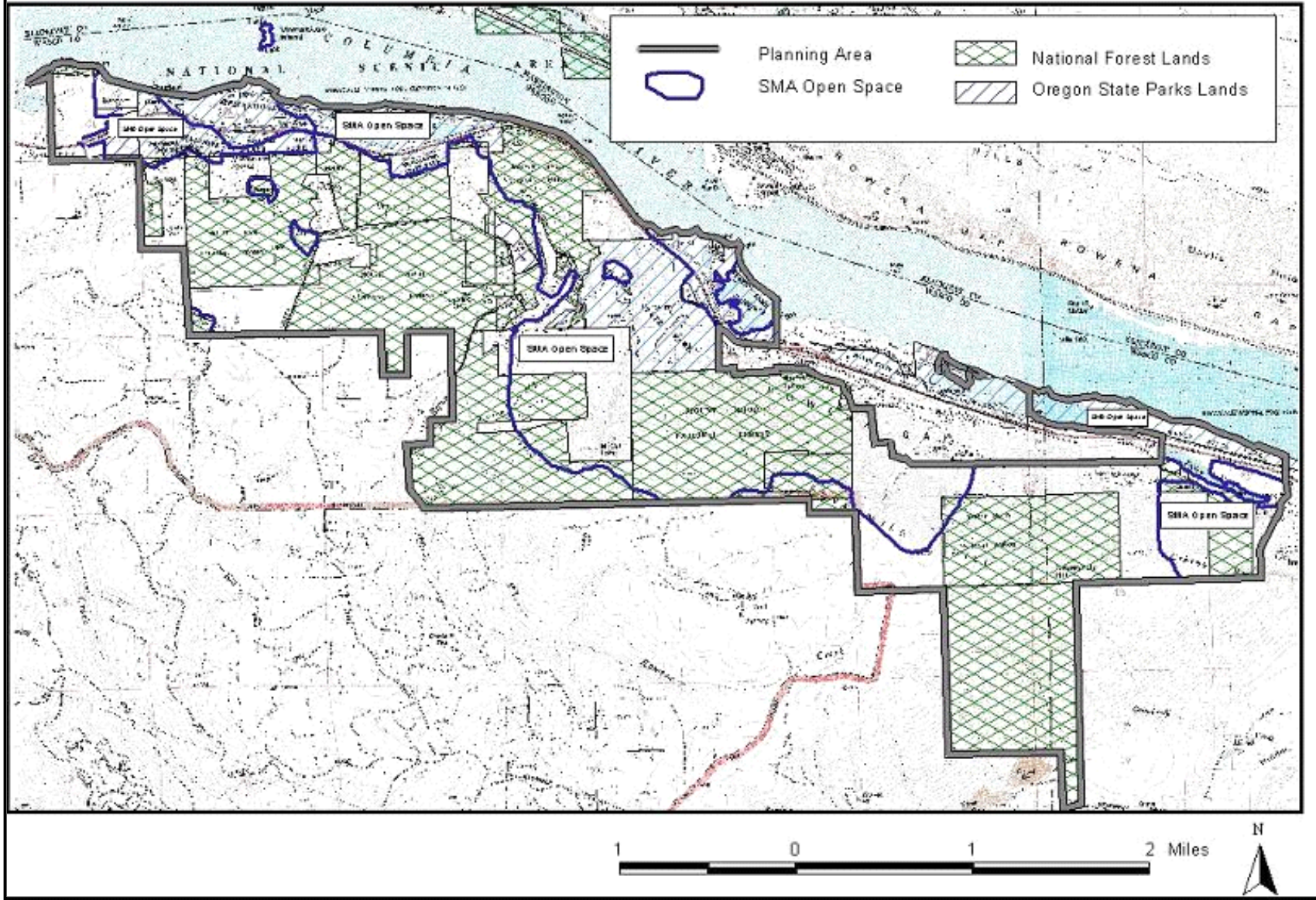


Figure 1: Rowena Planning Area

Since the passage of the National Scenic Area Act in 1986, the Forest Service has acquired almost 3,000 acres in the Rowena area. While the CRGNSA Plan provides overall direction for general management, allowed uses and resource protection and enhancement, the Forest Service has no specific goals for management of National Forest lands in this area. As lands are newly acquired by the Forest Service there is no comprehensive management direction for individual parcels. The CRGNSA Plan requires an Open Space Plan to set overall management direction in Open Space area, but there is no similar CRGNSA Plan requirement for other land use designations. The Rowena Plan provides recommendations for National Forest lands in all land use designations.

Planning Process

The planning process incorporated the requirements of an Open Space Plan and a watershed analysis.

An Open Space Plan requires the following:

- A. Direction for resource protection, enhancement, and management.
- B. Review of existing uses to determine compatibility with Open Space values.
- C. Consultation with members of the public and with agency and resource specialists

A watershed analysis requires the following steps:

1. A “Characterization” of the watershed in terms of location, physical features, natural processes and social significance.
2. “Key Questions” and issues developed by the planning team and public comment.
3. “Current Conditions” of the watershed based on prevailing knowledge.
4. “Reference Conditions” of the watershed.
5. A “Synthesis” of events and ecological elements that affected the ecosystem.
6. “Recommendations” developed from the analysis.

Two watershed assessment documents are already available. These are:

- 1) The *Mosier Creek Watershed Assessment*, 2002, prepared by the Wasco County Soil and Water Conservation District for the Mosier Watershed Council. This document covers lands west from the Rock Creek and Mosier Creek watersheds east to the Rowena Creek watershed, and contains specific information for the portion of the planning area within the boundary of the Northwest Forest Plan. It satisfies the watershed analysis requirements of steps 1) characterization, 3) current conditions and 4) reference conditions.
- 2) The *Fifteen Mile Subbasin Plan*, draft May 24, 2004, prepared by the Wasco County Soil and Water Conservation District and Fifteen Mile Coordinating Group for the Northwest Power and Conservation Council. This document covers lands west from the Rock Creek and Mosier Creek watersheds east to the Fifteen Mile Creek watershed. The Subbasin plan augments the information of the *Mosier Creek Watershed Assessment*. It provides information pertinent to the watershed characterization, current conditions and reference conditions particularly for water resources, fish, wildlife and vegetation. The document provides very specific aquatic information for perennial streams, but none for intermittent

streams. Since the Rowena planning area has only intermittent streams, the Subbasin plan does not provide pertinent aquatic information.

The Rowena Plan builds upon the *Mosier Creek Watershed Assessment* and the *Fifteen Mile Subbasin Plan*. These documents provided the larger watershed context, and the Rowena Plan adds more site specific information for the Rowena planning area. The planning process generally follows the watershed analysis process, using the existing watershed assessments to provide most of the information for the watershed characterization, current conditions and reference conditions. The Rowena planning team focused on key questions, synthesis and desired future condition/ recommendations. The Plan provides *broad* direction, with a level of detail commensurate with defining a desired future condition and recommendations.

ISSUES AND KEY QUESTIONS

Forest Service Interdisciplinary Team

The interdisciplinary team identified the following issues/key questions.

1. Recreation Opportunities and Management

The Rowena area is popular for hiking, wildflower viewing, bicycling and driving the Historic Columbia River Highway. Few designated trails exist in the area, but informal hiking use is growing. The recently acquired National Forest lands provide opportunities for recreation users. A recreation goal of the CRGNSA Plan is to increase recreation opportunities in the east end of the CRGNSA. The CRGNSA Plan proposes a number of recreation facilities in this area, and the public has proposed additional projects. Recreation developments must consider potential conflicts with nearby residents and with sensitive resources. Key questions for this Plan include:

- What are opportunities and limitations, both physical and social, for different types of recreation uses?
- What criteria can guide future recreation projects, compatible with the land use designations and landscape compatibility?

2. Vegetation Management

The cumulative impacts of past land management practices, and suppression of fire have impacted the distribution of historic plant communities and their health. Key questions for this Plan include:

- What is the current vegetation type?
- What are the vegetation condition objectives, consistent with the CRGNSA purposes, the CRGNSA Plan and the land use designations?
- What activities are compatible with the vegetation condition objectives; and what activities are necessary to achieve the vegetation condition objectives?

3. Resource Restoration and Enhancement Opportunities (other than Vegetation Management)

Much of the Rowena area has been impacted by past land management activities such as rock quarries and introduction of noxious weeds. The key question for this Plan is:

- What scenic, cultural and natural resource restoration and enhancement opportunities exist, other than vegetation management?

Public Outreach

Over 150 parties were asked to comment on the formulation of the Rowena Plan, and particularly on the Forest Service's Key Questions. Fifteen parties responded, and many of them provided comments on the Key Questions of recreation use, vegetation management and resource restoration opportunities. The public also identified the following specific issues. These issues were considered in formulating the Rowena Plan.

Land Acquisition

Two commenters asked the Forest Service to continue land acquisition with the eventual goal of creating a large contiguous block of National Forest land for the Rowena Area.

Fire Prevention and Management

Several commenters discussed fire prevention/management, particularly near residences and asked the Forest Service to explicitly look at fire issues in this area of open space intermixed with residences.

Open Space Designation for National Forest Land

Three commenters asked the Forest Service to consider designating more National Forest land as SMA Open Space.

Planning Area Expansion

One property owner asked that three private GMA parcels be added to the planning area. The Forest Service has modified the planning area boundary to include these parcels, since they are currently used recreationally.

Private Roads and Property

Several property owners/residents of the planning area asked the Forest Service to carefully plan recreation facilities and manage its lands to minimize impacts on their property and residences. One Rowena Dell land owner asked the USFS to maintain the access road from the barn to the Historic Columbia River Highway to serve as an alternate emergency exit from the subdivision should Canyon Way become blocked near Highway 30 for any reason.

Lewis and Clark Wilderness Proposal for the Tom McCall Area

One commenter asked that the Rowena Plan not allow new uses that may be incompatible with future wilderness designation of nearly 1000 acres near Tom McCall point.

Draft Rowena Plan

A Draft Rowena Plan was available for a 30 day comment period from August 8 to September 8, 2005. Thirteen parties provided comments, most with specific remarks on aspects of the Draft Rowena Plan. The Rowena Plan has been modified in response to these comments.

ADMINISTRATION

Management Direction

Several management plans provide direction for this area.

Management Plan for the CRGNSA

This Plan provides guidelines for land use and development, recreation developments, and protection of scenic cultural, natural and recreational resources. Lands in the CRGNSA are divided into the Special Management Area (SMA), General Management Area (GMA), or Urban Area. Lands are further allocated into Land Use Designations, as follows in this area:

- SMA: Open Space, Agriculture (Ag), Residential (R), and Public Recreation (PR).
- GMA: Large-scale-Agriculture (A1), Small-scale Agriculture (A2), Agriculture Special (AS).

Mount Hood Land and Resource Management Plan/as Amended by the Northwest Forest Plan

Designations: Administratively Withdrawn, Riparian Reserve

Standards and guidelines more protective than the CRGNSA Plan guidelines apply.

Wasco County Land Use Ordinance

Wasco County administers local land use ordinances implementing the CRGNSA Plan land use designations and resource protection guidelines on state, county and private lands.

Oregon State Parks Master Plan

Oregon Parks and Recreation Department (OPRD) manages its lands consistent with its Oregon State Parks Master Plan.

Historic Columbia River Highway Master Plan

The Oregon Department of Transportation (ODOT) manages the Historic Columbia River Highway in accordance to its Master Plan.

Land Ownership and CRGNSA Land Use Designations

Table 1 and Figures 2 and 3 display land ownership and CRGNSA Land Use Designations for the Rowena Planning Area.

Table 1: Land Ownership and Land Use Designations

	Acres	SMA Open Space	SMA Ag	SMA PR	SMA R	GMA A-1/AS	GMA A-2
US Forest Service	2,864	1,099	1,064	1	4	676	20
Oregon State Parks/ODOT	780	622	22	136	0	0	0
Wasco County	13	0	13	0	0	0	0
Private	1,360	554	610	51	20	103	22
Total	5,017	2,275	1,709	188	24	779	42

Wilderness Proposal

Nearly 1000 acres of National Forest lands in the Tom McCall Point/Seven Mile Hill area are included in a proposed “Lewis and Clark Mount Hood Wilderness Area”. This proposal has not been enacted, and the existing land management direction of the CRGNSA Plan and the Mount Hood Land and Resource Management Plan as amended by the Northwest Forest Plan apply.

Land Ownership - Rowena Planning Area

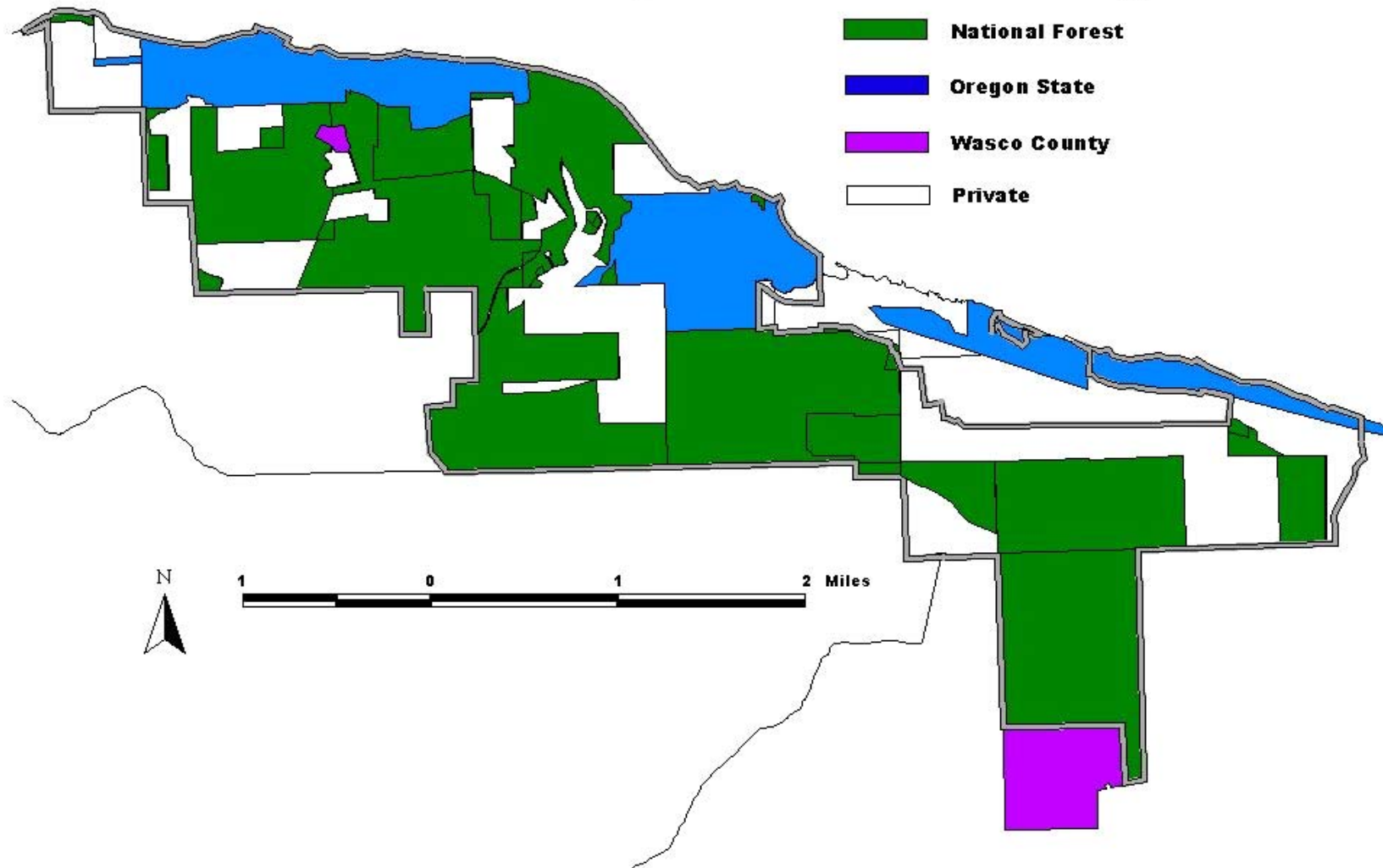


Figure 2: Land Ownership - Rowena Planning Area

Land Use Designations - Rowena Planning Area

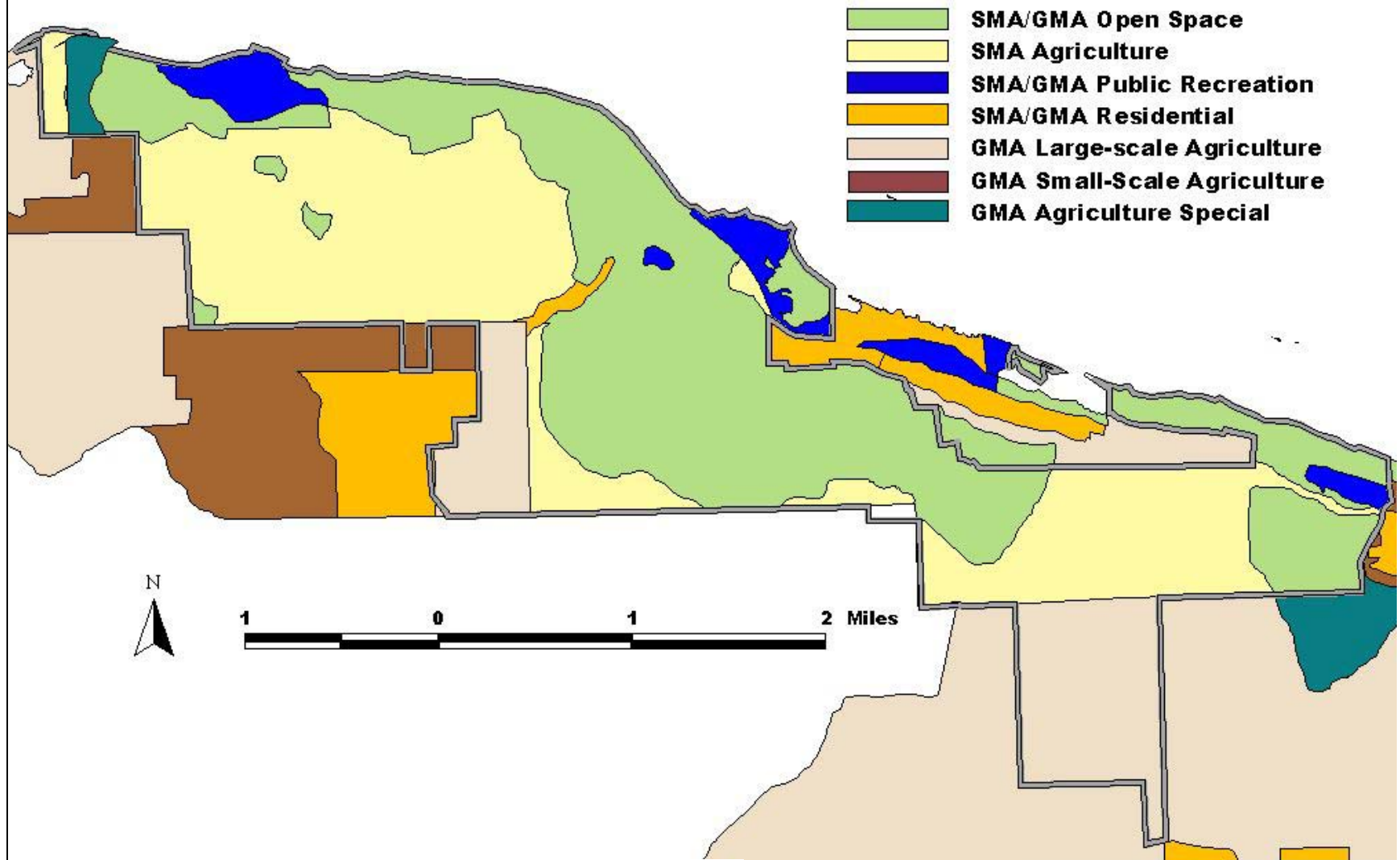


Figure 3: Land Use Designations - Rowena Planning Area

EXISTING CONDITIONS

Watershed Description

The analysis area for the Rowena Open Space Plan is located in the “Hood River Main Stem Tribs” 5th field watershed. This analysis uses the “old” 5th and 6th field watershed boundaries in order to take advantage of several existing analyses. The majority of the planning area is located within two 6th field boundaries: “Rowena Columbia Tribs” (21XB) and “Rowena Creek” (21P) which are shown below. A small portion of the area is within the “Chenoweth Creek” 6th field (21Q). “Rowena Columbia Tribs” is 7,427 acres in size while “Rowena Creek” is 4,563 acres. Only about 435 acres of the planning area are located within the 18,261 acre “Chenoweth Creek” 6th field watershed.

A comprehensive watershed condition assessment was completed for the Mosier Creek watershed in March 2002 by the Wasco County Soil and Water Conservation District with the oversight of the Mosier Watershed Council. The document received review from a variety of individuals, agencies and organizations. The assessment includes analysis of seven 6th field watersheds that comprise the Mosier Creek watershed (see map below). “Rowena Creek” and the western portion of the “Rowena Columbia Tribs” 6th fields are among the seven watersheds analyzed.

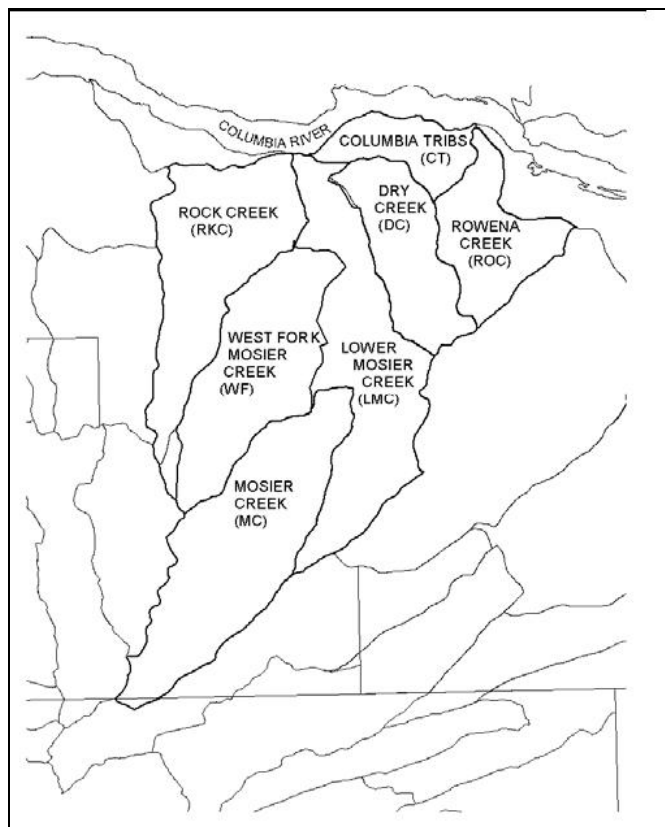


Figure 4 – Map of 6th field watersheds analyzed in the Mosier Creek Watershed Assessment.

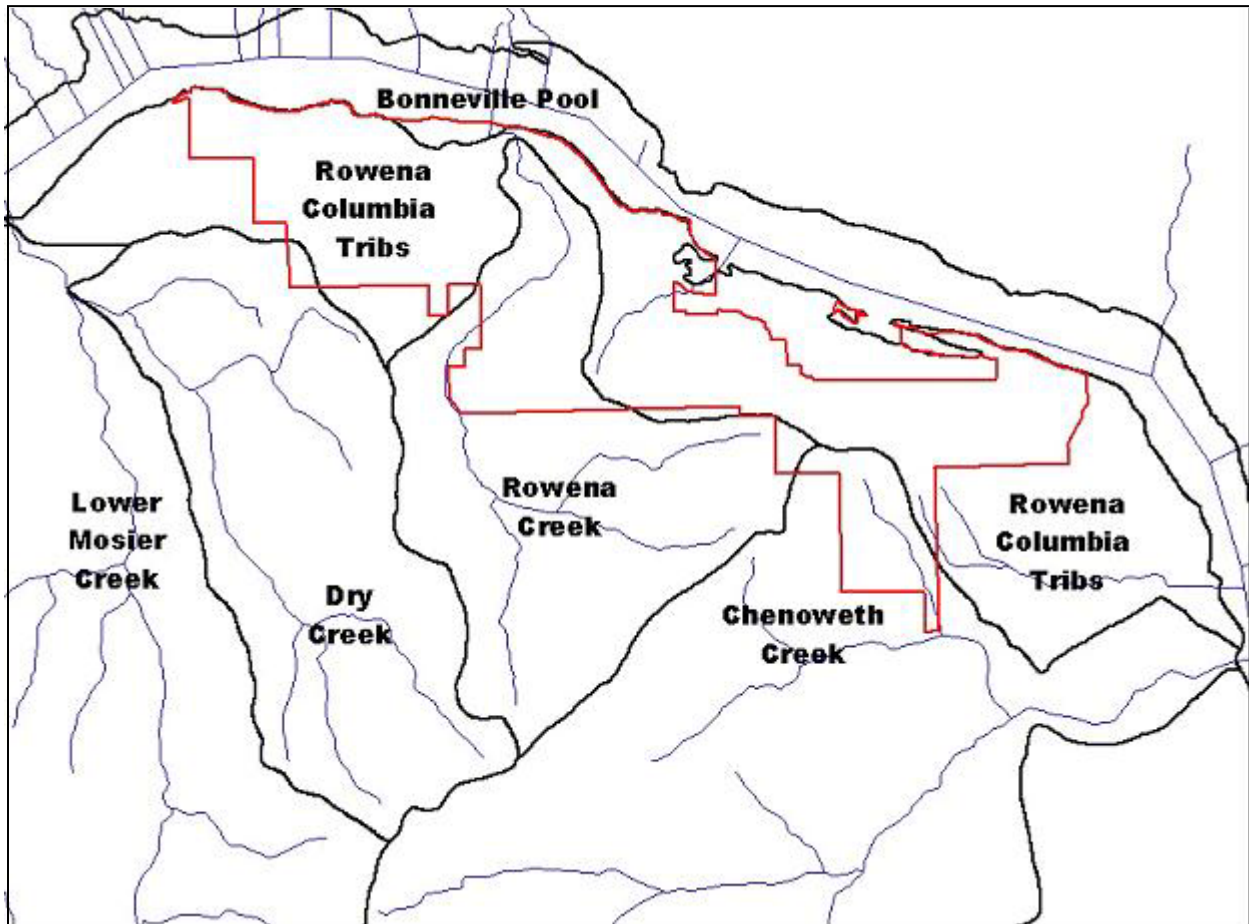


Figure 5 – Map showing the location of the planning area (red line) in relationship with the 6th field watershed boundaries (heavy black line). Watershed names are shown as well.

In addition, a comprehensive watershed condition assessment was completed for the Fifteenmile Subbasin in May 2004 by the Wasco County Soil and Water Conservation District and Fifteen Mile Coordinating Group. The Fifteenmile Subbasin Assessment analyzed an area from Rock Creek in the west to Fifteenmile Creek in the east. This assessment is very detailed for perennial streams, and more generalized in other aspects but does provide some applicable information.

The following discussion includes analysis from the Mosier Creek Watershed Assessment, Fifteenmile Subbasin Assessment as well as additional analysis completed for this plan.

Geology

Through the Columbia River Gorge, geology is characterized by a number of north-south oriented folds visible in the northern part of the subbasin from The Dalles westward. The areas around Mosier Valley and The Dalles represent synclines (downward folds), whereas Sevenmile Hill and Hood River Mountain (west of Mosier) represent anticlines (upward folds). The area is a dynamic system with steep terrain and active faults, and includes areas of The Dalles Formation and Bretz flood sediments.

Climate

The climate is influenced both by marine air that flows through the Columbia River Gorge from the west and by continental weather patterns that spread from the Great Basin to the east. Both summer and winter air temperatures are more extreme in the eastern portion of the subbasin. The majority of the precipitation is generally brought by winter storms blowing east from the Pacific Ocean. Only 5-10% of the precipitation falls from June through August. Because of both the seasonality of moisture and the low total precipitation, tributaries originating at lower elevations are usually not perennial.

Climate varies across the watersheds because of its transitional location between weather dominated by wet marine airflow to the west and the dry continental climate of eastern Oregon. Areas of climate and landscape similarity called eco-regions have been defined as a common framework for ecosystem management in the U.S. (Pater et al. 1998). The watersheds are within the Eastern Cascades Slopes and Foothills (9c) eco-region. The annual precipitation averages between 22 and 26 inches for these 6th field watersheds.

Natural Disturbance Patterns

As described in the watershed assessment, past floods, fires, mudflows and landslides have shaped the landscape in one degree or another in the Mosier Creek Watershed. The middle and upper portion of Rowena Creek is located within the rain-on-snow elevation zone, which is usually between 1200' and 3600'. Rain-on-snow flooding, landslides and debris flows can be found in the area. Large-scale events such as flooding and fires can significantly shape riparian and aquatic habitat conditions. Large woody debris and sediment can be transported to the stream adding to the in-stream habitat diversity. Less mature riparian vegetation may be found near such disturbances. Stand-replacing fires were a rare event in ponderosa pine habitat; however, frequent natural or man-made low-level fires regularly cleared underbrush and less fire-resistant species, such as younger Douglas fir.

Streams

Conditions in the creeks are controlled by the geology, climate, hydrology and land use of their surrounding drainage area from ridge-top to ridge-top.

The Rowena Creek Watershed is located on the east slope and in the eastern foothills of the Cascade Range. Rowena Creek is a short high-gradient stream approximately five-miles long, that flows west and then north into the Columbia River below the community of Rowena Dell. This short, intermittent stream drops approximately 2,000 feet in elevation from headwaters to mouth. Rowena Creek is bounded on the south by Chenoweth Creek, on the east and north by the Columbia River and on the west by Mosier Creek.

Conditions in the "Rowena Columbia Tribs" watershed are similar to those described for the "Rowena Creek" watershed, although the area contains numerous small intermittent tributary streams that flow directly into the Columbia River instead of one main stream like Rowena Creek.

Condition Analysis

The Mosier Creek Watershed Assessment included an in-depth analysis of a variety of metrics

that indicate overall watershed condition. These metrics were selected to specifically identify conditions of soil, water and fish in the area. Results from the analysis are shown in the summary table below. These results include all of the 6th field watersheds in the Mosier Creek Basin for comparative purposes.

Table 2: Watershed Condition Summary

	Road Density (land use zone)	Summer Water Availability	% Inadequate riparian vegetation	Riparian roads mi./mi.	Channel Modification	Stream Temperature
Rowena Creek	Medium (r.r.)	No natural summer flow	13%	0.30	No major channel modification	No natural summer flow
Rowena Columbia Tribes	Medium (ag) High (others)	No natural summer flow	N/A	0.29	No major channel modification	No natural summer flow
Dry Creek	Medium (ag) High (r.r.)	No natural summer flow	13%	0.62	Residential & roads	No natural summer flow
Lower Mosier	Medium (ag) High (urban)	69% allocated	30%	0.58	Residential & roads	Exceeds state standards
Upper Mosier	Low	16% allocated	37%	0.57	Roads	Exceeds state standards
West Fork	Low	8% allocated	25%	0.46	Roads	Exceeds state standards
Rock Creek	High (urban)	Negligible natural flow	12%	0.46	Mining	Exceeds state standards

The major issues for Rowena Creek and Rowena Columbia River Tribes have to do with the density of roads and the associated effects of sedimentation and increased runoff.

Major data gaps identified in the Mosier Creek Watershed Assessment are:

- Road and culvert conditions*
- Wetlands condition
- Fish habitat surveys (outside of MHNF)
- Cropland and range erosion observations
- Rainbow v. cutthroat trout interactions
- Urban runoff and sediment analysis
- Water quality (other than temperature)*
- Fish populations

* Mosier Watershed Council currently has a plan to fill part of these data gaps within one year.

Vegetation

The Rowena area and the Columbia River Gorge in general are very ecological diverse. The Rowena area occupies a transitional location between the wetter western forests and the drier eastern grassland. Five of the fifteen endemic species of wildflower found in the Columbia River Gorge are found in the pine-oak woodlands of this transitional location. Sensitive flora are found in the Rowena area; the main species include Hood River milk-vetch (*Astragalus hoodianus*), white meconella (*Meconella oregano*), and the locally endemic Columbia Gorge broad-leaf lupine (*Lupinus latifolius var thompsonianus*). These species have populations on both the Oregon and Washington sides of the Columbia River and are fairly well represented in the Rowena area.

As a result of past human activities, weed infestations are fairly common. Knapweeds can be found throughout the area. Yellow star thistle is not yet as prevalent as it is on the Washington side of the Columbia River. Other significant weeds include Hound's tongue (*Cynoglossum officiale*) and Rush skeletonweed (*Chondrilla juncea*), among others. Wasco County conducts an active program to control these state listed noxious weed species.

An important ecological element of this area is the presence of basalt cliffs, talus slopes, wetlands, riparian areas and associated brushy areas, which all add important habitat diversity within the oak/pine community. This habitat diversity, which is not uncommon in the Columbia River Gorge, promotes diversity in the avian and terrestrial wildlife populations.

The vegetation in the Rowena planning area is classified as Ponderosa Pine/Oregon Oak woodlands, Oregon Oak Woodlands, and East Conifer. Within this area can be found communities which are predominantly oak and open grassland while others are a more mixed oak/pine woodland. A small area on the north face of Seven Mile Hill is dominated by Douglas fir, most of them younger than 80 years and clearly encroaching on the oak/pine community. This disjunctive Douglas fir community is rather unique this far east in the Columbia River Gorge. The oak/pine woodland is in fairly good condition with scattered large oaks and pines with varying densities of younger oaks in the age cohort of about 80 to 120 years. Judging from historic conditions and from current fuel models, this vegetation is in need of thinning to bring the community into higher fire resiliency. With thinning, the existing trees could become larger and more spaced, which would create a more stable community over time.

The under-story is largely dominated by various non-native annual and perennial grasses. The shrub layer is generally spotty, with patches of native shrubs such as snowberry, ceanothus, ocean spray and mock orange. Natives and herbaceous flora, such as balsam root and lupine are lacking, although there are some native bunch grasses and a few fairly healthy communities. Much of this under-story was eliminated during decades of grazing. The historic under-story can be seen in a few areas where grazing did not eliminate the native flora.

Existing Conditions of Pine-Oak-Douglas Fir:

Generally, two-story stands where closed canopy has killed the third regeneration layer.

- Overstory: Scattered Ponderosa Pine overstory with in-growth of younger Douglas-fir overstory. Canopy is closed.
- Understory: Understory is largely Oregon Oak which are dying out, ponderosa pine, and Douglas-fir which are suppressed.
- Openings: Few openings. Very closed.
- Shrub and Herbaceous Layer: Down wood prevalent, ground cover depauperate but shrubs such as ocean spray, hazel, snowberry and poison oak exist.

Existing Conditions of East Conifer:

Generally, one-story younger stands where canopy is closing and in some places causing competition with Oregon Oak and Ponderosa Pine, where present.

- *Overstory*: Stands mostly younger Douglas-fir with scattered Ponderosa Pine in some stands.
- *Understory*: Where present, understory is Oregon Oak or western dogwood with some in-growth of young Grand fir.
- *Openings*: Few openings. Moderately closed.
- *Shrub and Herbaceous Layer*: Ground cover, western dogwood and ocean-spray present.

Existing Conditions of Oak Pine Woodlands (including Savanna)

- *Overstory*: Scattered Ponderosa Pine and Douglas-fir
- *Understory*: Understory is largely Oregon Oak that is either Oak Savanna or growing in even-age thickets. Some areas have a mixture of both.
- *Openings*: Disturbance-caused openings are rapidly re-growing with tree species. Some openings appear to be permanent based on soils or moisture content of soils.
- *Shrub and Herbaceous Layer*: Poison Oak very prevalent, some areas of other shrub species, native and non-native grasses, and wildflowers.

Fire Regimes and Condition Class

Fire regimes are the historic frequency and severity of wildland fires. The fire-regime condition class is an expression of the departure of the current condition from the historical fire regime. It is derived from the historical fire regime and the current fire severity. It is used as a proxy for the probability of severe fire effects (e.g., the loss of key ecosystem components - soil, vegetation structure, species; or alteration of key ecosystem processes - nutrient cycles, hydrologic regimes). Consequently, the fire-regime condition class is an index of ecosystem risks attributable to wildland fire. Three condition classes have been developed to describe the degree of alteration from the historic fire regime, and the relative risk of fire-caused losses of key components of the ecosystem.

The maps and tables below describe the existing vegetation, fire regimes and condition classes for the CRGNSA and the Rowena area.

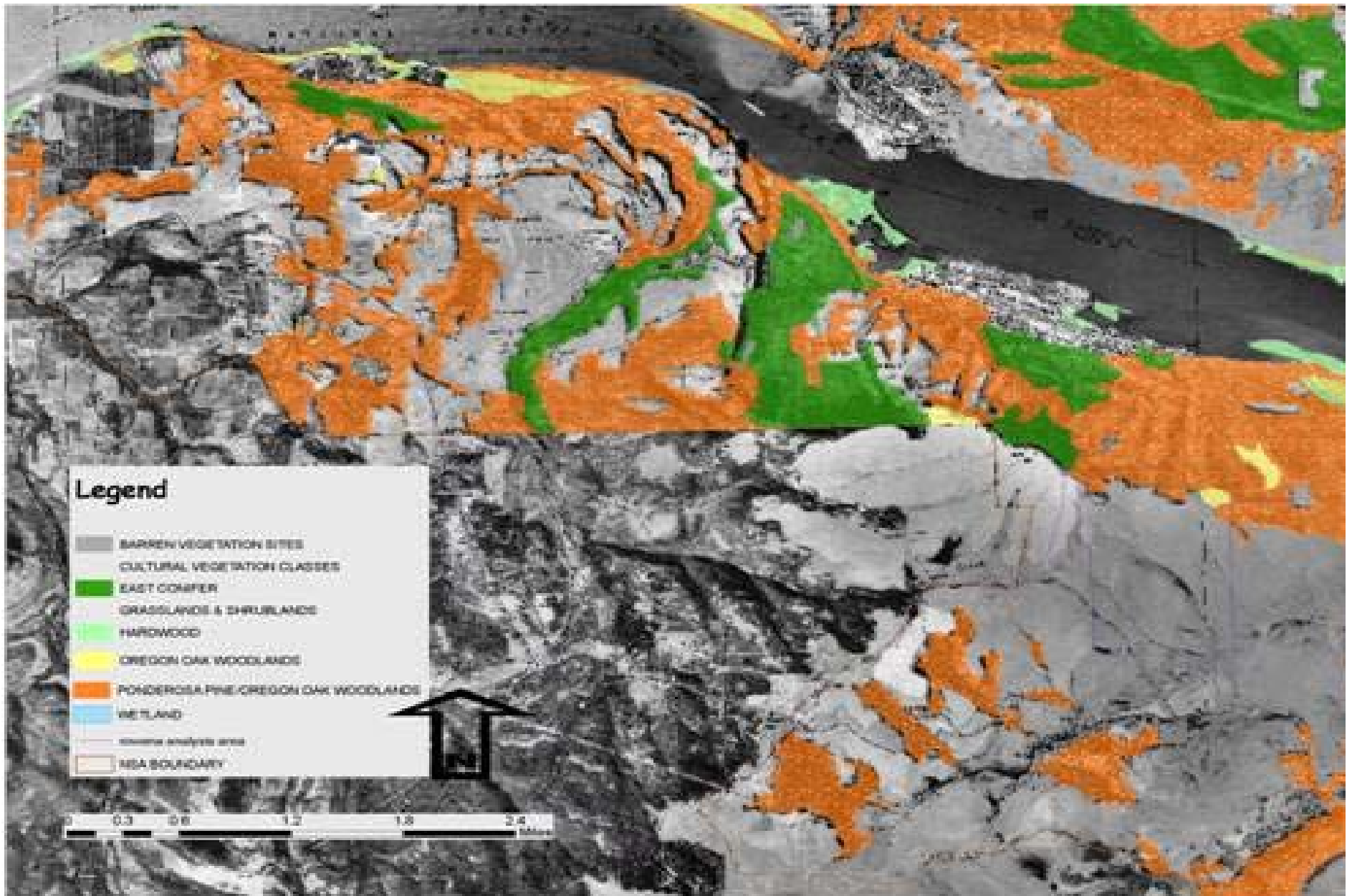


Figure 6: Existing Vegetation

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:

Table 3: Natural Fire Regimes

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)

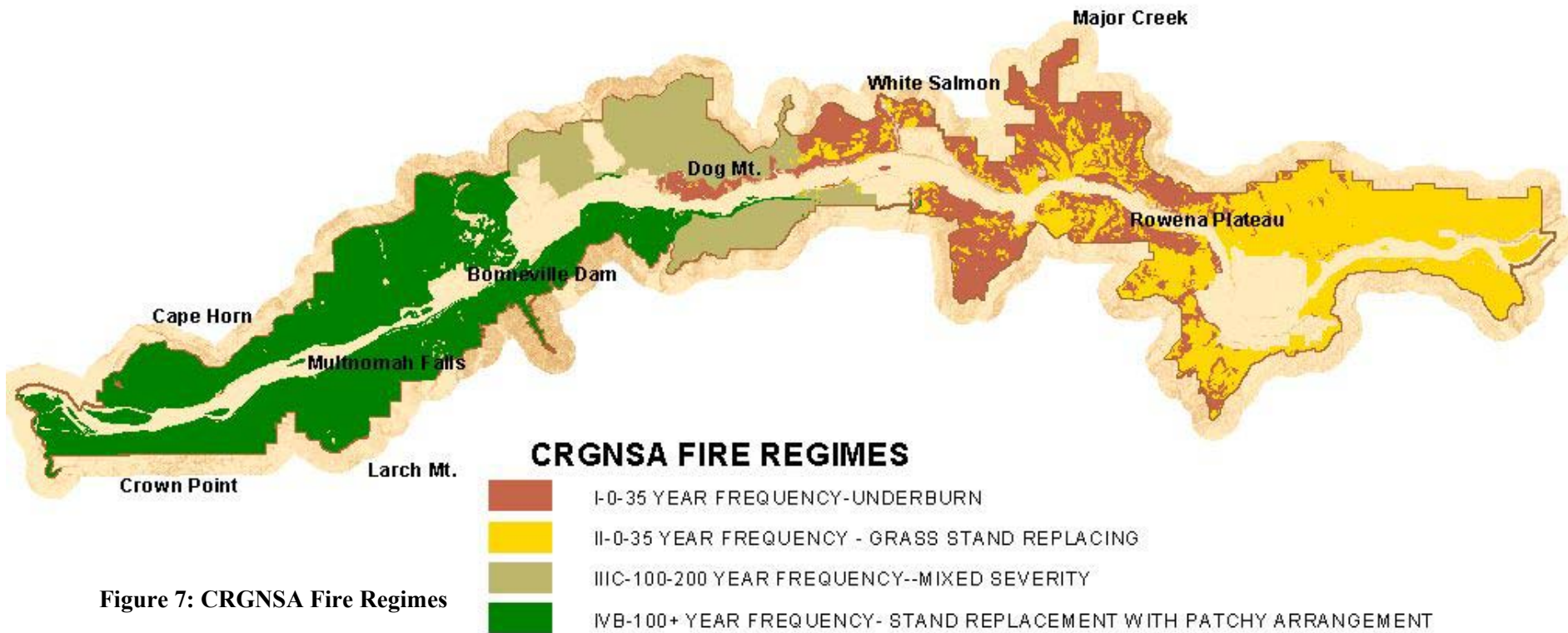


Figure 7: CRGNSA Fire Regimes

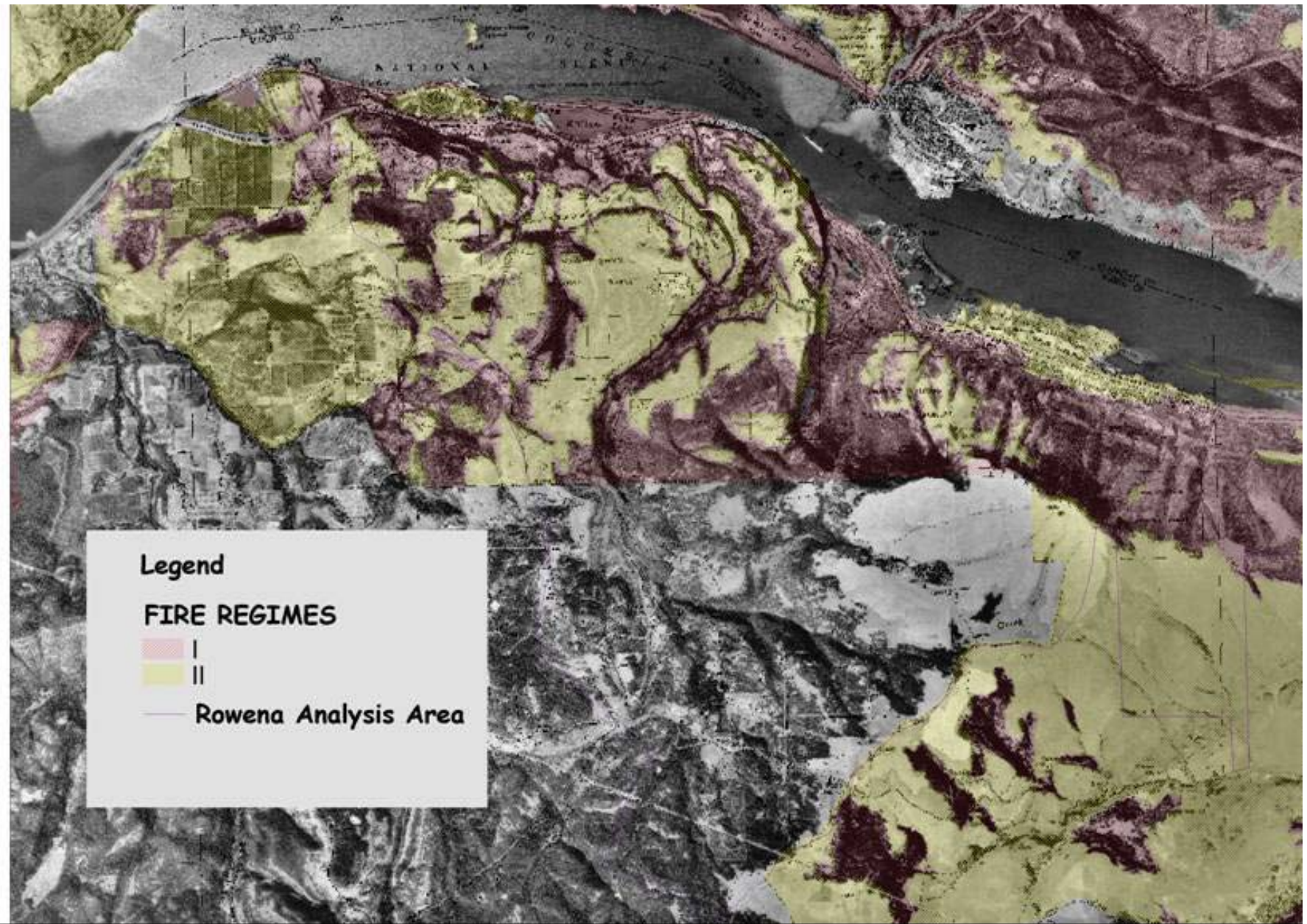


Figure 8: Rowena Fire Regimes

Fire 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 the Healthy Forest Restoration Act (HFRA).

Table 4: CRGNSA Fire Condition Class

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
IIIC	2	N	9,636
IIIC	2	Y	4,061
IVB	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.

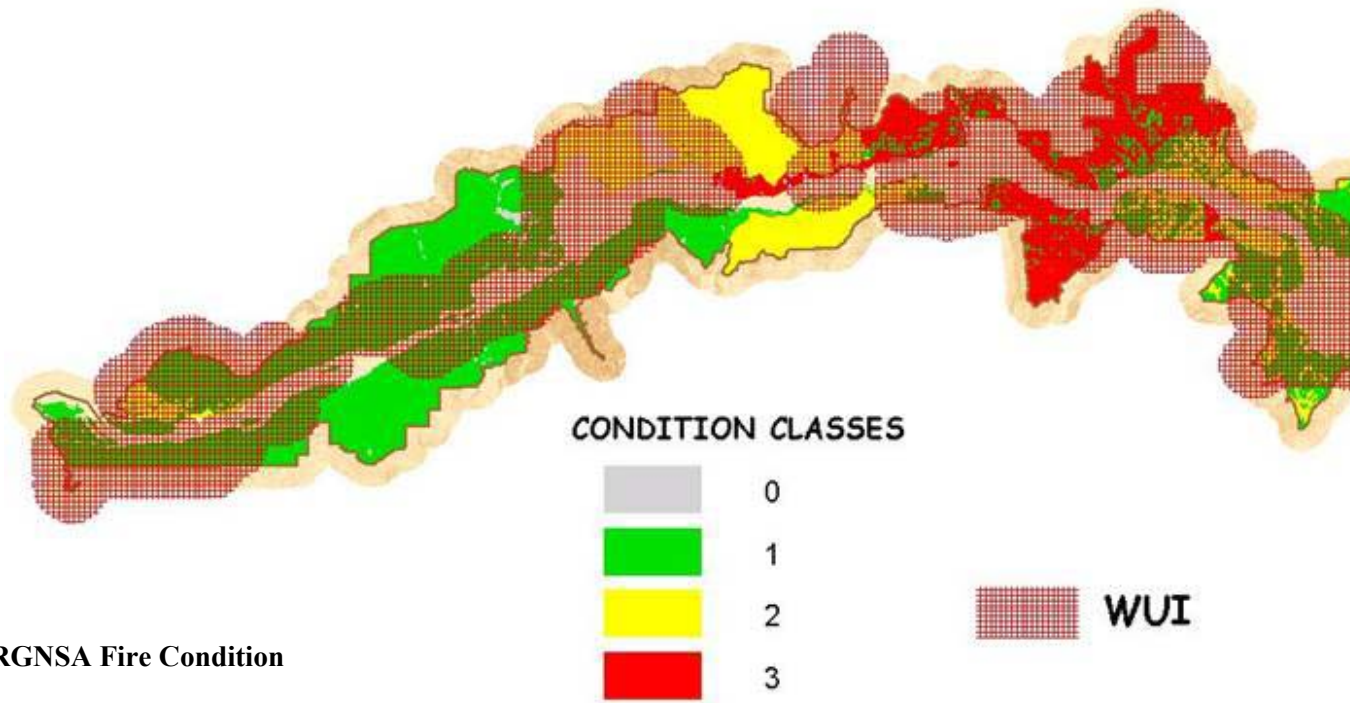


Figure 9: CRGNSA Fire Condition

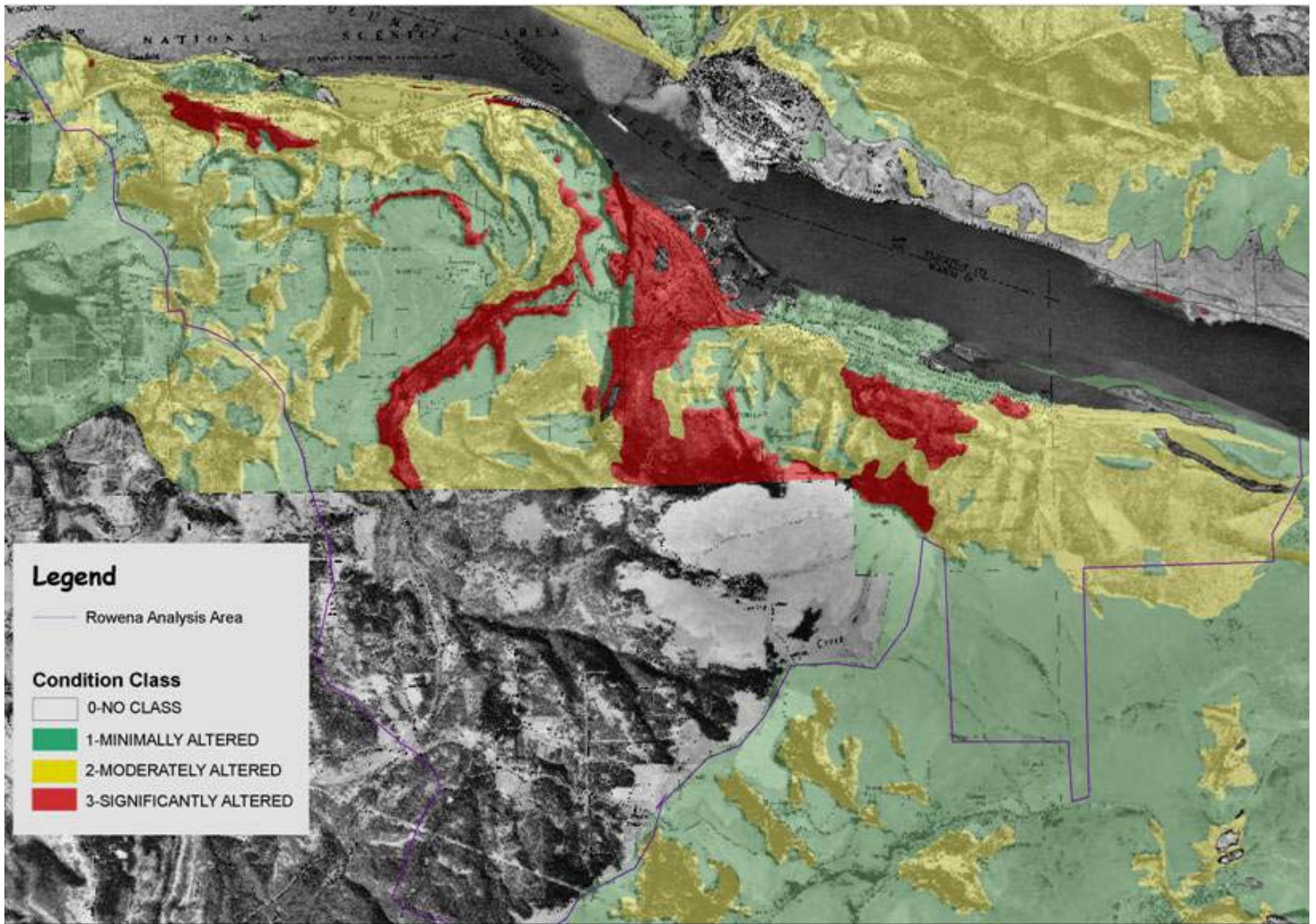


Figure 10: Rowena Fire Condition Class

Fire Occurrence

Given the slope class, flashy fuel load, predominant wind patterns and wildland/urban interface any fire within the planning area between late May and late October is potentially significant. Light flashy fuels such as cheat grass coupled with steep slopes and strong west winds combine to generate explosive fire behavior characterized by rapid rates of spread. Such fire behavior within the wildland/urban interface generates significant public and firefighter safety concerns. The Wildland-Urban interface is defined as 1.5 miles from an at-risk community as per the Healthy Forest Restoration Act (HFRA).

A review of fire statistics from 1992 through 2004 indicates that some 34 fires burned in the planning unit within that time period. These fires were all human caused and ranged in source from fireworks and cigarettes to rail road, farm equipment and power lines. Of these 34 fires, nine fires would be classified as significant (based on size and/or complexity).

Fish and Wildlife

Aquatics

Aside from the Columbia River, the primary water features are Rowena Creek and the approximately 20 palustrine wetlands. Rowena Creek is intermittent; having surface flow largely between December and April only (OR Water Resource Dept.). Around seven of the 20 wetlands are on federal lands. The 2002 Mosier Watershed Assessment tabulated that there are a total of 6.4 acres of wetland in the Rowena watershed, with 1.3 of those acres (20%) formed naturally. The rest (80%) were constructed ponds or wetlands.

Not all wetlands have been surveyed, but known residents include sensitive species such as the western pond turtle. Refer to 1995 Pond Turtle Management Plan written by Robin Dobson for more detailed conditions and management recommendations. At least one pond has been stocked with goldfish that has become a naturalized population. These ponds are likely important local breeding habitat for amphibians, mollusks, and insects. None of the water bodies on federal land are known to harbor native fish year-round.

The Forest Service surveyed Rowena Creek for fish presence in 1995. No fish were found. The Mosier Creek Watershed Assessment (page 38) cited a Rowena Creek survey in 2001 in which no fish were found. Some fish use may occur in a short stretch of Rowena creek below an impassable waterfall near I-84 during the winter and spring months.

Terrestrial Wildlife

The Fifteen Mile Subbasin Plan identified a list of 47 potential “wildlife focal species” developed from a 250 species Deschutes Sub-basin all-species list. These species are listed on pages 69 to 72 of the Fifteen Mile Subbasin Plan. Of particular note in the Rowena planning area are occupied Peregrine falcon and bald eagle nest sites and ponds with Western pond turtle.

The oak woodland and Ponderosa Pine of the Rowena area shelter many native and sensitive species such as the Lewis’ woodpecker and the western gray squirrel. Oregon white oak

provides food and cover for wildlife. Acorns are important fall and early winter food for many species of wildlife including woodpeckers, western gray squirrels, and deer. Many woodpeckers and other birds eat insects and insect eggs found in the wood or fissured bark of living and dead Oregon white oak. Oak leaves are a fair-to-good quality deer browse.

Many wildlife species nest in oak cavities or use them to avoid inclement weather or predators. Open-form oak tend to provide more cavities than closed-form oak. However, with fire exclusion many oak woodlands are dense, even-aged thickets with tall slender trees competing for sunlight. These stands range from clumps of young "closed-form" oaks to scattered older, non-reproductive trees.

Oak and pine woodlands provide key habitat for games species such as turkey and deer, both of which use the planning area. The entire planning area is deer winter range. Deer that winter in this area summer from as far away as the east flanks of Mt. Hood. The best wintering areas are identified by plots that provide cover (overhead trees or swale) and browse, as well as are located away from human residences. Good habitat for both deer and turkey would be composed of diverse woodlands with both dense areas for cover, as well as open meadows. Also important is the maintenance or retention of contiguous and undisturbed areas with large mast producers (Ponderosa pine and oaks).

Cultural Resources

Sixty-five percent of the National Forest lands within the open-space area have been already surveyed for cultural resources. Approximately 725-acres of Forest Service lands have not yet been surveyed. About 100 acres of Mayer and Memaloose State Parks have been surveyed. It is unlikely that more than 25-acres of private lands have been surveyed.

Historic accounts affirm that Wasco people used this area. See Reference Conditions for more information. While little site-specific information is available, it is possible that there are some legendary sites within or near the planning area.

Consultation with the Confederated Tribes of the Warm Springs revealed their interest in seeking out opportunities to enhance native and culturally significant vegetation. Given the convenient geographic location of this area, opportunities may be available to enhance plants significant to the Warm Springs people. Oral history records could be further investigated to determine if there are any known root gathering areas in the Rowena vicinity.

Several significant historic buildings are located in the Rowena area and include the Rowena Barn, Rowena well house, and the W.T. McClure Farmstead (the big house, barn chicken coop and shed have been determined to be eligible for inclusion on the National Register of Historic Places). Demolition of any of these buildings would require significant mitigation, or may not be allowed at all.

The Historic Columbia River Highway also traverses part of the Rowena area. This road is a National Historic Landmark District and stringent standards apply to developments within the district and adjacent to it.

Scenic Resources

Landscape Setting

The Rowena analysis area is located within the Oak Woodlands landscape setting described by the CRGNSA Plan below:

Overview and Land Use: This visually complex setting represents the climatic transition area between the lush forests of the western Gorge-and the semi-arid grasslands of the eastern Gorge. Dry oak-pine woods, Savannah areas (predominantly grassy openings with scattered trees), and grassy prairies are interspersed with scattered rural development. Such development includes residences, roads, fences, etc. In some portions of this setting, orchards and cultivated areas lend a pastoral flavor to this generally natural-appearing landscape. Most parcels are over 20 acres in size, and are frequently between 40 and 160 acres.

Most of this setting is found on gently rolling to hilly terrain. Pastures and small farm uses are interspersed in the gentler portions of this setting. Some very steep slopes and deeply incised side canyons are contained in the least developed portions of this setting.

Vegetation: This setting contains perhaps the most varied vegetative communities in the Gorge, adding to its visual richness. Mixed stands of Oregon white oak and ponderosa pine typify this setting. In the western portions, highest elevations, and north slopes, this community transitions into woodland vegetation patterns, with increasing numbers of Douglas-fir. Drier portions of this setting and areas with poor, thin soils are often treeless prairies. "Biscuit scablands," or patterned ground areas with little vegetation and hummocky rock outcrops, also occur. This special landscape, created by scouring of great floods, is also found in some portions of the Grassland setting.

Existing Scenic Condition

Currently, the Rowena area appears highly scenic from key viewing areas. It is viewed from viewpoints within the analysis area and from more distant viewpoints. The most important viewpoints for the purposes of this analysis are the foreground views from the Historic Columbia River Highway (HCRH) and Tom McCall point. Both of these Key Viewing Areas are within the analysis area. Visitors drive the HCRH to get out for a climb to Tom McCall Point, to enjoy the wildflowers, view the rural character, and experience the feeling of the old highway's curvy alignment. There are few discordant views along this stretch and it has an overall character of the ideal pastoral landscape. The existing scenic condition is highly intact.

Views of the area from I-84, the Columbia River, or SR-14 are less intimate and at a larger landscape level. The vegetation composition of oak-pine woodlands mixed with grassy openings and basalt outcrops is dominant. Rural development at Rowena is also apparent. It is an important area of open space between Hood River and The Dalles.

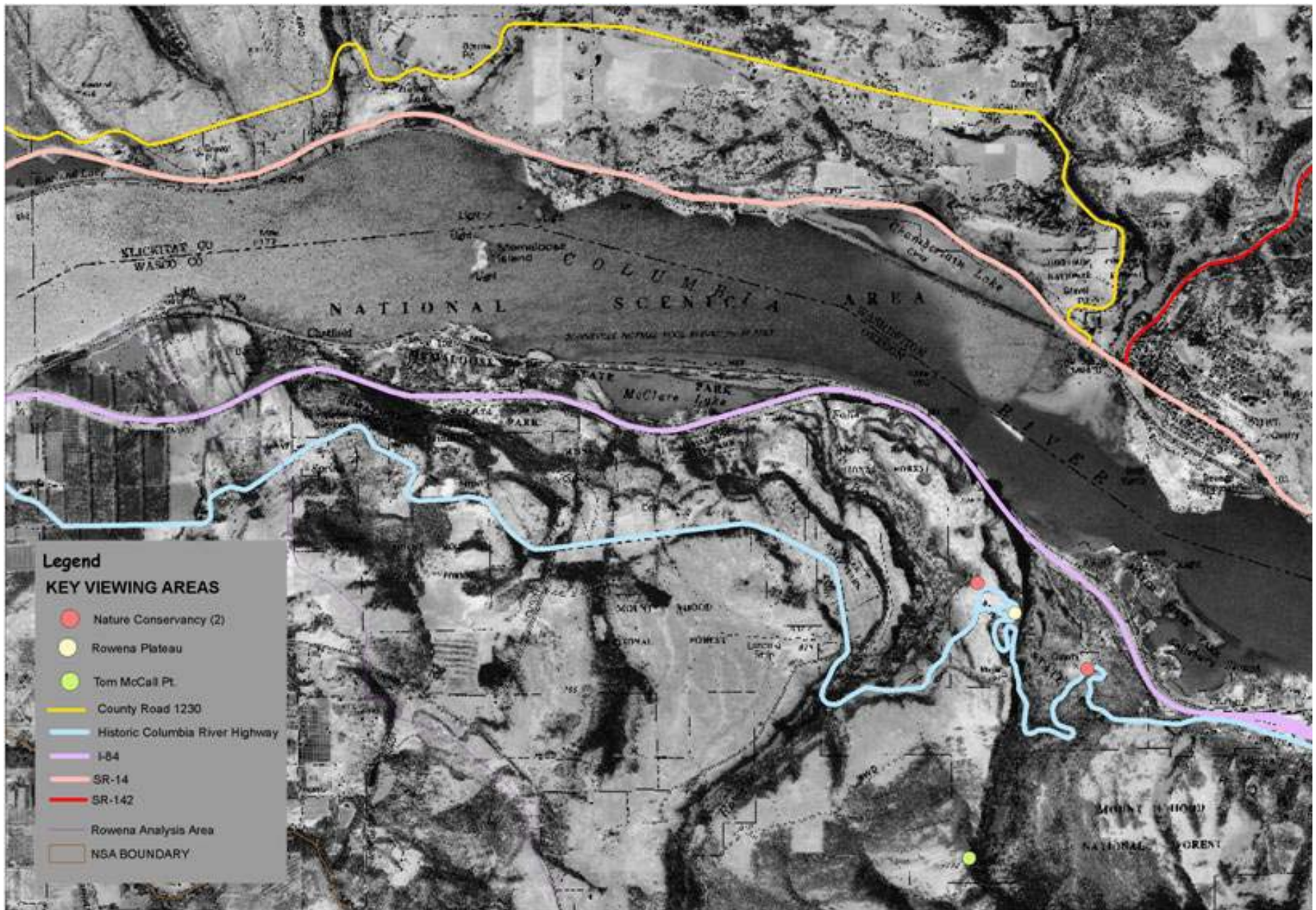


Figure 11: Key Viewing Areas

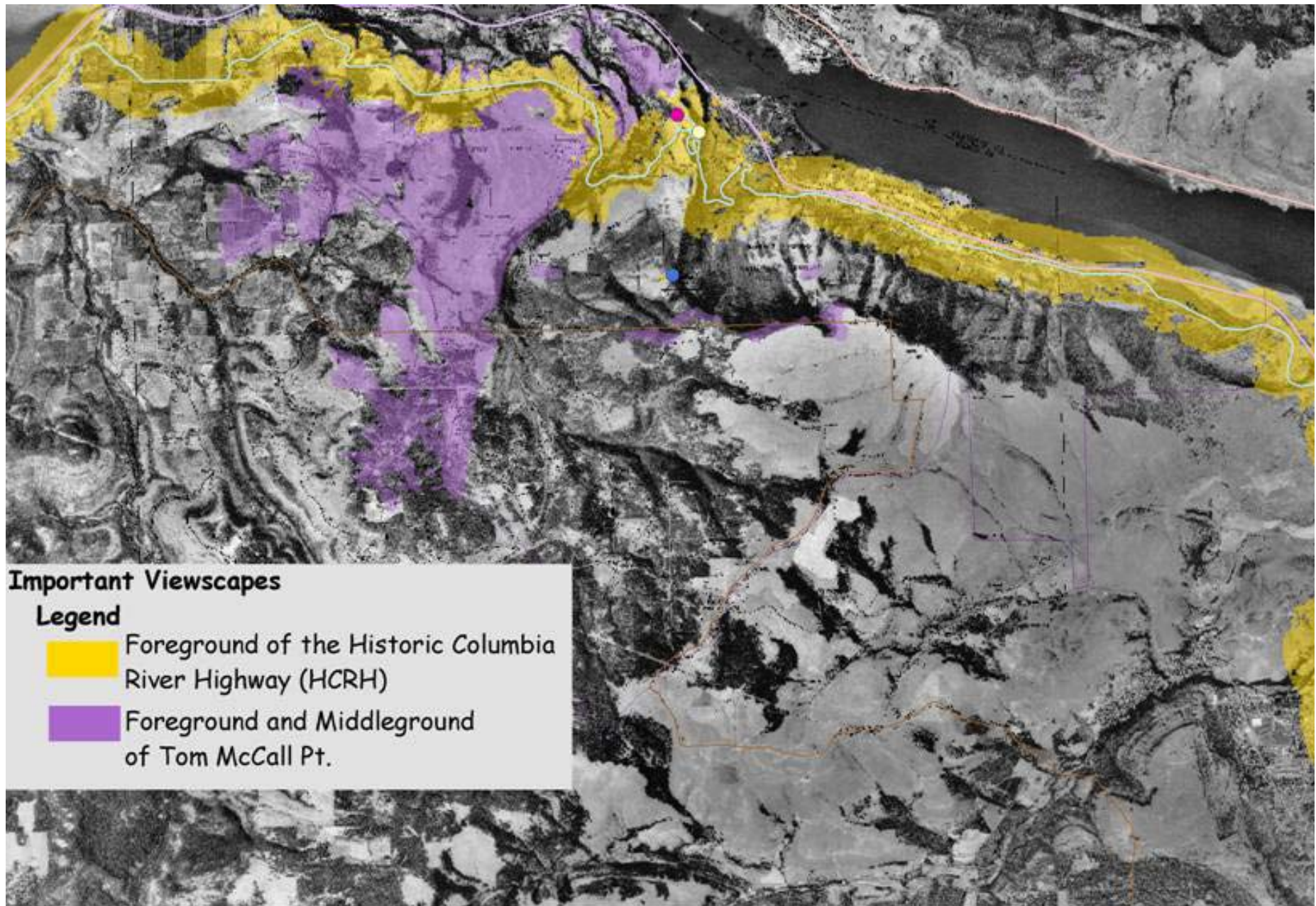


Figure 12: Important Viewscapes

Existing Land Uses

Note: Recreation is addressed separately

Overview, Land Use within the Planning Area

Land use in the Rowena planning area is a mix of public and private lands and uses. Public lands are primarily used for recreation, and provide open space and habitat. Private land is a mixture of residences and generally small agricultural operations. Only a few properties have “substantial” agricultural operation, such as orchard, wheat or cattle.

Within the planning area are 36 private residences, and almost half of these are in the Rowena Dell subdivision. West of Rowena Dell are 15 private residences, almost all on lots less than 20 acres. One residence was recently removed. Only a half dozen residences occur in the planning area east of Rowena Dell, and these are on lots ranging from 7 to 100 acres. A half dozen vacant properties in the planning area could be residentially developed, and four are in the Rowena Dell subdivision.

Overview, Land Use Adjacent to Planning Area

West and South of Rowena Dell: Land use in the GMA west and south of Rowena Dell is a mix of Large-scale and Small-scale Agriculture and Residential. There are concentrations of rural residential on lots of less than 20 acres. The small town of Mosier is a few miles west of the Rowena SMA.

South of Tom McCall Point and Seven Mile Hill: Land use in the GMA and outside of the CRGNSA is predominately Large-scale Agriculture, and includes parcels of hundreds of acres. The land is used for wheat and cattle, and residences are few. The Dalles is a few miles east of the Rowena SMA

Rowena Community: The Rowena residential area is north of the eastern portion of the SMA, and has many residences on small lots (typically less than 5 acres).

Forest Service Property Structures

A “Facilities Master Plan” completed for the CRGNSA in October, 2003 forms the basis of this discussion. Some of the data and results that apply to this planning area will be repeated here for expediency. Table 5 below summarizes the current disposition of Forest Service structures within the planning area.

Table 5. Forest Service Property Structures within the Rowena Planning Area

Name	Location	Access	Historical Status	Needed for Administrative Use
Anderson Well	T2N, R12E, SW1/4 SE1/4 SEC 10	Sevenmile Hill Road	None	No
Haga Mobile Home Site	T2N, R12E, NE1/4 SE1/4 SEC 4	3000782	None	No
Johnson / Rowena Barn	T2N, R12E, SW1/4 SW1/4 SEC 3	3000787	Eligible	Yes
Johnson Spring House	T2N, R12E, SW1/4 SW1/4 SEC3	3000787	Eligible	No
Moorhead/Fisher House No. 1 (hazmat)	T2N, R12E, SE1/4 NW1/4 SEC 4	3000778	None	No
Moorhead/Fisher House No. 2	T2N, R12E, SE1/4 NW1/4 SEC 4	3000778	Eligible	No
Moorhead/Fisher Outbuildings	T2N, R12E, SE1/4 NW1/4 SEC 4	3000778	Eligible	No

Roads

A “Roads Analysis” completed for the CRGNSA in March, 2003 forms the basis of this discussion. The Roads Analysis did not include an analysis of third party rights. Some of the data and results that apply to this planning area will be repeated here for expediency.

The current road system within the planning area consists of public roads operated and maintained by the State of Oregon, Wasco County and adjacent property owners, along with National Forest System Roads (NFSR) and private roads. The tables below summarize the roads within these categories, including use, except for private roads not attached to NFSR and roads within the developed portions of Memaloose and Mayer State Parks. “Public” jurisdiction is a road open to the public, but not maintained by the County. They are maintained by the adjacent property owners.

Figure 13, “Roads and Potential Trailheads” (page 47) generally indicates the location of these roads within the planning area.

Table 6. State and County Roads within the Rowena Planning Area

Road Name	Jurisdiction	Lanes	Surface	Estimated CADT
Interstate 84	ODOT	4	Asphalt	21,000
US 30, Historic Columbia River Hwy.	ODOT	2	Asphalt	400
Marsh Cutoff	Wasco County	2	Asphalt	55
Dell Road	Public	1	Gravel	85
State Road	Wasco County	2	Asphalt	400
Morgensen Road	Wasco County	1	Gravel	80
Rowena Ferry Road	Public	2	Asphalt	10

* CADT: Current Average Daily Traffic

Table 7. National Forest System Roads (NFSR) and Connected Roads Other Than Table 6

NFSR No.	Road Name	Access other than Forest Service Administrative or Fire	Lanes/Surface	Exist. Closure Device	Road Mgmt.	Priority for Maint.	Priority for Closure	Notes
2130105	Gravel Pit		1/Native		DE		H	Restoration EA
3000775	Quarry	County	2/Gravel	Gate	CA	L	L	Stable
3000778	Moorhead-Fisher		1/Gravel	Gate	CA	M	H	Stable
3000782	Russell		1/Native	Gate	CD	L	H	Erosion (ruts)
3000783	Russell							Decommissioned (grassed in)
3000785		State Parks; Private	1/Native		OH	L		Stable; access to water tank
3000787		Private; Electric Utility	1/Pitrun		OP	M		Stable; private residential
3000789	Canyon Way	Private	2/Asphalt 1/Gravel		OP	M		Stable; private residential
3000789	Canyon Way	Private	1/Pitrun	Gate	CA	M	H	Stable; 84" culvert @ Rowena Creek
3000791			1/Asphalt	Bldrs.	DE		L	Stable
3000810			1/Native	Bldrs.	CD	H	H	Erosion (ruts)
3000828	Workinger	Private	1/Gravel		OP	M		Stable; private residential
3078015			1/Native	Berm	CD	L	M	Stable
3078081		Private; Electric Utility	1/Pitrun		OP	H		Stable
3078082		Private	1/Native		OP	M		Stable; private residential
3078083		Electric Utility	1/Native	Gate	CA	L	H	Erosion (culverts)
3078085			1/Pitrun	Gate	CA	H	H	Erosion (ruts, slide, culverts)
3078087		Electric Utility	1/Native	Gate	CA	H	H	Stable
3078089								Decommissioned (grassed in)
8400760	Mayer St. Park		1/Gravel	Berm	CA	M	H	Stable

Abbreviations:

OP = open for passenger cars.

OH = open for high clearance vehicles.

CD = close with a device (berm, waterbar).

CA = close administratively (gate, sign).

DE = Decommission

L = Low

M = Medium

H = High

Rock Quarries

There are three rock quarries within the planning area as described in Table 8.

Table 8. Rock Quarries within the Rowena Planning Area

Name	Owner	Location	Notes
Memaloose	Wasco County	T2N, R12E, NW 1/4 Sec 4	Active
Sevenmile Hill	Forest Service	T2N, R13E, SW1/4 Sec 19	Rehabilitate under “Restoration EA” (Decision Notice 7/14/03)
Rowena	ODOT/OPRD	T2N, R12E, SE1/4 Sec 3	Rehabilitation started by Oregon Department of Transportation/Oregon Parks and Recreation

Railroads

The Union Pacific Railroad runs along the northerly boundary of the planning area.

Power

There is an overlapping network of overhead power transmission lines owned and operated by the Wasco Electric Co-op and the Northern Wasco County PUD. Some of the lines are located along public road rights-of-way while others run cross country.

The lines are generally located north of Sevenmile Hill from the westerly boundary of the planning area to Rowena Dell and along the Historic Columbia River Highway (US 30) through the Rowena area.

Telephone

Sprint is the telephone service provider in this area. Their system is a combination of buried cable (located primarily within public road rights-of-way) and overhead lines on poles shared with the power providers (located within public road rights-of-way and running cross country). The system is located within the same overall areas as the power lines as described above.

Water

The Rowena Dell Water System is a small community water system located in Township 2 North, Range 12 East, Section 3. The system is comprised of a well, a small storage tank and distribution line.

Third Party Use of National Forest Lands

- Stiffey Pasture Permit, Sections 4 & 5, T2N, R12E: 10 year Special Use Permit issued 4/6/2005 expires 12/31/2015
- Filming permits at Johnson / Rowena Barn located in Section 3, T2N, R12E: Average 2 - 3 permits per year.

Third Party Rights on National Forest Lands

- Easements for Wasco Electric, Pacific Power & Light and Rowena Dell water system. The Forest Service is not considered a “member” of the Rowena Dell Water System
- Unknown 3rd party rights may include road access, water diversion, transmission lines, etc.

Recreation

Characterization

The watershed is characterized by open grasslands and pine/oak woodlands on moderate to steep slopes and is dominated by the unique Rowena Plateau landform. This transition zone from the wet west side to the dry east side offers sunshine, open views, and dramatic spring wildflower displays. This breathtaking backdrop presents opportunities for day use recreation during the damp and dreary days of winter and spring. With relatively good road access as provided by the Historic Columbia River Highway (HCRH) and other public roads, opportunities for dispersed recreation activities such as hiking, hunting and mountain bike riding are abundant. There are few opportunities for developed outdoor recreation within the watershed. Only Memaloose and Meyer State Park provide those opportunities.

An estimated 2.0 million people visited National Forest in the CRGNSA in 2001 according to the National Visitor Use Monitoring Report. However, recreation use in the watershed is relatively low as compared to the popular west end of the Columbia River Gorge. It is estimated that less than 10% of the total use occurs in the watershed based on the number of recreation facilities provided. For example only 4% of all developed recreation facilities in the Gorge are located within the watershed. This is mainly due to the high concentration of private land and the distance from the Portland/Vancouver Metro area.

The majority of the watershed and recreation facilities are located within a 1-1.5 hours drive of the Portland/Vancouver Metro area. Consequently most of the visitation comes from outside the watershed, mainly from the Metro area. The majority of dispersed activity tends to occur during the spring months as visitors take advantage of the sun and dramatic wildflower displays.

Developed recreation activities (camping, picnicking etc) and sightseeing occurs mainly during the summer months as is the trend throughout the Gorge. The majority of activity tends to be day use in nature, such as sight seeing, picnicking, day hiking, fishing, wind surfing, etc. Recreation activity is generally confined to established recreation sites and travel corridors such as the HCRH. There are limited opportunities for dispersed activities such as hunting away from these sites and corridors. The high concentration of private lands limits the general public from hunting in the watershed; however, hunting by invitation and permission on private land occurs.

Sight-seeing is the most dominant form of recreation activity in the CRGNSA. 82% of all visitors who visit the Gorge participate in viewing wildlife, birds and fish, with 38% viewing natural features, such as scenery and flowers. The watershed provides numerous opportunities for both formal and informal views of the dramatic scenery and wildlife (specifically birds) along I-84, HCRH, Rowena Crest and Memaloose Overlook. Visiting historic and prehistoric areas (38%) and driving for pleasure (47%) is also a significant activity visitors participate in. Historic site visitation and driving for pleasure occur mainly along the HCRH and I-84.

Participation in day hiking is somewhat lower than sight-seeing Gorge wide, but it is significant with nearly 47% of all users participating. The majority of hiking in the watershed occurs on informal trails in the Rowena area and the managed trail system in Tom McCall Preserve.

Wind surfing is very popular in this section of the Gorge. Steady west winds in the spring and early summer months provide excellent conditions. Access points include Meyer State Park and informal access at Squally point, east of the Rowena planning area.

While fishing is not significant within the watershed, a boat ramp at Mayer State Park provides boat access to the Columbia River for salmon, walleye and steelhead fishing. Nearly 3% of all visitors to the Gorge participate in fishing.

Camping is not a significant activity in the watershed with only one campground at Memaloose State Park. There are few opportunities for dispersed camping with the mixed ownership pattern, lack of public road access to the backcountry and steep terrain.

The Columbia River Gorge National Scenic Area uses a modified version of the Recreation Opportunity Spectrum (ROS) called Recreation Intensity Class (RIC). Most RIC 1 is associated with Open Space. RIC 1 emphasizes providing semi-primitive recreation opportunities in which people can realize experiences such as solitude, tension reduction and nature appreciation. Maximum design capacity should not exceed 35 people at one time (paot) and 10 vehicles for this class. RIC 2 provides settings where people can participate in activities such as physical fitness, outdoor learning, relaxation and escape from noise and crowds. Maximum design capacity should not exceed 70 paot and 25 vehicles. RIC 3 emphasis is on facilities that are complementary to the natural landscape, yet accommodate a moderate number of people. People are able to realize experiences such as group socialization, nature appreciation, relaxation, cultural learning and physical activities. Maximum design capacity is 250 paot and 50 vehicles. The emphasis of RIC 4 is providing roaded natural, rural and suburban recreation opportunities with a high level of social interaction. Maximum design capacity is 1,000 paot and 250 vehicles. Most of the area east of Rowena Crest is classified as RIC 1. Areas west of Rowena Crest are a mix of mostly RIC 1 and RIC 2. RIC 3 and 4 are associated with existing or proposed developed recreation sites.

Four Public Recreation Zone land allocations in the watershed are located in the following areas:

1. Memaloose State Park
2. Rowena Crest
3. Mayer State Park (west and east)
4. Tooley Lake

Current Conditions

Viewing scenery and observing nature/wildlife is the most dominant form of use in the watershed. Statewide 2003-2007 Oregon Statewide Comprehensive Outdoor Recreation Plan (OR SCORP) reports a 21.4% increase in sightseeing and a 170% increase in nature/wildlife observation between 1987 and 2002. Specifically Regions 2 and 3 (Columbia, Washington, Yamhill, Polk, Marion, Clackamas, Hood River, Multnomah, Linn, Benton and Lane Counties) experienced a 68.6% increase in sightseeing and a 254% increase in nature/wildlife observation. Regions 6, 7 and 10 (Wasco, Sherman, Morrow, Umitilla, Jefferson, Deschutes, Crook, Wheeler, Wallowa, Union, Baker and Grant Counties) experienced a 33.7% increase in sightseeing and a 161% increase in nature/wildlife observation. At this time current facilities allow the informal observation from roads, trails and established viewpoint trails.

Hiking and viewing wildflowers has increased in the watershed since the designation of the CRGNSA. Significant acquisitions by the Forest Service in the Rowena and Seven Mile Hill areas have spurred recreation growth in the area. This is evidenced by the number of user made trails that have developed within the past 10 years. This general increase in use is also supported by the Nature Conservancy which manages Tom McCall preserve. The Nature Conservancy has observed increased use for over a wider time period especially on the trail leading to McCall Point. During the mid 1990's the Friends of the Columbia River Gorge collaborated with a number of interest groups to develop a *Vision for the Rowena Area*, which increased the visibility of the area to the general public. This recent trend in the watershed seems to be inconsistent with both Oregon and Washington SCORP, which indicate that statewide hiking has stayed static between 1987 and 2002.

Surprisingly, mountain bike use has not been established in the watershed. The terrain and openness seems conducive for beginning to intermediate users. Lack of use may be attributed to the lack of awareness by the mountain biking community and lack of challenge for local users, and the popularity of the Coyote Wall (Syncline) area across the Columbia River between Burdoin Mountain and Catherine Creek.

In general, developed site recreation (picnicking and camping) are confined to the two State Parks in the watershed. The OR SCORP reports that supply for developed campgrounds and picnic areas exceed current demand in Regions 2, 3, 6, 7 and 10. Between 1987 and 2002, Regions 2, 3, 6, 7 and 10 also experienced a general decline in picnicking. However, Regions 2 and 3 experienced a 48% increase in RV/Trailer camping while in Regions 6, 7 and 10, use increased by 96%.

Fishing from a boat has increased significantly over the last 5 years. Statewide OR SCORP reports an increase of 47%, Regions 6, 7 and 10 (Wasco, Sherman, Morrow, Umitilla, Jefferson, Deschutes, Crook, Wheeler, Wallowa, Union, Baker and Grant Counties) experienced an increase of 190%. The watershed does provide one developed boat ramp access to the Columbia River at Mayer State Park, where fishing seems to be the dominant boating activity. From anecdotal data this facility seems to meet current demand. Fishing should continue to see growth, however it could depend on restrictions imposed on salmon fishing season.

OR SCORP reports a decline in windsurfing of 13.6% statewide since 1987. Regions 2, 3, 6, 7 and 10 experienced nearly a 50% decline. Generally, it appears East Mayer State Park meets current demand in the watershed, however during the past couple years there has been an increase in use of the Squally Point area, further east of the Rowena planning area. Local windsurfing advocates, however, continue to express the need for more river access in the Gorge.

The area has also seen an increase in off-highway vehicles (OHV) use; most of the use appears to occur mainly from local residents adjacent to public land.

Recreation use particularly hiking, sightseeing, viewing nature/wildlife and fishing should continue to grow in the watershed. While recent statistics show statewide growth in hiking is static, anecdotal data and the development of user trails in the watershed indicate this activity should continue to grow. While OR and WA SCORP concluded that the large inventory of

recreational trails exceeds demand, WA SCORP also concluded: “most trails are not located where they are needed the most (in or near town). The majority of trails are located on remote lands above 3000 feet.” The majority of trails in the Gorge is close to urban populations (within 30 minutes to 1 hours drive from the Portland/Vancouver Metro Area) and tends to be accessible year round. Recent studies also support the Washington SCORP, in that time and distance are now the main barriers to participating in outdoor recreation activities. This explains why trail use is so high in the Columbia River Gorge (48% of all visitors participating in hiking and 63% participate in walking and hiking combined) and perhaps why demand for trails in the watershed is high.

The National Survey on Recreation and the Environment (NSRE) expects a growth rate of 23% in the Pacific Region (including Oregon and Washington), however this seems a bit high for the watershed. While the area is relatively close the Portland/Vancouver Metro area, hiking in the watershed seems to very seasonal in nature with the majority of use occurring in the spring to view the dramatic wildflower displays. Summer activity is relatively low because of the very warm temperatures. While it seems reasonable to expect this use to grow, it should be lower than NSRE estimates.

The NSRE concludes sightseeing and nature activities should continue to grow at a rate of 26% and 23% respectively during the next 10 years for the Pacific Region (including Oregon and Washington). With the outstanding scenery, the proximity to the Portland/Vancouver Metro area and the opportunities to view nature and wildlife along the HCRH, I-84, Rowena Crest, and Memaloose view point it is reasonable to expect growth at or near the projected rate.

Car camping, picnicking and windsurfing should not see significant growth based on current trends. For the most part the supply of facilities for developed camping, picnicking and windsurfing should continue to meet general demand for these activities in the foreseeable future. One notable exception is RV/Trailer camping, where demand may exceed supply in the watershed based on the growth experienced since 1987 and the being on the threshold of “baby boomer” generation nearing retirement age.

Existing Sites

Vistas and Overlooks

There are two signed and developed viewpoints within the planning area located along the Historic Columbia River Highway (US 30). One is the Memaloose Overlook located at milepost 76.3 with a parking capacity of approximately eight (8) vehicles on a gravel surface, operated and maintained by ODOT. The other is the Rowena Crest Viewpoint described above under “Trails and Trailheads”.

Informal pullouts with vistas exist along the Historic Columbia River Highway (US 30) between the Rowena Crest Viewpoint and the Interstate 84 junction at Rowena. Approximately eight (8) such locations exist with parking in total for about 16 vehicles.

Trailheads

The only current trailhead parking advertised to the public is at Rowena Crest Viewpoint and is associated with the Nature Conservancy's Governor Tom McCall Preserve at Rowena Plateau. The Rowena Crest Viewpoint is located at milepost 79.8 on the Historic Columbia River Highway and is operated and maintained by Oregon State Parks and Recreation. Parking capacity is approximately eight vehicles along the gravel shoulders of the asphalt entrance road; and approximately 25 vehicles around the outside of the asphalt parking loop. There is also a gravel parking area on OPRD land associated with the Preserve across the Historic Highway from the entrance to the Viewpoint. Parking capacity here is approximately four vehicles with space for approximately six additional vehicles along the nearby gravel shoulders.

Trails

- Tom McCall Preserve Trail System (owned OPRD and the Nature Conservancy).
- There are no Forest Service System trails in the area.
- User made trails in the Memaloose Hills, Rowena and Seven Mile Hill areas.

Existing Roads Suitable for Recreation

- Historic Columbia River Highway
- Dell Road
- Marsh Cut-Off
- State Road
- I-84

Proposed Developments in the CRGNSA Plan (all SMA except where designated as GMA)

- No. 27 Ortley View Point
- No. 28 Rowena East
- No. 29 Mayer Park - GMA
- No. 30 Mayer Park West
- No. 31 Hudson Hill (note: this hill is now named McClure Hill) - GMA
- No. 33 Memaloose Campground
- T 17 Rowena Overlook to Tooley Lake Trail (partially developed – user trails, private lands)
- T 18 Memaloose Overlook to Rowena Dell trail (partially developed – user trails)

Other Proposals

- *A Vision for the Rowena Area: Rich in Resources – Rich in Beauty. A Collaborative Project coordinated by Friends of the Columbia Gorge. 1997*
- Wildlife observation at wetland on State Road (Marsh Cut-off)
- Interpretive site at Fisher-Moorehead property
- Interpretive site at Rowena Barn

Reference Conditions

Reference Period

Reference conditions are the conditions that were likely to have been in place in a certain reference period. The Mosier Watershed Assessment (WA) provides a discussion of resource conditions at the time of European American settlement (mid 1800's). The WA discussion is summarized here; please refer to pages 8 to 13 of the WA for more detail.

Climate

Over the last 15,000 years, the climate has changed considerably in the Pacific Northwest. The gigantic Bretz floods on the Columbia River scoured land up to 1,000 feet in elevation, and occurred at a rate of one or two every century until around 12,000 years ago. The local climate became hotter and dryer 8,500 to 5,500 years ago, then became cooler and moister again 2,500 to 500 years ago.

Natural Disturbance Patterns

As described in the Mosier watershed assessment, past floods, fires, mudflows and landslides have shaped the landscape in one degree or another in the Mosier Creek Watershed. The middle and upper portion of Rowena Creek is located within the rain-on-snow elevation zone, which is usually between 1200' and 3600'. Rain-on-snow flooding, landslides and debris flows can be found in the area. Large-scale events such as flooding and fires can significantly shape riparian and aquatic habitat conditions. Large woody debris and sediment can be transported to the stream adding to the in-stream habitat diversity. Less mature riparian vegetation may be found near such disturbances. Stand-replacing fires were a rare event in ponderosa pine habitat; however, frequent natural or man-made low-level fires regularly cleared underbrush and less fire-resistant species, such as young Douglas fir.

Watershed Conditions

The Mosier Creek Watershed Assessment includes descriptions of reference conditions for vegetation, riparian, wetland and stream channels. In general, the area was composed of larger trees prior to land development and settlement. Large oak trees were highly valued from the Mosier area for powering steamboats up and down the Columbia River. This loss of large trees in the watershed has led to less complexity and diversity in stream channels. The assessment states that local residents report that Rock Creek (west of Rowena Creek) was perennial all the way to the Columbia prior to the 1950's and additional anecdotal information suggests that several springs that may have contributed flow to lower Rock Creek are now diverted for domestic water sources. It is not known whether a similar situation existed in Rowena Creek as well or whether Rowena Creek has always been an intermittent stream.

The Watershed Assessment also notes that many wetlands and stream channels have been drained or diverted to reduce saturated soil conditions, and the use of drain tiles and ditches to drain wet areas for agriculture and roadways was common and continues to the present.

Before construction of the Columbia River dam system, beginning with Bonneville Dam in 1938, the shores of the Columbia River were lined with wetland habitat. A railroad was constructed on the south shore of the Columbia in the 1880's. In 1955, Interstate 84 was constructed with two lanes widened to four lanes in 1976. Together, Bonneville Pool, the railroad and Interstate 84 eliminated floodplain habitat from the banks of much of the river, creating lakes on the south side of the road.

Vegetation

The Mosier watershed assessment reviewed records from about 1859 to 1900 and reported that Government Land Office surveys from the 1880's suggest large trees with under-story brush were found throughout the Watershed. Oak forests featured larger trees than they typically do now. Nearly the entire Watershed was listed as "Heavily timbered" or "Densely forested" depending on the surveyor. On the drier east-side of the Watershed, near Rowena, pine-oak forests were prevalent. Some areas had young or mixed age stands due to fire history. Around the time of settlement, tree species in the Watershed appear to have been similar to those present today although their relative proportions differed.

According to the *Mosier Creek Watershed Assessment*, intentional burning by Native Americans to maintain travel routes and berry patches occurred in the Eastern Gorge. Fire thinned the oak stands, creating varying-aged stands and open savannas. Fire suppressed competing vegetation and tree regeneration and promoted the development of widely-spaced, heavily-branched "open-form" oaks with thick, fire-resistant protective bark. Under current fire suppression practices, oaks grow thicker and remain smaller than historically.

While the tree species and forest types are similar to historic conditions, currently more land is cleared for agriculture and development. The Mosier watershed assessment reports that by 1914, 26,400 acres, or more than ½ of the Watershed was identified as being "Non-timber areas".

The Forest Service analysis further describes the area as historically more of a mosaic, with trees located in the drainages, with openings above. Below 800 ft in elevation, vegetation was sparse due to the Bretz floods. Above 800' most clearings are now introduced by humans.

Although the historic condition is not well understood, a representative sample can be gleaned from examining present vegetation and extrapolating back with the infusion of more frequent low intensity fires (and is based on climate conditions fairly similar to today). The resulting vegetation would have been oak/pine woodland with large trees more scattered over the area. This woodland would have been largely fire resilient. The larger oaks would have likely produced larger mast crops and the larger pines more cones.

The shrub under-story was most likely of similar species as today, but more evenly distributed

throughout the area. As a result of frequent fires, the shrub under-story would have been repeatedly kept in a state of rejuvenation providing excellent browse for deer. The herbaceous under-story would have been dominated with perennial native bunchgrasses, such as Idaho fescue, blue bunch wheat grass, and others with a very strong component of balsam root, lupine, and other herbaceous flora. This diverse flora would have been wide spread throughout creating an excellent habitat for a diverse insect component which in turn would have fostered a diverse bird community.

The Douglas fir community on Seven Mile Hill would have likely been far smaller with scattered large firs mingled with the pines and oaks. The encroachment on the oak/pine evident today would not have been evident historically except in very wet climate conditions.

The status of the sensitive flora is rather unknown. Some of these species may never have been very common. On the other hand, some of them may be fire dependent and would have been far more common. Likewise, some of the common species found today may not have been common historically.

The Forest Service team expects that the three Forest Types (Pine-Oak-Douglas Fir, East Conifer and Oak Pine Woodlands) were historically located where they are located today, and the species within each Forest Type is similar both historically and currently. However, due to fire exclusion, the relative composition of each forest type is not the same as it was historically.

Fish and Wildlife

Large tree snags and large mast trees would have resulted in a higher prevalence of wildlife which are dependant on these components, such as cavity nesters and animals that feed on acorn crops such as the Lewis' woodpecker and western gray squirrel. Deer winter range and migration routes west of the planning area were largely intact and continuous.

Natural ponds were few (ponds were later constructed for agricultural and other purposes), and there was a large amount of estuary and riparian hardwood habitat on the Columbia River. Fish were abundant in the Columbia River.

Native Americans

People have inhabited the interior Northwest for at least the past 11,000 years, but strong evidence of human occupation of the Columbia Gorge is weak until about 10,000 years ago. For the first half of the Holocene (the past 10,000 years), Native Americans appear to have been highly mobile. Although artiodactyls (deer and bison family) bones are the most common faunal remains in early Holocene sites, salmon bone found in sites in the Gorge and ground stone tools found in other locations indicate that the inhabitants had a diverse diet. Base on the relatively small number of early Holocene sites found to date, population densities were quite low. Starting about 5,000 years BP (before present) some interior Northwestern groups began to invest more labor in the construction of their dwellings, in facilities for plant processing and

fishing, and in storage. This marked the beginning of semi-sedentary life way encountered by European American explorers in the early nineteenth century, although it is not until about, 2000 BP that large villages began to appear.

The influx of Europeans into North American began in the 1,500s, and had dire consequences for the Native Americans, although some short-term changes, especially the use of horses, appear to have been positive. Epidemics raged throughout the hemisphere, wiping out the majority of the Indian people.

Salmon fishing along the Columbia River and its major tributaries was one of the major activities of the summer, although preparations for fishing started as early as the previous winter, when people made repairs to their fishing tools during the idle months. Many people moved to special summer fishing locations, but other groups continued to move up in elevation through the spring and summer to gather berries and hunt deer, elk, and bear.

Little information is known about the specific role of the project area in the local settlement and subsistence system. A village may have been located at the confluence of Rowena Creek and the Columbia River. It is likely that little remains of the village because of the construction of the railroad and Interstate 84.

“The subject property lies within lands ceded by the Confederated Tribes of Warm Springs as a result of an 1855 treaty with the United States government. The area is within the traditional historic territory of the Upper Chinookan-speaking Wasco people. The Wasco village of galenicx (“it is put on or lowered down”) was located at the mouth of Rowena Creek... It is not known when the village was abandoned, but was occupied in 1840 when the Methodist missionary Daniel Lee conducted revival services there (McNeal n.d.:203). Many Wasco left the general area ca. 1860-1865 to resettle on the Warm Springs Indian Reservation” (McClure: 2003:4).

European Americans

European American settlement of the interior Northwest began slowly at first but built momentum as improvements in transportation created easier access to national and regional markets. Just like their Indian predecessors, European Americans living in the project area alternated between the wetter but colder uplands, and the drier lowlands with an earlier spring. Traditional use of project area, both Native and European American, appears to have declined after the 1950s.

Synthesis

This section synthesizes the events and ecological elements that affect the ecosystem.

Since the time of European influence, this watershed has experienced dramatic changes. The most dramatic change has been the influx of non-native peoples and the development that has come along with this influx. This includes transportation routes and road networks as well as urban developments, damming of the Columbia, land clearing, agriculture and suppression of natural fires. These developments have dramatically altered the Columbia River lowlands. Although the composition of the flora and fauna are largely the same, many species are in serious decline due to habitat changes.

Watershed

Pre-European settlement, stream channels had infrequent large episodic events with large inputs of woody debris. Currently, large woody material is missing in this watershed. Due to few large trees in the riparian areas and frequent road interruptions, stream events are more frequent and less significant. Sediment input from roads is more chronic, but of smaller amounts. The stream system is confined and high gradient, so streams are “feeders” for the Columbia River. In addition, the streams are feeding sediment but no longer feeding woody material. Bonneville Pool has eliminated the delta at the mouths of creeks. Sediment is no longer moving from the mouth of Rowena Creek down the Columbia River in large amounts. Sediment is moving much more slowly down river.

Road densities are high in the watershed in general, are medium in the Rowena area, and are low to moderate in riparian areas in particular.

Vegetation

Tree species and forest types are similar to historic conditions, but currently more land is cleared for agriculture and development. The Mosier watershed assessment reports that by 1914, 26,400 acres, or more than ½ of the watershed was identified as being “Non-timber areas”.

The Mosier Watershed Assessment estimated and mapped 1850’s vegetation cover types and current cover types (1990’s), within eight categories; 1) bare, 2) brush, 3) closed canopy, 4) open canopy, 5) grass or clearcut, 6) regrowth, 7) buildings, and 8) water. The Mosier Watershed Assessment maps indicate that in the Rowena area, closed canopy appears largely unchanged from the 1850’s to the 1990’s. There has been a marked increase from open canopy to grass and buildings (development).

The Fifteen Mile Subbasin Assessment (pages 73-75) mapped six presettlement wildlife habitat types; 1) interior grasslands, 2) interior mixed conifer forest, 3) interior riparian – wetlands, 4) montane mixed conifer forest, 5) ponderosa pine/interior white oak forest/woodlands, and 6) shrub-steppe.

The assessment mapped current wildlife habitat in a more detailed fourteen habitat types. The assessment concluded that for the entire subbasin “the most heavily impacted wildlife habitats in the subbasin were shrub-steppe, interior grasslands, and interior riparian habitat, in that order. Much of the shrub-steppe habitat and riparian habitat have been converted to agriculture, pasture and urban areas. Interior grassland habitats have been converted to forested habitats due to fire suppression”. The assessment’s maps indicate that in the Rowena area, the most notable changes occur in the Seven Mile Hill area. Habitat types west of Mc Call Point appear largely similar between current and presettlement conditions.

In addition to the changes in distribution and extent of different habitat types portrayed in both the Mosier and Fifteenmile Subbasin assessments, the condition and composition within almost all of the habitat types have changed. The under-story is largely dominated by various non-native annual and perennial grasses. There is generally a lack of natives and a lack of herbaceous flora, such as balsam root, lupine, etc. Weed infestations are fairly common within this area. Tree species appear to have been similar to those present today although their relative proportions differed.

Historically, fire thinned oak stands, creating varying-aged stands and open savannas. Trees were widely spaced, heavily branched "open-form" oaks. Under current fire exclusion practices, many oak woodlands are dense, even-aged "dog-hair" thickets with crowded tall slender trees competing for sunlight. The oaks grow thicker and remain smaller than historically. Douglas fir encroaches on oak pine woodlands.

Judging from historic conditions and from current vegetation models, the forest vegetation is in need of thinning to bring the community into higher fire resiliency. Experimental oak thinning plots have been established in the Burdoin Mountain area (Klickitat County, Washington) and Rowena area to determine how existing oak trees respond structurally to thinning; i.e., do the existing trees become larger, more heavily branched and more spaced. Such a structural response would lead over time to a more stable community with increased structural diversity and wildlife habitat value.

Fish and Wildlife

Fish habitat has been extensively altered by changes to the Columbia River. Wildlife habitat is fragmented from roads, dams, agriculture, clearing, homes, and fences. Winter range has been encroached upon in the larger vicinity, making the winter range in the planning area more important in the region. Due to the loss of Columbia River floodplain habitat, ponds (even the manmade ponds) are more significant regionally.

The exclusion of fire has resulted in conifer encroachment and thick understory, which has reduced habitat values to wildlife in these crowded stands. Thinning the pine oak woodlands would increase structural diversity and wildlife habitat value.

Aquatic Conservation Strategy

This section evaluates how well the Aquatic Conservation Strategy (ACS) Objectives (as part of the Forest Service Management Plans) are currently being met and the potential for meeting them in the future on National Forest lands. USDA Forest Service Regional policy, the CRGNSA Plan and the Mt. Hood Forest Plan as amended by the Northwest Forest Plan identify activities that can take place in riparian areas on National Forest lands.

Several small unnamed intermittent streams flow through National Forest lands in the “Rowena Columbia Tribs” subwatershed. National Forest lands are interspersed with private lands in the “Rowena Creek” subwatershed, with National Forest lands concentrated in the lower stream reach. The majority of Rowena Creek is private land outside of the CRGNSA. Therefore, the Forest Service has limited influence on this stream.

Objective 1: *Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to insure the protection of the aquatic systems to which species populations and communities are uniquely adapted.*

Loss of large trees in the watershed has led to less complexity and diversity in stream channels. Thinning forest vegetation may result in the existing trees becoming larger, more heavily branched and more spaced creating a more stable community over time.

Objective 2: *Maintain and restore the spatial and temporal connectivity within and between watersheds. Lateral, longitudinal, and drainage network connections include floodplains, wetlands, upslope areas, headwater tributaries and intact refugia. These network connections must provide chemically and physically unobstructed routes to areas critical for fulfilling life history requirements of aquatic and riparian-dependent species.*

The connectivity between watersheds provided by the Columbia River floodplains has been lost. Connectivity between the Columbia River and the upper stream reaches has been disrupted by the transportation corridors. Numerous road/stream crossings have disrupted connectivity on National Forest lands.

Many wetlands and stream channels have been drained or diverted to reduce saturated soil conditions, and the use of drain tiles and ditches to drain wet areas for agriculture and roadways was common and continues to the present. Some opportunity may be available to reverse these actions on National Forest lands.

The Rowena SMA, which includes parts of the “Rowena Creek” and “Rowena Columbia Tribs” subwatersheds, is an isolated area of federal land. The CRGNSA extends to the east and west but in the less restrictive GMA, with primarily private ownership. Lands to the south are largely private and outside of the CRGNSA. Connectivity within and between portions of the “Rowena Creek” and “Rowena Columbia Tribs” subwatersheds may improve due to federal acquisition.

Objective 3: *Maintain and restore the physical integrity of the aquatic system, including shorelines, banks and bottom configurations.*

The intermittent streams have no major channel modification above the river level transportation

corridors. The lowest stream reaches and the Columbia River shoreline are in a highly altered condition. Banks, shorelines, and bottoms are outside the range of natural variability and likely to remain so. Existing transportation facilities severely restrict opportunities to improve conditions.

Objective 4: *Maintain and restore water quality necessary to support healthy riparian, aquatic and wetland ecosystems. Water quality must remain within the range that maintains the biological, physical, and chemical integrity of the system and benefits survival growth, reproduction and migration of individuals composing aquatic and riparian communities.*

Little data on water quality is available for this watershed. Several factors influence water quality, such as sediment, erosion, and development. Road density in general, and road density in riparian areas in particular, are considered moderate intensity. Riparian buffer zones are required on all lands in the CRGNSA, but future development is likely to take place in the upper reaches of Rowena Creek outside of the CRGNSA.

Objective 5: *Maintain and restore the sediment regime under which aquatic ecosystems evolved. Elements of the sediment regime include the timing, volume, rate and character of sediment input, storage and transport.*

The infrequent large episodic stream events of the Reference period have been replaced by more frequent and less significant events. Streams are feeding sediment to the Columbia River but no longer feeding woody material. Sediment input from roads is more chronic, but of smaller amounts than the previous large events. Large woody material is missing in this watershed.

Bonneville Pool has eliminated the delta at the mouths of creeks. Sediment is no longer moving from the mouth of Rowena Creek down the Columbia River in large amounts. Sediment is moving much more slowly down river.

Vegetation management could result in larger trees in the subwatershed. Road construction and development will be the major source of sedimentation. Sediment flows in the Columbia have been reduced by the dam system, and will likely not change in the near future due to the extensiveness of the system.

Objective 6: *Maintain and restore in-stream flows sufficient to create and sustain riparian, aquatic and wetland habitats and to retain patterns of sediment, nutrient and wood routing. The timing, magnitude, duration and spatial distribution of peak, high and low flows must be protected.*

Streams are intermittent in the subwatersheds. Because of the mixed land ownership and degree of development, restoration of in-stream flows on National Forest lands is not likely to have a large overall effect. Re-establishing wood routing and sedimentation in the lowest reaches is limited by the non-National Forest transportation corridors. Dredging and wood removal would be conducted to protect the development (bridges, homes, and roads) in these areas. No change is anticipated for the Columbia System in the near future.

Objective 7: *Maintain and restore the timing, variability and duration of floodplain inundation and water table elevation in meadows and wetlands.*

Many of the area's wetlands are human constructed, and replace habitat lost by Columbia River damming. Therefore, it is desirable to maintain the wetlands, even though they are not natural. The timing, variability, and duration of flooding on the Columbia have been totally altered by the dams and there is little expectations that this will change in the foreseeable future.

Objective 8: *Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion and channel migration, and to supply amounts and distributions of coarse woody debris sufficient to sustain physical complexity and stability.*

Forest vegetation is in need of thinning to bring the community into higher fire resiliency and closer to the range of natural variability. With thinning, the existing trees may become larger, more heavily branched and more spaced creating a more stable community over time, and would then increase structural diversity and wildlife habitat value. Noxious weeds threaten native plant communities and their control is necessary to maintain habitat diversity in the watershed.

Objective 9: *Maintain and restore habitat to support well-distributed populations of native plant, invertebrate and vertebrate riparian-dependent species.*

Invasive weeds are found in riparian habitats and active management is needed to control them. Invertebrate and vertebrate riparian-dependent species have not been extensively studied in these streams. Streams lack large wood and, as previously discussed, could be improved through active management. The Columbia River is highly altered and probably will remain so.

Review of Interim Width for Riparian Reserves

As defined in the Northwest Forest Plan, Riparian Reserves are one component of a four-pronged agency Aquatic Conservation Strategy (ACS) action framework. Riparian Reserves are those lands along streams and other water bodies (including wetlands) where special standards and guidelines direct land use. The purpose of riparian reserves is to enable the Forest Service to manage "riparian-dependent resources to maintain the existing condition or implement actions to restore conditions", (Northwest Forest Plan, 1994: B-10). They are intended as a barrier zone to development and logging near waterways. Standards and guidelines prescribed for these reserves prohibit or regulate activities that retard or prevent attainment of ACS objectives. The ACS defines interim widths for determining riparian reserve areas in the field; however, as part of watershed analysis, the ACS stipulates that adjustments to these interim widths may be recommended.

Due to the CRGNSA guidelines within the CRGNSA, developments on private lands near riparian areas are generally not permitted in the buffer zones. The exception is that forest practices are not regulated in the GMA. The watershed analysis team members, therefore, see no compelling evidence for changing Riparian Reserve widths on permanently-flowing or intermittent streams. The team also found no evidence to suggest making the riparian widths narrower than current standards, given Northwest Forest Plan ACS objectives.

Recreation Feasibility Analysis

A recreation feasibility analysis for the planning area utilized the following considerations:

- Recreation uses
- Recreation types of facilities
- Recreation locations
- Compatibility with resource values
- Compatibility between user groups
- Compatibility with neighboring lands
- Recreation opportunities provided at other locations; provided in the larger region
- Maintenance and partnerships
- Seasons of popularity

Trail User Feasibility

The area is already popular with hikers. Use by mountain bikes and horses appears to be low at this time. The open, relatively flat terrain can be designed for multiple use trails. A beginner/intermediate mountain bike experience could be provided. Conflict between user groups can occur on multiple use trails. Trail design and user education can incorporate features to minimize user and resource conflict, e.g. providing good site distance and adding features to slow down mountain bikes.

The lower elevations can be quite wet in the winter, and the wet soils are susceptible to puddling, compaction and erosion. The heavier the use and the heavier the body, the more resource impacts are likely to occur. Use in winter (November to February) would impact deer in their winter range from harassment. The Seven Mile Hill ridgeline has fewer resource concerns for multiple users.

OPRD prefers alternatives to horse use at the Rowena Crest area (primarily under OPRD management). The Nature Conservancy allows only foot traffic on its land. For these reasons, use of the Rowena Crest and Tom McCall Point area for equestrian and bicycle trailhead/trails is considered problematic.

The CRGNSA Plan does not allow motorized use on new trails in the SMA. The existing Forest Service roads of any length in the Rowena area (e.g. Sevenmile Hill area) are not accessed by public roads. Due to sensitive resource concerns, most of the National Forest lands in the Rowena are now closed to motorized use off trail and off road. For these reasons, OHV use would not be accommodated on National Forest lands in this area.

OPRD plans to build a universally accessible ramp on the east side of the Rowena Overlook parking area, and would be in favor of universal access to the Nature Conservancy Plateau.

Trail Feasibility

The CRGNSA Plan's *Recreation Development Plan* (1992) proposes two trails:

1. T 17 Rowena Overlook to Tooley Lake Trail (Seven Mile Hill)
2. T 18 Memaloose Overlook to Rowena Dell Trail

Both of the CRGNSA Plan proposed trails are considered feasible. A number of locations are possible for these trails; the current public land ownership pattern allows other locations than those envisioned in the 1992 Recreation Development Plan. These two conceptual trails could be linked given the extent of National Forest acquired lands and Oregon State Park lands. The Rowena Overlook to Tooley Lake Trail is envisioned to eventually connect to The Dalles Riverfront Trail. The Memaloose Overlook to Rowena Dell Trail would logically continue to the Memaloose Safety Rest Area.

In addition to the two CRGNSA Plan proposed trails identified above, a third trail consisting of a loop system in the western portion of the planning area (Memaloose Hills area) is considered feasible and could incorporate portions of the existing user trails. The “Memaloose Hills” loop trail could connect to the two CRGNSA Plan proposed trails to provide a variety of possible trail opportunities, including a connection to the Memaloose Safety Rest Area. This area can be quite wet in the winter. The wet soils are susceptible to puddling, compaction and erosion.

One public commenter suggested a trail in the Rowena Loops area, citing beautiful and pristine wildflower and oak woodland habitat. However, this proposal was considered problematic due to lack of a trailhead location.

Any trails require parking on public lands, accessed from public roads. Canyon Way in Rowena Dell is an example of a private road that cannot be used for public access to trails on public land.

Trailhead Feasibility

The feasibility of a number of trailhead locations was considered, using factors such as public ownership, access from public roads, adequate site distance, and topography. The Historic Columbia River Highway is abbreviated to HCRH.

Feasible Trailhead Locations, from west to east (see Figure 13 for general locations)

- TH 1. Private land west of McClure Hill (former Hudson Hill). A private landowner recently offered to sell land bordering the HCRH west of McClure Hill to the Forest Service. The property has very good site distance from the HCRH, moderate topography, and a moderate amount of exiting vegetative screening. This site would be the furthest west of all of the identified trailhead locations.
- TH 2. Memaloose Rest Area (State Land). The site has easy eastbound I-84 access. Facilities area in place, including a restroom. Issues include inconvenience of eastbound only access. ODOT would require the existing parking to be expanded if it became a formal trailhead.
- TH 3. National Forest land west of the Wasco County quarry near Marsh Cut-off Road. An access road is in place from the HCRH with good site distance, although there is a bit of a curve off the HCRH. Terrain is flat; screening is limited. The access road is used as driveway to a residence.
- TH 4. Marsh Cut-off Road west side: The site is ¼ mile from the HCRH with good site distance, flat terrain, and some screening. An intermittent stream needs protection.
- TH 5. Marsh Cut-off Road east side: There is good site distance and flat terrain. The site is ¼ mile from the HCRH. Screening is limited, and the site is near two houses.

- TH 6. Morehead Fisher property. An access road is in place from the HCRH with good site distance. Terrain is flat. Issues include safety regarding existing buildings and cultural resources.
- TH 7. Forest Road 3000782. An access road is in place from the HCRH with good site distance. Terrain is flat.
- TH 8. Wheelchair access trail on State Park lands west of Rowena Dell would require access off HRCH. There is an existing native surface road. Highly visible from HCRH east bound; good site distance and easy topography.
- TH 9. Rowena Crest Viewpoint (State Land). Parking is already in place. Use as a trailhead would requires the agreement of Oregon State Parks and the agreement of the Nature Conservancy for a formal trail. OPRD preferred alternatives to horse use at the Rowena Crest area. The Nature Conservancy allows only foot traffic on its land. For these reasons, use of this area for equestrian and bicycle trailhead/trails is considered problematic.
- TH 10. National Forest land on lower Seven Mile Hill Road to an old quarry. The site has adequate space for a number of vehicles, and for large vehicles. Issues include nearby residences and high visibility. No long term trail is planned from this location.

Problematic Trailhead Locations, from west to east (see Figure 13 for general locations)

- TH 11. Memaloose Overlook. This site has poor site distance and limited space.
- TH 12. Forest Road 3078083. This NFS road is accessed only from a private road.
- TH 13. Forest Road 3000810 from the HCRH Rowena loops. This site has poor site distance, steep terrain and limited space.
- TH 14. East end of proposed Rowena Overlook to Tooley Lake Trail (in GMA outside of the Rowena planning area). No public land location has been found to date. Further acquisition or easements are required. (Not mapped)

Developed Recreation Feasibility

The Management Plan's *Recreation Development Plan* (1992) proposes six developed recreation facilities. The continued feasibility of these proposed recreation developments was considered, using factors such as current demand, public ownership, access from public roads, and presence of sensitive resources. The Mayer Park proposal (No.29) is in the GMA and is not part of the planning area.

Feasible Recreation Developments

- No. 30 Mayer West Park (SMA): This State Park proposal would help meet demand for river related recreation. OPRD proposes a tent campground, river/windsurfing access and restoration of the existing gravel pit pond.
- No. 31 Hudson Hill (GMA): This GMA proposal is included since it could be part of a potential "Memaloose Hills" loop trail system. Issues include road access and cultural resources. This proposal could be changed to include this location in a "Memaloose Hills"

loop trail system, rather than a destination parking area. Note: the name of this hill has been changed from Hudson Hill to McClure Hill.

- No. 33 Memaloose Campground Expansion (SMA): This State Park expansion would help meet demand for RV/Trailer camping; and is perhaps the only location in the area to accommodate this use. OPRD finds that the expansion is unlikely without significant cultural resource survey work. Instead, OPRD would like to consider developing 8-10 cabin or Yurt sites adjacent to the campground in an existing overflow parking area. The CRGNSA Plan does not specifically identify cabin or Yurt sites as an allowed use.

Problematic Recreation Developments

- No. 27 Ortley View Point: There is no public road access to this site. It would be time consuming to reach the proposed viewpoint.

Completed Recreation Developments

- No. 28 Rowena East
- No. 29 Mayer Park (GMA)

Moorehead-Fisher Property Development Feasibility

A number of ideas have been proposed for the Moorehead Fisher property, recently acquired by the Forest Service. These ideas include interpretation, information kiosk, historical visitation area, trailhead, and restored buildings. The buildings would be costly to restore and costly to maintain. There is a public safety concern with allowing the public in proximity to the buildings in their present state.

Continued Hunting Feasibility on National Forest Lands

Several members of the public asked the Forest Service to continue to allow hunting on National Forest lands. The Forest Service does not regulate hunting; it is regulated by the Oregon Department of Fish and Wildlife (ODFW). The Forest Service has the authority to prohibit firearm use on National Forest lands, and typically exercises this authority to protect public safety in highly visited sites. The Forest Service does not consider shooting on National Forest lands in the Rowena area to be problematic and considers continued firearm use on National Forest lands to be feasible.

Commenters asked that hunting not be allowed along the HCRH, or on OPRD or Nature Conservancy land. State regulations prohibit shooting over roads. OPRD, the Nature Conservancy or other landowners would make decision regarding hunting access on their lands.

Cabins and/or Yurts at State Parks

Oregon State Parks (OPRD) would like to develop cabins and/or Yurts at their State Parks. OPRD reports that cabins and Yurts are very popular in introducing people to affordable camping and the occupancy rate statewide is 95-100% during the summer. The CRGNSA Plan does not specifically identify cabin or Yurt sites as an allowed use. The issue of cabins and yurts at public recreation sites should be addressed when recreation issues are addressed in the CRGNSA Plan.

Rowena Plan

USDA Forest Service, Columbia River Gorge National Scenic Area

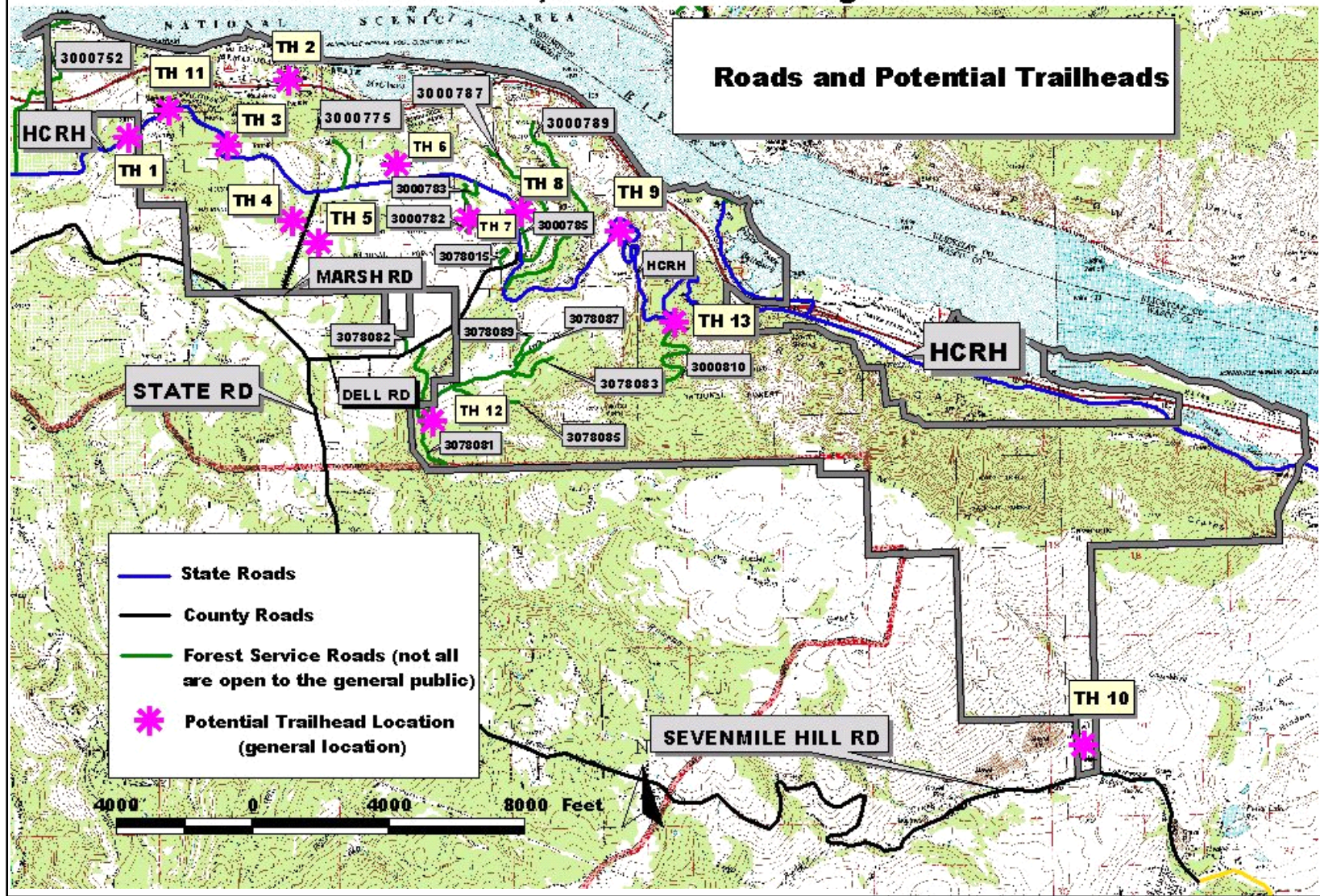


Figure 13: Roads and Potential Trailheads (general locations)

Desired Future Condition

Overview

The desired future condition for the Rowena area is to maintain the mosaic of oak-pine woods, Savannah areas (predominantly grassy openings with scattered trees), and grassy prairies interspersed with scattered rural development and agricultural operations. Development includes residences, roads and fences; orchards and cultivated areas that lend a pastoral flavor to this generally natural-appearing landscape.

The vegetation communities are fire resilient, and native plants prevail over invasive species. Native flora and wildlife habitats and species are protected and enhanced, with a special emphasis on protection of Threatened, Endangered and Sensitive (TES) species sites and restoration of habitat used by TES, ODFW priority habitats/species, and degraded habitat used by native species. A connected stream network provides a more natural supply of water, more wood and less sediment.

The high scenic quality is maintained. Development along the HCRH is in keeping with the character of this historic resource. The cultural and natural landscape of the HRCH (circa 1922) is maintained.

All significant cultural and historic sites are protected, as required by the CRGNSA Plan and other state and federal laws. All National Forest lands are surveyed for cultural resources and any sites are recorded.

Rowena Plateau presents a breathtaking backdrop with areas of relatively easy terrain for day use recreation at all times of year. Spring and fall are particularly popular seasons. The area offers scenic views, openness, wildflowers, HRCH and history. A careful network of inter-connecting trails allows hikers, bikers and equestrians (if feasible and compatible), to sightsee and view wildflowers. Visitors have opportunities to view nature and for more interpretation. Opportunities are available for an ageing population; more trails are accessible, and existing exiting facilities are upgraded to be more universally accessible.

Social activities are compatible with the resource capabilities and balanced with local resident's social expectations. Collaboration and partnerships with and between groups holding diverse social expectations is a key component to preserving and protecting the scenic, natural, cultural and recreational resources of this section of the Gorge.

New developments and uses are consistent with CRGNSA Plan guidelines or county implementing ordinances for SMA Open Space and for protection of scenic, natural, cultural, and recreational resources.

Landscape Pattern

The landscape pattern would reflect the present distribution of the three Forest Types (Pine-Oak-Douglas Fir, East Conifer and Oak Pine Woodlands).

The cultural oak woodland landscape would be retained along the foreground of the Historic Columbia River Highway; a mix of grassland openings, oak woodlands, wildflowers, and scattered residences.

Some of the existing openings could be returned to a forested condition, especially those that are human made. Soil capability and surrounding forest type should be considered to determine where openings could become forested. Trees could be planted, or the current vegetation not actively maintained, allowing the areas to reseed naturally.

Vegetation Types

Further specificity in the species composition and structure of each vegetation type is provided in this section. The forest types are fire dependant, which has affected the species composition and forest structure. The desired condition of the forest types expresses a desired natural plant community, with both ecosystem restoration and fire reduction outcomes.

Desired Condition of Grassland

In retained open landscape, reintroduce native herbaceous plant species (for wildlife, tribal and other values).

Desired Condition of Pine-Oak-Douglas Fir:

- Overstory: Large diameter oak, pine, and Douglas fir trees scattered in woodland communities. Site predicts variability of canopy closure. Large older trees would provide more desirable habitat for many wildlife species.
- Understory: Sparse—in most areas stand will be a single story because of closed canopy.
- Openings: Scattered openings in areas of large pine and oak.
- Shrub and Herbacious Layer: Down wood and snags would be present. Herbacious layer more complex with a large diversity of native bunch grasses and flowers.

Table 9: Desired Species and Size Composition of Pine-Oak Douglas Fir

Pine-Oak-Douglas Fir	Desired Future Condition
<u>Species Composition (% of Total Canopy):</u>	
Oak	10-50%
Pine	20-60%
Douglas-fir	10-50%
Total Canopy Closure	30-70%
<u>Size Composition (Average diameter at breast height):</u>	
Oak	20-30"
Pine	24-40"
Douglas-fir	24-40"

Desired Condition of East Conifer:

- Overstory: Big trees, variation of species by site characteristics. Site predicts variability of canopy closure. Amount of pine depends on location, encourage it where it exists, but no manual planting or creation of openings.
- Understory: Single story due to fire. Small oak and pine in openings where fire misses.
- Openings: No openings will be created. Where naturally present, openings will support some small oak and pine.
- Shrub and Herbaceous Layer: Snags, down logs present. Native bunch grasses and diverse wildflowers present.

Table 10: Desired Species and Size Composition of East Conifer

East Conifer	Desired Future Condition
<u>Species Composition (% of total canopy):</u>	
Oak	0-10%
Pine	0-35%
Douglas-fir	40-60%
Grand Fir	10%
Total Canopy Closure	50-70%
<u>Size Composition (Average diameter at breast height):</u>	
Oak	20+”
Pine	30+”
Douglas-fir	40+”
Grand Fir	40+”

Desired Condition of Oak Pine Woodlands (including Savannah)

- Overstory: Large scattered pine amongst large oak trees. Canopy closure is variable; some areas are open savannah while others are woodland.
- Understory: Oak component that includes very large sizes but some size variability reflective of site conditions.
- Openings: Openings are variable. Some openings are permanent based on soils or moisture content of soils.
- Shrub and Herbaceous Layer: Native, diverse, bunch grasses, lupine, and other flowers. Noxious weeds would be absent.

Table 11: Desired Species and Size Composition of Oak-Pine Woodlands

Oak-Pine Woodlands	Desired Future Condition
<u>Species Composition (% of Total Canopy):</u>	
Oak	50-75%
Pine	5-20%
Douglas-fir	0-5%
Total Canopy Closure	25-60%
<u>Size Composition (Average diameter at breast height):</u>	
Oak	15-30”
Pine	24-30”
Douglas-fir	24-30”

Recommendations

Vegetation

- The Desired Future Condition expresses a desired natural plant community and ecosystem. Treat forest types to achieve the Desired FutureC. Gather additional stand information to determine exact needs. Use mechanical treatment (e.g. thinning predominately smaller trees (usually less than 15”)) to achieve the desired structural composition. Develop a maintenance program that includes mechanical treatments, prescribed fire and/or use of animals to control unwanted vegetation.
- Remove invasive plants. Plant native plants. Use prescribed fire for maintenance; cultural (e.g. animals) or mechanical methods may be considered if well managed. Grazing may be considered for fine fuels management. Timing, number and type of animals must be carefully considered to meet objectives. Grazing would be carefully used only as a tool to meet vegetation management objectives; grazing would not be used for animal production objectives.

Priorities: Both native plant restoration of the plateau grasslands, and restoration of the forest structure are important goals. Both types of restoration are needed to support native wildlife communities and restore the ecosystem. Additional priority criteria for allocating limited resources are offered below for forest restoration. Priorities will be adjusted as more detailed vegetation information is obtained.

Forest Priority 1: Condition Class 3

Areas of Condition Class 3 are the highest priority to treat. Condition Class 3 correlates to the East Conifer forest type. Douglas fir trees grow well in this area, and with past fire exclusion, this forest type is the most significantly altered, and is the furthest away from natural fire regime of the forest types in this area. Due to the nearby residences and Urban Areas, a stand replacement fire is to be avoided. It is a high priority to thin these areas because a fire must be caught while it is small, or it will grow so fast that evacuation of residences and even The Dalles may result. Physical considerations, such as access, may alter implementation priorities. The Condition Class 3 areas may also be difficult to maintain with prescribed fire due to lack of access, steep slopes, aspect, prevailing weather conditions, and wildland/urban interface issues.

Forest Priority 2: Condition Class 2

Condition Class 2 is the second priority. Condition Class 3 correlates to Pine-Oak-Douglas Fir, and Oak Pine Woodlands. Condition Class 2 can be further prioritized by fire protection needs (e.g. areas near heavily used roads and trails, houses), conifer areas with high ladder fuels and areas near east conifer areas which are encroaching into other areas. Oak stands with a few pine are lower priority to treat for fire prevention, but are important ecologically to maintain in an open condition.

Wildlife

The proposed restoration of the forest structure will benefit all species dependant upon it, including deer and turkey.

- Consider limiting human disturbance with wildlife interpretive signing. In important deer winter range, limit disturbance between November and February.
- Maintain and improve habitat connection for pond turtles. Eliminate/reduce non-natives that impact pond turtles and that can be effectively treated.
- Protect peregrine falcon eyrie and eagle nest; do not disturb nesting. Plan recreation use to keep noise and visual disturbance away from peregrine falcon and bald eagle sites, especially during the breeding season.
- Add bird boxes for native cavity dependant species until more snags are created.

Watershed

- Work within riparian areas to encourage a large wood component. For example, plant trees or thin to encourage larger trees, compatible with the vegetation desired future condition.
- Stabilize existing road systems. Size drainage crossings to allow water, wood to flow through the system, reduce sediment input. Stabilize roads that will be kept that need work. Roads with steepest slopes are worst problems.

Scenic Resources

To maintain the landscape context for the HCRH, the landscape character should retain elements present when the highway was built. The Rowena Dell development should be screened where possible, and historic structures and cultural features such as orchards and pastures should be retained if they were present circa 1922 and contribute to the quality of the scenery.

The most important considerations for management of this area with respect for the scenic quality are the following:

- Protection and enhancement of the wildflower component.
- Protection and development of large diameter ponderosa pine and Oregon oak.
- Design of recreation development along the HCRH in keeping with the quality of this historic resource.
- Restoration of existing quarries in the planning area.
- Reduction of non-historic visible fences along the HCRH which are not needed to control vehicle access.
- Repair/replacement of needed fences with fences that blend with the landscape.
- Restoration and maintenance of the HCRH.
- Planting the vacant National Forest lots at Rowena Dell with Ponderosa pine and Oregon oak at a fire resilient spacing.

- Removal of visually discordant features seen from Key Viewing Areas that do not have other resource values, as funding allows.

Cultural Resources

- Move toward restoration of the historic landscape used by the Wasco. The landscape of the HCRH period is not incompatible with a presettlement landscape. Then, as now, the landscape is a mosaic.
- The Forest Service is supportive of Native American efforts to restore areas of traditional native plants, and will work with the Warm Springs Tribe on specific proposals.

Recreation Resources

Trail Locations

Based on user demand and resource capabilities, consider implementing the two CRGNSA Plan trail proposals, 1) T 17 Rowena Overlook to Tooley Lake Trail (Seven Mile Hill), and 2) T 18 Memaloose Overlook to Rowena Dell Trail. In addition, implement a loop trail in the western part (Memaloose Hills) of the planning area. Connecting to the Memaloose Safety Rest Area.

These three trails would connect with one another to provide a variety of possible trail opportunities, for length and type of experience. Some of the existing user trails may be incorporated into the designated trails. The final locations of the trails would protect sensitive natural, cultural and scenic resources; access safe, public parking areas; and minimize impacts to private lands and residents.

The most important resource constraints are the wet ground in the lower elevations in winter and spring, and the potential disturbance to deer (most of the planning area is deer winter range). Heavy use and heavy bodies are incompatible in lower elevation wet areas in the wet season.

Fire management specialists should be consulted when trails are located to co-locate trails as fuel breaks when possible. The status of third party rights will be researched as part of project analysis.

Trailhead Locations

Locate three trailhead locations in support of trail development; on the west side, the center, and the east side of the planning area. The final locations of the trailheads would protect sensitive natural, cultural and scenic resources; be located in safe locations on public lands and accessed from public roads; and minimize impacts to private lands and residents.

Possible feasible locations for these trailheads include:

- West Side: Seven possible feasible locations consist of three locations on National Forest land along the HCRH (TH3, TH6, TH7), the west and east sides of Marsh cut-off road (TH4 and TH5), at Memaloose Safety Rest Area (TH2), and, if acquired by the Forest Service, on

private land west of McClure Hill (TH1). A location as far west as possible on the HCRH would allow the longest trail experiences.

- Center: With concurrence from Oregon State Parks, use the Rowena Overlook as an official trailhead (TH9). This site is already developed with a sizeable amount of parking. OPRD prefers alternatives to horse use at the Rowena Crest area. The Nature Conservancy allows only foot traffic on its land. For these reasons, use of the Rowena Crest and Tom McCall Point Trail area for equestrian and bicycle trailhead/trails is considered problematic.
- East Side: The long-term desired trailhead location would be consistent with the CRGNSA Plan's Rowena Overlook to Tooley Lake Trail, with a trailhead located east of the Rowena area. This trail is envisioned to connect to The Dalles Riverfront Trail, and perhaps a trailhead would eventually be located in that area. It may be many years before such a trailhead can be established. For the present, allow parking in National Forest land adjacent to lower Seven Mile Hill (TH10). This area is not currently suitable for horse trailer parking.

A small wheelchair access trail/trailhead could be placed on State Park lands west of Rowena Dell (TH8).

Smaller parking areas would limit potential impacts to wildlife (especially deer winter range). The status of third party rights will be researched as part of project analysis.

Recreation Users

- Hiking is considered a compatible use in all areas.
- OHV is considered an incompatible use in all areas.
- Lower elevations are wet in winter and spring, and susceptible to puddling and erosion. Heavy use and heavy bodies would create more impacts in these areas in the wet season. Trail planners may consider seasonal closures in the lower elevations to protect resources.
- The area is important deer winter range. Recreation use in winter (November to February) would impact deer in their winter range from harassment.
- The Seven Mile Hill ridgeline has fewer resource constraints in any season due to the dry soils and terrain, making it suitable for multiple users all year. Locations for horse trailer parking in the Seven Mile Hill area appear limited.
- OPRD prefers alternatives to horse use at the Rowena Crest area (primarily under OPRD management). The Nature Conservancy allows only foot traffic on its land. For these reasons, use of the Rowena Crest and Tom McCall Point area for equestrian and bicycle trailhead/trails is considered problematic.
- Due to current low equestrian use and lack of identified locations for equestrian parking facilities, a trailhead accommodating horse trailers is currently a low priority.
- Fire arm use is considered a compatible use on National Forest lands.

Recreation Facilities

- Moorehead Fisher property. Members of the public proposed some type of facility in this area, such as interpretive, restroom, trailhead etc. The Forest Service would evaluate proposals considering cost, SHPO requirements, public safety, etc.
- The following recommendations are made to the Management Plan's *Recreation Development Plan*:
 - No. 27 Ortle View Point. Drop this proposal due to lack of public road access, and time consuming to reach.
 - No. 28 Rowena East (completed).
 - No. 29 Meyer Park (completed). (GMA)
 - No. 30 Mayer West Park. Keep this proposal to meet demand for river related recreation.
 - No. 31 Hudson Hill. Consider changing this proposal as become part of a "Memaloose Hills" loop trail system, rather than a parking destination. Note: the name of this hill has been changed from Hudson Hill to McClure Hill.
 - No. 33 Memaloose Campground Expansion. Keep this proposal to meet demand for camping, considering OPRD demand analysis.

Fire Prevention

Spring is expected to be the heaviest recreation use period; less use is expected in the dry summer months. When trail and trailhead facilities are developed, the Forest Service will have a higher presence. Fire prevention techniques could include the following:

- Post fire prevention and other fire information signs (Industrial Fire Precaution, Adjective Class) at trail heads and other developed sites.
- Prohibit camp fires on National Forest lands.
- Restrict smoking to vehicles between May and November.
- Continue routine summer fire patrols by vehicle.
- Add occasional summer fire trail patrols.
- Continue to provide the fire prevention message at Gorge community events.

Land Acquisition

The Forest Service would continue to evaluate property sale offers.

SMA Open Space Uses and Developments

The Rowena Plan serves as the SMA Open Space Plan. Every potential proposal for new developments or uses cannot be anticipated at this time; therefore, this section provides direction for future uses that cannot be anticipated at present.

Proposed new developments and uses in SMA Open Space would be consistent with this Open Space Plan if they:

1. Do not conflict with plan, and

2. Meet CRGNSA Plan guidelines or county ordinances for Open Space and for protection of scenic, natural, cultural, and recreational resources.

Designation of National Forest Lands as SMA Open Space

Several commenters asked that the Forest Service consider changing the designation of National Forest lands from Agriculture to Open Space, and that a recommendation to that effect be included in the Rowena Plan. A detailed analysis of this issue is not being conducted as part of this planning effort. Analysis of this issue would take place as a Management Plan amendment or as part of a future Management Plan review. Some considerations for this proposal are as follows.

- SMA Open Space designation policies require the following attributes of lands in order to be designated SMA Open Space:
 1. Lands with high scenic values. These include areas of outstanding natural beauty, such as cliff faces, steep bluffs, canyons, water features, and tributary river corridors.
 2. Wetlands, areas supporting ecologically and scientifically significant plant communities, and significant natural areas. Most of these areas contain concentrations of threatened, endangered, sensitive, and endemic plants, and sensitive plant associations that are rare or unusual.
 3. Sensitive and unique habitat values and threatened, endangered, sensitive, and endemic species. These lands include habitat for significant wildlife species such as spotted owl, pine marten, pileated woodpecker, and anadromous fisheries.
 4. Concentrations of cultural resources. These lands contain known and potential significant concentrations of cultural resources.

Designating land as SMA Open Space rests on the attributes of the land, and whether the land meets the criteria. It does not rest merely upon land ownership.

Potential Future Projects

The Rowena Team identified the following specific potential future projects. Projects on National Forest lands would be prioritized with all other Forest Service projects. Forest Service projects require further site specific analysis to determine consistency with NEPA and the CRGNSA Plan.

Specific Road Stabilization Projects:

- Road 3000789, below Rowena Dell. Investigate replacing double 8' diameter culverts with a vented ford, concrete ford or other design. Fire management access must be retained.
- Road 3000775, to Wasco County rock pit. Verify that the existing 48" culvert is adequately sized.
- Road 3000810: from HCRH Rowena Loops, east of Rowena Overlook. Retain for vegetation management purposes, a high priority to stabilize or storm proof.

Specific Road Decommission Projects:

- Road 3000782, comes off HRCH west of Dell Road.
- Road 3078083, accessed from a private road off Dell Road. Utilities have access from Road 3078087.
- Road 3078085, accessed from a private road off Dell Road. Keep as a trail tread; for fire access do not narrow tread. Open road up to stabilize properly.

Note: the status of third party rights on these roads will be researched as part of project analysis.

- Minimize non-historic fencing.
- Maintain wildflowers; add more wildflowers. Reduce competition from invasive plants.
- Plant trees on vacant lots at Rowena Dell at a fire resilient spacing.
- Complete restoration of rock pits
- Remove debris from old dump site at Road 3000810 when it is opened up for vegetation management.
- Bring residents' litter concerns to ODOT.
- Pull old fences as funds allow, if they are not protecting resources and are not blocking cross country driving. Interior fences are a priority. Review existing fences on HCRH that are to be kept and ensure the design is compatible for scenic and historic values.

Data Gaps

- Map of spring locations.
- Fish use at mouth of Rowena Creek.

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