

## **Grande Ronde Basin**

### Description

The Grande Ronde basin, part of the Blue Mountains ecoregion, occupies the far northeastern corner of Oregon, encompassing nearly all of Wallowa County, a large portion of Union County and parts of Baker and Umatilla counties. The rugged Blue and Wallowa mountain ranges, high elevation plateaus and the Grande Ronde and Wallowa river valleys, and the spectacular river canyons including Hells Canyon characterize the topography of the basin. Elevation differences are extreme – ranging from 2500 feet in the valleys to over 10,000 feet in the Wallowas – and contribute to the great variety of natural diversity found in this basin. Roughly 60% of the basin is in public ownership.

Major streams in the basin include the Wallowa, Grande Ronde, and Imnaha rivers. The Grande Ronde originates in the Blue Mountains; flows are highest in spring and early summer and low the rest of the year. Fed by snowmelt from the higher elevation Wallowa Mountains, the Wallowa River sustains flows until late in the season. The Imnaha is directly tributary to the Snake River. Low flows occur throughout the basin from late summer through the fall, interfering with the movement, spawning and rearing or several sensitive fish stock.

Some of the highest concentrations of at-risk species in the Blue Mountain ecoregion are found in the Wallowa Mountains, in areas already within the existing conservation network. The Oregon Biodiversity Project identified the Joseph-Imnaha plateau, which includes the Zumwalt Prairie, as a conservation opportunity area based on its native grasslands, high raptor concentration and aquatic diversity.

Bull trout, spring chinook salmon, and summer steelhead are listed as threatened under the federal Endangered Species Act. In addition, the Joseph-Imnaha plateau area provides habitat for other at-risk species such as wolverine, lynx, Columbia sharp-tailed grouse and ten at-risk plant species.

Lower elevation riparian forest and shrubland ecological systems are of high importance in the Grande Ronde basin, as are several wetland and grassland types.

### Priority Ecological Systems

- Alkaline wetlands
- Black greasewood
- Columbia Basin grassland
- Foothill and canyon dry grassland
- Foothill and lower montane riparian woodland
- Freshwater emergent marsh
- Lowland riparian forest and shrubland
- Montane riparian forest and shrubland
- Montane riparian woodland and shrubland

Semi-desert grassland  
Subalpine or montane wet meadow

Rare or At-Risk Plant Communities

Basin big sagebrush / basin wildrye  
Basin big sagebrush / needle-and-thread  
Basin wildrye bottomlands  
Black cottonwood - white alder  
Black cottonwood / black hawthorn  
Black cottonwood / coyote willow  
Black cottonwood / pacific willow riparian  
Black hawthorn - common snowberry  
Black hawthorn - common snowberry / Idaho fescue  
Black hawthorn - woods rose  
California oatgrass - Idaho fescue  
Coyote willow - pacific willow  
Idaho fescue - (common snowberry)  
Mockorange  
Mountain alder - western birch  
Needle-leaf navarretia - Kellogg knotweed vernal pool  
Quaking aspen / mountain alder - birch - currant  
Red alder / lady fern  
Red alder / pacific ninebark  
Scouler willow  
Tufted hairgrass - Douglas' sedge alkaline prairie  
Western birch - black hawthorn  
Western birch - creek dogwood  
Western birch - mockorange  
White alder / chokecherry  
White alder / hackberry  
White alder / mockorange  
White alder / water birch  
White alder / woods rose

DRAFT – Grande Ronde – Priority Species

<i>Fish</i>	<i>Birds</i>	<i>Mammals</i>	<i>Amphibians and Reptiles</i>	<i>Invertebrates</i>	<i>Plants</i>
Inland Redband Trout Steelhead Chinook Salmon Bull Trout	Bobolink Ferruginous Hawk (nest sites only) Lewis's Woodpecker Long-Billed Curlew Sharp-tailed Grouse Willow Flycatcher Wilson's Phalarope	Western Small- Footed Bat White-Tailed Jackrabbit	Columbia Spotted Frog	<i>Fisherola nuttalli</i> (Shortface Lanx)	<i>Pleuropogon oregonus</i> (Oregon Semaphore Grass) <i>Silene spaldingii</i> (Spalding's Campion)

Grande Ronde Basin Priority Ecological Systems								
Ecological System Name	Existing (Ha)	Historic (Ha)	Protected (Ha)	Private (Ha)	% Loss (+/- =gain/loss)	% Public	Index	Comments
Semi-Desert Grassland	0.72	222.48		0.72	-99.2%	0.0%	-99.23	May no longer exist in basin
Subalpine or Montane Wet Meadow	262.62	6073.65	162.99	2.25	-95.7%	98.8%	-33.83	Wetland / Riparian priority not well mapped
Foothill and Canyon Dry Grassland	22889.79	44859.78	5033.25	12887.01	-49.0%	43.7%	-26.99	Included as interim priority pending further analysis
Foothill and Lower Montane Riparian Woodland	792.36	1298.79	101.97	615.87	-39.0%	22.2%	-26.11	Wetland / Riparian priority not well mapped
Black Greasewood	334.89	390.24	4.68	330.21	-14.1%	1.4%	-12.75	
Montane Riparian Woodland and Shrubland	0.18				18.0%	15.3%	18.00	Wetland / Riparian priority not well mapped
Columbia Basin Grassland	21858.66	19465.29	3090.96	17538.21	12.3%	19.8%	26.43	Included as interim priority pending further analysis
Alkaline Wetlands	81.09			81.09	8109.0%	0.0%	8109.00	Wetland / Riparian priority not well mapped
Freshwater Emergent Marsh	607.59		64.71	591.12	60759.0%	2.7%	60769.63	Wetland / Riparian priority not well mapped
Lowland Riparian Forest and Shrubland								Wetland / Riparian priority unmapped
Montane Riparian Forest and Shrubland								Wetland / Riparian priority unmapped

**Grande Ronde Basin Priority Species**

Common Name	Scientific Name	Lists on Which Species Appears	Rationale for Identifying as Priority	Comments
<b>BIRDS</b>				
Bobolink		BCR priority, GAP priority, PIF focal species	State Sensitive; highly significant declining trends; good opportunities for private land conservation of moist and dry meadows including ag lands that can be managed properly	
Ferruginous Hawk (nest sites only)		BCR priority, PIF focal species	State Sensitive; significant loss of rangeland habitat to agriculture; highly sensitive to human disturbance; good opportunity for conservation of nest sites on private land and conservation of several communities including grasslands, riparian gallery forest (nesting), and shrub-steppe	
Lewis's Woodpecker		BCR priority, PIF focal species	State Sensitive; highly significant regional declining population trends; some local extirpations; good species to represent opportunities for private land conservation of riparian gallery forest, especially cottonwood	
Long-billed Curlew		GAP priority	State Sensitive; rangewide population declines; anecdotal in Oregon; good opportunity for conservation of private grasslands and rangelands, including somewhat degraded habitat	
Sharp-tailed Grouse		BCR priority, PIF focal species	Reintroduced populations of this extirpated species occur in this basin with potential suitable habitat on private lands	
Willow Flycatcher		BCR priority, PIF focal species	State Sensitive; highly significant population declines in e. OR along with loss/degradation of riparian shrub habitat resulting in patchy, disjunct distributions; good opportunity for conservation of private land riparian shrub habitat, especially early and mid successional willow that expands or connects with existing populations	
Wilson's Phalarope		BCR priority	Significant regional declining population trends; good opportunity for conservation of private land upland fields adjacent to suitable wetlands or places with a mosaic of wetland and upland habitats	
<b>MAMMALS</b>				
Western small-footed bat		GAP priority	Sensitive species and habitat	
White-tailed jackrabbit		GAP priority	Grassland habitat diminished	
<b>HERPS</b>				
Columbia spotted frog		Federal Candidate	Declining with local extirpations	
<b>FISH</b>				
Inland redband trout		TNC ecoregional target	Declining - habitat degradation	

Steelhead		TNC ecoregional target; Federally threatened	Declining - spawning and rearing habitat degradation	
Chinook salmon		TNC ecoregional target; Federally threatened	Declining	
Bull trout		TNC ecoregional target; Federally threatened	Declining	migratory corridors
<b>INVERTEBRATES</b>				
shortface lanx	<i>Fisherola nuttalli</i>	TNC ecoregional target	Rare in basin	
<b>PLANTS</b>				
Oregon Semaphore Grass	<i>Pleuropogon oregonus</i>		G1G2 Taxa	
Spalding's Campion	<i>Silene spaldingii</i>		Federally, State Listed and G1G2 taxa	

### Grande Ronde Basin Priority Ecological System Analysis

Ecological System Name	Existing (Ha)	Historic (Ha)	Protected (Ha)	Private (Ha)	% Loss (+/- =gain/loss)	% Public	Index	Reason for Excluding as Priority System in Basin
Semi-Desert Grassland	0.72	222.48		0.72	-99.2%	0.0%	-99.23	
Big Sagebrush Steppe	42.75	77.31		42.75	-44.1%	0.0%	-44.13	Very Minor type in this basin. Important further south.
Subalpine or Montane Wet Meadow	262.62	6073.65	162.99	2.25	-95.7%	98.8%	-33.83	
Ponderosa Pine Woodland	29742.84	57787.02	6345.00	8159.85	-48.5%	72.6%	-27.20	Mostly in Public Ownership (over 70%)
Foothill and Canyon Dry Grassland	22889.79	44859.78	5033.25	12887.01	-49.0%	43.7%	-26.99	
Foothill and Lower Montane Riparian Woodland	792.36	1298.79	101.97	615.87	-39.0%	22.2%	-26.11	
Black Greasewood	334.89	390.24	4.68	330.21	-14.1%	1.4%	-12.75	
Eastern Oregon Grand Fir Forest and Woodland	27019.17	32409.09	5516.64	10613.70	-16.6%	60.7%	3.79	Well protected and mostly private
Water	422.10	458.82	99.45	313.11	-8.0%	25.8%	15.52	NA
Montane Riparian Woodland and Shrubland	0.18				18.0%	15.3%	18.00	
Lodgepole Pine Forest and Woodland	11851.38	11115.90	1913.13	3608.64	6.6%	69.5%	22.76	Mostly in Public Ownership (over 70%)
Columbia Basin Grassland	21858.66	19465.29	3090.96	17538.21	12.3%	19.8%	26.43	
Subalpine Fir - Englemann Spruce Forest and Woodland	12803.85	20129.40	9765.00	112.50	-36.4%	99.1%	39.87	All public
Rigid sage, Bluegrass, and Buckwheat Scablands	827.19	439.92	2.34	692.91	87.8%	16.2%	88.11	Secure
Eastern Oregon Douglas-fir Forest and Woodland	45104.76	23304.33	15137.73	12783.69	93.5%	71.7%	127.10	Mostly in Public Ownership (over 70%)
Bare Rock, Lava Flows and Cinder	3.78	1.98	3.78		60.4%	79.1%	139.48	Mostly in Public Ownership (over 70%)
Canyon and Foothill Deciduous Shrubland	7351.29	3638.97	5345.55	1372.23	102.0%	81.3%	174.69	Mostly in Public Ownership (over 70%)
Aspen Forest and Woodland	27.81	11.16	16.47	5.94	136.9%	75.9%	194.09	Mostly in Public Ownership (over 70%)
Western Juniper Woodland	46.80	12.42			256.2%	97.9%	256.18	Mostly in Public Ownership (over 70%)
Broadleaf Mesic Seral Forest	2.25		2.25		225.0%	69.2%	294.23	Mostly in Public Ownership (over 70%)
Chaparral	4.14				414.0%	80.5%	414.00	Mostly in Public Ownership (over 70%)
Alpine	2837.16	630.90	2777.67	23.31	349.1%	99.1%	447.02	Mostly in Public Ownership (over 70%)
Western White Pine - Lodgepole Pine Subalpine Woodland	4.77				477.0%	82.7%	477.00	Mostly in Public Ownership (over 70%)
Subalpine and Montane Pine Woodland	2914.02	597.78	2868.93	0.18	386.8%	100.0%	485.25	All public
Mountain Mahogany Woodland and Shrubland	21.33		4.23	0.36	2133.0%	93.9%	2151.94	Mostly in Public Ownership (over 70%)
Urban	31.59		0.45	20.97	3159.0%	32.6%	3160.38	NA
Low, Black and Early Sagebrush Steppe	35.19				3519.0%	97.2%	3519.00	All public
Exotics	76.41			54.27	7641.0%	28.6%	7641.00	NA
Alkaline Wetlands	81.09			81.09	8109.0%	0.0%	8109.00	
Mountain Big Sagebrush	4327.65	33.57	4017.69	19.98	12421.4%	99.5%	12514.22	All public
Mountain Hemlock Forest	139.86		94.59		13986.0%	99.3%	14053.15	All public
Shasta Red Fir Forest	195.12		183.87	0.18	19512.0%	99.4%	19605.75	All public



## Grande Ronde Basin Priority Rare Communities

Scientific name	Common name
<i>Alnus incana</i> - <i>Betula occidentalis</i>	mountain alder - western birch
<i>Alnus rhombifolia</i> / <i>Betula occidentalis</i>	white alder / water birch
<i>Alnus rhombifolia</i> / <i>Celtis laevigata</i> var. <i>reticulata</i>	white alder / hackberry
<i>Alnus rhombifolia</i> / <i>Philadelphus lewisii</i>	white alder / mockorange
<i>Alnus rhombifolia</i> / <i>Prunus virginiana</i>	white alder / chokecherry
<i>Alnus rhombifolia</i> / <i>Rosa woodsii</i>	white alder / woods rose
<i>Alnus rubra</i> / <i>Athyrium filix-femina</i>	red alder / lady fern
<i>Alnus rubra</i> / <i>Physocarpus capitatus</i>	red alder / Pacific ninebark
<i>Artemisia tridentata</i> ssp. <i>tridentata</i> / <i>Leymus cinereus</i>	basin big sagebrush / basin wildrye
<i>Artemisia tridentata</i> ssp. <i>tridentata</i> / <i>Stipa comata</i>	basin big sagebrush / needle-and-thread
<i>Betula occidentalis</i> - <i>Cornus sericea</i>	western birch - creek dogwood
<i>Betula occidentalis</i> - <i>Crataegus douglasii</i>	western birch - black hawthorn
<i>Betula occidentalis</i> - <i>Philadelphus lewisii</i>	western birch - mockorange
<i>Crataegus douglasii</i> - <i>Rosa woodsii</i>	black hawthorn - Woods rose
<i>Crataegus douglasii</i> - <i>Symphoricarpos albus</i>	black hawthorn - common snowberry
<i>Crataegus douglasii</i> - <i>Symphoricarpos albus</i> / <i>Festuca idahoensis</i>	black hawthorn - common snowberry / Idaho fescue
<i>Danthonia californica</i> - <i>Festuca idahoensis</i> ssp. <i>idahoensis</i>	California oatgrass - Idaho fescue
<i>Deschampsia cespitosa</i> - <i>Carex douglasii</i>	tufted hairgrass - Douglas' sedge alkaline prairie
<i>Festuca idahoensis</i> - ( <i>Symphoricarpos albus</i> )	Idaho fescue - (common snowberry)
<i>Leymus cinereus</i>	basin wildrye bottomlands
<i>Navarretia intertexta</i> - <i>Polygonum kelloggii</i> vernal pool	needle-leaf navarretia - Kellogg knotweed vernal pool
<i>Philadelphus lewisii</i>	mockorange
<i>Populus balsamifera</i> ssp. <i>trichocarpa</i> - <i>Alnus rhombifolia</i>	black cottonwood - white alder
<i>Populus balsamifera</i> ssp. <i>trichocarpa</i> / <i>Crataegus douglasii</i>	black cottonwood / black hawthorn
<i>Populus balsamifera</i> ssp. <i>trichocarpa</i> / <i>Salix exigua</i>	black cottonwood / coyote willow
<i>Populus balsamifera</i> ssp. <i>trichocarpa</i> / <i>Salix lucida</i> ssp. <i>caudata</i>	black cottonwood / Pacific willow riparian
<i>Populus tremuloides</i> / <i>Alnus incana</i> - <i>Betula nana</i> - <i>Ribes</i> spp.	quaking aspen / mountain alder - birch - currant
<i>Salix exigua</i> - <i>Salix lucida</i> ssp. <i>caudata</i>	coyote willow - Pacific willow
<i>Salix scouleriana</i>	Scouler willow