Clackamas River Accessibility

Current accessibility
Historical accessibility
Above natural barriers
Historically Inaccessible

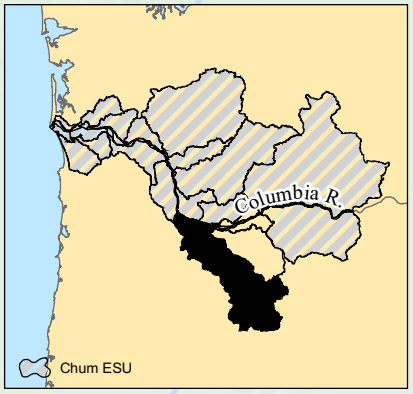
0 6 12 18 24
Km

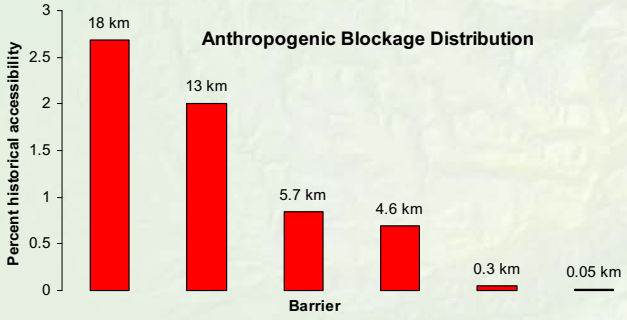
N
W E
S

Columbia River Chum

Columbia River
Columbia Slough #1
Columbia Slough #2
Willamette River
Johnson Creek
Rock Creek
Kellogg Creek
Tickle Creek
Deep Creek
Willamette Falls Dam
Abernethy Creek
Clear Creek
Currin Creek
North Fork Eagle Creek
Eagle Creek
North Fork Dam
Bee Creek
Boyer Creek
Roaring River
Cooper Creek
Cripple Creek
Aqueduct
Stone Creek
Peavine Creek
Wash Creek
Big Creek
Fish Creek
Cabin Creek
Collawash River
Lowe Creek
Pinhead Creek
Nohorn Creek
Pansy Creek
Fawn Creek
Clackamas River
Lemiti Creek
Elk Lake Creek
Cub Creek

Accessibility	Stream km	% total
Current accessibility	624	91
Historical accessibility	667	98
Above natural barriers	15	2
Total streams	682	
Current / Historical		**94**





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Clackamas River

Clackamas River Accessibility

Current accessibility
Historical accessibility
Above natural barriers
Historically Inaccessible

0 6 12 18 24
Km

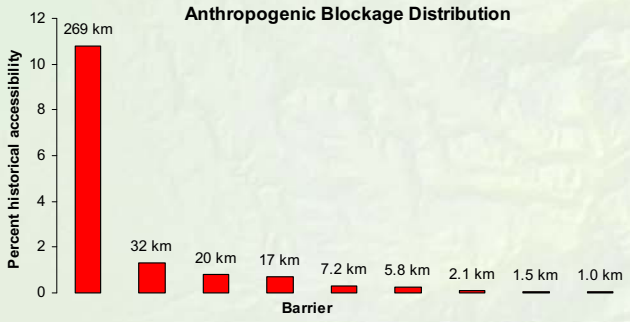
NOAA NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION U.S. DEPARTMENT OF COMMERCE

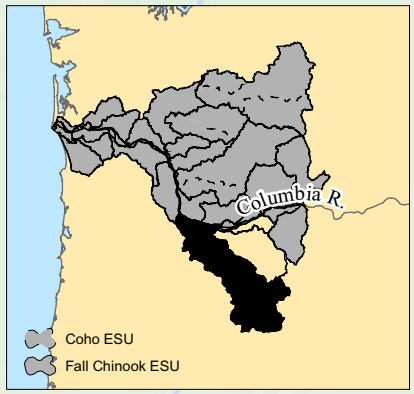
N W E S

Lower Columbia River Coho
Lower Columbia River Fall Chinook

Columbia River
Columbia Slough #1
Columbia Slough #2
Willamette River
Johnson Creek
Kellogg Creek
Rock Creek
Deep Creek
Tickle Creek
Willamette Falls Dam
Abernethy Creek
Clear Creek
Currin Creek
North Fork Eagle Creek
Eagle Creek
North Fork Dam
Bee Creek
Boyer Creek
Roaring River
Cooper Creek
Cripple Creek
Aqueduct
Stone Creek
Peavine Creek
Big Creek
Wash Creek
Fish Creek
Cabin Creek
Collawash River
Lowe Creek
Pinhead Creek
Nohorn Creek
Pansy Creek
Fawn Creek
Clackamas River
Lemiti Creek
Elk Lake Creek
Crub Creek

Accessibility	Stream km	% total
Current accessibility	1,884	75
Historical accessibility	2,235	89
Above natural barriers	267	11
Total streams	2,503	
Current / Historical		**84**





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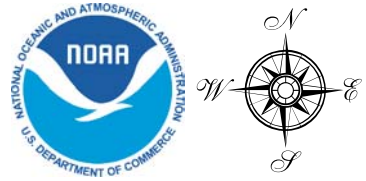
Clackamas River Accessibility

Lower Columbia Winter Steelhead

- Current accessibility
- Historical accessibility
- Above natural barriers
- Historically Inaccessible

0 6 12 18 24

Km



Columbia River
Columbia Slough #1
Columbia Slough #2
Willamette River
Johnson Creek
Kellogg Creek
Rock Creek
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Deep Creek
Willamette Falls Dam
Abernethy Creek
Clear Creek
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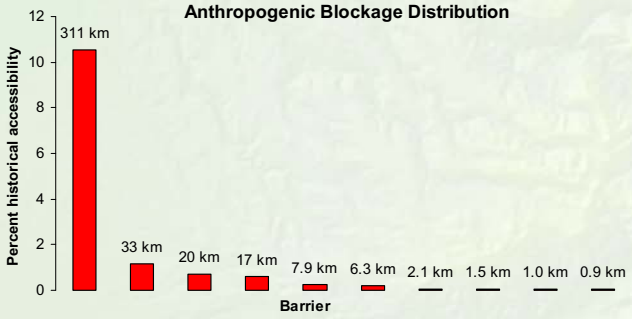
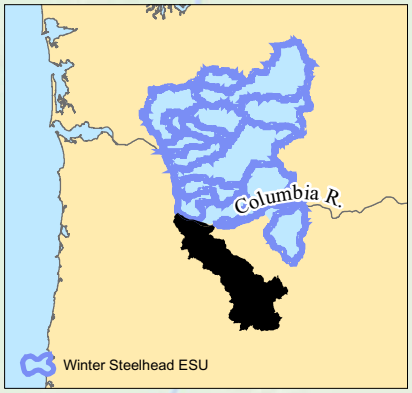
Eagle Creek
North Fork Dam
Bee Creek
Boyer Creek
Roaring River
Cooper Creek
Cripple Creek
Aqueduct
Stone Creek
Peavine Creek
Big Creek
Wash Creek
Fish Creek
Cabin Creek
Collawash River
Lone Creek
Pinhead Creek
Nohorn Creek
Parsny Creek
Fawn Creek
Clackamas River
Lemiti Creek
Elk Lake Creek
Crab Creek

Accessibility	Stream km	% total
Current accessibility	2,221	75
Historical accessibility	2,626	89
Above natural barriers	330	11
Total streams	2,956	
Current / Historical		**85**





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Clackamas River

Clackamas River
2002 303(d) Listed Water Courses

PARAMETER

- E Coli
- Fecal Coliform
- Temperature
- Table 20 listings, pH

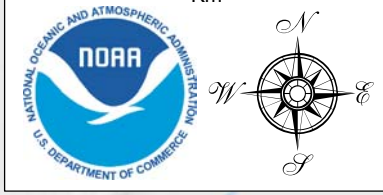
Columbia River

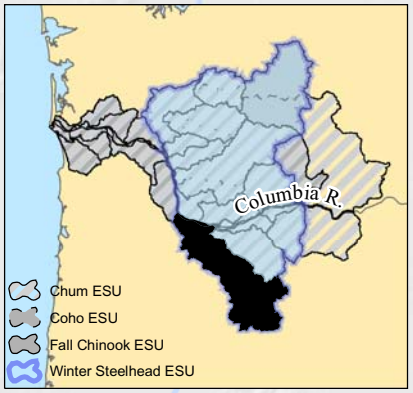
- Arsenic
- DDT Metabolite
- PCB
- Temperature

- Historically Inaccessible

0 6 12 18 24

Km





Total 303(d) Streams = 14% Total 100k Streams

Columbia River Chum
Lower Columbia Coho
Lower Columbia Fall Chinook
Lower Columbia Winter Steelhead

- Temperature, Rearing: 17.8C
- E. Coli, 126 organisims per 1
- Temperature, Rearing 17.8 C & E. Coli, 126 organisms per 1
- Fecal Coliform, Geometric mean of 2
- Fecal Coliform, Geo. mean of 2 & E. Coli, 126 organisms per 1 & pH, pH: 6.5 to 8.5
- Fecal Coliform, Geo. mean of 2 & Dieldrin, DDT, PCB, Polynuclear aromatics - all Table 20
- Iron and Manganese, Table 20
- Iron and Manganese, Table 20 & Temperature, Rearing: 17.8 C
- Temperature, Fecal coliform, Pentachlorophenol, Mercury, Iron, Manganese, DDT, DDT metabolite, PCB, Aldrin, Dieldrin, Polynuclear aromatics

Columbia River
Columbia Slough #1
Columbia Slough #2
Willamette River
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Kellogg Creek
Rock Creek
Tickle Creek
Deep Creek
Willamette Falls Dam
Abernethy Creek
Clear Creek
Currin Creek
North Fork Eagle Creek
Eagle Creek
North Fork Dam
Bee Creek
Boyer Creek
Roaring River
Cooper Creek
Cripple Creek
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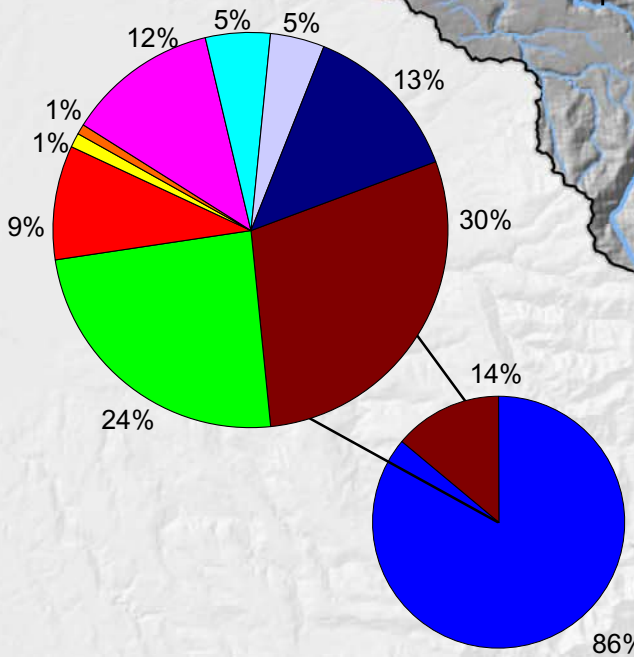
Wash Creek
Fish Creek
Cabin Creek
Pinhead Creek
Lowe Creek
Collawash River
Nohorn Creek
Pansy Creek
Fawn Creek
Clackamas River
Lemiti Creek
Elk Lake Creek
Cub Creek



- Total 303(d) streams - 300.44 km
- Remaining 100k streams - 1867.3 km

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Clackamas River

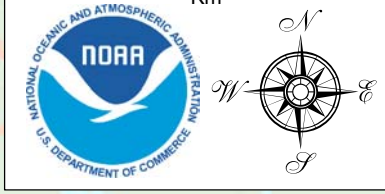
ODFW Distribution

Use type

- Spawning and rearing
- Rearing and migration
- Migration
- Previous/Historical
- Present, unknown use
- Absent
- Disputed
- Historically Inaccessible

0 6 12 18 24

Km



Lower Columbia Coho

Columbia River
Columbia Slough #1
Columbia Slough #2
Willamette River
Johnson Creek
Rock Creek
Kellogg Creek
Tickle Creek
Deep Creek
Willamette Falls Dam
Abernethy Creek
Clear Creek
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North Fork Eagle Creek
Eagle Creek
North Fork Dam
Bee Creek
Boyer Creek
Roaring River
Cooper Creek
Cripple Creek
Aqueduct
Stone Creek
Peavine Creek
Wash Creek
Big Creek
Fish Creek
Cabin Creek
Pinhead Creek
Lowe Creek
Collawash River
Nohorn Creek
Pansy Creek
Fawn Creek
Clackamas River
Lemiti Creek
Elk Lake Creek
Crub Creek

Use type	Stream km	% total
Spawning and rearing	418	19
Rearing and migration	75	3
Migration	30	1
Previous / historical	47	2
Total use	571	26
Total 100k streams	**2,168**	**100**

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Clackamas River

Clackamas River

ODFW Distribution

Use type

- Spawning and rearing
- Rearing and migration
- Migration
- Previous/Historical
- Present, unknown use
- Absent
- Disputed
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0 6 12 18 24

Km

NOAA NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION U.S. DEPARTMENT OF COMMERCE

N W E S

Lower Columbia Fall Chinook

Columbia River
Columbia Slough #1
Columbia Slough #2
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Johnson Creek
Kellogg Creek
Rock Creek
Tickle Creek
Deep Creek
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Aqueduct
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Peavine Creek
Wash Creek
Big Creek
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Cabin Creek
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Pansy Creek
Fawn Creek
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Lemiti Creek
Elk Lake Creek
Cub Creek

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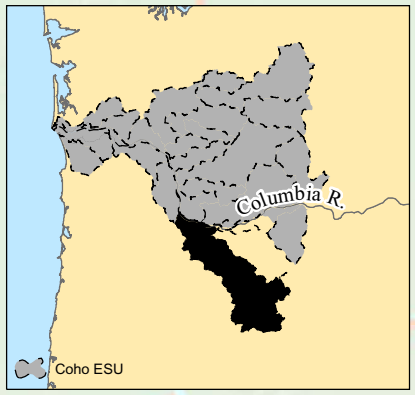

Use type	Stream km	% total
Spawning and rearing	55	3
Rearing and migration	66	3
Migration	<1	<1
Previous / historical	6	<1
Total use	121	6
Total 100k streams	**2,168**	**100**

Clackamas River

ODFW Distribution

Use type

- Spawning and rearing
- Rearing and migration
- Migration
- Previous/Historical
- Present, unknown use
- Absent
- Disputed
- Historically Inaccessible

0 6 12 18 24

Km

Lower Columbia Winter Steelhead

Columbia River
Columbia Slough #1
Columbia Slough #2
Willamette River
Johnson Creek
Kellogg Creek
Rock Creek
Tickle Creek
Deep Creek
Willamette Falls Dam
Abernethy Creek
Clear Creek
Currin Creek
North Fork Eagle Creek
Eagle Creek
North Fork Dam
Bee Creek
Boyer Creek
Roaring River
Cooper Creek
Cripple Creek
Aqueduct
Stone Creek
Peavine Creek
Wash Creek
Big Creek
Fish Creek
Cabin Creek
Pinhead Creek
Lowe Creek
Collawash River
Nohorn Creek
Pansy Creek
Fawn Creek
Clackamas River
Lemiti Creek
Elk Lake Creek
Crib Creek

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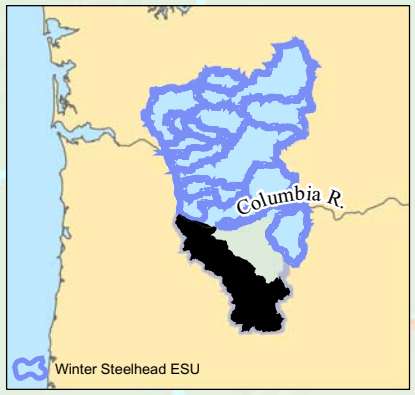

Use type	Stream km	% total
Spawning and rearing	473	22
Rearing and migration	88	4
Previous / historical	19	1
Present, unknown use	7	<1
Total use	587	27
Total 100k streams	**2,168**	**100**

Clackamas River

Clackamas River
FEMA Q3 Flood Data

Flood plain

Historically Inaccessible

0 6 12 18 24

Km

NOAA — National Oceanic and Atmospheric Administration — U.S. Department of Commerce

N W E S

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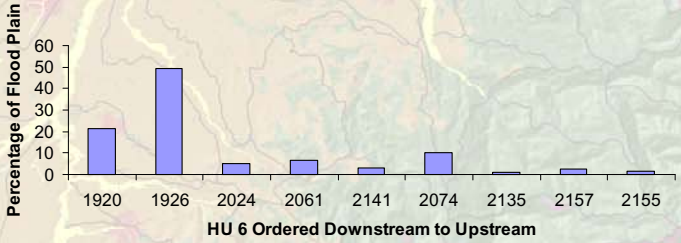
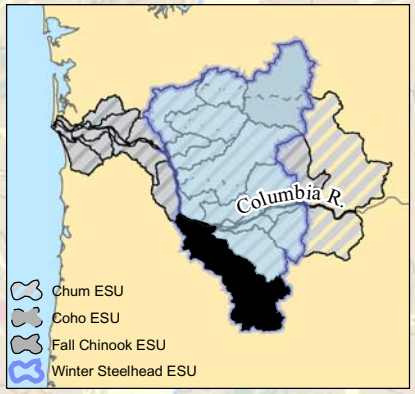
Pansy Creek
Fawn Creek
Clackamas River
Lemiti Creek
Elk Lake Creek
Crub Creek

Spatial Distribution of Flood Plain Across HU 6s



Flood Plain Land Cover	Square Km	Pecent Total
Lakes and streams	28	22
Rock, sand and clay	1	<1
Sparse vegetation in transition	<1	<1
Grasslands	5	4
Developed	28	22
Forest and shrubs	37	28
Agriculture	27	20
Wetlands	4	3
Total 100 yr. Flood Plain	**131**	**100**



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Clackamas River
2000 HU 6
Population Density

- 0 - 6
- 7 - 17
- 18 - 33
- 34 - 51
- 52 - 77
- 78 - 126
- 127 - 204
- 205 - 275
- 276 - 436
- 437 - 806
- 807 - 1505
- 1506 - 2327
- 2328 - 3002
- Historically Inaccessible

0 6 12 18 24
Km

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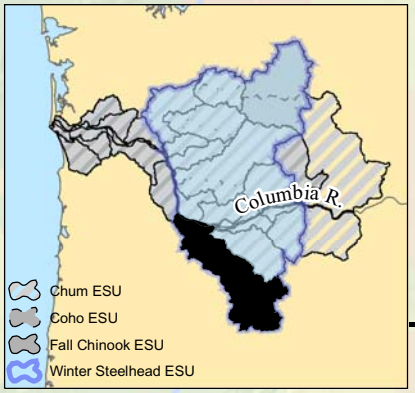
N W E S



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Lower Columbia Coho
Lower Columbia Fall Chinook
Lower Columbia Winter Steelhead

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Peavine Creek
Big Creek
Wash Creek
Fish Creek
Cabin Creek
Lowe Creek
Pinhead Creek
Collawash River
Nohorn Creek
Pansy Creek
Fawn Creek
Clackamas River
Lemiti Creek
Elk Lake Creek
Crab Creek

Year	Total Human Population / Square Km	Total Human Population	% Increase
2000	259	802,445	
2040	371	1,148,984	43

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Clackamas River

Clackamas River
Land Cover

- Lakes and streams
- Ice and snow
- Rock, sand, or clay
- Sparse vegetation
- Grassland
- Developed
- Forest and shrubs
- Agriculture
- Wetlands
- Historically Inaccessible

0 6 12 18 24
Km

NOAA NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION U.S. DEPARTMENT OF COMMERCE

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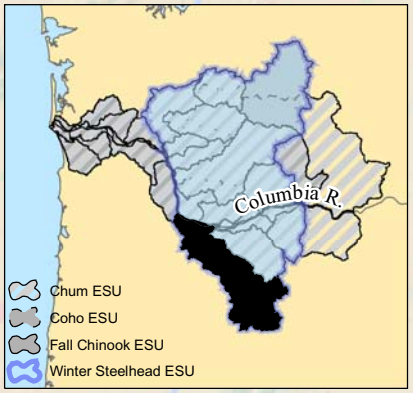
Cub Creek



Land Cover	Watershed Polygon Square Km	% Area	Historically Accessible Square Km	% Area
Lakes and streams	41	1	41	1
Ice and snow	<1	<1	<1	<1
Rock, sand and clay	2	<1	2	<1
Sparse vegetation	103	3	102	3
Grasslands	56	2	56	2
Developed	329	11	329	11
Forest and shrubs	2,271	73	2,203	73
Agriculture	285	9	285	9
Wetlands	10	<1	10	<1
Total	**3,099**	**100**	**3,029**	**100**

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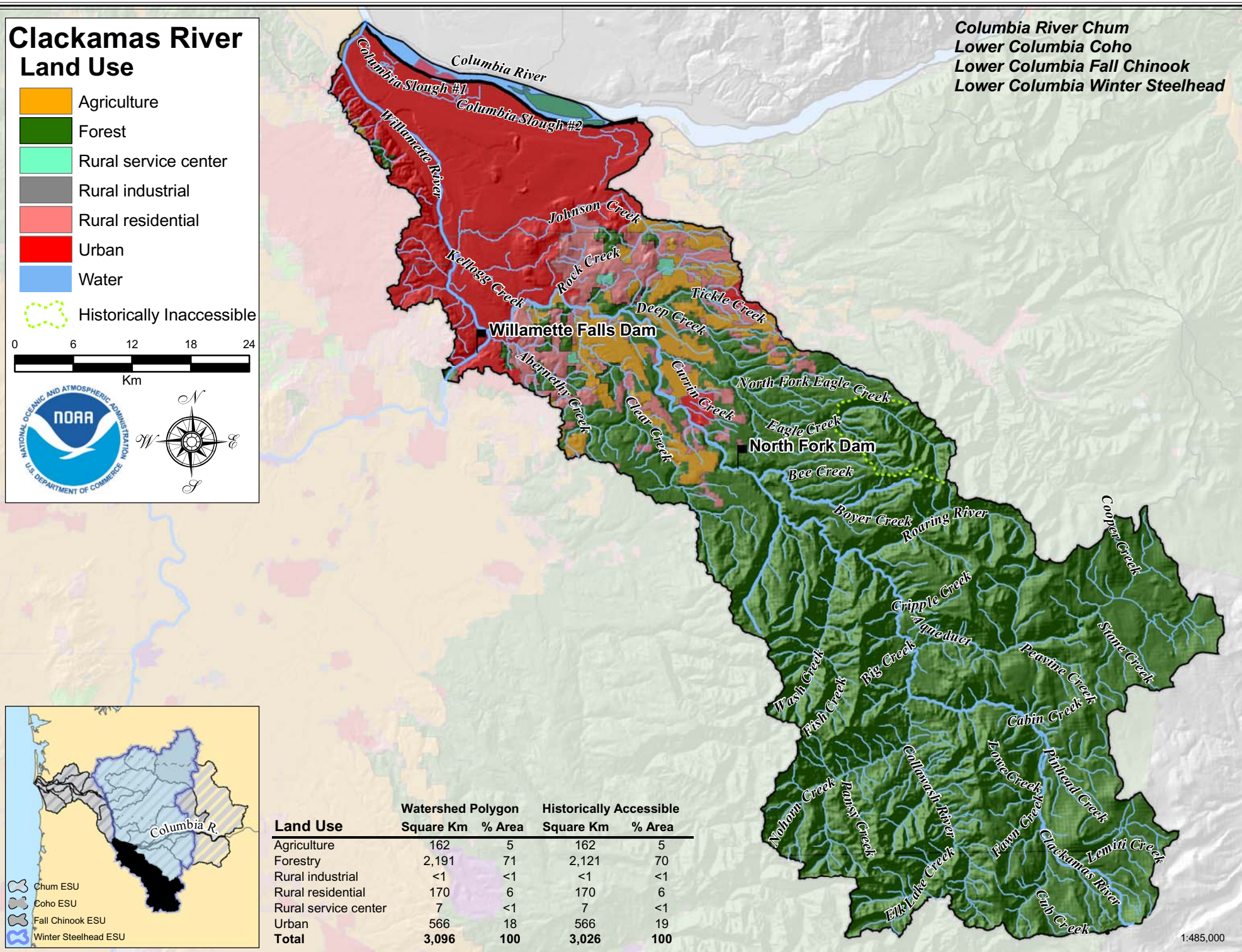
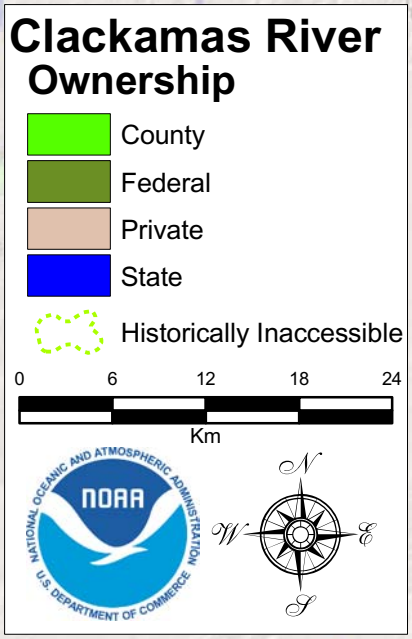
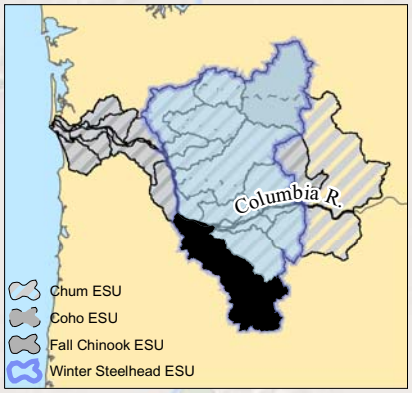


Land Use	Watershed Polygon Square Km	Watershed Polygon % Area	Historically Accessible Square Km	Historically Accessible % Area
Agriculture	162	5	162	5
Forestry	2,191	71	2,121	70
Rural industrial	<1	<1	<1	<1
Rural residential	170	6	170	6
Rural service center	7	<1	7	<1
Urban	566	18	566	19
Total	**3,096**	**100**	**3,026**	**100**

Clackamas River

Clackamas River Ownership





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Cabin Creek
Collawash River
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Nohorn Creek
Pansy Creek
Fawn Creek
Clackamas River
Lemiti Creek
Elk Lake Creek
Cub Creek

Ownership	Watershed Polygon Square Km	% Area	Historically Accessible Square Km	% Area
County	15	<1	15	<1
Federal	1,802	58	1,737	57
Private	1,276	41	1,272	42
State	5	<1	5	<1
Total	**3,099**	**100**	**3,029**	**100**

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Clackamas River
Riparian Condition

- Functional
- Impaired
- Moderately Impaired
- Water
- Historically Inaccessible

0 6 12 18 24
Km

NOAA NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION U.S. DEPARTMENT OF COMMERCE

N W E S

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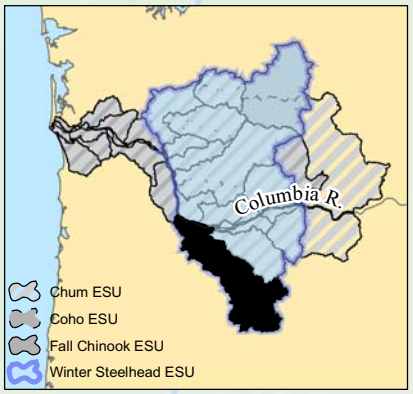
Elk Lake Creek
Crib Creek



Riparian condition	Stream km	% total
Functional	1,706	58
Impaired	602	20
Moderately impaired	507	17
Water	129	4
Total	**2,944**	**100**

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Clackamas River

Clackamas River

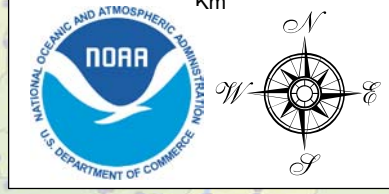
Water Rights

Max rate cfs

- 0.0008 - 4.17
- 4.17 - 11.625
- 11.625 - 23.965
- 23.965 - 42.372
- 42.372- 76.195
- 76.195 - 123.82
- 123.82 - 201.807
- 201.808 - 345.248
- 345.248 - 505.973
- 505.974 - 902.158
- 902.158 - 1900
- 1900 - 4600
- no data
- Historically Inaccessible

0 6 12 18 24

Km



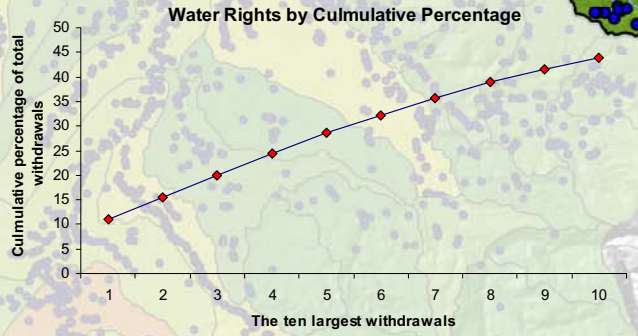
Columbia River Chum
Lower Columbia Coho
Lower Columbia Fall Chinook
Lower Columbia Winter Steelhead

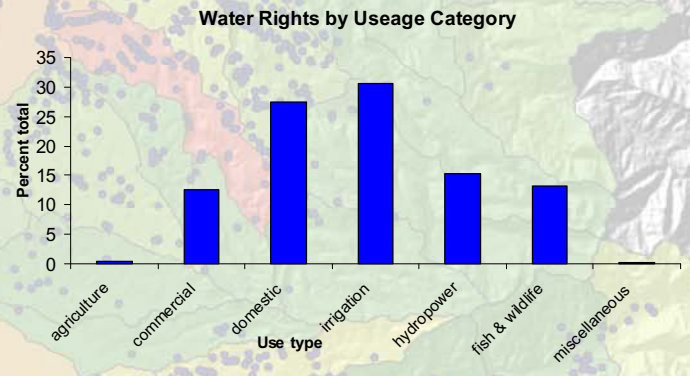
Max rate cfs

- 0 - 0.78
- 0.78 - 3
- 3 - 8.9
- 8.9 - 34
- 34 - 150

Total max rate for population equals 1,368 cfs.

Columbia River
Columbia Slough #1
Columbia Slough #2
Willamette River
Johnson Creek
Kellogg Creek
Rock Creek
Tickle Creek
Deep Creek
Willamette Falls Dam
Abernethy Creek
Clear Creek
Currin Creek
North Fork Eagle Creek
Eagle Creek
North Fork Dam
Bee Creek
Boyer Creek
Roaring River
Cooper Creek
Cripple Creek
Aqueduct
Stone Creek
Big Creek
Peavine Creek
Wash Creek
Fish Creek
Cabin Creek
Collawash River
Lowe Creek
Pinhead Creek
Nohum Creek
Parsy Creek
Fawn Creek
Clackamas River
Lemiti Creek
Elk Lake Creek
Cub Creek





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