



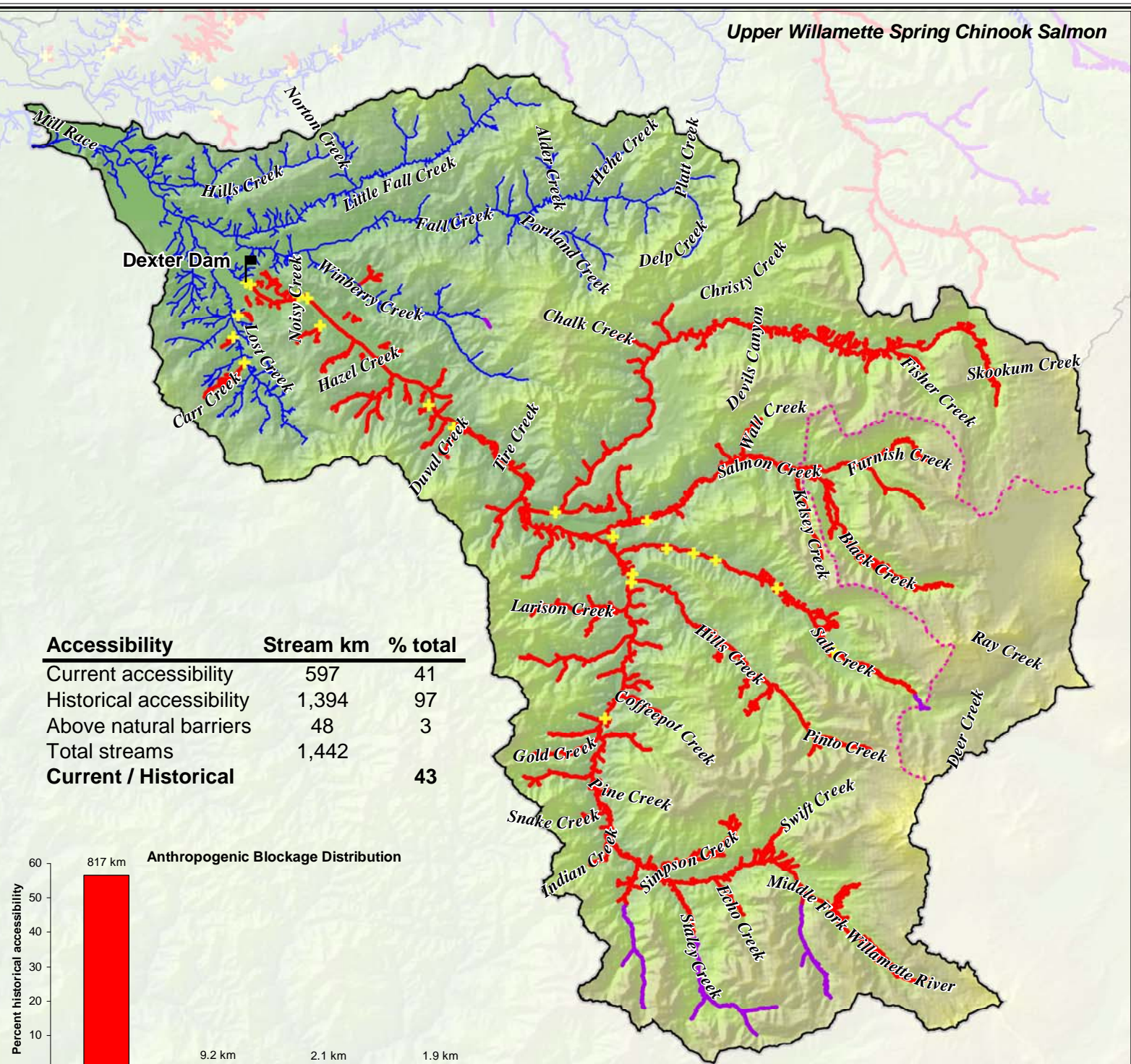
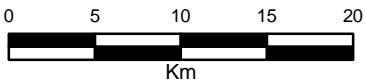
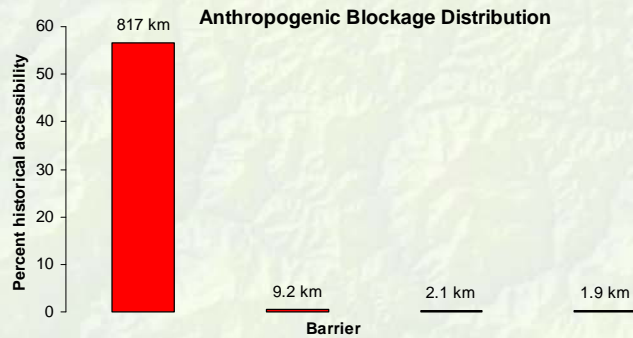
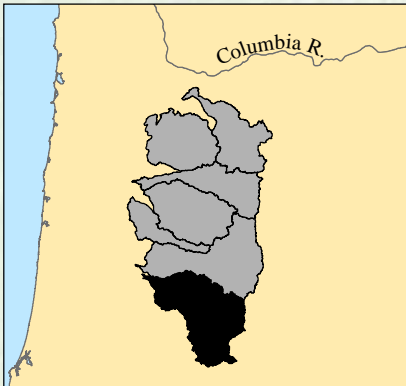


# Middle Fork Willamette River Accessibility

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



Accessibility	Stream km	% total
Current accessibility	597	41
Historical accessibility	1,394	97
Above natural barriers	48	3
Total streams	1,442	
<b>Current / Historical</b>		<b>43</b>

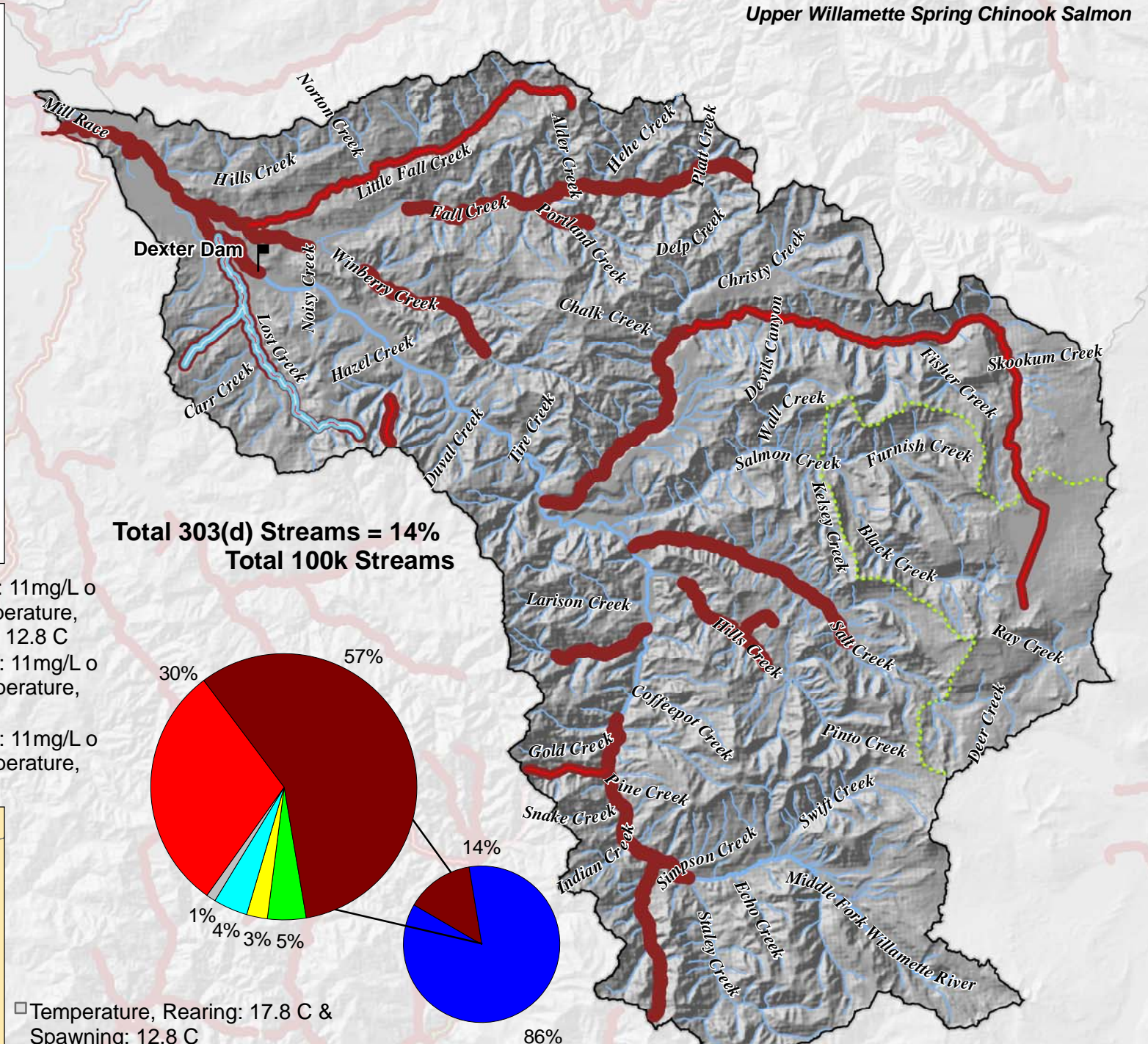
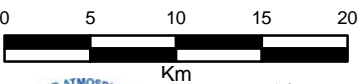


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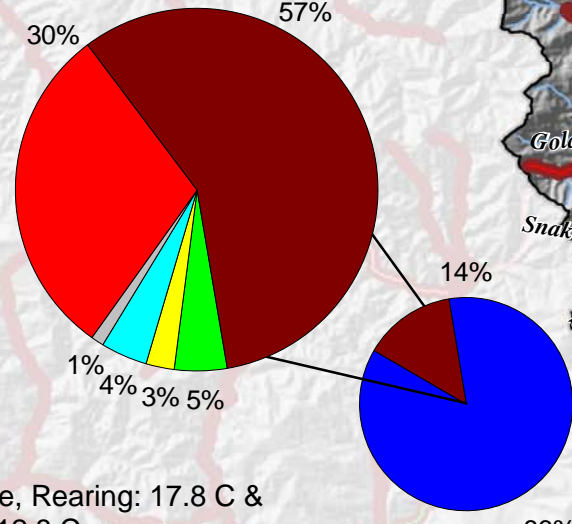
# Middle Fork Willamette River 2002 303(d) Listed Water Courses

## CRITERIA

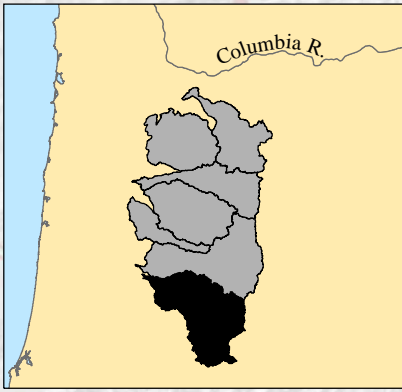
- Spawning: 11 mg/L o
- Cold water: 8 mg/l
- Spawning: 12.8 C
- Rearing: 17.8 C
- Historically Inaccessible



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



- Dissolved oxygen, Spawning: 11mg/L o & Cold Water: 8 mg/L & Temperature, Rearing: 17.8 C & Spawning: 12.8 C
- Dissolved oxygen, Spawning: 11mg/L o & Cold Water: 8 mg/L & Temperature, Spawning: 12.8 C
- Dissolved oxygen, Spawning: 11mg/L o & Cold Water: 8 mg/L & Temperature, Rearing: 17.8 C



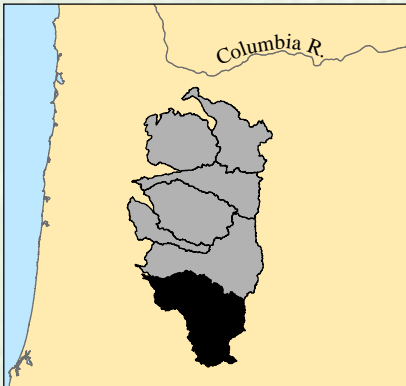
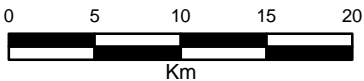
- Temperature, Rearing: 17.8 C & Spawning: 12.8 C
- Temperature, Spawning: 12.8 C
- Temperature, Rearing: 17.8 C

■ Total 303(d) streams - 321.03 km  
■ Remaining 100k streams - 1,924 km

# Middle Fork Willamette River ODFW Distribution

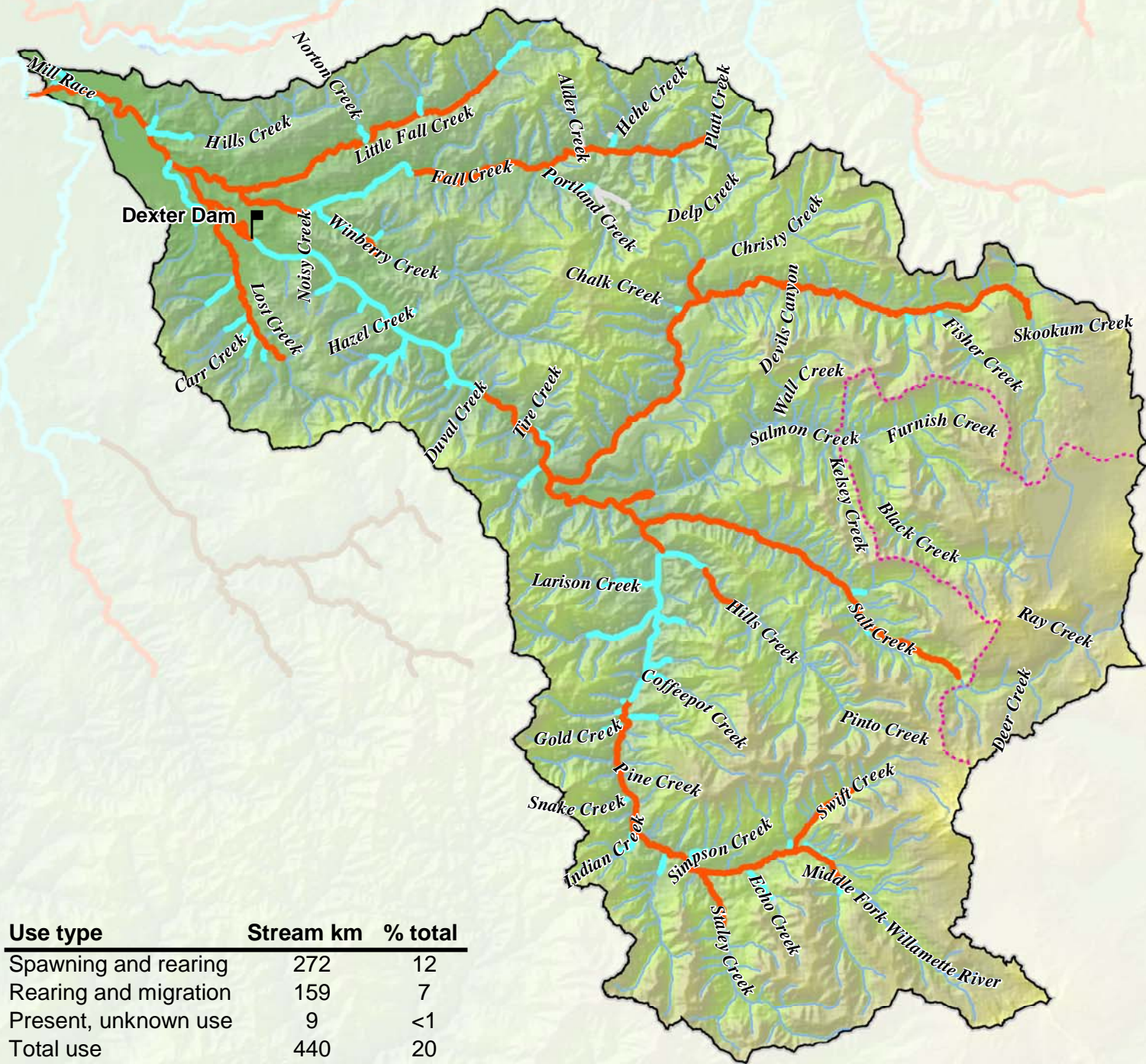
## Use type

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



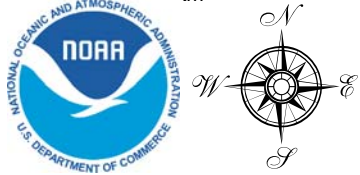
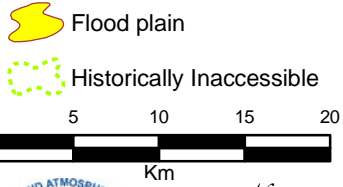
Use type	Stream km	% total
Spawning and rearing	272	12
Rearing and migration	159	7
Present, unknown use	9	<1
<b>Total use</b>	<b>440</b>	<b>20</b>
<b>Total 100k streams</b>	<b>2,246</b>	<b>100</b>

## Upper Willamette Spring Chinook Salmon



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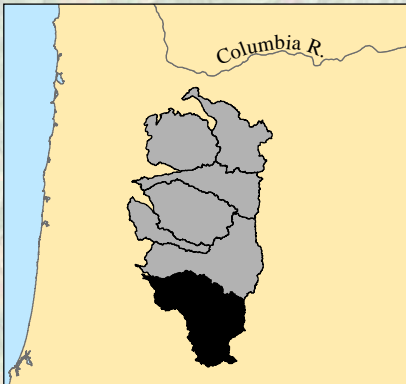
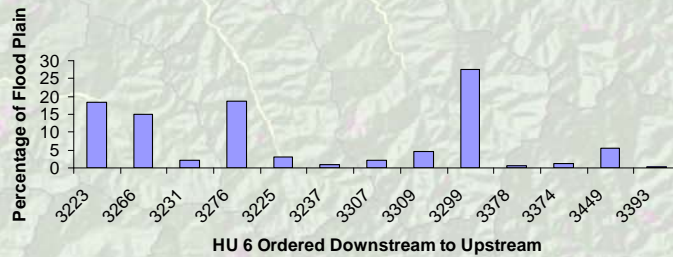
# Middle Fork Willamette River FEMA Q3 Flood Data



## Upper Willamette Spring Chinook Salmon

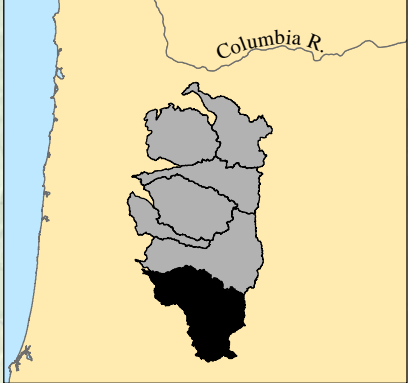
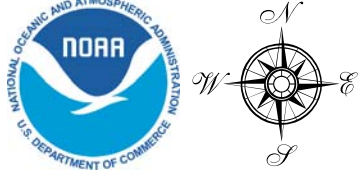
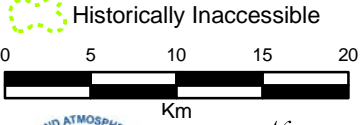
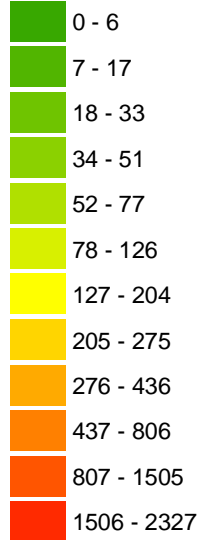


### Spatial Distribution of Flood Plain Across HU 6s



Flood Plain Land Cover	Square Km	Pecent Total
Lakes and streams	20	31
Rock, sand and clay	<1	<1
Sparse vegetation in transition/recovery	<1	<1
Grasslands	3	5
Developed	1	2
Forest and shrubs	20	32
Agriculture	16	26
Wetlands	2	3
<b>Total 100 yr. Flood Plain</b>	<b>62</b>	<b>100</b>

# Middle Fork Willamette River 2000 HU 6 Population Density



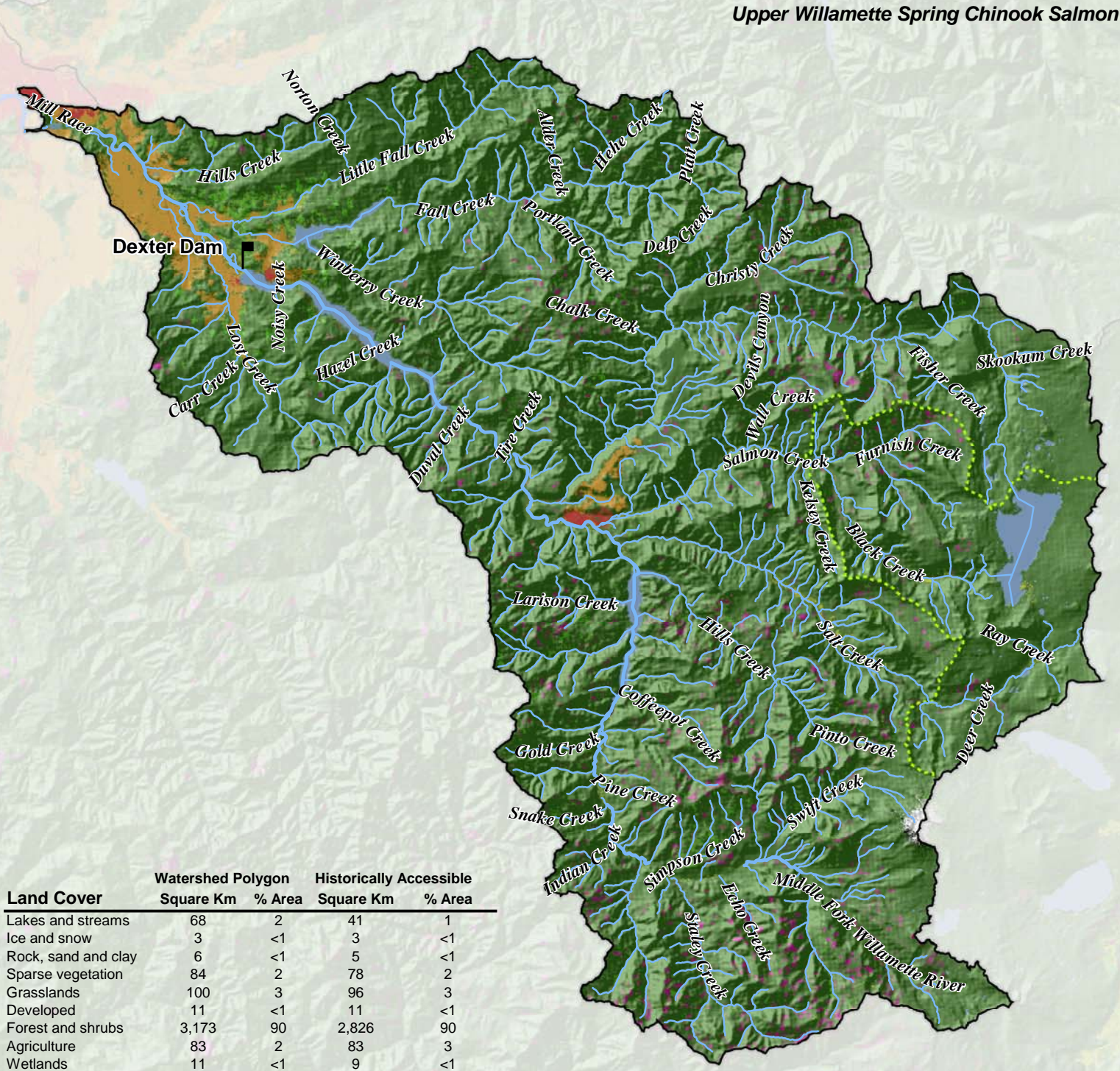
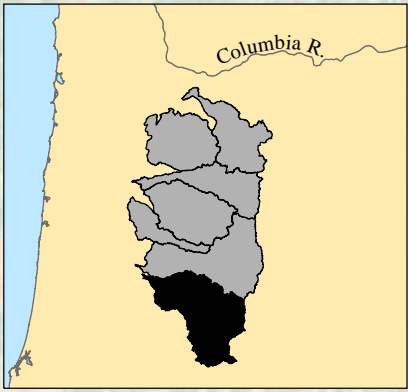
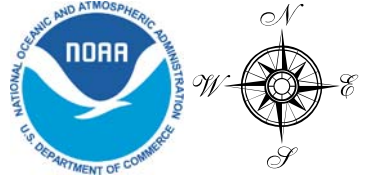
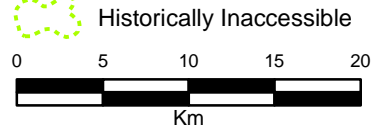
Year	Total Human Population / Square Km	Total Human Population	% Increase
2000	5	19413	
2040	8	28339	46

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# Middle Fork Willamette River Land Cover

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

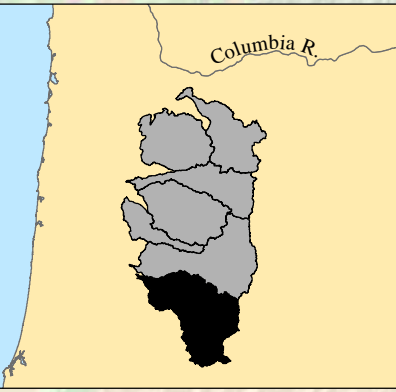
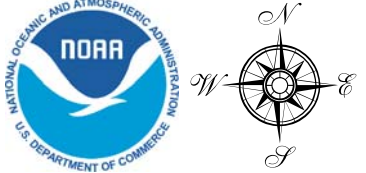
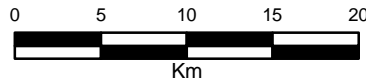


Land Cover	Watershed Polygon		Historically Accessible	
	Square Km	% Area	Square Km	% Area
Lakes and streams	68	2	41	1
Ice and snow	3	<1	3	<1
Rock, sand and clay	6	<1	5	<1
Sparse vegetation	84	2	78	2
Grasslands	100	3	96	3
Developed	11	<1	11	<1
Forest and shrubs	3,173	90	2,826	90
Agriculture	83	2	83	3
Wetlands	11	<1	9	<1
<b>Total</b>	<b>3,538</b>	<b>100</b>	<b>3,152</b>	<b>100</b>

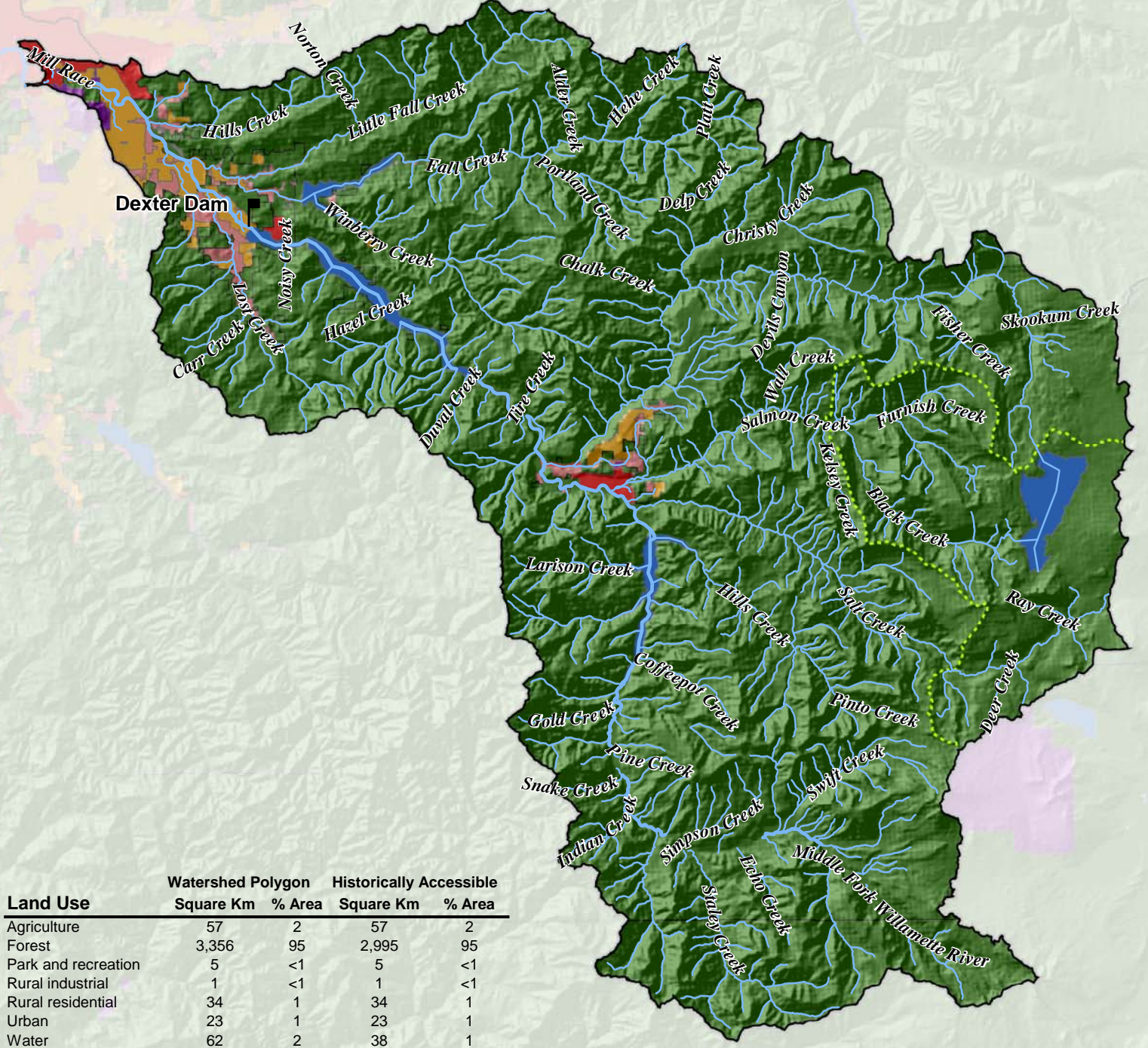
1:440,000

# Middle Fork Willamette River Land Use

- Agriculture - forest zone
- Agriculture
- Forest
- Mineral resource zone
- Conservation zone
- Park and recreation
- Public facility
- Rural commercial
- Rural industrial
- Rural residential
- Urban
- Water
- Historically Inaccessible

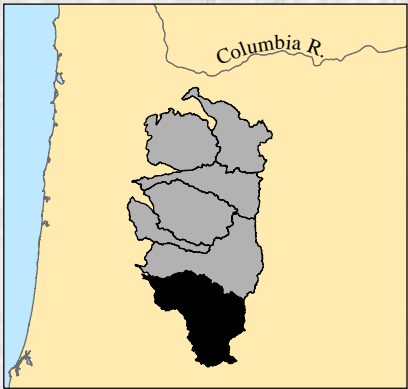
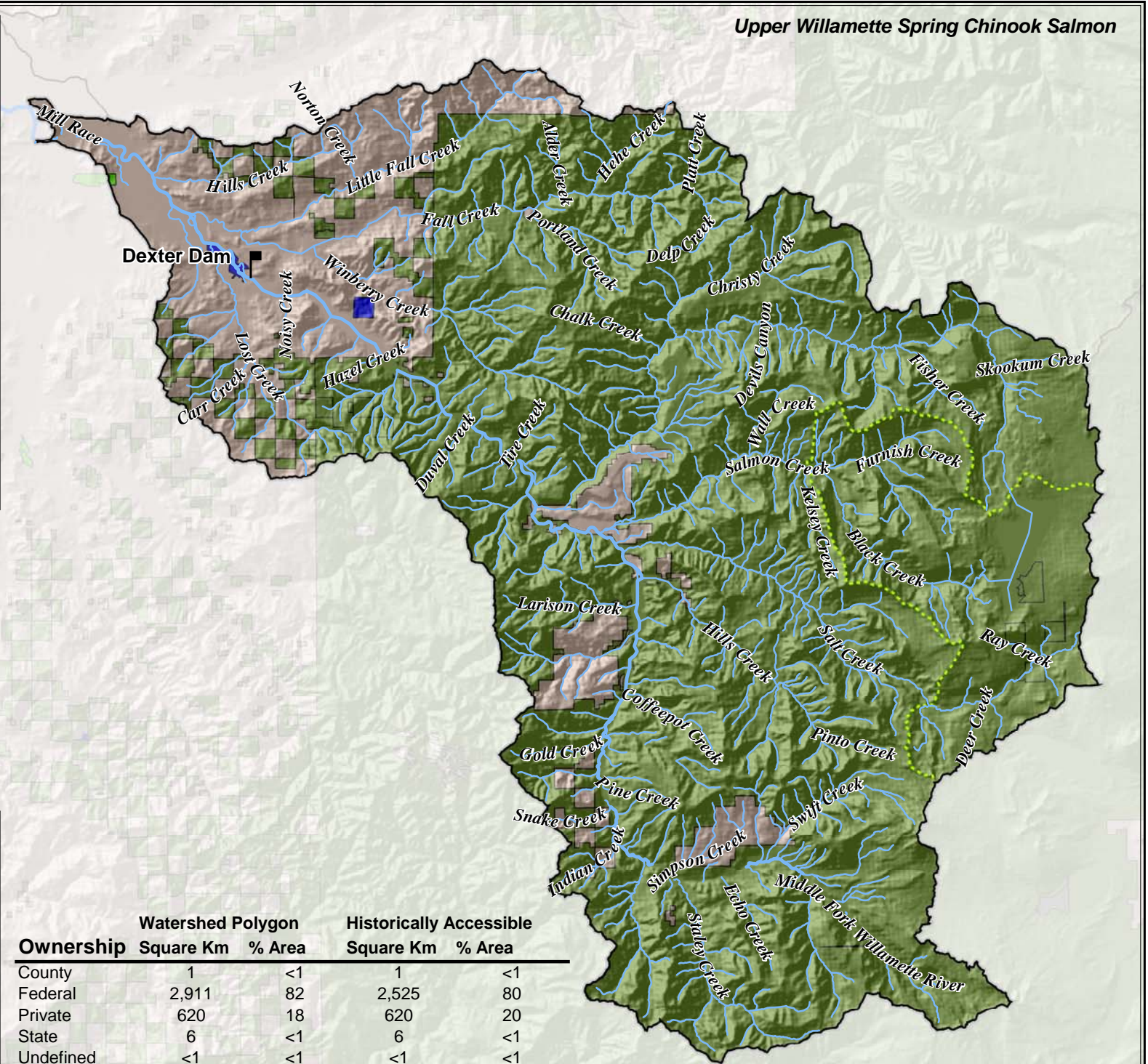
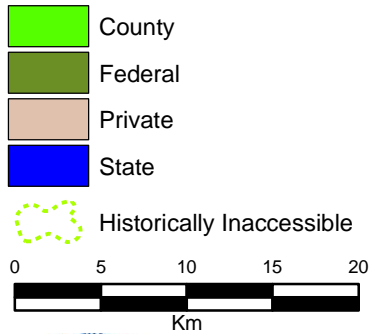


Land Use	Watershed Polygon		Historically Accessible	
	Square Km	% Area	Square Km	% Area
Agriculture	57	2	57	2
Forest	3,356	95	2,995	95
Park and recreation	5	<1	5	<1
Rural industrial	1	<1	1	<1
Rural residential	34	1	34	1
Urban	23	1	23	1
Water	62	2	38	1
<b>Total</b>	<b>3,538</b>	<b>100</b>	<b>3,152</b>	<b>100</b>



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# Middle Fork Willamette River Ownership

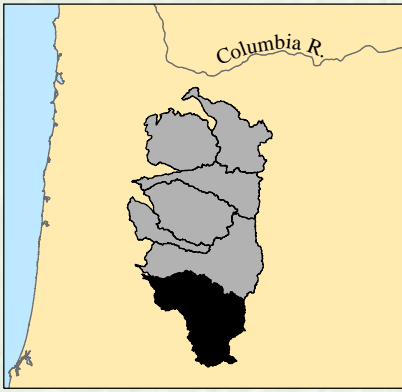
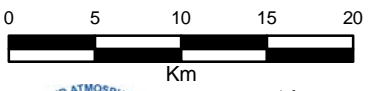


Ownership	Watershed Polygon		Historically Accessible	
	Square Km	% Area	Square Km	% Area
County	1	<1	1	<1
Federal	2,911	82	2,525	80
Private	620	18	620	20
State	6	<1	6	<1
Undefined	<1	<1	<1	<1
<b>Total</b>	<b>3,538</b>	<b>100</b>	<b>3,152</b>	<b>100</b>

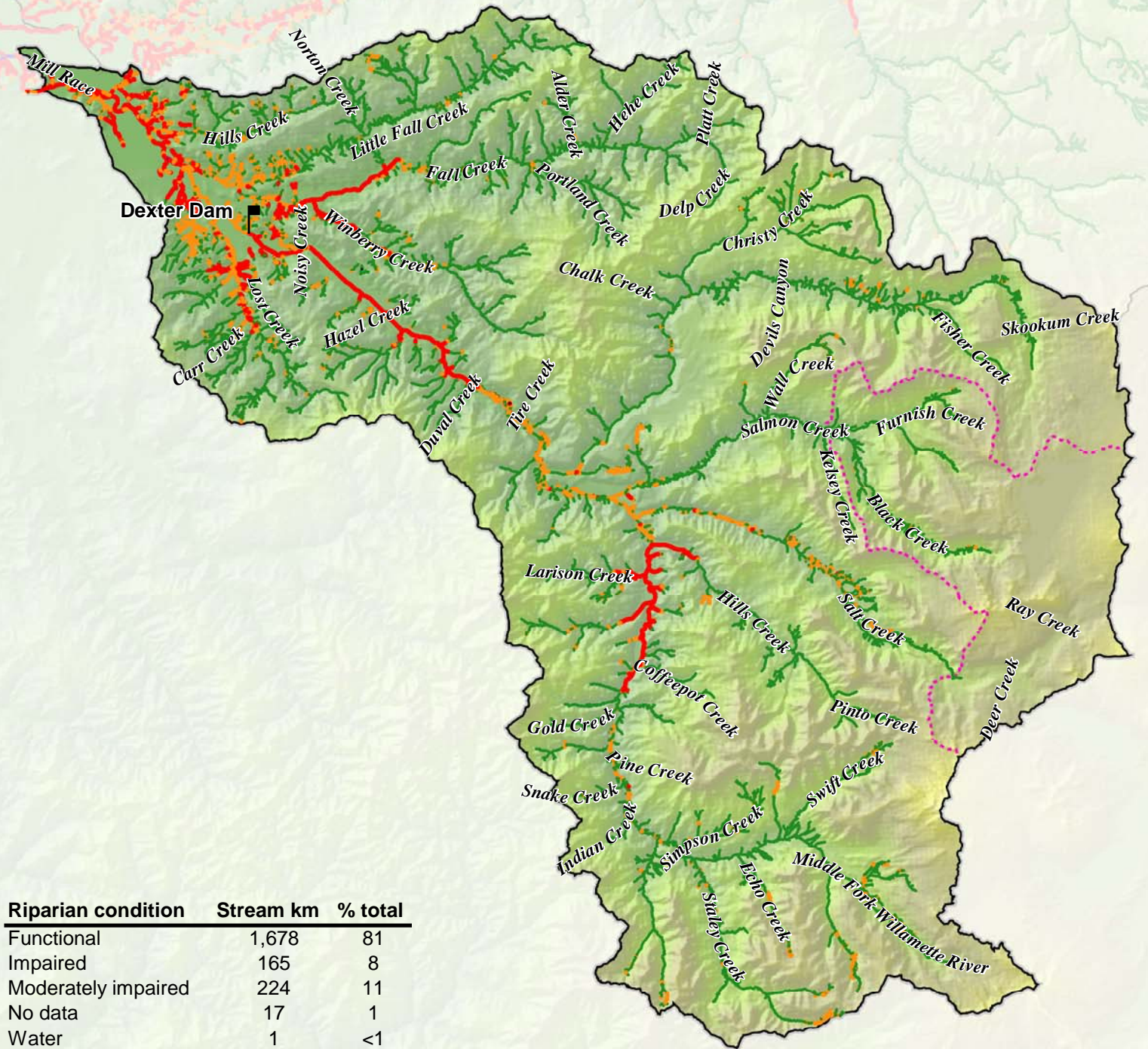


# Middle Fork Willamette River Riparian Condition

-  Functional
-  Impaired
-  Moderately Impaired
-  No Data
-  Water
-  Historically Inaccessible

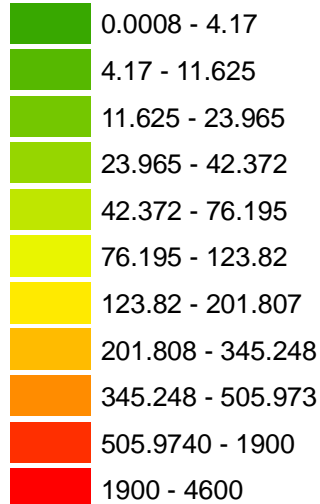


Riparian condition	Stream km	% total
Functional	1,678	81
Impaired	165	8
Moderately impaired	224	11
No data	17	1
Water	1	<1
<b>Total</b>	<b>2,083</b>	<b>100</b>



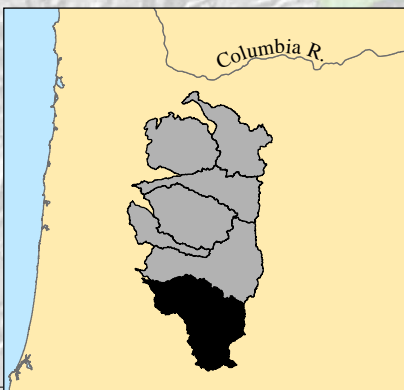
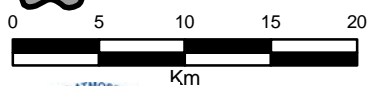
# Middle Fork Willamette River Water Rights

Max rate cfs



Historically Inaccessible

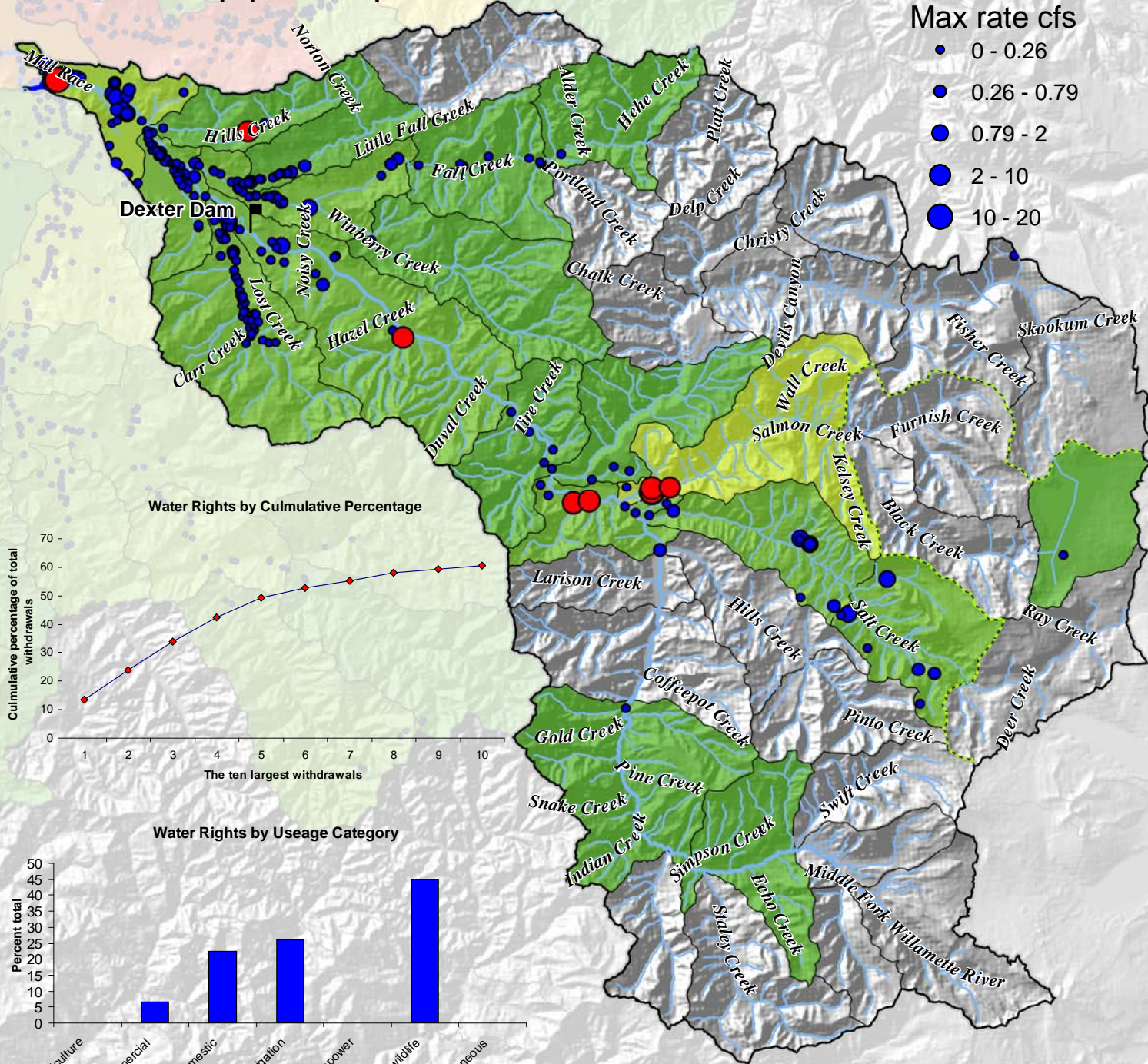
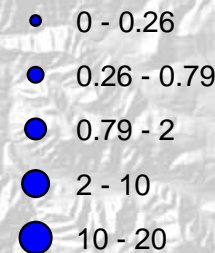
no data



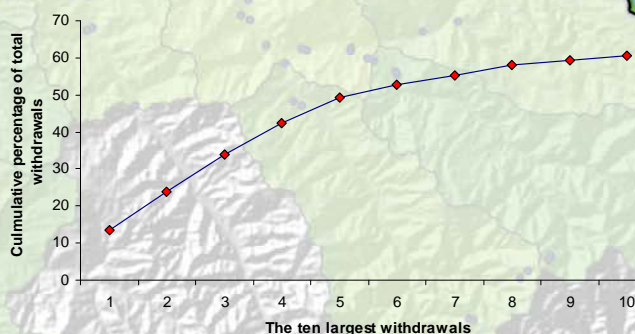
Total max rate for population equals 147 cfs.

Upper Willamette Spring Chinook Salmon

Max rate cfs



Water Rights by Cumulative Percentage



Water Rights by Usage Category

