

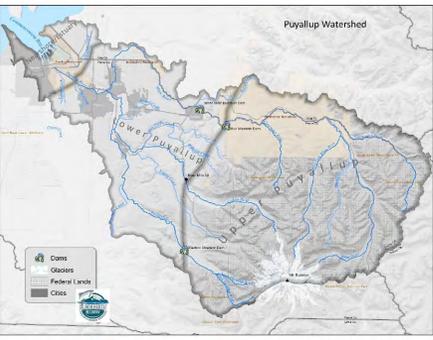
Breaking down barriers: how science, policy,
and community resolve has shaped
salmon recovery in the
Puyallup River
Watershed

Washington State Salmon
Recovery Conference
April 8, 2019

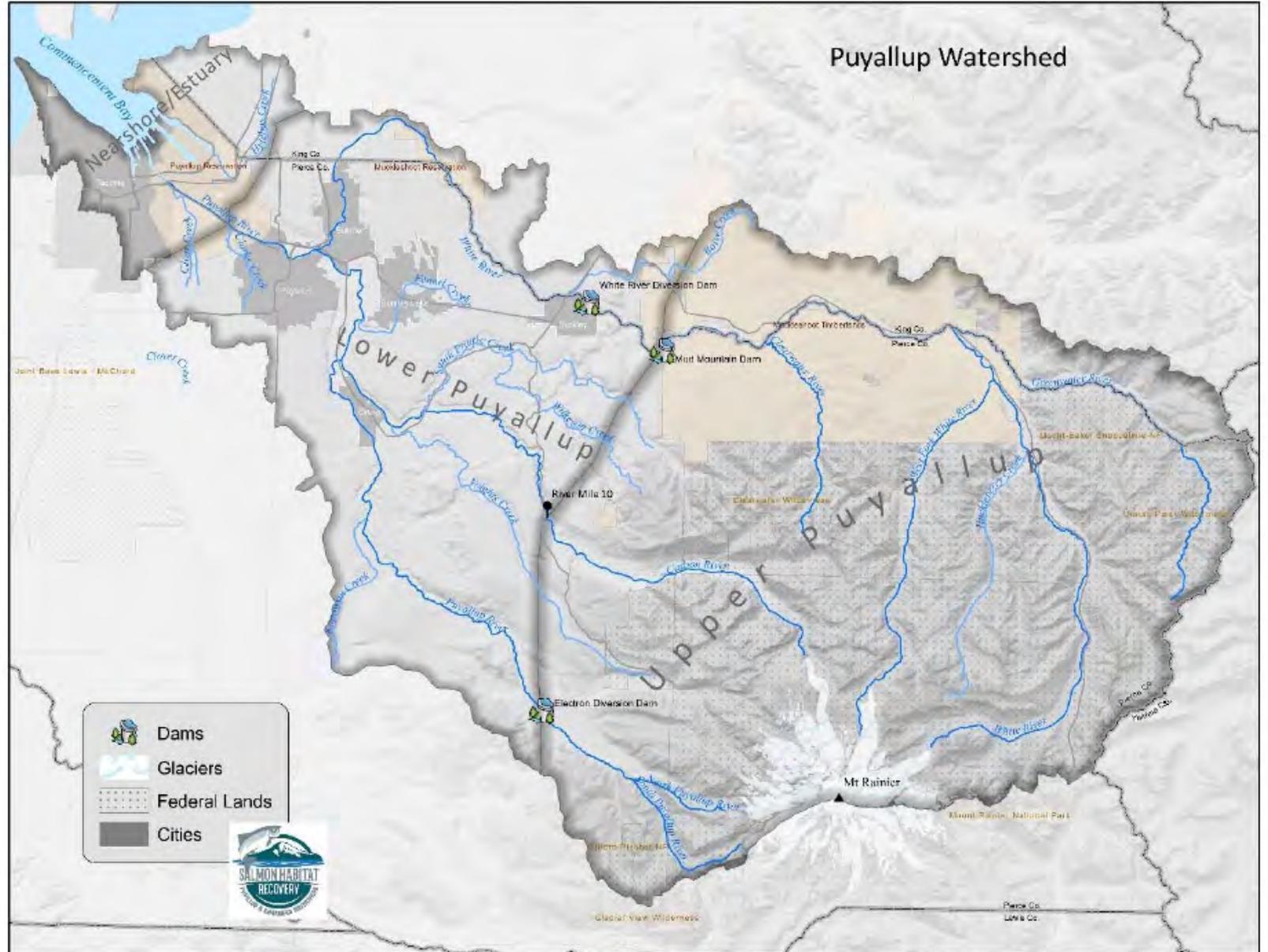
Kristin Williamson, South Puget Sound Salmon Enhancement Group, kristinw@spsseg.org, 360.561.1715



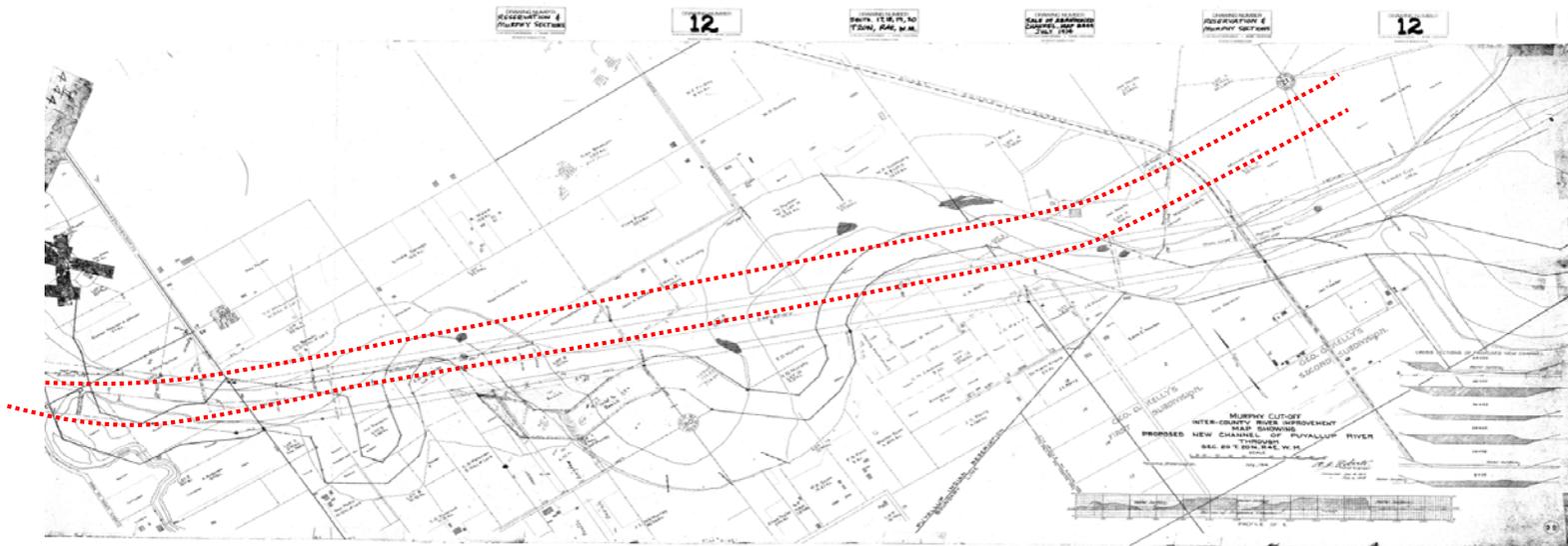
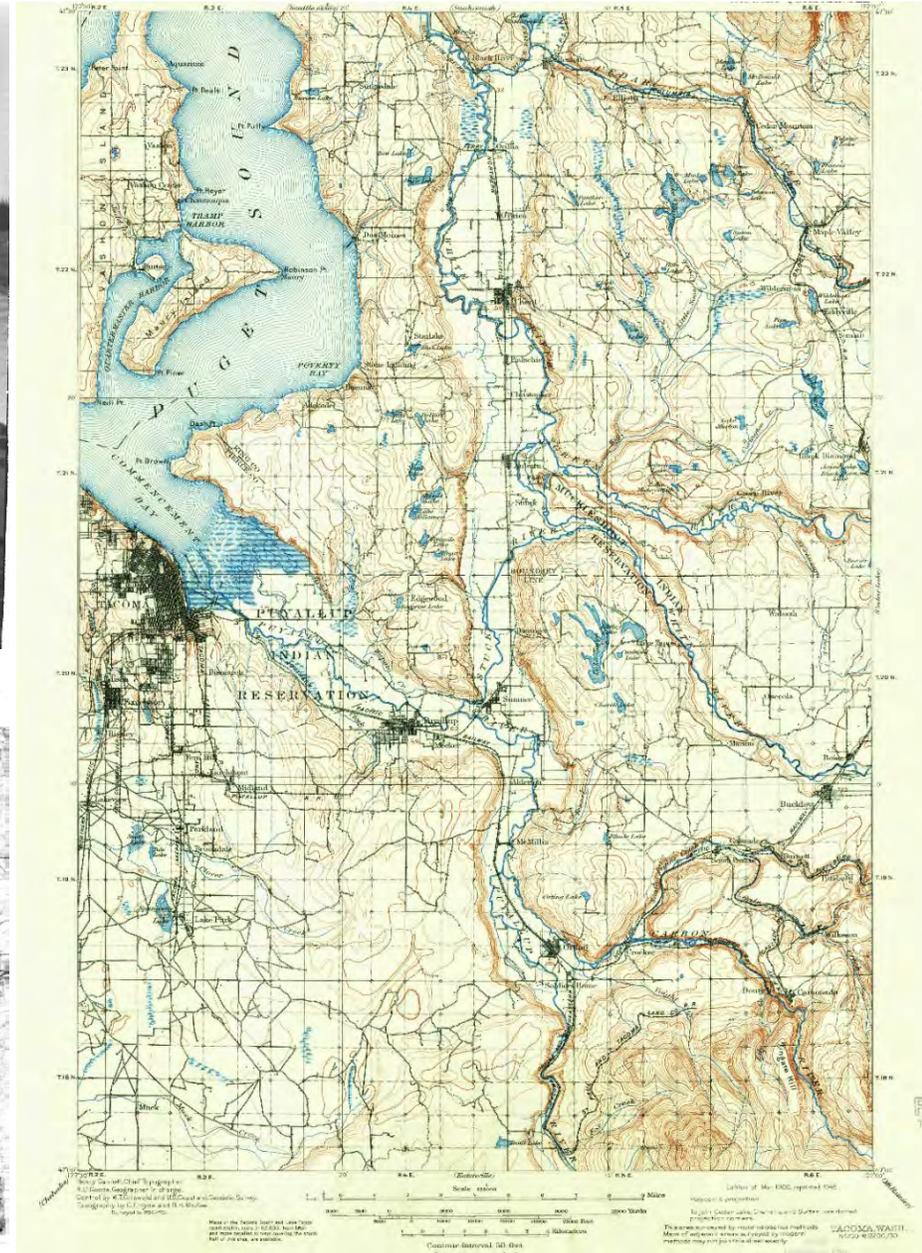
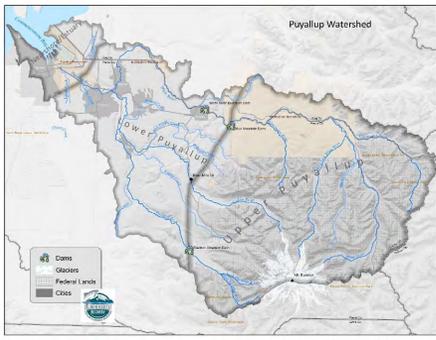
Presentation Overview



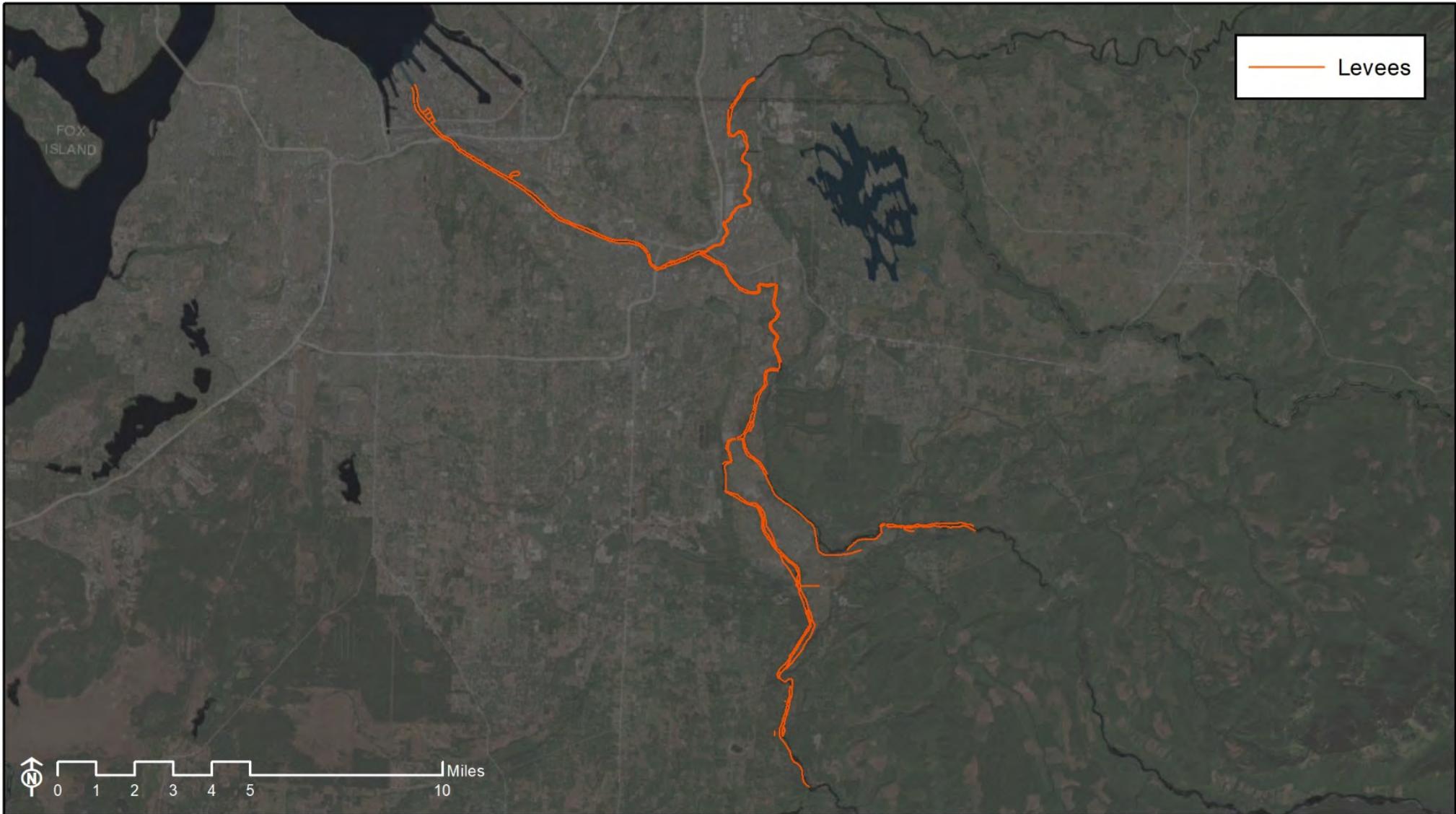
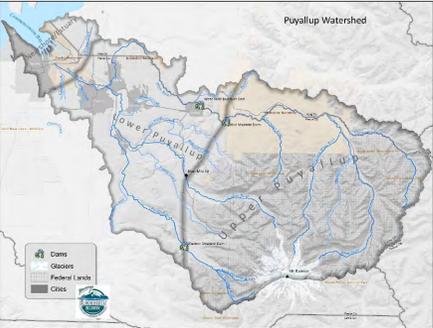
- **Watershed Geography and History**
- **Recovery Efforts: Past and Present and Future**
 - Upper Basin
 - Lower River
 - Nearshore/Estuary
- **Charting the Future: 2027-2067**
- **Questions**



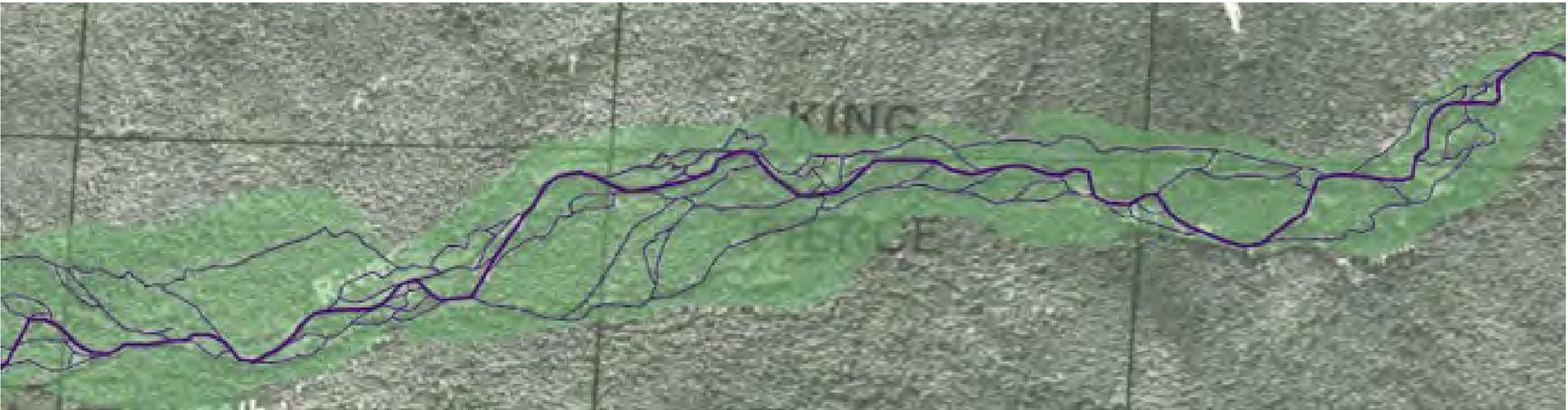
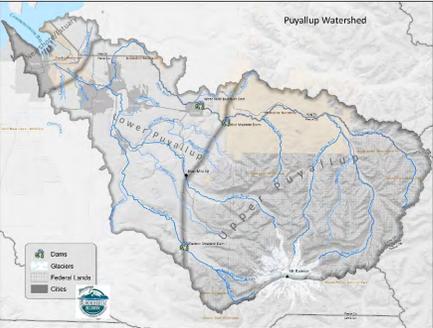
Watershed Geography and History



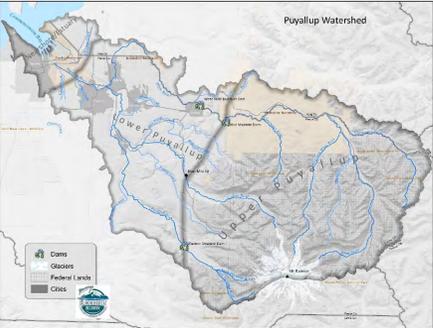
Watershed Geography and History



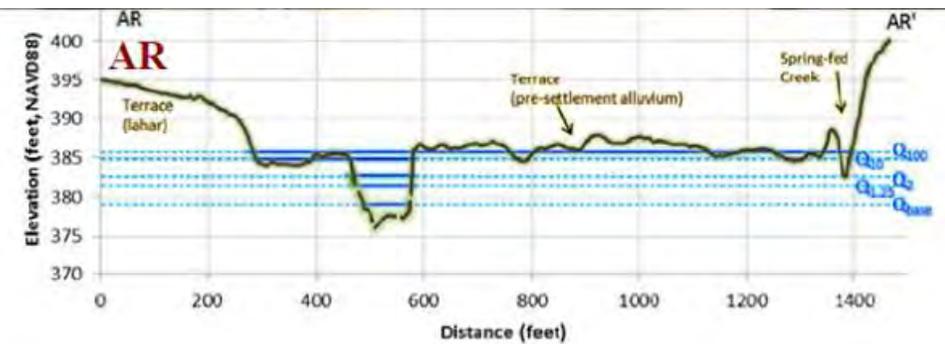
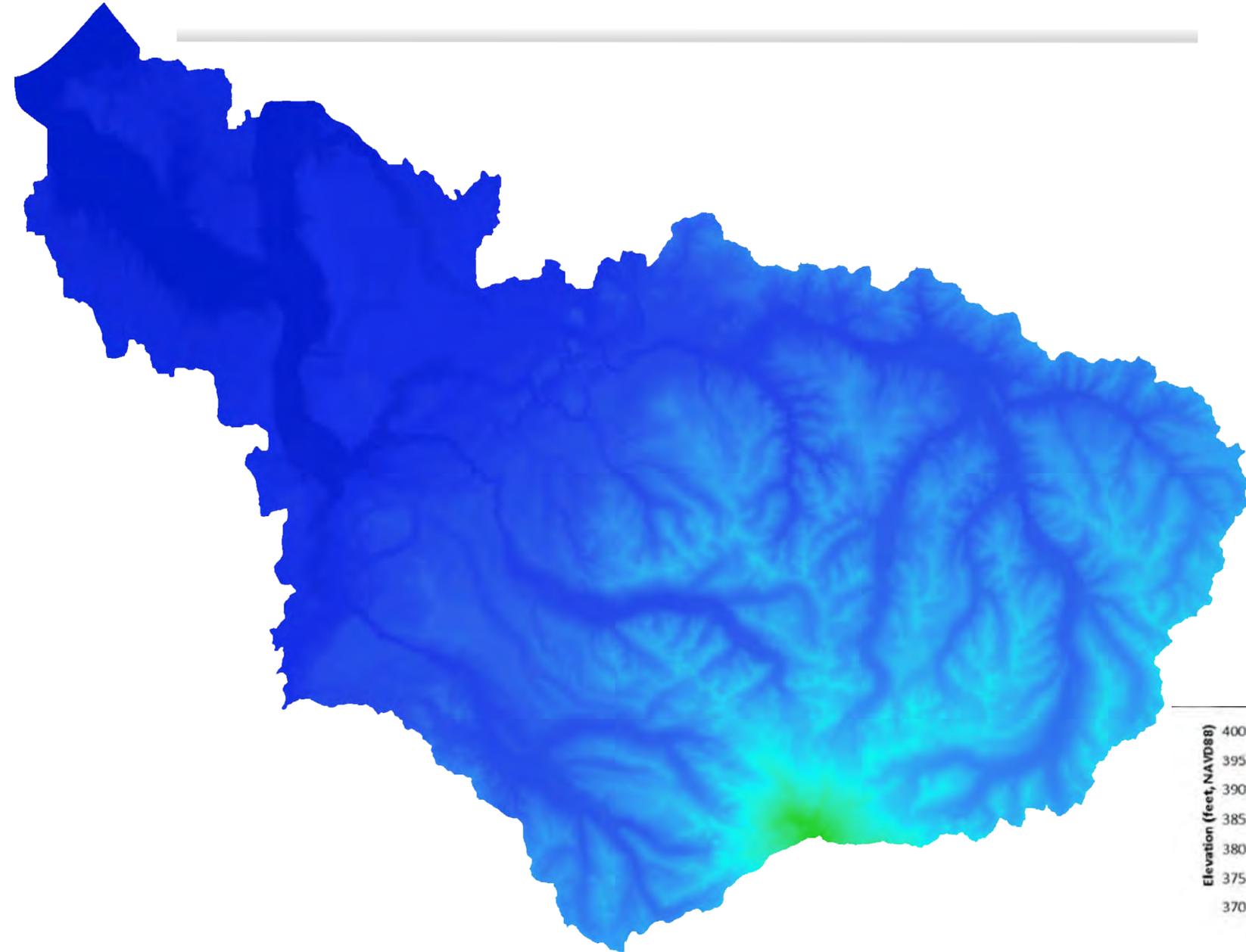
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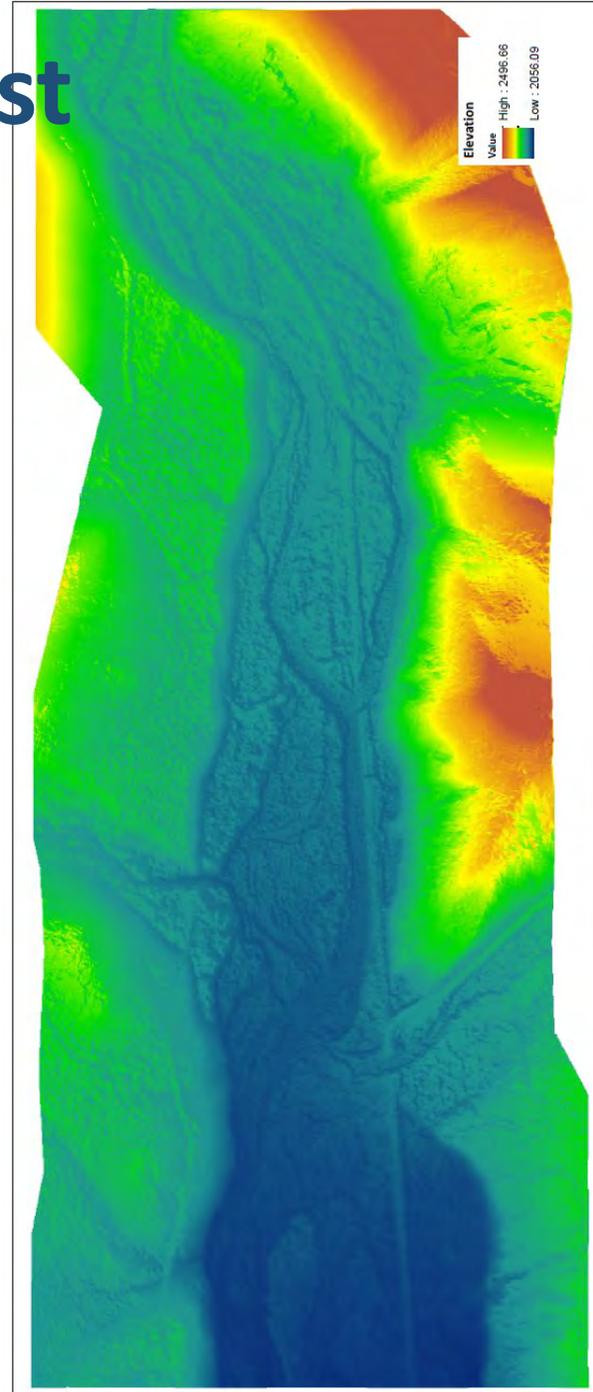
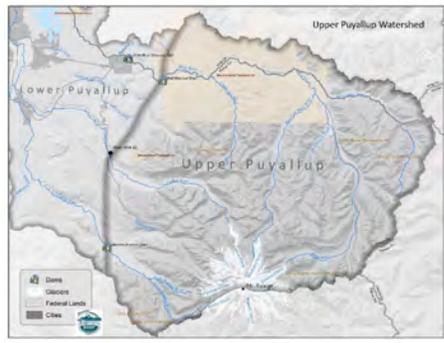
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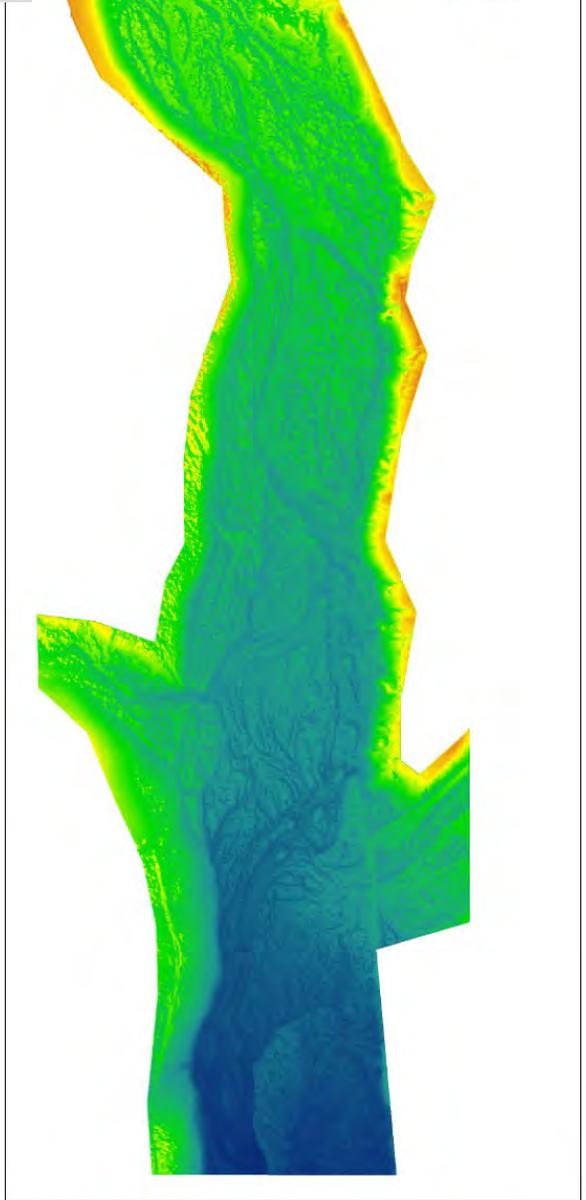
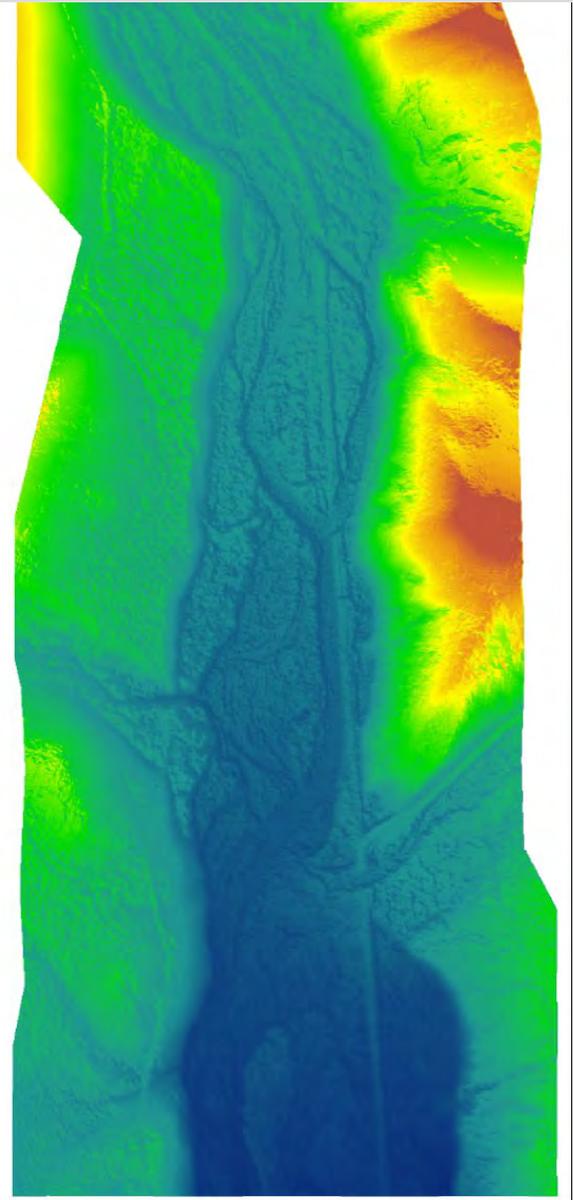
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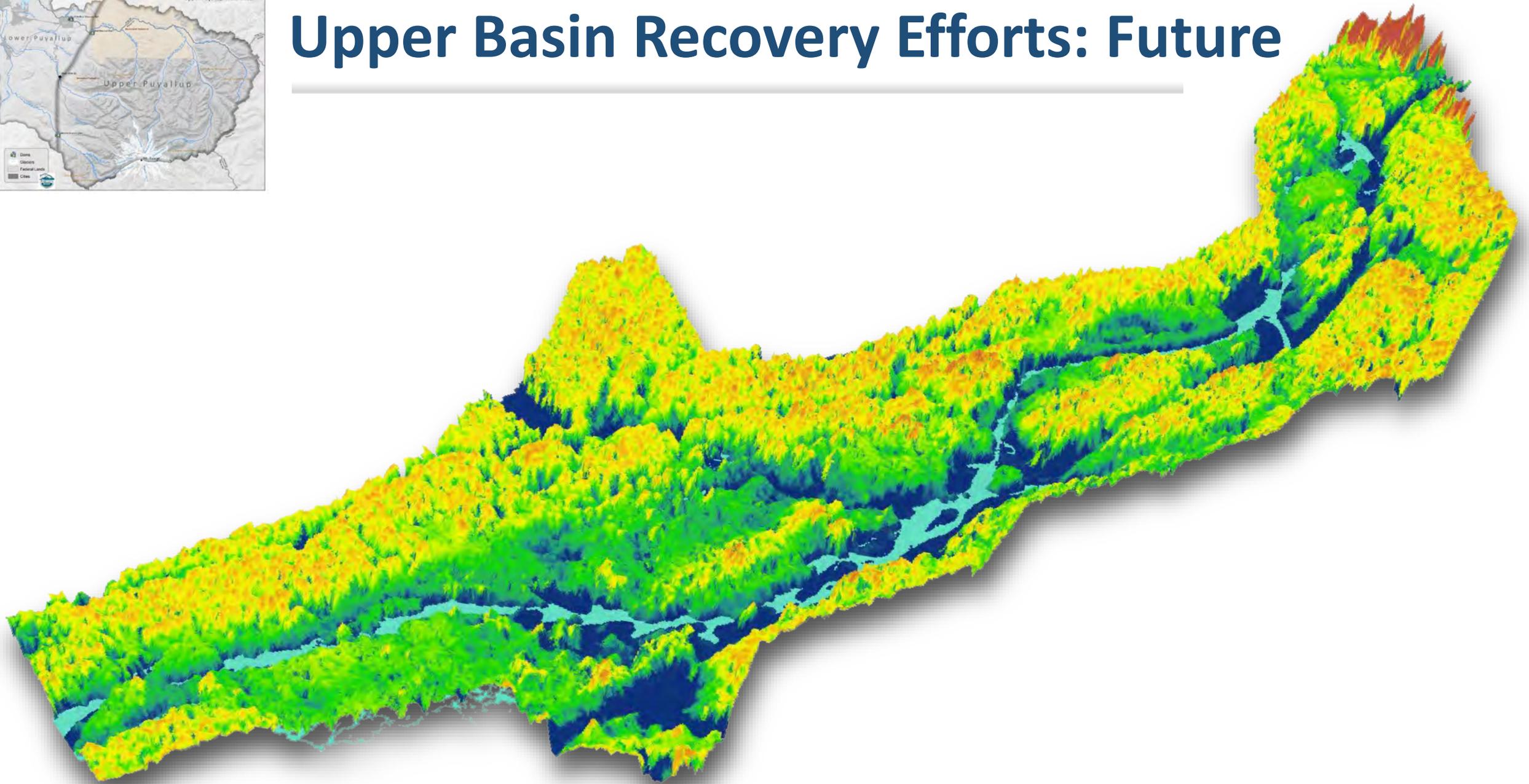
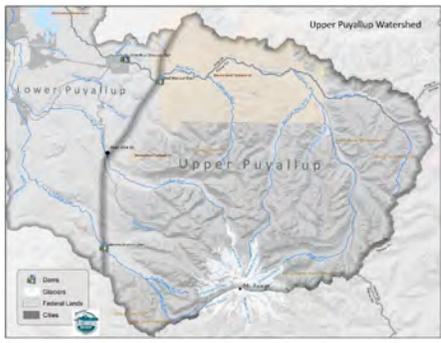
Upper Basin Recovery Efforts: Past



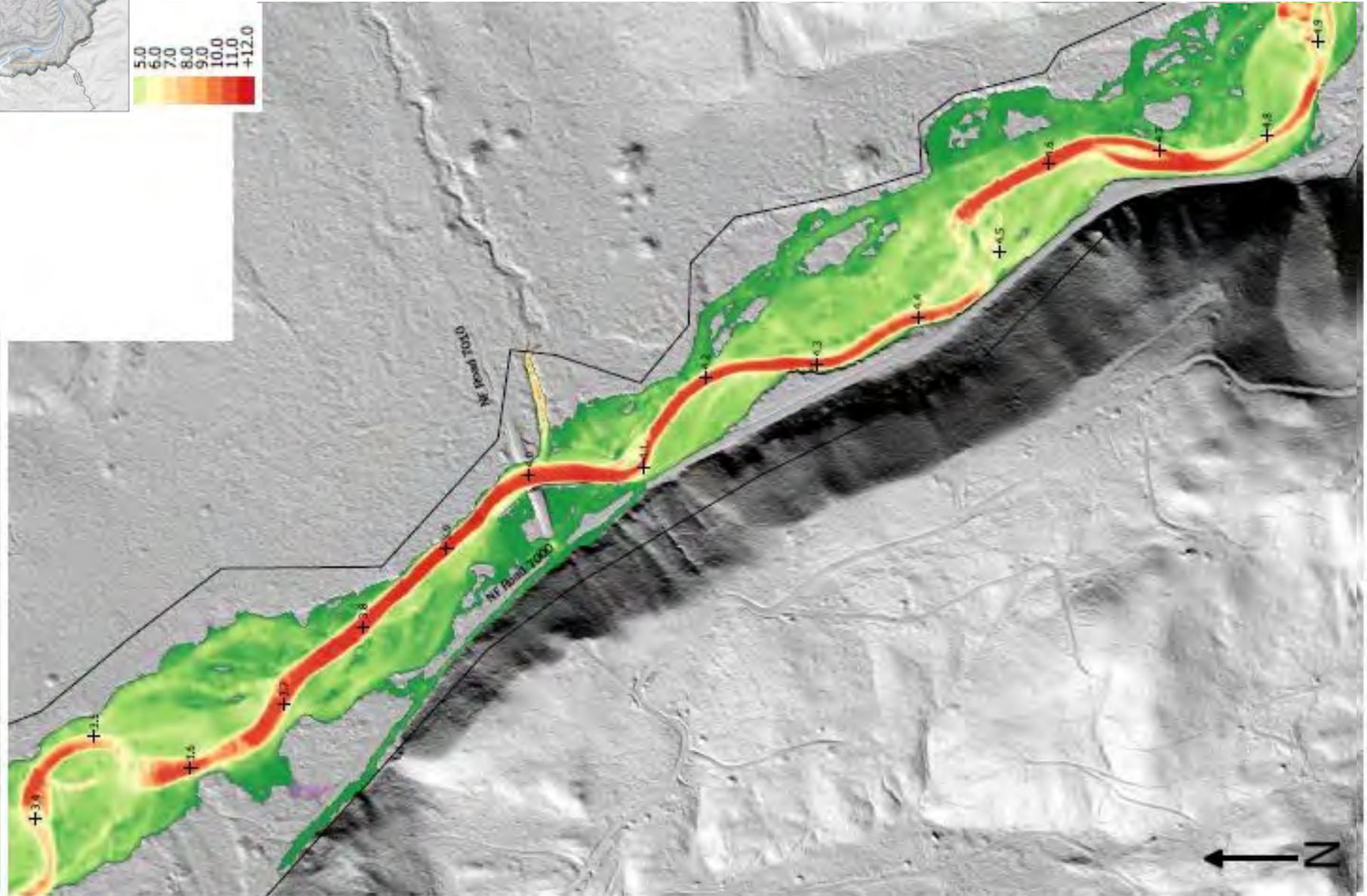
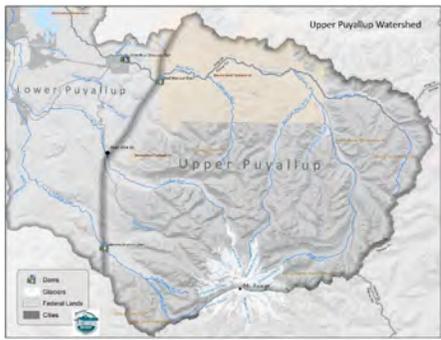
Upper Basin Recovery Efforts: Present



Upper Basin Recovery Efforts: Future



Upper Basin Recovery Efforts: Future



Lower Basin Recovery Efforts: Past

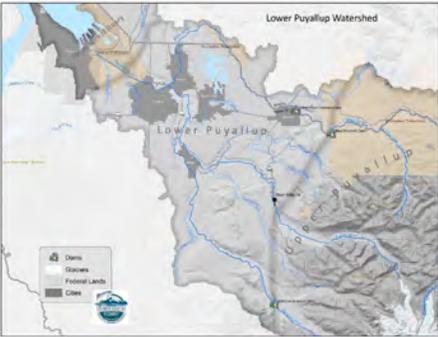
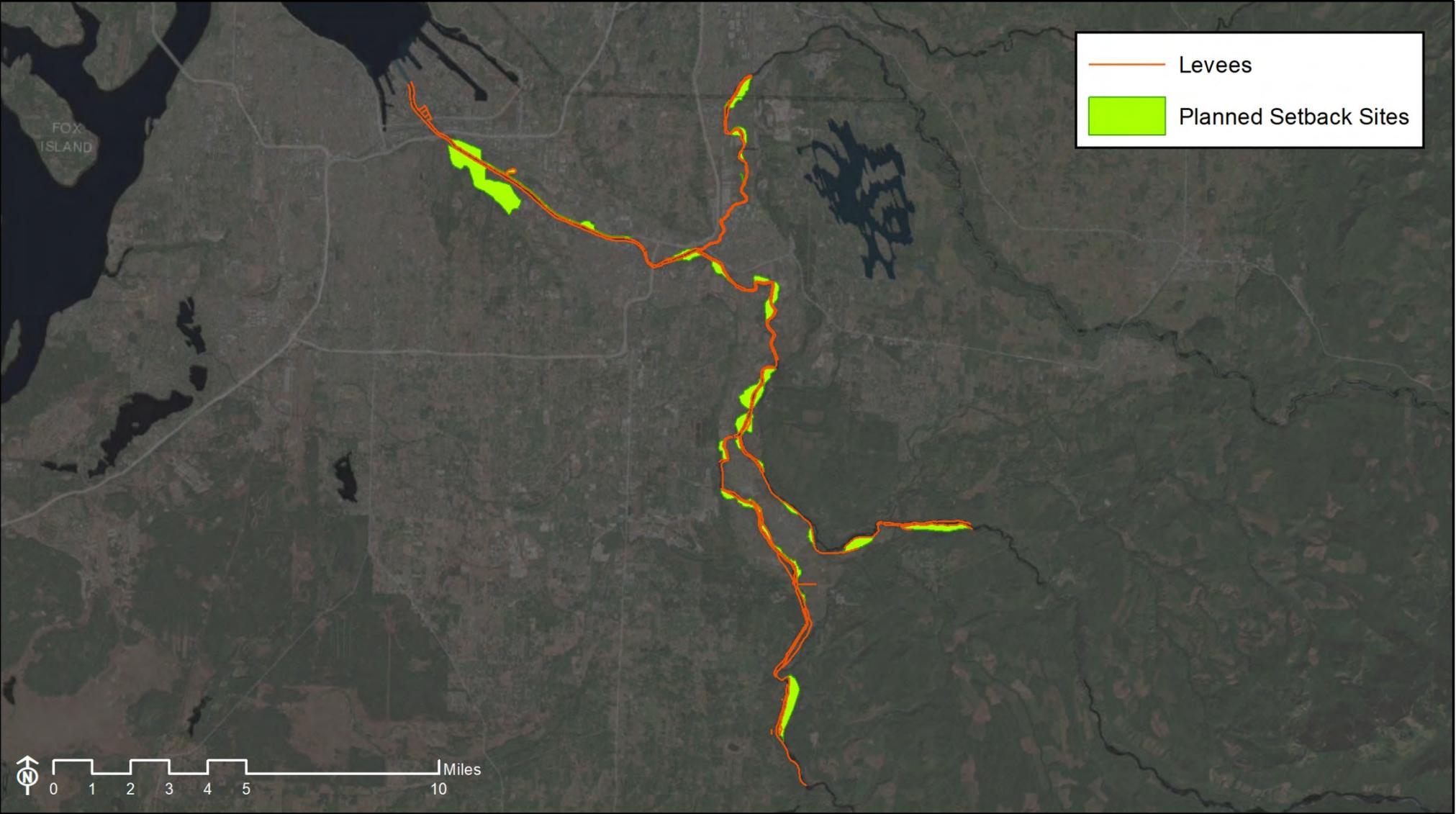
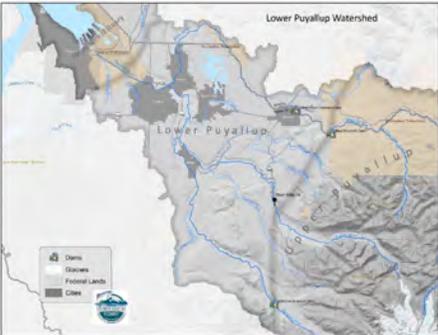


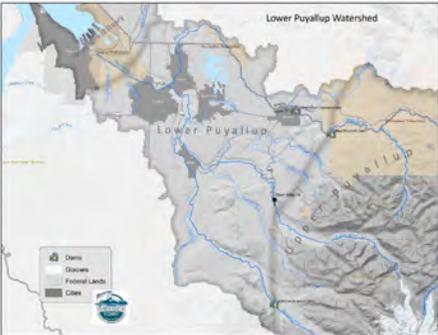
Table 1. Potential Habitat Restoration Sites in the Puyallup River Watershed.

Restoration Site	River Mile	Habitat Gain	Functional Improvement	Chinook Benefits	Assessed Value Total Cost Cost per acre	Rating Biological/ Cost ² /Priority	Rank ³
1. Union Pacific Parcel	2.8, Right Bank	5.5-acre wetted channel.	Wintering habitat and acclimation habitat.	Acclimation habitat	9,400,000.00 11,539,000.00 1.05 million*	Med/High/Med	5
2. Oxbow Wetland Property	4.8, Right Bank	Access to 5-25 acres of wetland.	Over-wintering and acclimation habitat.	Some acclimation	65,000.00 87,600.00 3.5k-17k/acre	Low/Med/Low	11
3. Freeman Rd. Oxbow Wetland	6.0, Right Bank	Access to 3 acres of wetland.	Back water wintering habitat.	Potential invertebrate prey export	260,000.00 1,091,000.00 364k/acre	Med/High/Med	7
4. White/Puyallup Confluence	9.9, Right Bank	Access to 8-10 acre emergent wetland.	Wintering habitat.	Potential prey production and export.	100,000.00 115,450.00 11.5k/acre	Low/Med/Low	12
5. Golf Course Oxbow	9.8, Left Bank	Access to 7-acre oxbow.	Side channel wintering habitat.	Outmigration side-channel.	12,400.00 19,000.00 2.7k/acre	Low/Low/Low	10
6. Summer Setback	10.8, Left Bank	20-40 acres of wetland access and channel meander.	Rearing, and potential spawning habitat.	Potential for spawning habitat.	280,000.00 1.4-2.9 million 72k/acre	High/Med/High	2
7. Sportsmen's Club Wetland	14.0, Left Bank	Access to 18 acres of wetland.	Over-wintering and summer rearing habitat.	Export of salmonid prey species.	350,000.00 356,500.00 360.00-20k/acre	High/Med/Med	3
8. 96 th St. Wetland	16.2, Left Bank	Access to 4 acres of wetland.	Backwater habitat.	Potential prey support.	264,000.00 315,000.00 79k/acre	Low/Med/Low	13
9. 116 th St Wetland	16.2, Left Bank	Access to 2.5-acre wetland and side-channel habitat.	Over-wintering and summer rearing habitat.	Production and export of potential salmonid prey.	71,000.00 597,000.00 238k/acre*	Med/High/Med	8
10. 128 th St Wetland	16.8, Right Bank	Access to 10 acres of wetland.	Over-wintering habitat.	Production and export of potential salmonid prey.	964,000.00 971,600.00 97k/acre	Med/Med/Low	9
11. Lower Carbon River Setback	0.8 (Carbon River), Left Bank	169 acres of potential channel meander.	Wintering, rearing and spawning habitat.	Spawning habitat of potential significance.	1.3 million 7.7 million 103k/acre*	High/High/High	1

Lower Basin Recovery Efforts: Present



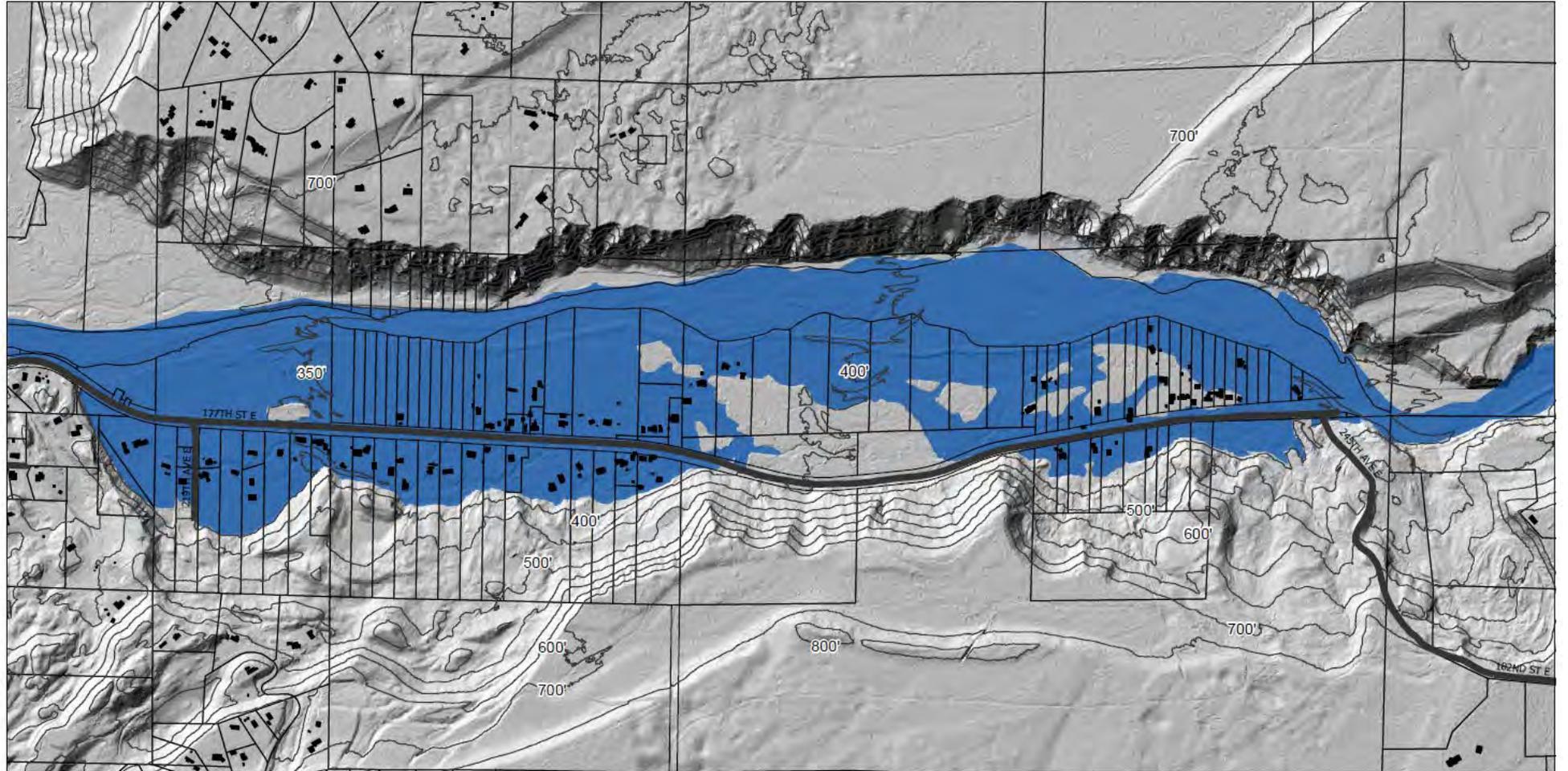
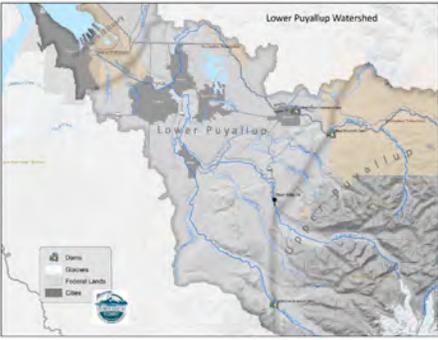
Lower Basin Recovery Efforts: Present



The map features are approximate and are intended only to provide an indication of said feature. Additional areas that have not been mapped may be present. This is not a survey. Orthophotos and other data may not align. Pierce County assumes no liability for variations ascertained by actual survey. All data is expressly provided AS IS and WITH ALL FAULTS. Pierce County makes no warranty of fitness for a particular purpose.

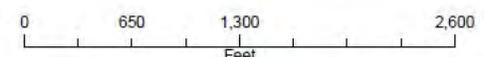


Lower Basin Recovery Efforts: Present-Future



Legend

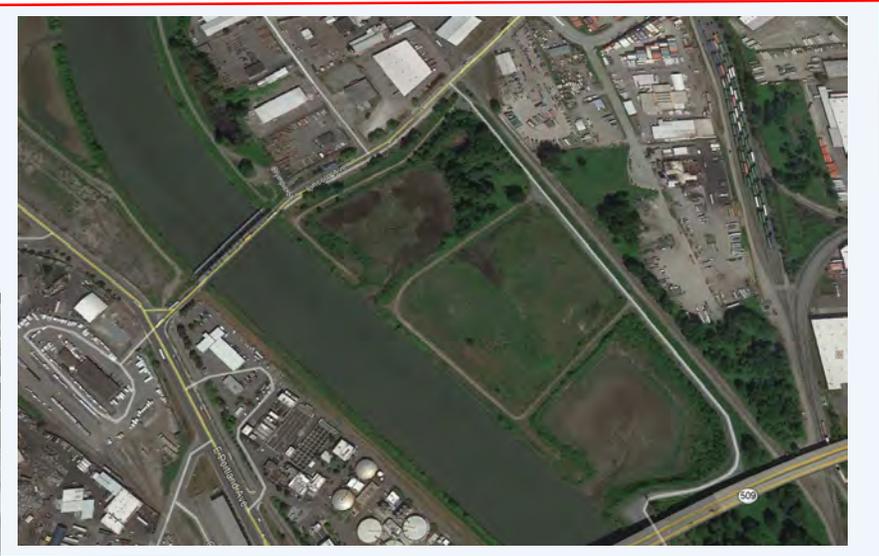
- Contours - 50 ft
- Roads
- Buildings
- Parcels
- 1% Annual Chance Flood



Elevation

Alward Road Setback Feasibility Study

Nearshore/Estuary Recovery Efforts: Past



Nearshore/Estuary Recovery Efforts: Future



Charting the Future: 2027-2067

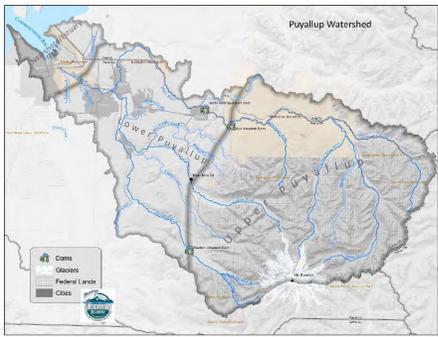
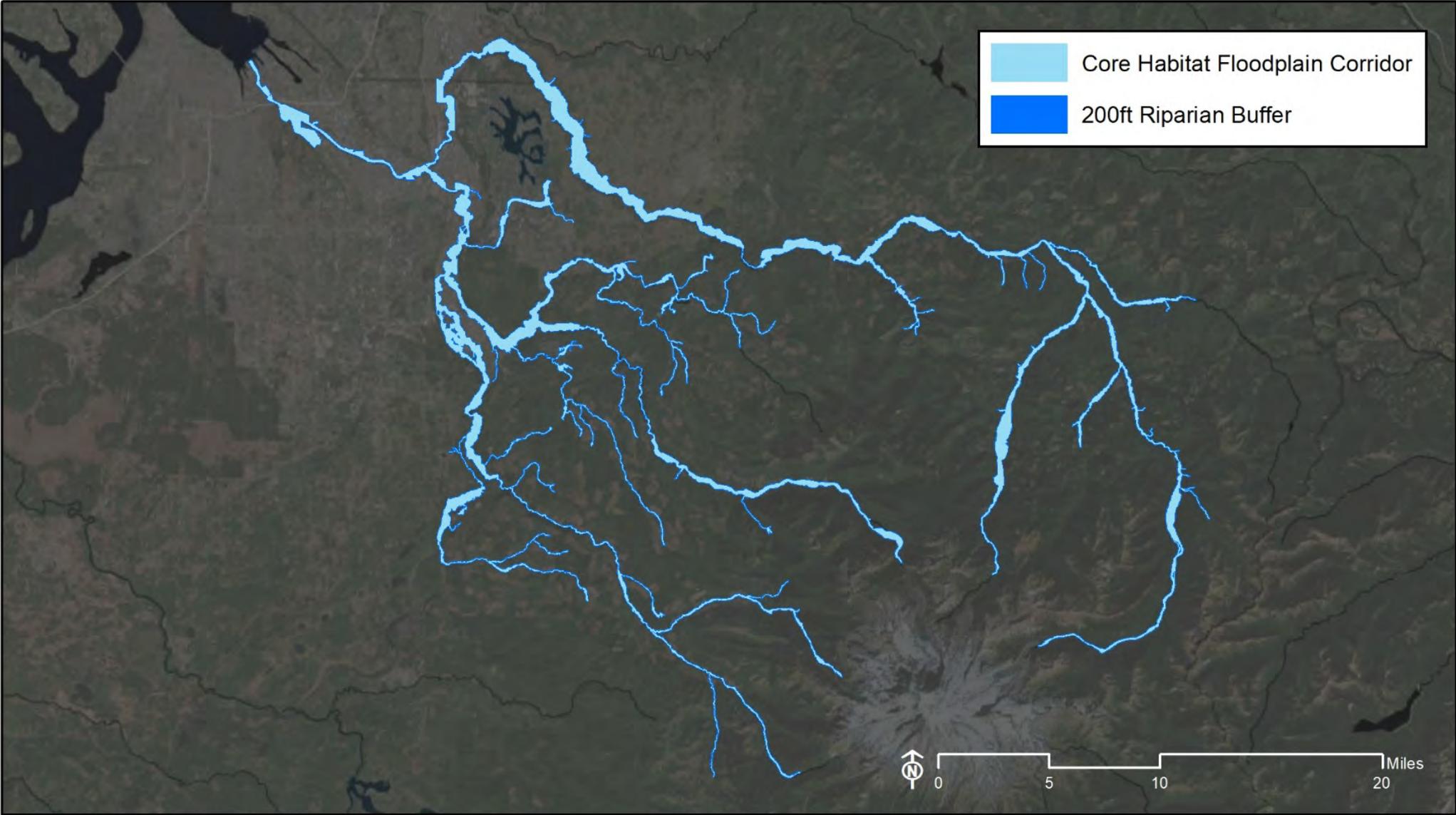
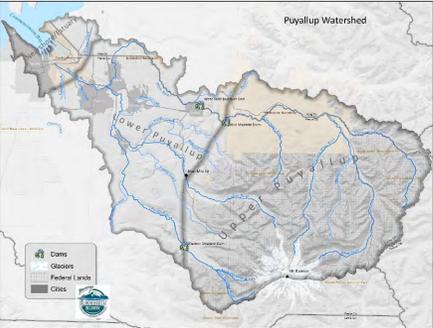


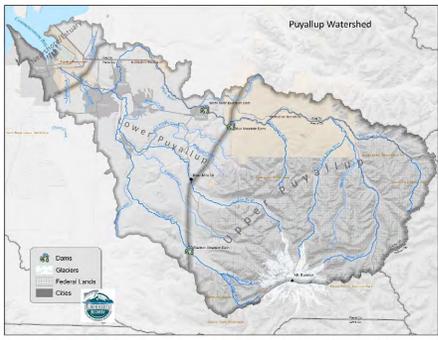
Table 9. Puyallup Watershed Habitat and Implementation Goals

No.	50-Year Habitat Goals
1	32,000 acres of floodplain habitat (including in estuary and nearshore areas) is protected from development within the Core Salmon Habitat and Flood Zone Protection Corridor by 2067.
2	3,300 acres of functioning riparian buffer, with a width equal to or greater than one site-potential tree height (to be determined), will define a protected Riparian Buffer Zone by 2067.
3	62 stream miles open to fish movement and passage by 2067.
No.	10-Year Implementation Goals
1	203,000 linear feet of levees removed and 2,300 acres of floodplain reconnected by 2027.
2	Ten percent increase in functioning riparian buffer habitat by 2027.
3	Three major physical barriers to fish movement and migration removed or modified by 2027.
4	153 acres of nearshore habitat is restored by 2027.

Charting the Future: 2027-2067



Questions



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