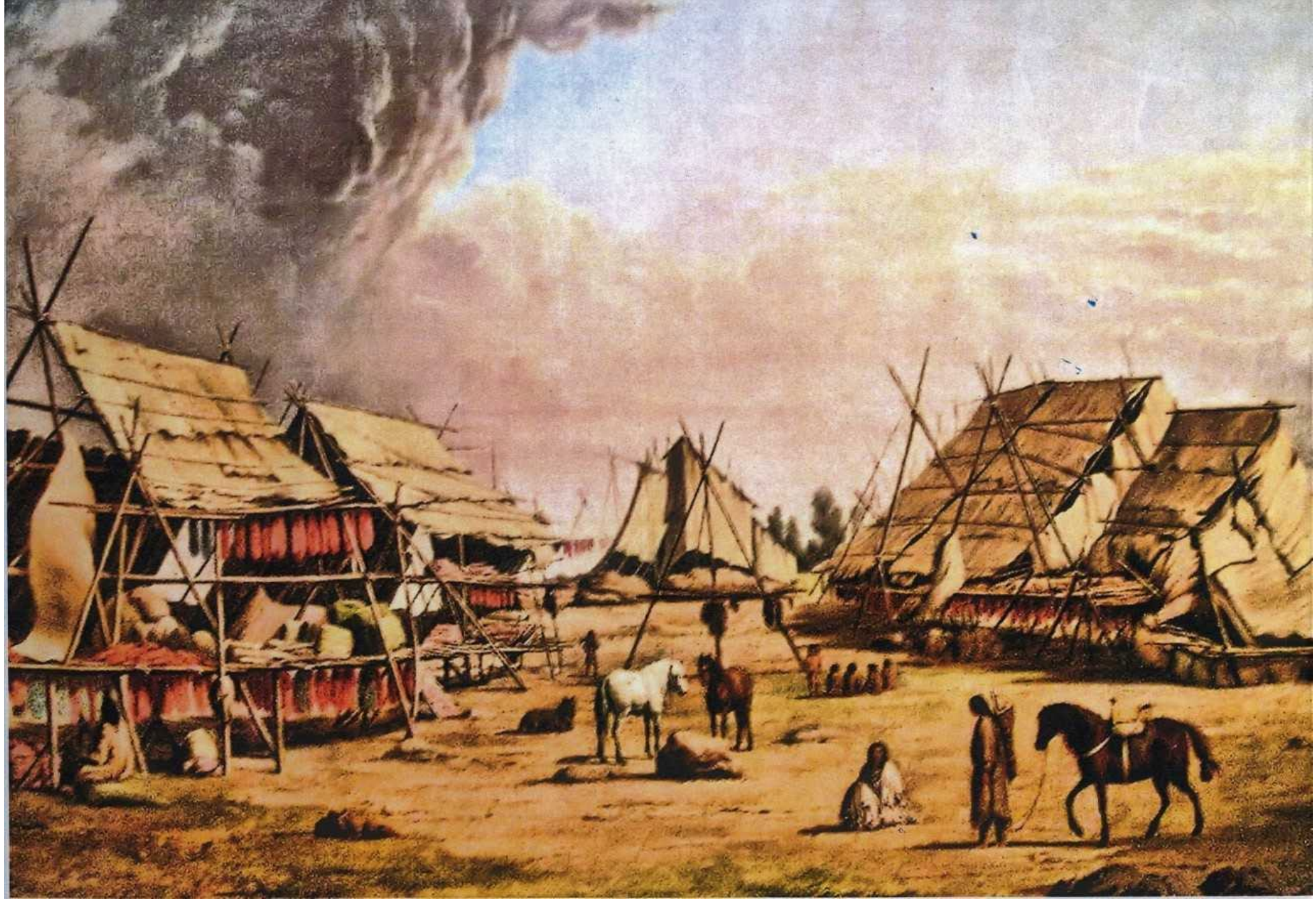


The Little Falls Fishery

"The Spokanes are at their fishing barrier at Little Falls taking 700 to 800 salmon per day."

John Work,
Hudson Bay Company
July 22, 1825

[Source: Elliot, T.C. (1914). The journal of John Work, June to October 1825. *Washington Historical Quarterly* 5: 83-115.]

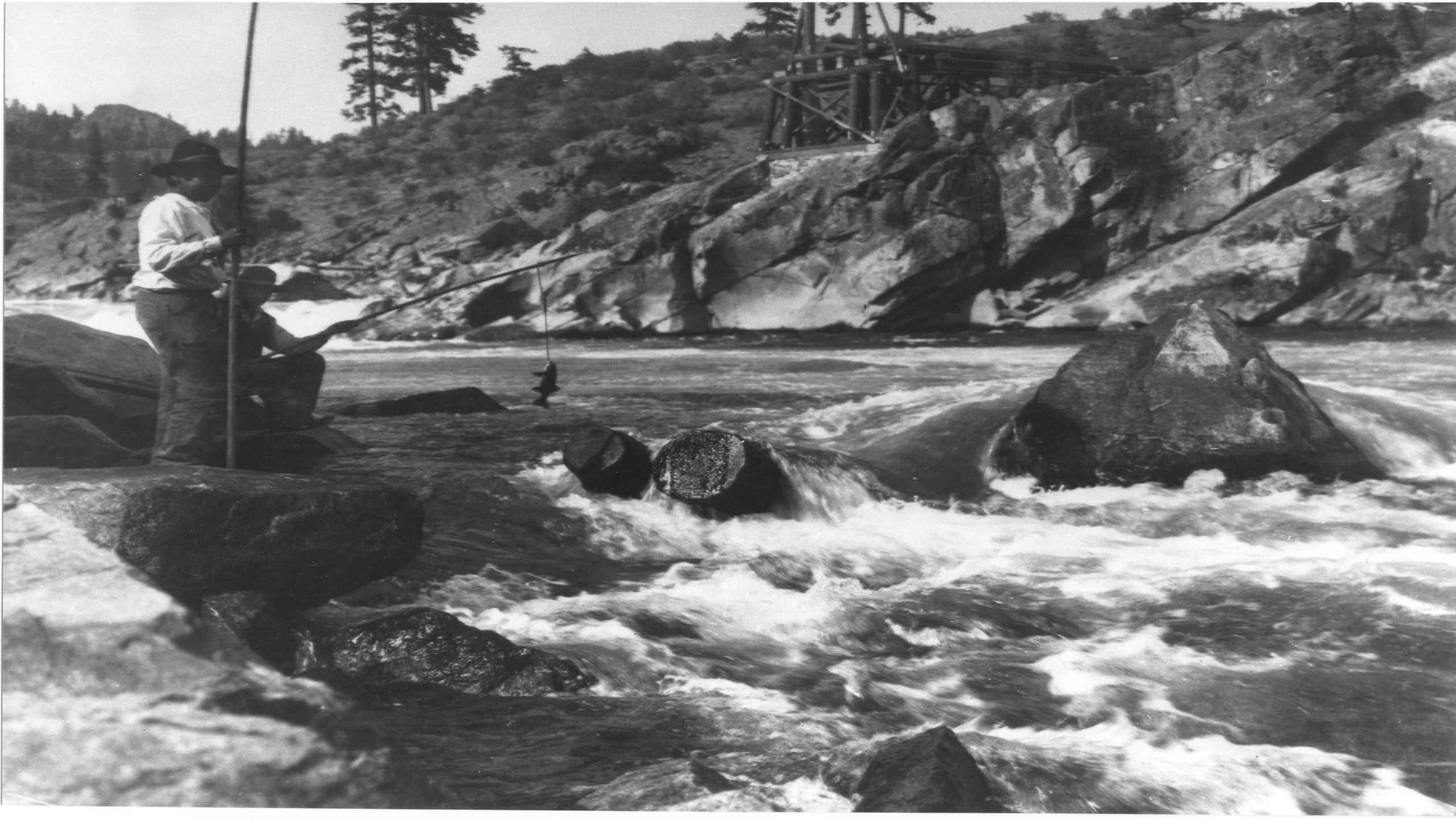
"In 1882, 40,000 to 50,000 salmon were seen on drying racks at the confluence of the Spokane and Little Spokane Rivers."

Livingston Stone,
Biologist, United States Fish Commission
1883

[Source: The artificial propagation of salmon in the Columbia River Basin. *Transactions of the American Fisheries Society* 13: 21-31.]

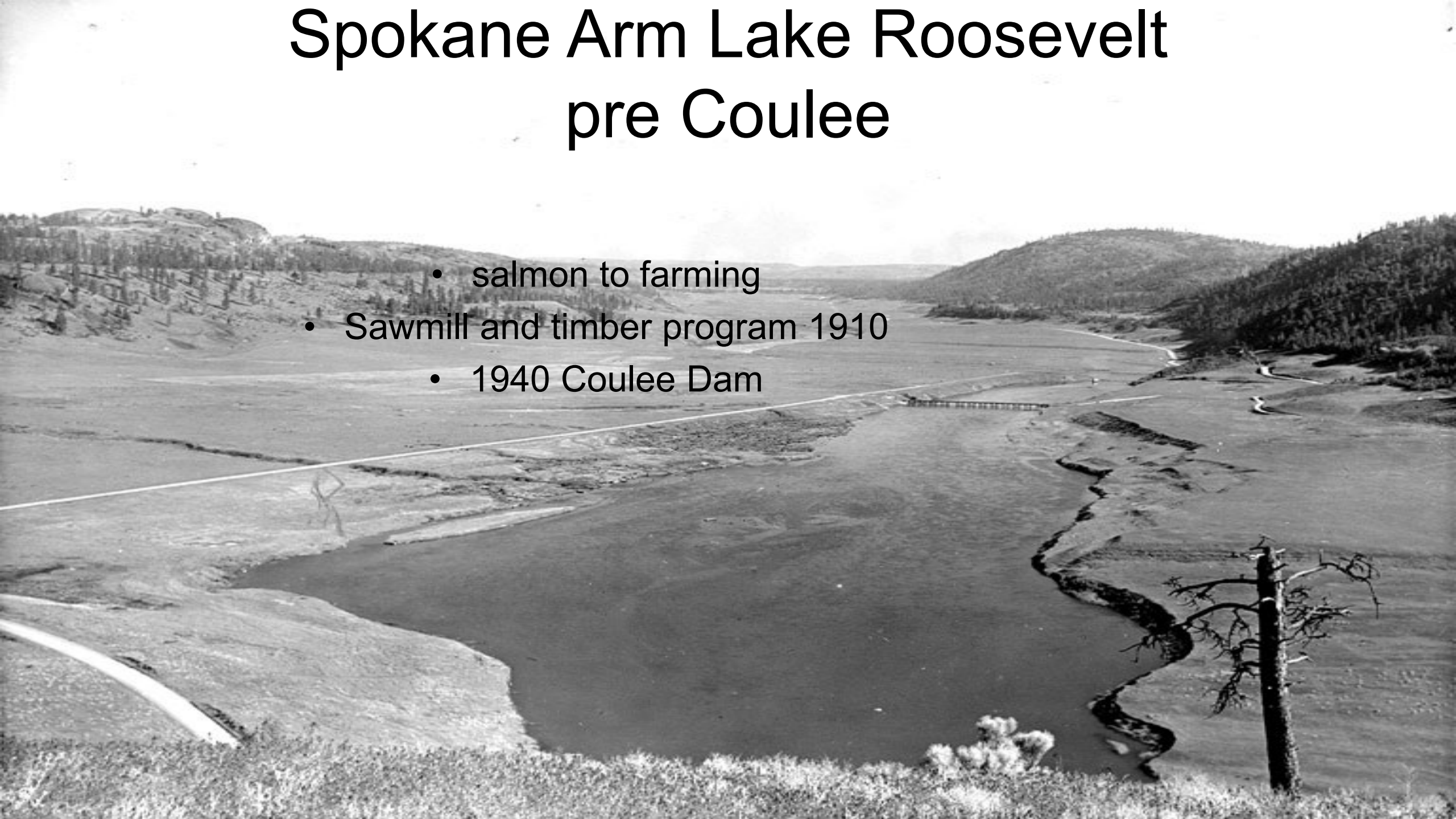
- Salmon Wheels, Boom and Bust Fishery 1866-1887
- 1881 Spokane Reservation Established by Exec Order-Hayes
- Chief Lot accepted the reservation boundaries because it included abundant fish on 3 of its four sides
- 1883 over 40 million pounds of salmon was being harvested in the lower Columbia

- “Salmon were abundant as late as 1878. They have been scarce since 1892”. Dr. Everman, US Fish Commission 1894
- Chief Garry’s Plea
- Headwaters investigation…
- “It is further apparent that this decrease is not to be attributed either to the contraction of the area accessible to them or to changed conditions in the waters which would deter the salmon from entering them. We must look to the great commercial fisheries prosecuted in the lower river for an explanation of this decrease, which portends inevitable disaster to these fisheries if the conditions which have brought it about are permitted to continue”. McDonald, 1894, Commissioner of Fish and Fisheries



- Dams on the Spokane River 1908, 1910, 1915
  - Fish ladders- why?
- Salmon started being lost from culture- not served at funerals, community gatherings, songs not being sung, ceremonies lost.

Spokane Arm Lake Roosevelt pre Coulee

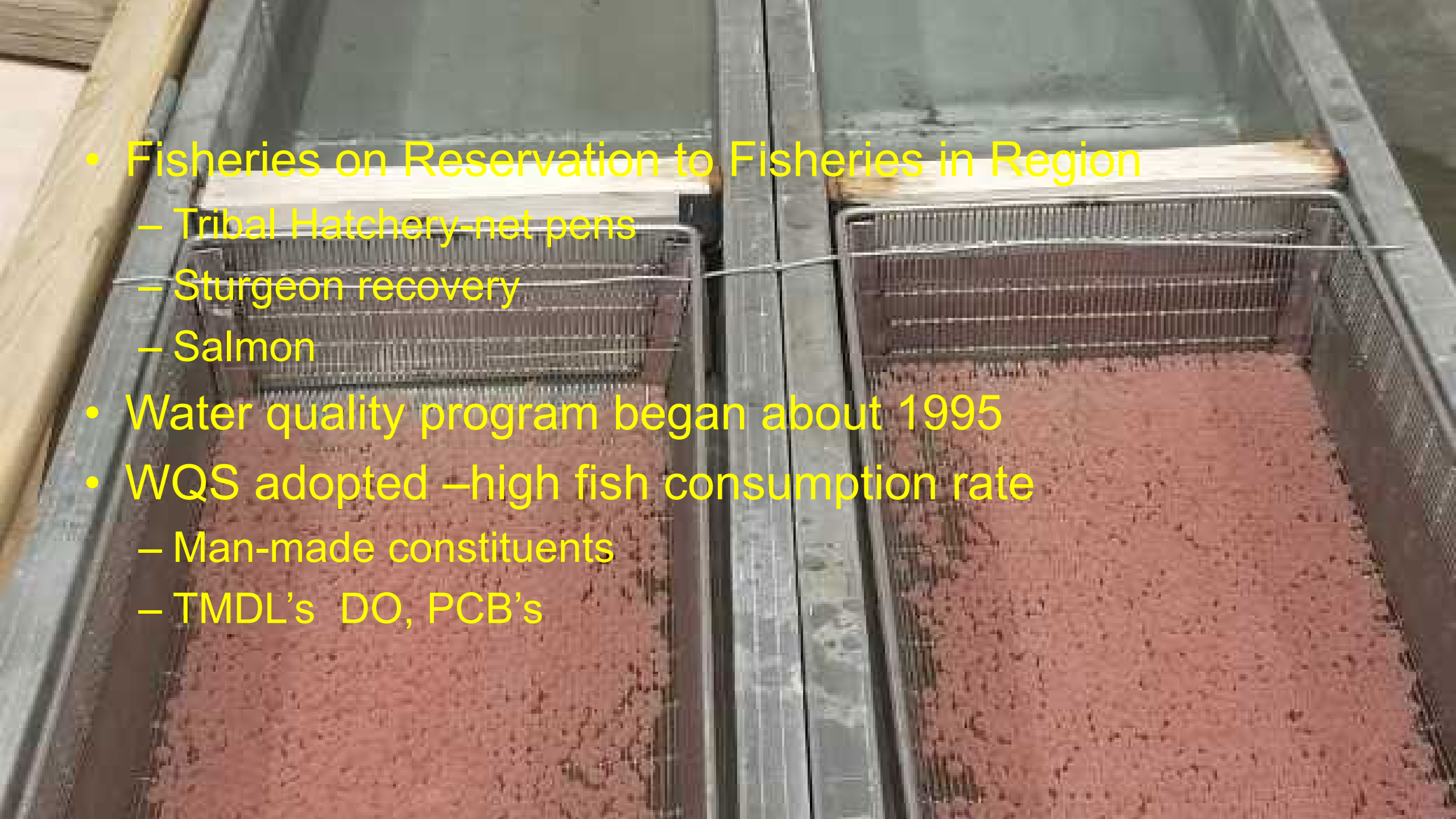


- salmon to farming
- Sawmill and timber program 1910
- 1940 Coulee Dam

Workhorse

- Mills, electricity, irrigation and waste transfer system
- Waste transfer system became refined
  - Primary treatment
  - Today “tertiary” treatment
  - National examples-Phosphorus, PCB’s

- 1990 Spokane Tribe Dept of Natural Resources (fisheries and wildlife) and grown to a workforce of over 100 staff- covering all aspects of the environment and aquatic and terrestrial habitats and species reaching across national and state boundaries.
- While salmon return was the goal, getting salmon back into the diet was a big step.



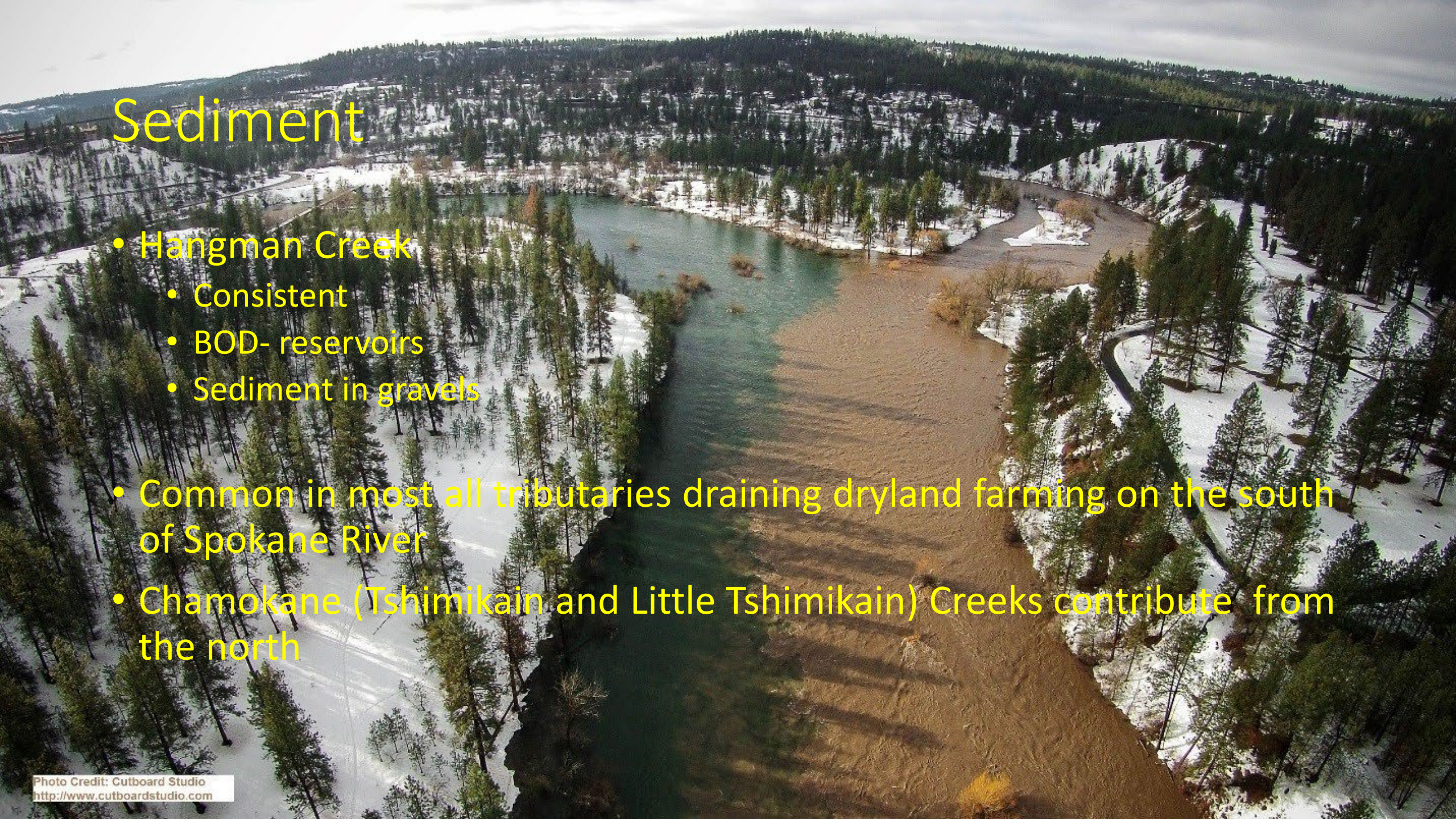
- Fisheries on Reservation to Fisheries in Region
  - Tribal Hatchery-net pens
  - Sturgeon recovery
  - Salmon
- Water quality program began about 1995
- WQS adopted –high fish consumption rate
  - Man-made constituents
  - TMDL's DO, PCB's


• Superfund Cleanups from all sides and within
• FERC Spokane River Project (Avista)
• TDG
• DO
• Temperature
• Emerging contaminants

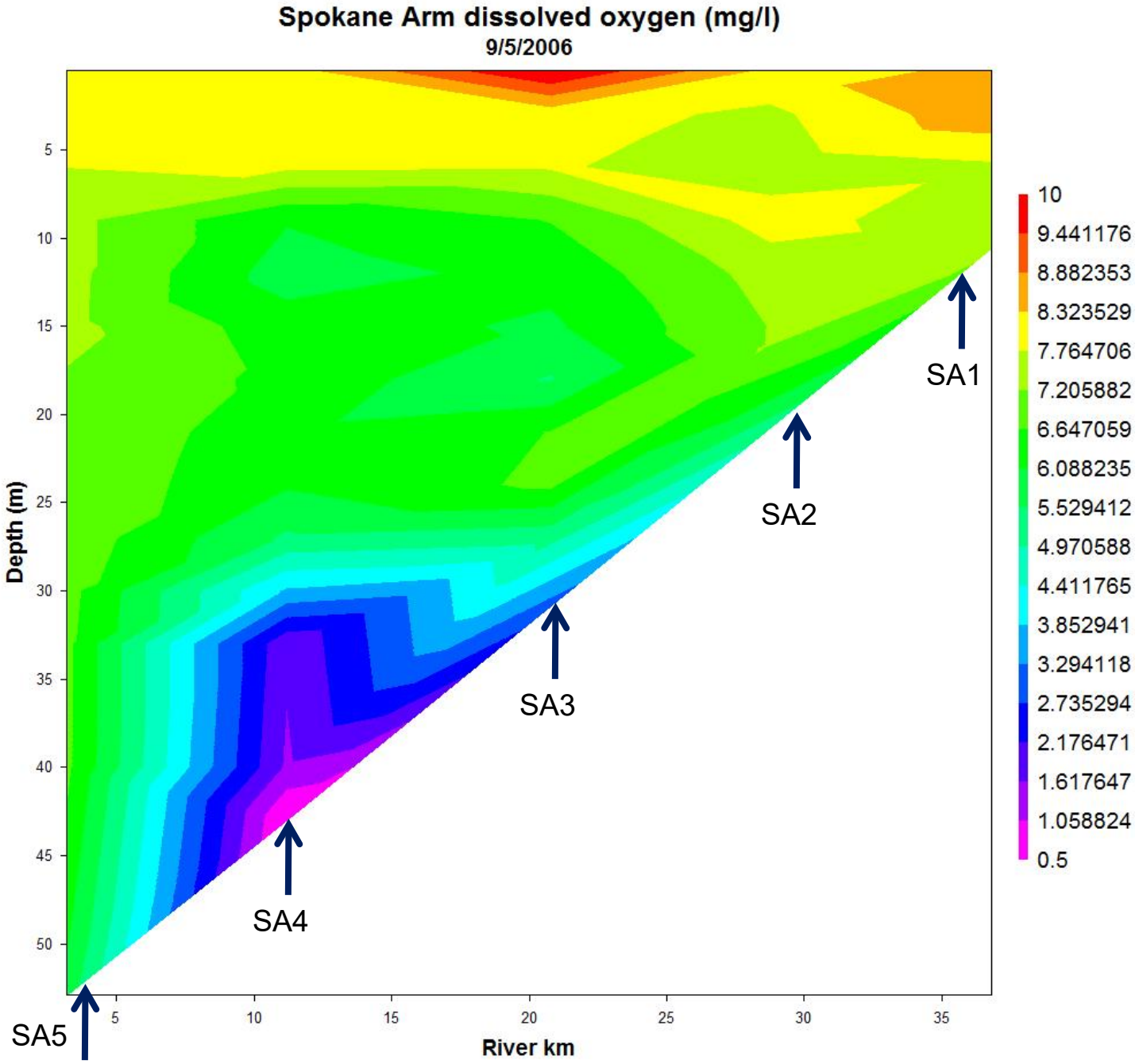
Sediment

- Hangman Creek
  - Consistent
  - BOD- reservoirs
  - Sediment in gravels

- Common in most all tributaries draining dryland farming on the south of Spokane River
- Chamokane (Tshimikain and Little Tshimikain) Creeks contribute from the north



Tshimikain Creek sediment into Spokane River

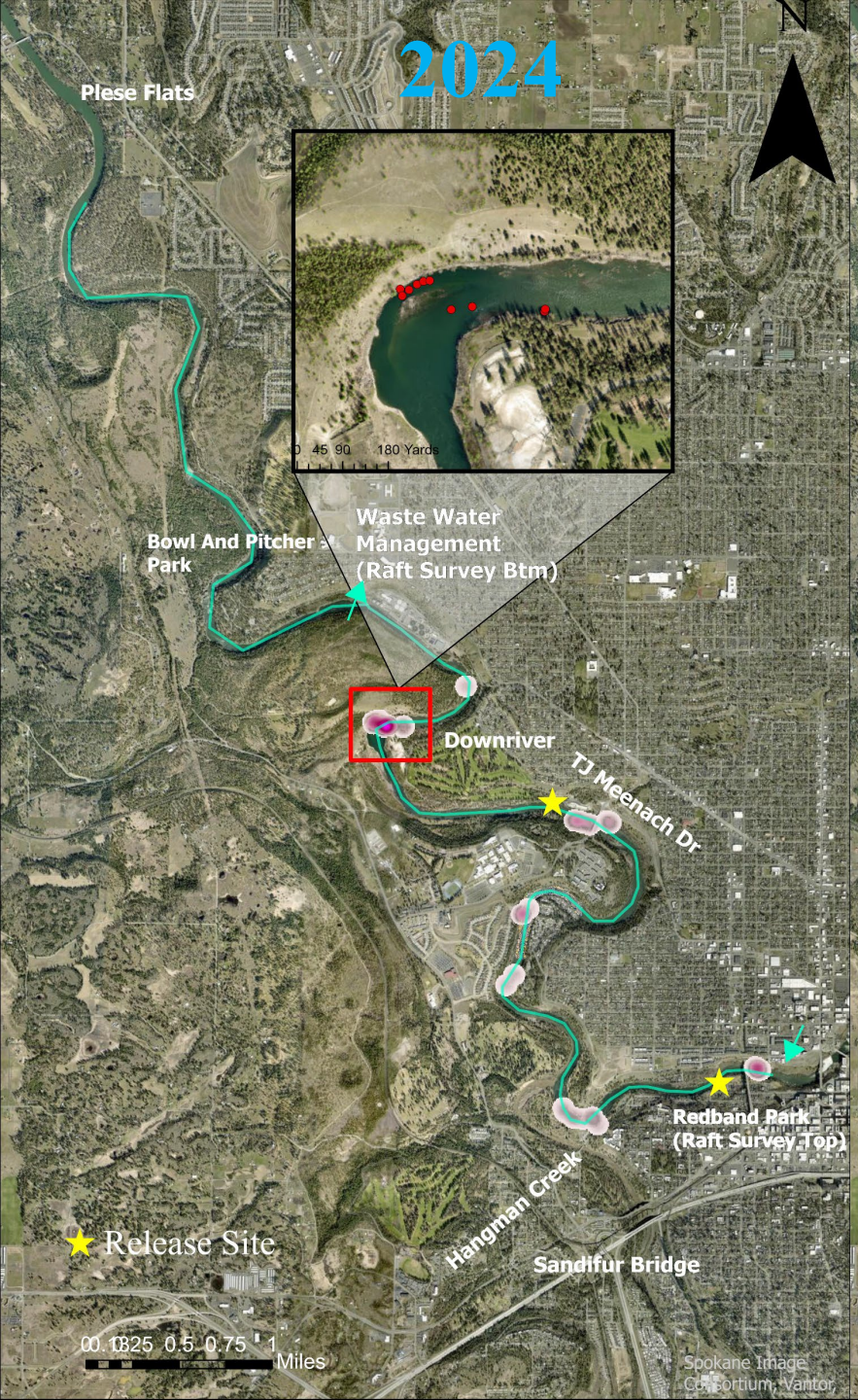

Spokane Arm dissolved oxygen (mg/l)
9/5/2006
Depth (m)
5
10
15
20
25
30
35
40
45
50
River km
5
10
15
20
25
30
35
SA1
SA2
SA3
SA4
SA5
10
9.441176
8.882353
8.323529
7.764706
7.205882
6.647059
6.088235
5.529412
4.970588
4.411765
3.852941
3.294118
2.735294
2.176471
1.617647
1.058824
0.5

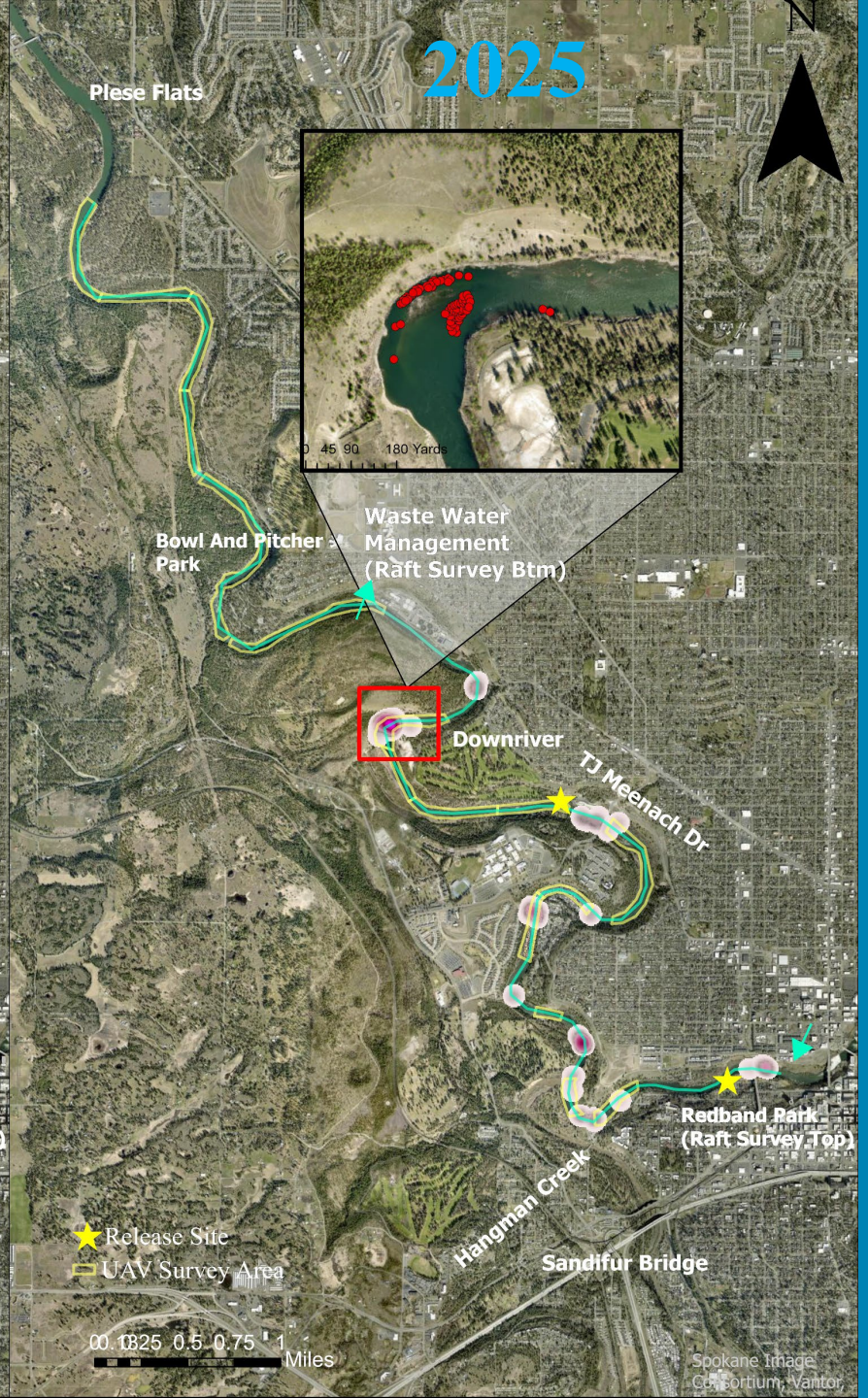
Water Quantity

- Spokane County -highest number of permit exempt wells in the State
  - Mitigation for continued growth
- Flows- Instream flows- Watershed planning
  - Tshimikain Creek Adjudication- flow to protect temperature
  - Spokane River Instream Flow 850 cfs, dry in 2025 in upper reach
  - Inchoate rights- fringe growth
  - Climate change-Where’d all the snow go?
  - Upper Columbia Adjudication- bottom of Spokane River

P2IP Salmon Restoration in Blocked Area

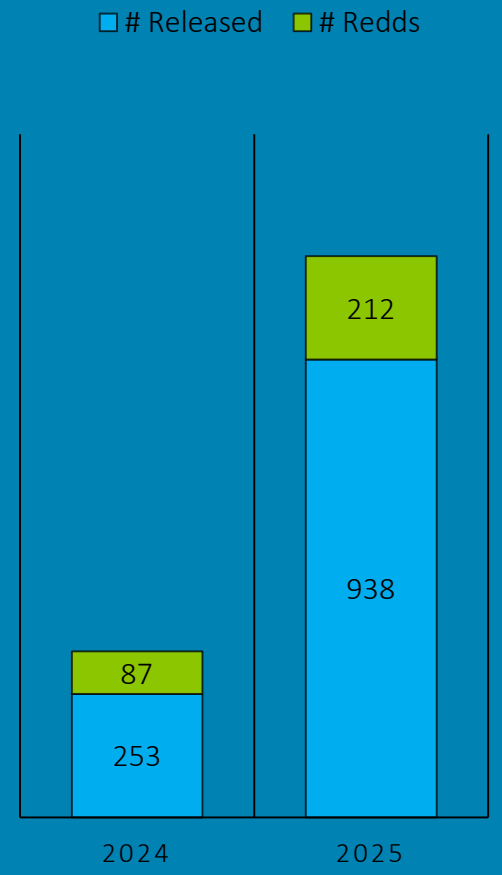
- 20 yrs – Tribal partners, CCT, Cda, and UCUT-began 2023
  - W support from state and federal agencies
- 200 million(BPA, BOR, direct congressional appropriations, WA State)
- Juvenile releases, travel times, survival, preferred passage paths
- Adult salmon releases- summer chinook Wells and other mid Col hatcheries
  - Little Spokane, Hangman, Spokane River, Chamokane Creek and Upper Columbia
- Fry trapping, tagging
- Fish rearing enhancement
- Fish collection facility Chief Joseph Dam
- Develop a long-term reintroduction strategy





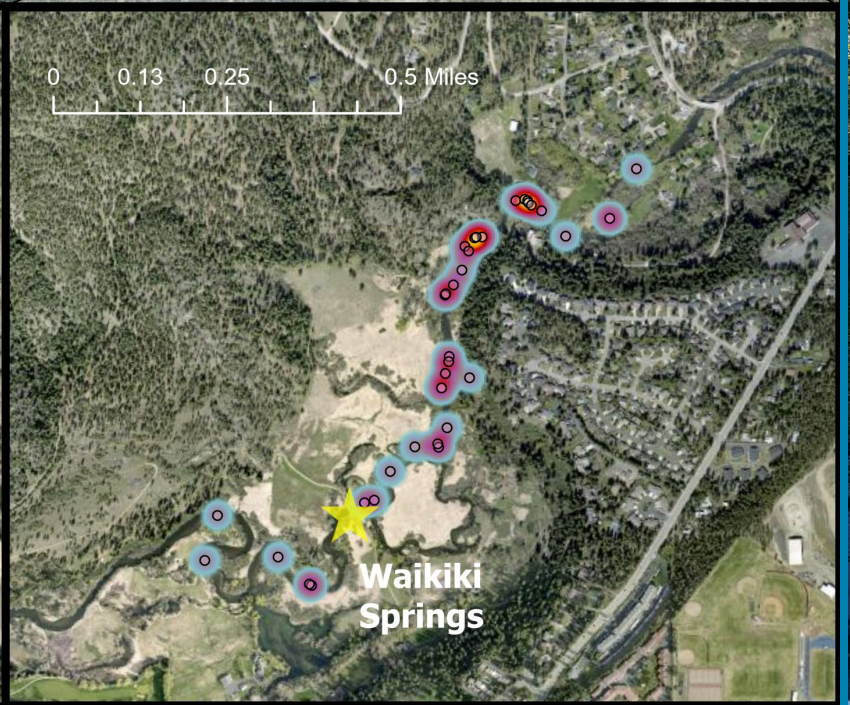
Spokane River

2024
(Raft Surveys)
VS.
2025
(Raft+ UAV Surveys)



2025 Little Spokane River Redd Survey

- IK Surveys
- 113 Chinook Redds



- Habitat- Lead Entity, Conservation Districts and Groups, Ecology and Landowners
- Habitat connections

- Thanks to all those people, agencies, departments, schools and universities, companies and groups that desire to see a better place for the future generations; together we are moving towards that end.

Contact Info: Brian Crossley
Spokane Tribe, Water & Fish Program Manager
crossley@spokanetribe.com
(509) 626-4425