



Fish Monitoring and Recolonization
in Buck Creek (and nearby streams...)

Joe Zendt

Yakama Nation Fisheries Program

Fish Species

- Fall Chinook Salmon*
 - “White Salmon” tule
- Spring Chinook Salmon
- Summer and Winter Steelhead*
- Coho Salmon*
- Chum Salmon*
- Bull Trout*
- Cutthroat Trout
- Pacific Lamprey



USGS



USGS



* Listed as “Threatened” under Endangered Species Act

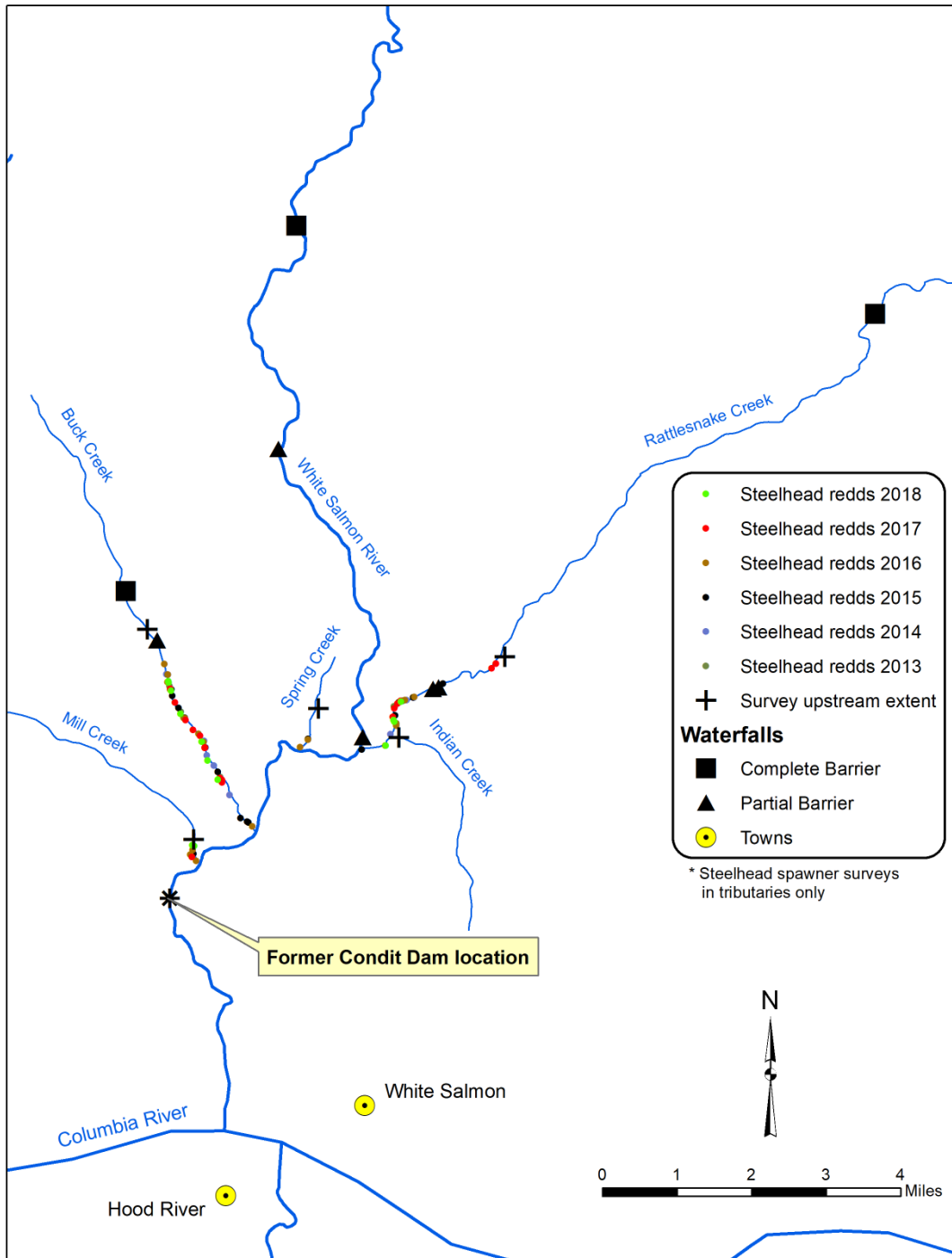
Steelhead & Coho Salmon Spawner Surveys

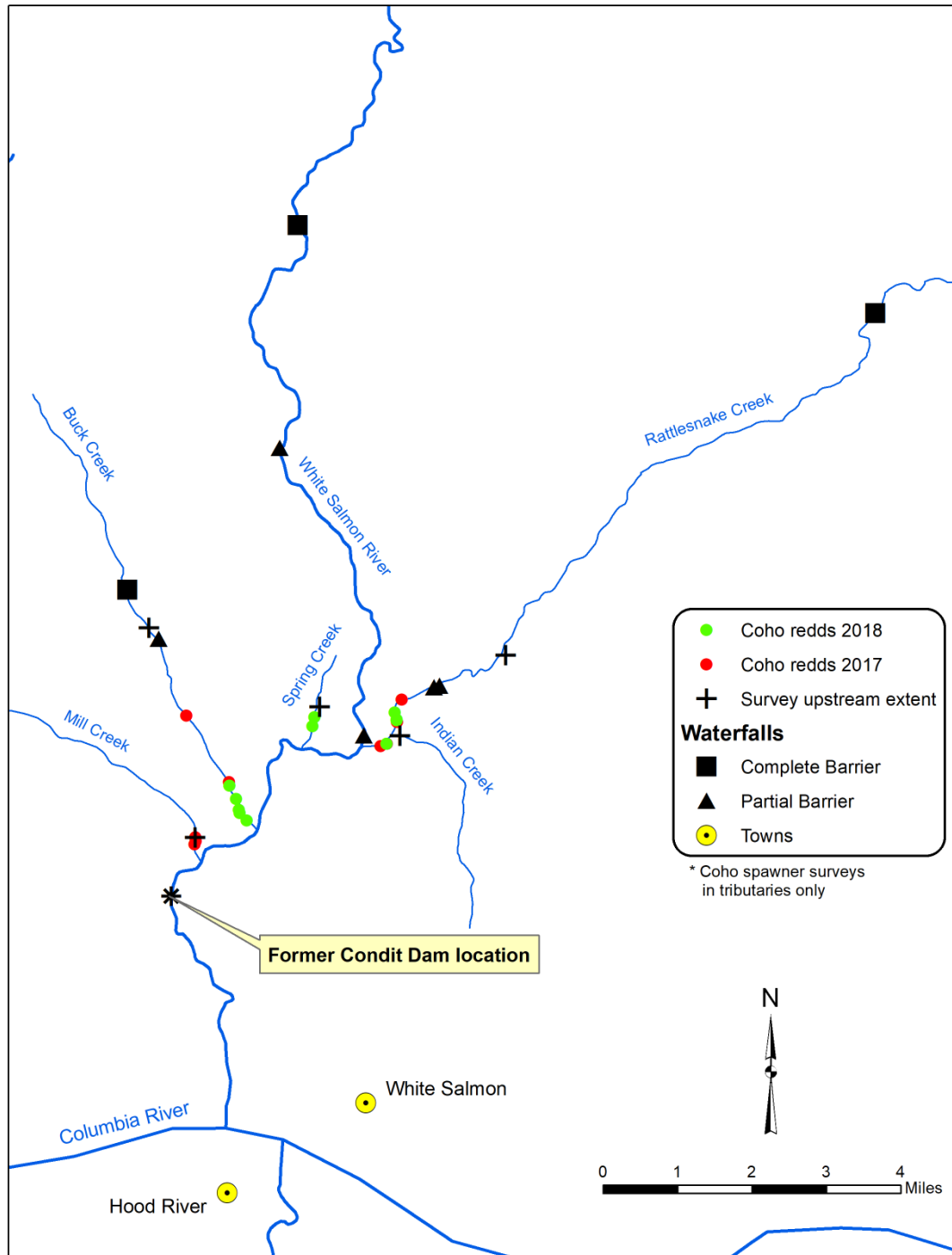
- Redd counts
- GPS locations recorded
- Possible, Probable, Definite
- Usually undercounts
- Tributaries only (White Salmon)

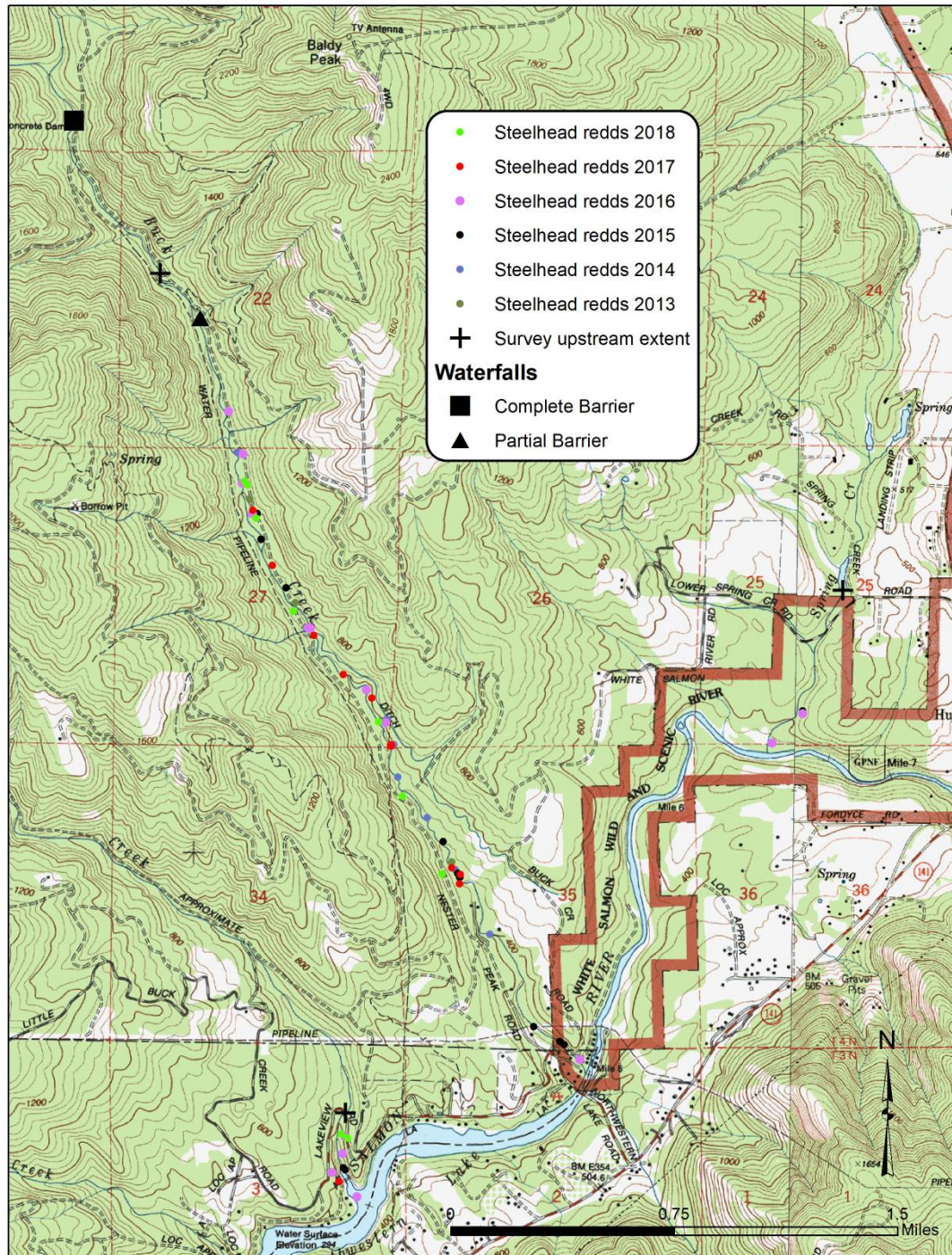


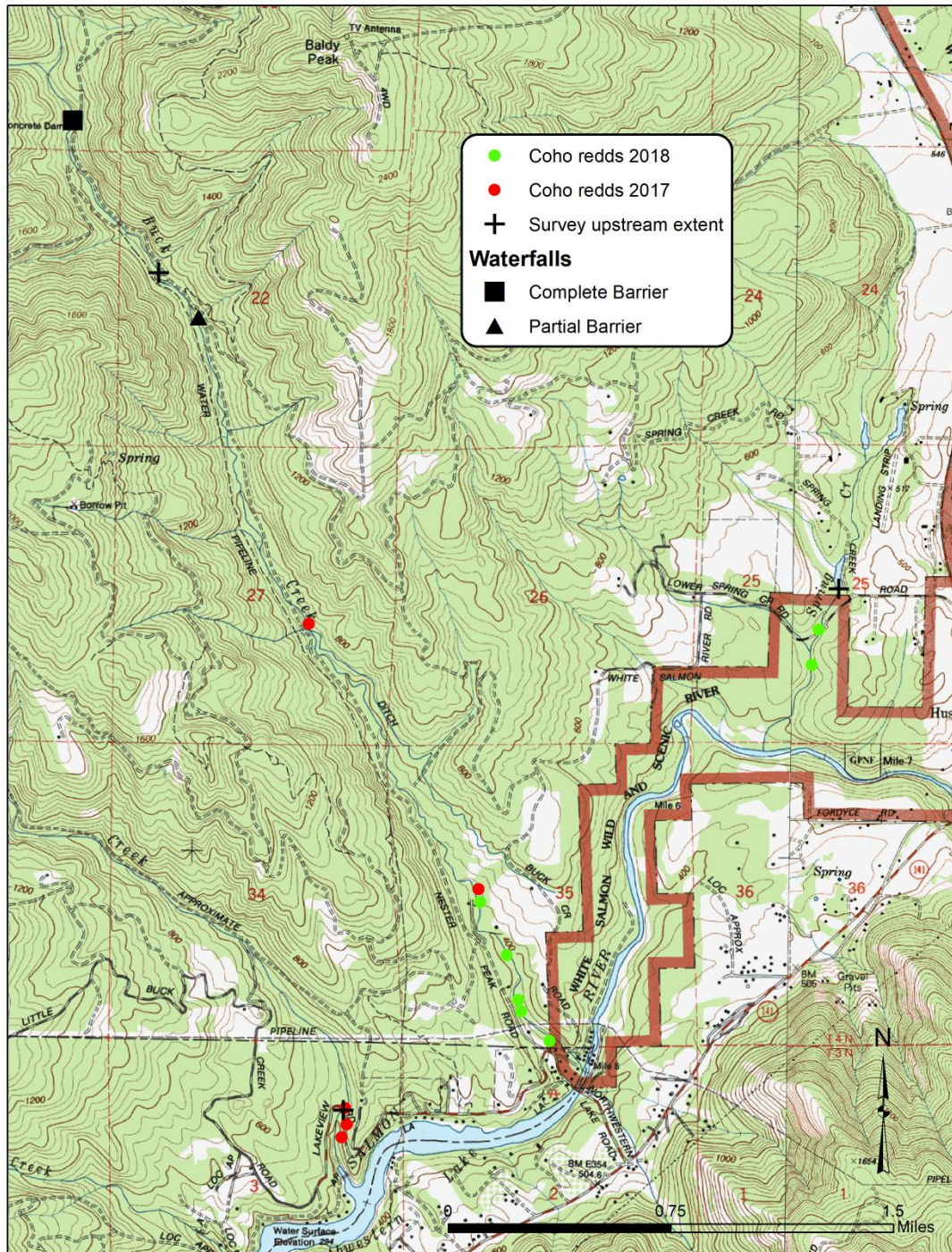


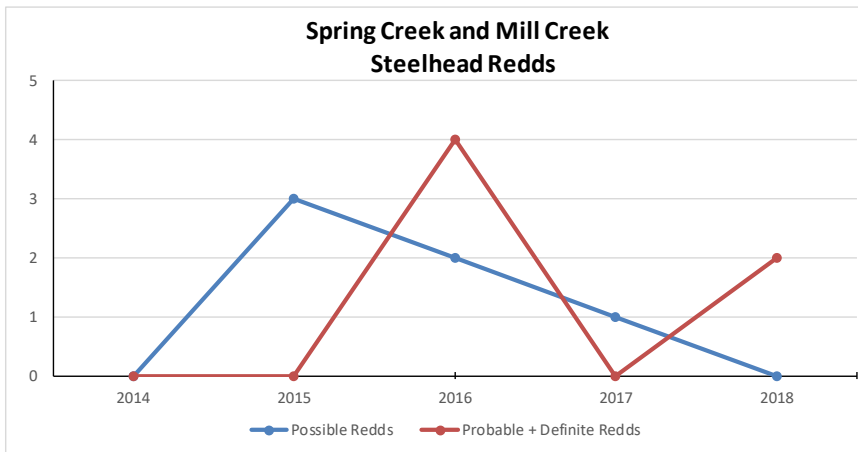
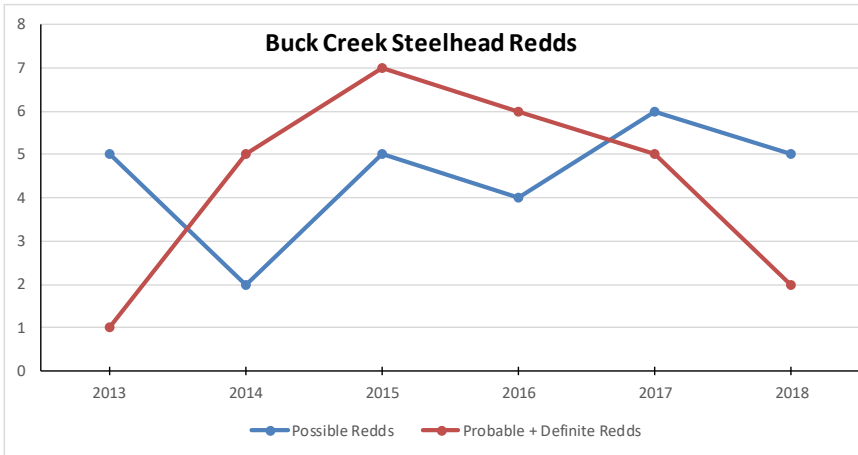
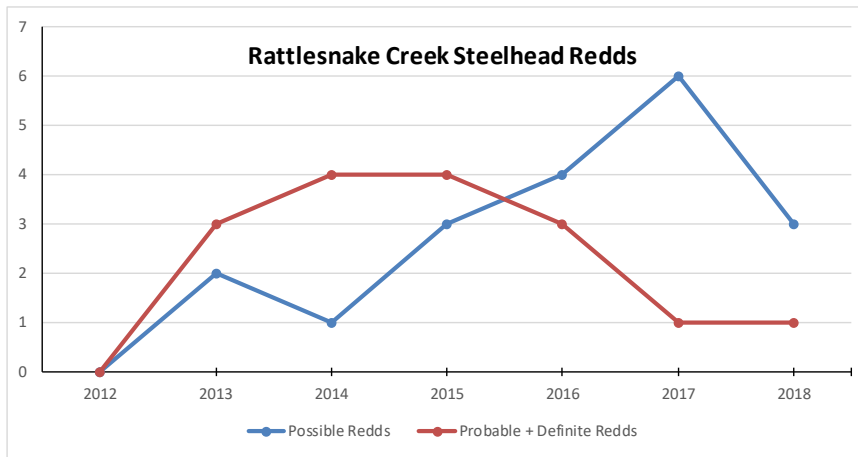












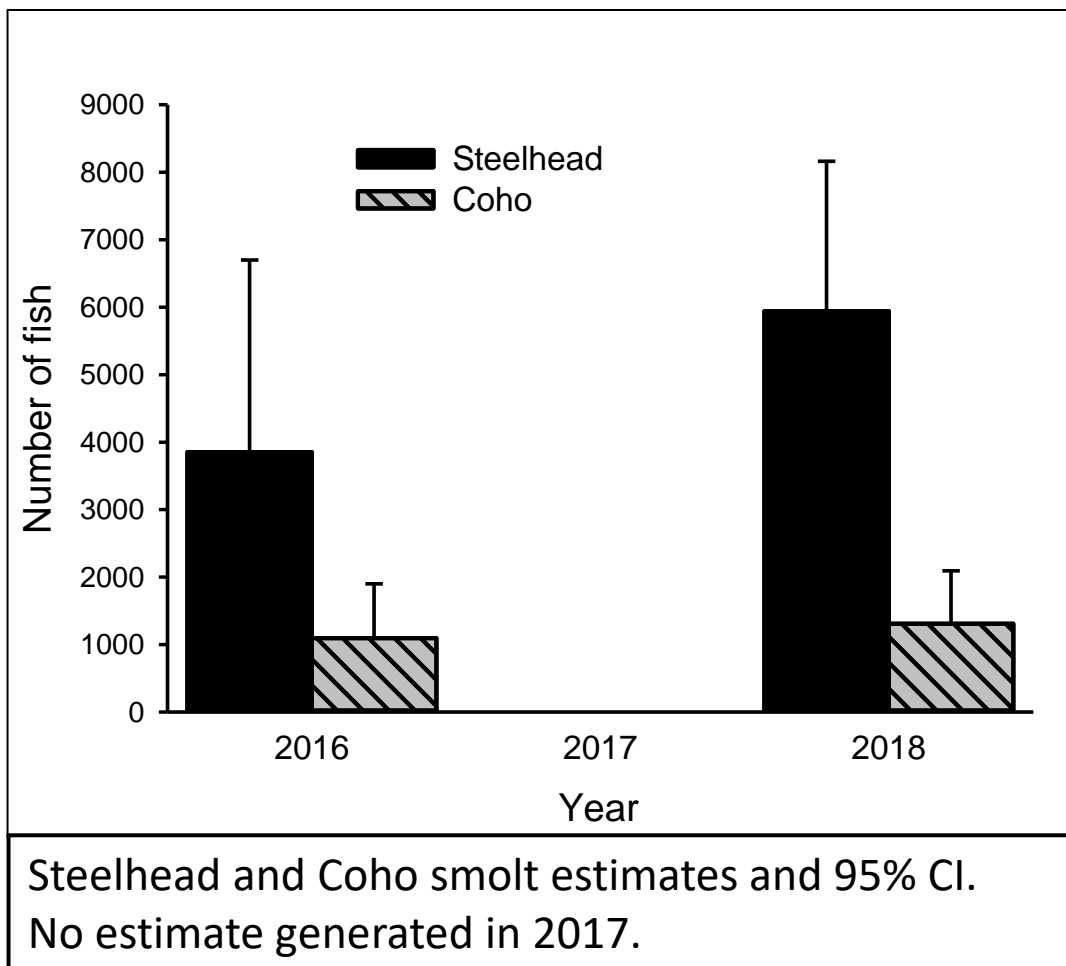
Juvenile Fish Sampling Methods



- Operated a rotary screw trap at rkm 2.3 to assess smolt production.
- Species, life stage, PIT tagging juvenile salmonids (mark-recapture), collecting genetics samples.

- Electrofishing surveys in tributaries and mainstem for distribution and species composition.
- Abundance estimates in sections of two tributaries.
- PIT tagging juvenile salmonids (mark-recapture), collecting genetics.





Steelhead/Rainbow trout (*Oncorhynchus mykiss*) PIT tagging studies

USGS Columbia River
Research Laboratory

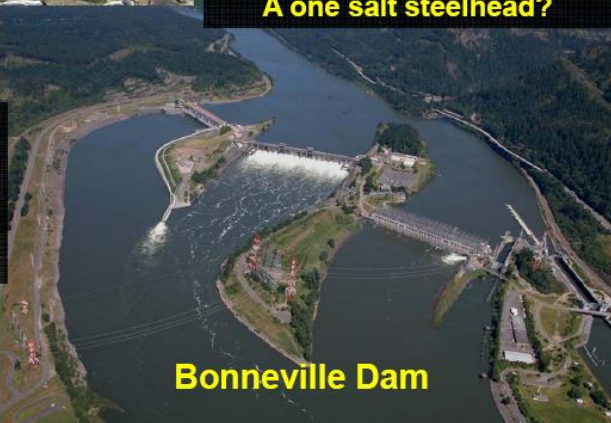


East Sand Island



**Tagged Sept 2004
Detected March 2005 in
lower Rattlesnake Creek
Detected July 2006 moving
up through adult fish ladder.
A one salt steelhead?**

**Tagged Oct 2004
Detected April 2005 in lower
Rattlesnake Creek
Tag found Nov 2005 at Tern
Colony**



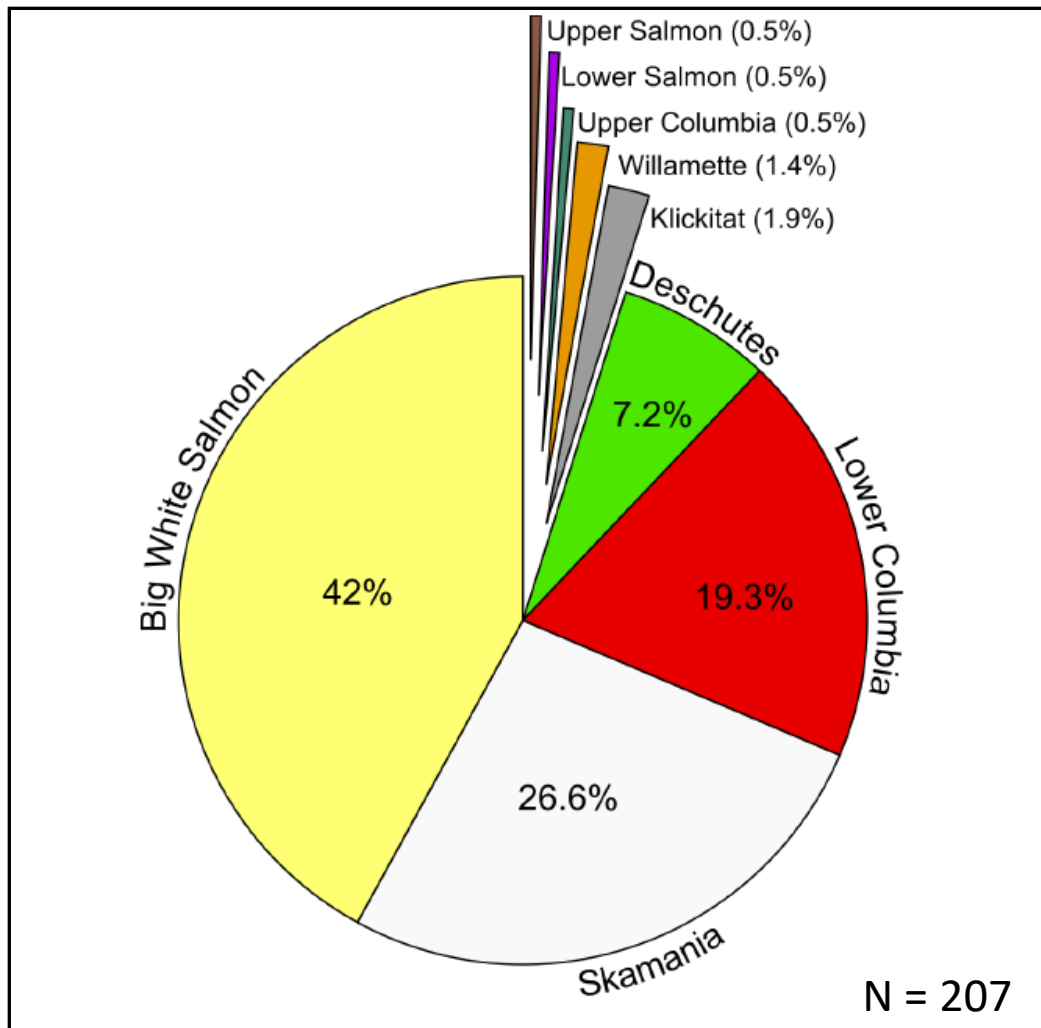
Bonneville Dam



Adult Detections of Natural-Origin Fish PIT tagged at the White Salmon Screw Trap

- Smolts PIT tagged at the screw trap in 2016 = 150 Steelhead, 79 Coho.
 - Four Steelhead to Bonneville Dam as adults.
Two summer run, two winter run timing.
 - Two Coho to Bonneville Dam as adults.



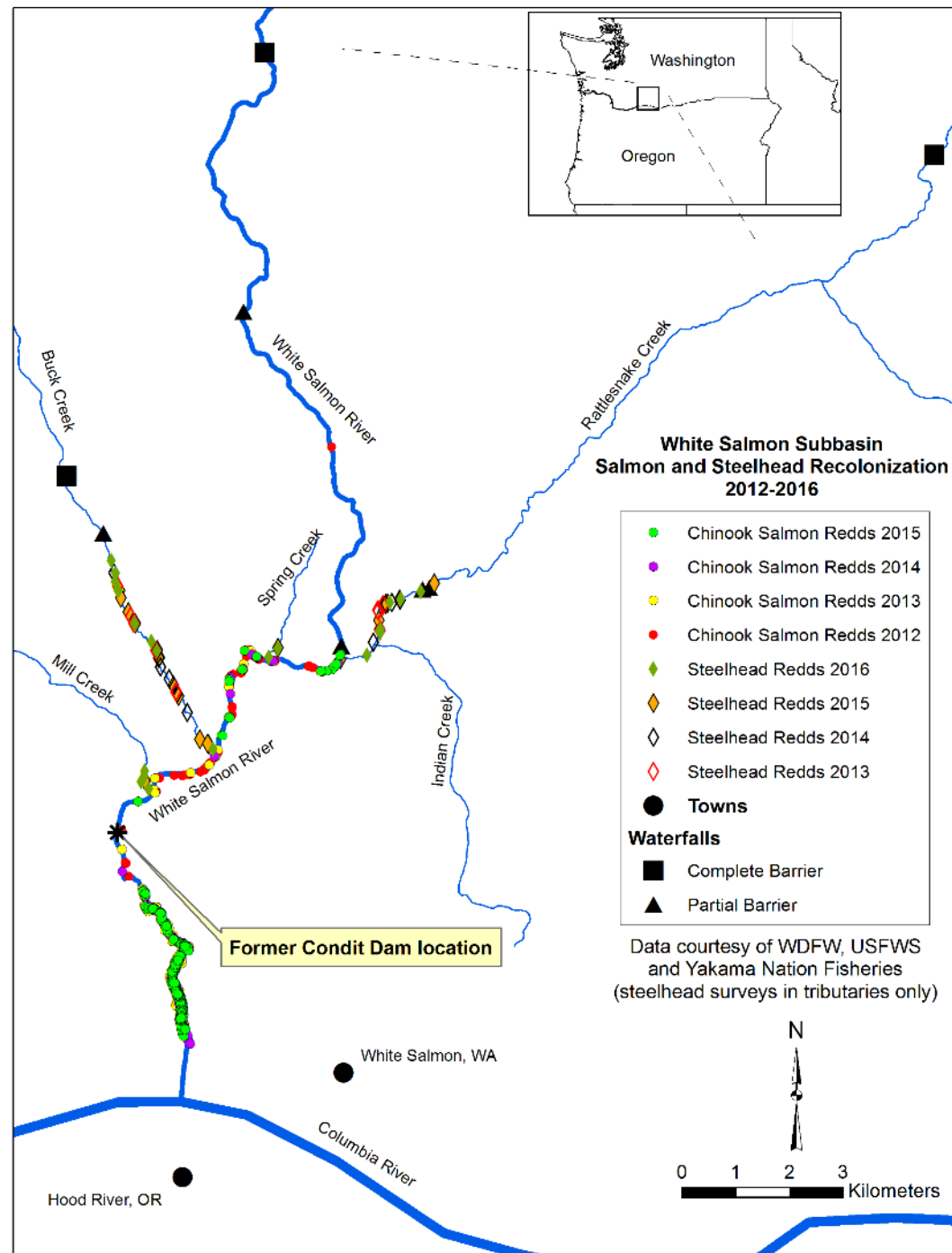


Genetic Stock Identification of Steelhead smolts and parr sampled at the White Salmon screw trap and through electrofishing in the mainstem during 2016.

Credit: Steven Micheletti, CRITFC, 2018

White Salmon Subbasin Post-Dam Removal Fisheries Monitoring

- Spawner surveys
 - Steelhead (tributaries)
 - Spring Chinook
 - Fall Chinook
 - Tule and Upriver Bright
 - Coho (tributaries)
- Smolt monitoring (screw trap)
- Stream electrofishing
- Limited funds



Questions?

