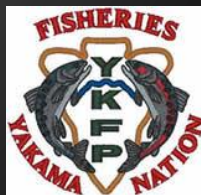
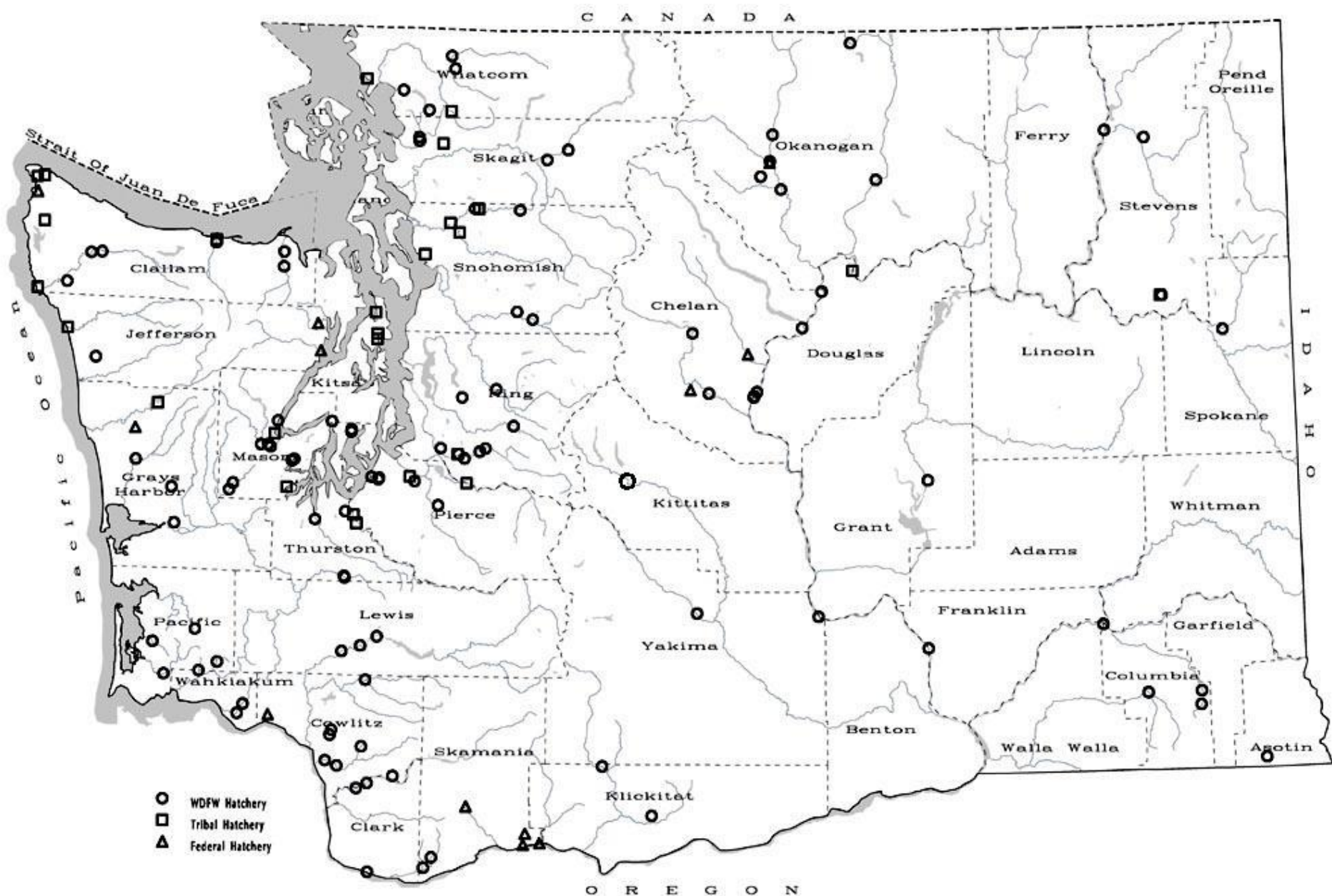


Risk Management of Non-target Fish Taxa Associated With Salmon Restoration

Gabriel M. Temple,
Timothy D. Webster, Scott A. Coil





- WDFW Hatchery
- Tribal Hatchery
- ▲ Federal Hatchery

C A N A D A

O R E G O N

P a c i f i c O c e a n

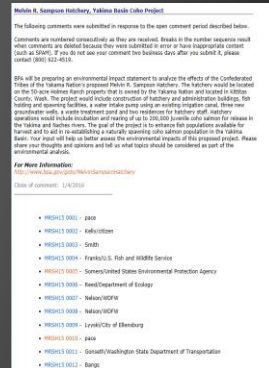
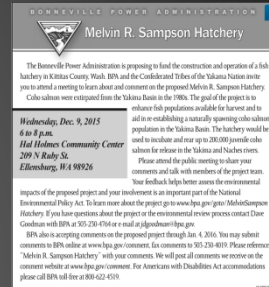
O H W A S H I N G T O N

Outline

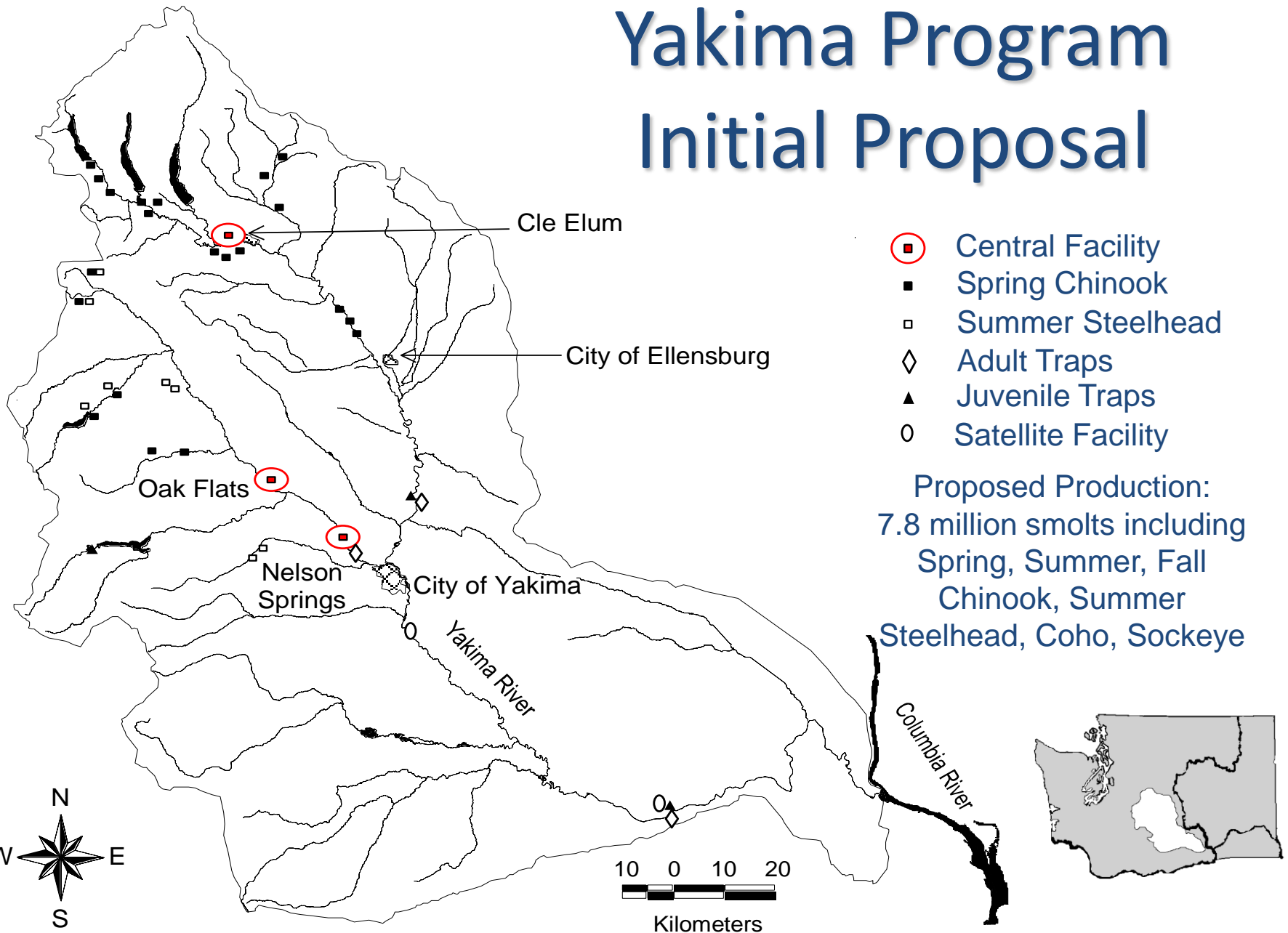
- Refresher on risk management monitoring of NTTOC under the YKFP
- Timely - proposed coho hatchery
- Share some of our interactions work

Acknowledgements

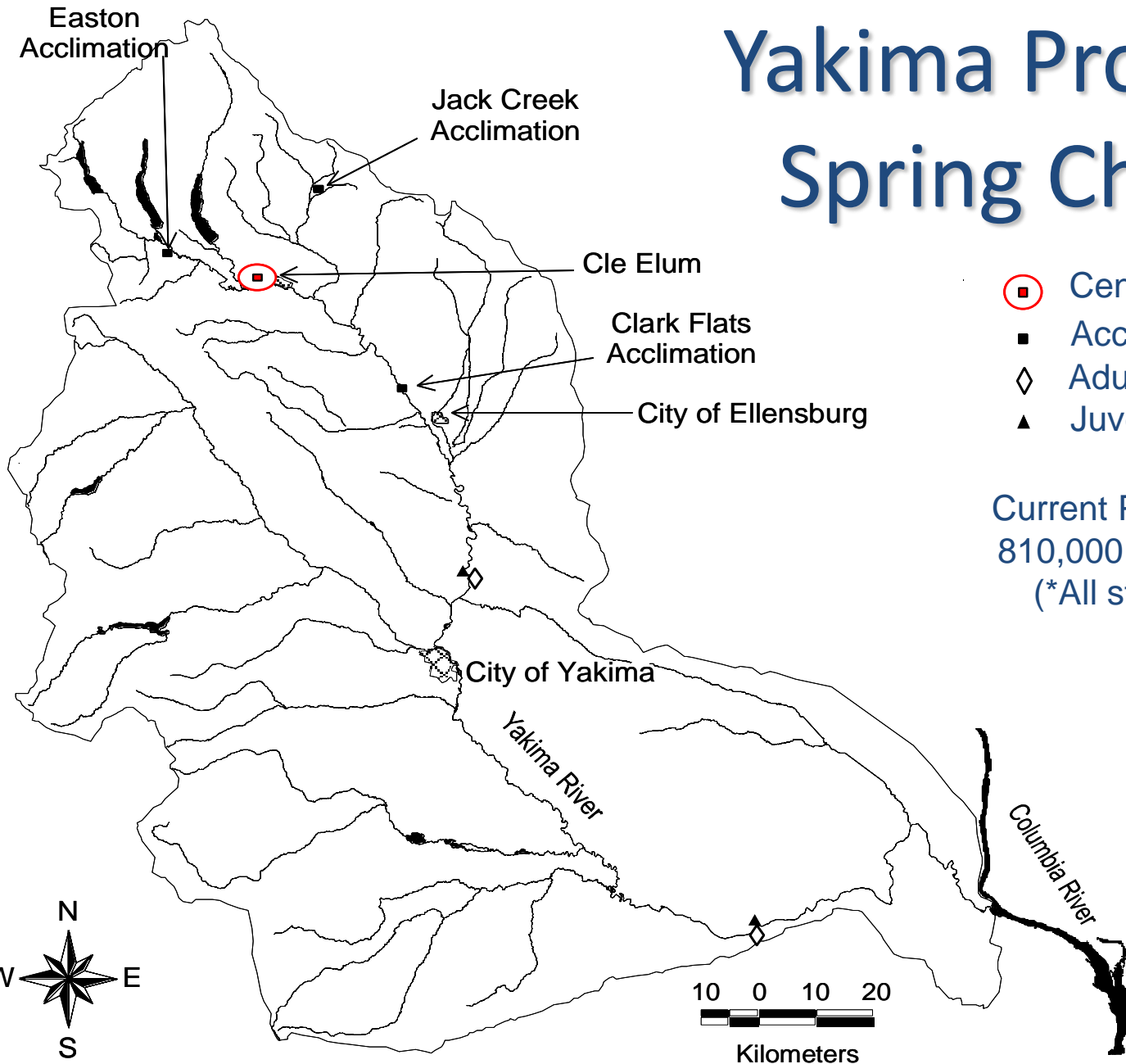
- Monitoring program development by lots of folks in the YKFP
- Monitoring team composed by numerous YN and WDFW individuals through the years
- Inspiration provided by our senior project staff
 - Mel Sampson, John Easterbrooks, Dr. Dave Fast, Anthony Fritts
- Long-term commitment of the Bonneville Power Administration
- Constructive criticism provided by Independent Scientific Review (ISAB/ISRP)



Yakima Program Initial Proposal

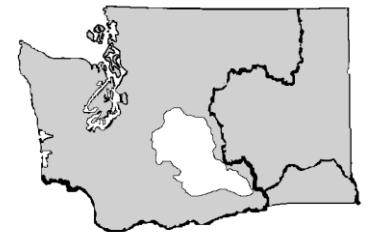


Yakima Program – Spring Chinook

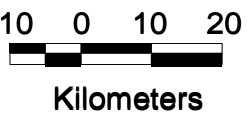
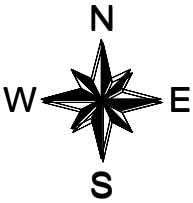
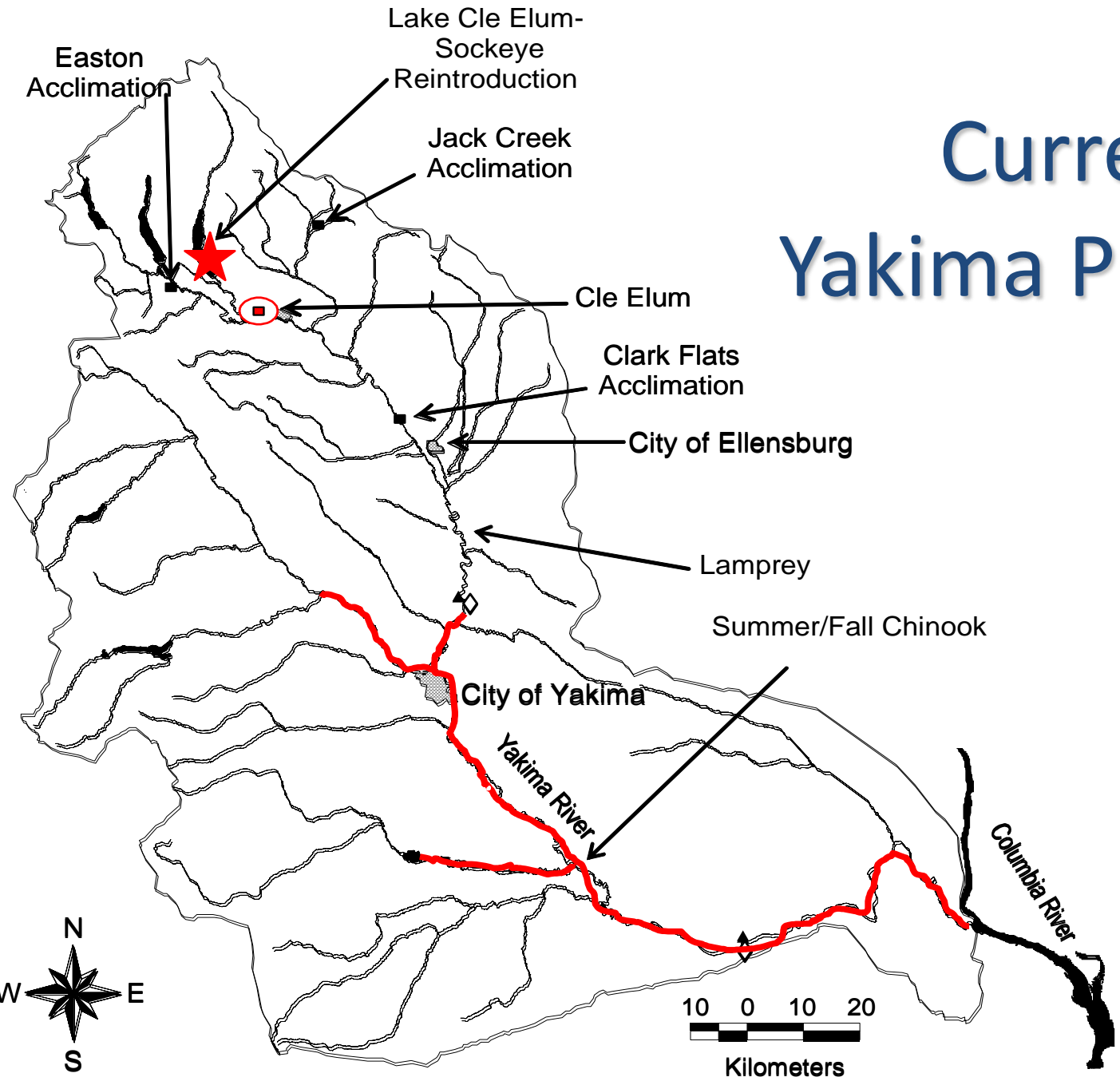


- ◻ Central Facility
- Acclimation Facility
- ◇ Adult Trap
- ▲ Juvenile Trap

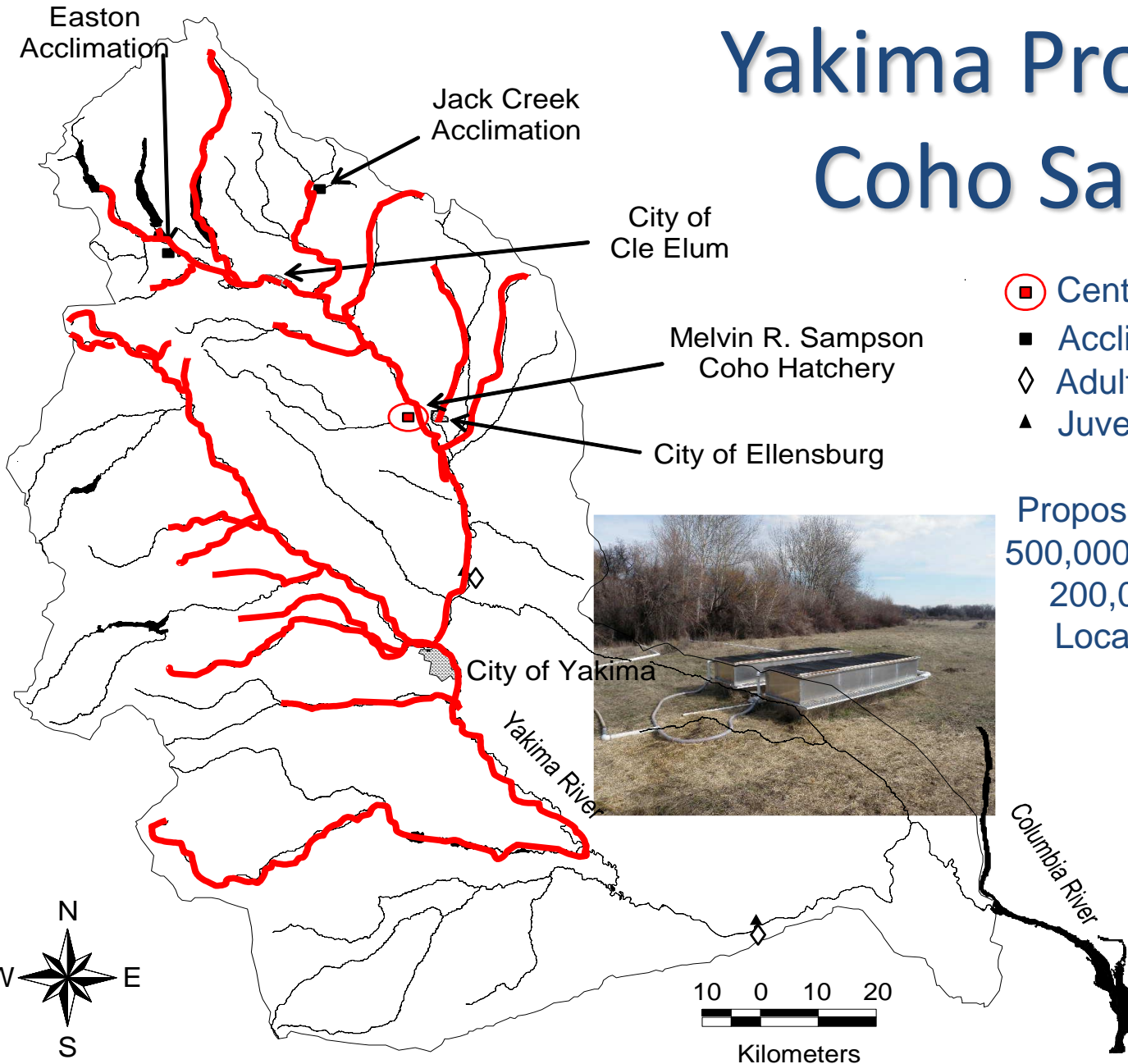
Current Production Goal:
810,000 Spring Chinook
(*All stock initiative)



Current Yakima Programs



Yakima Program – Coho Salmon



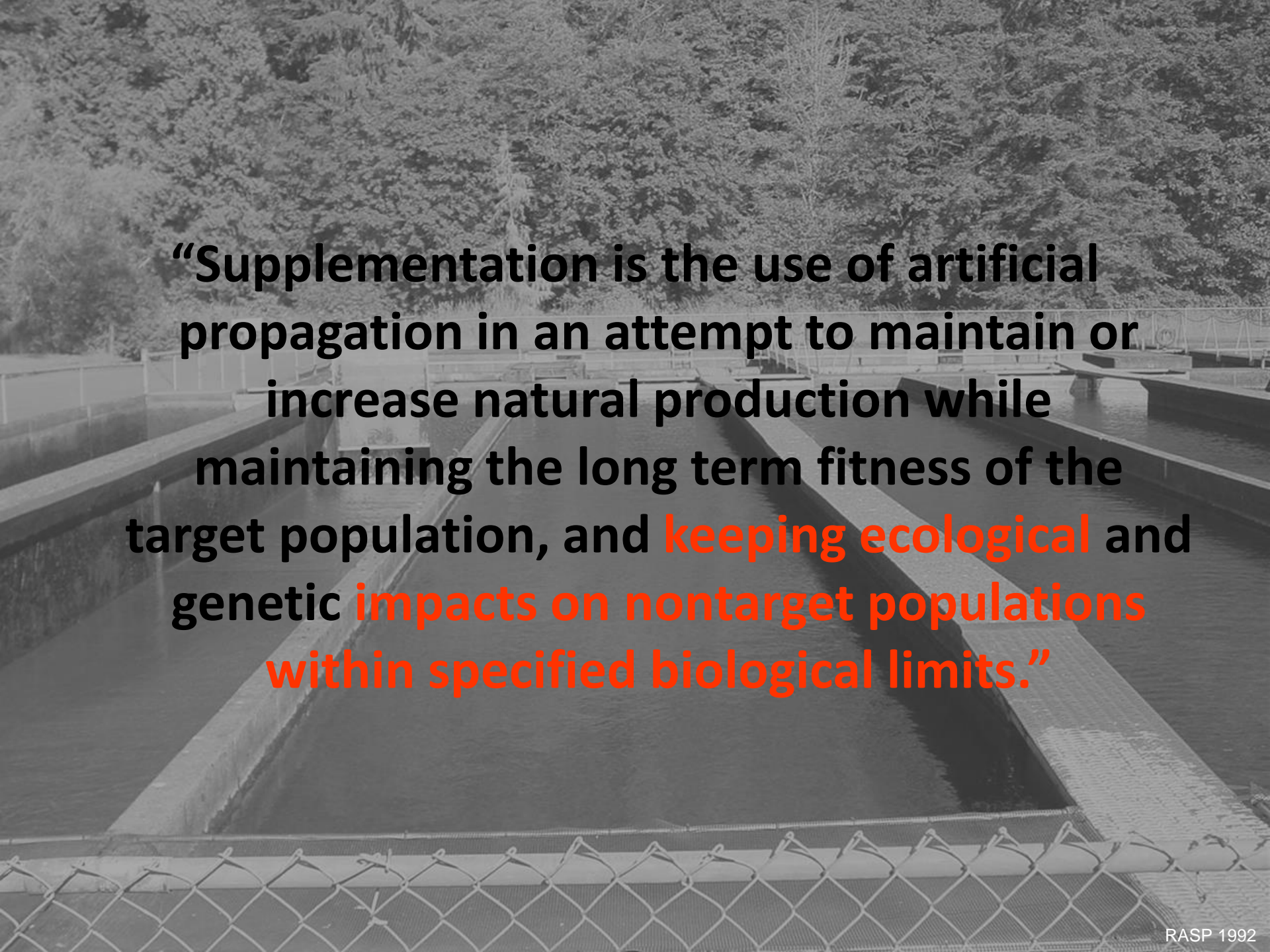
- Central Facility
- Acclimation Facility
- Adult Trap
- Juvenile Trap

Proposed Production
500,000 (sub-yearling)
200,000 (smolts)
Localized Brood



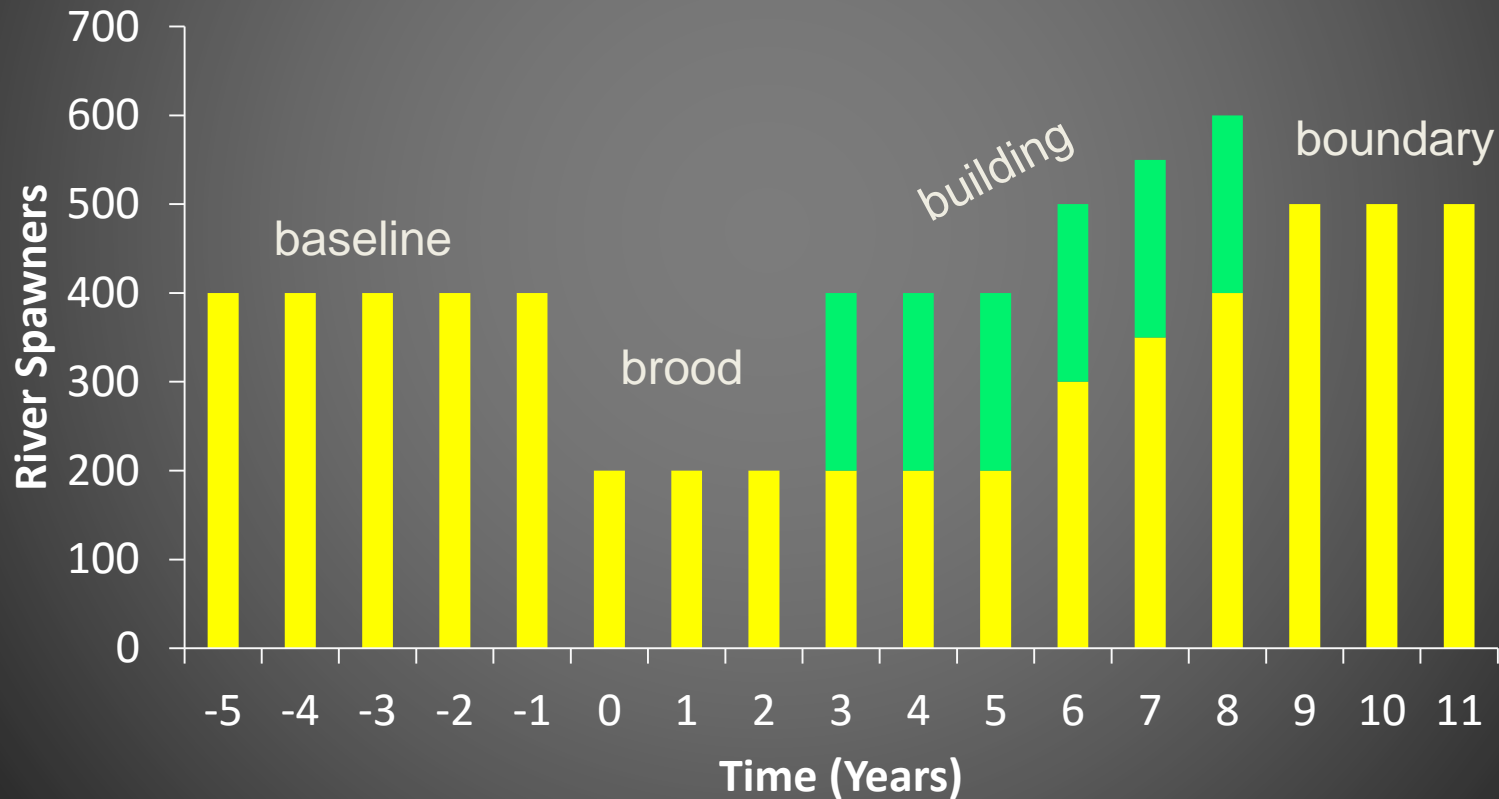
Coho Program Design

- Segregated Component
 - Fish released low in the basin, primarily for harvest augmentation
- Integrated Component
 - Development and transition to the localized broodstock
 - Releases in upper end of the basin - rotating panel tributaries targeted for seeding
 - Principles of supplementation at play



“Supplementation is the use of artificial propagation in an attempt to maintain or increase natural production while maintaining the long term fitness of the target population, and **keeping ecological and genetic impacts on nontarget populations within specified biological limits.”**

Supplementation Chronology



Containment Objectives

$\leq 0\%$



$\leq 5\%$



$\leq 10\%$



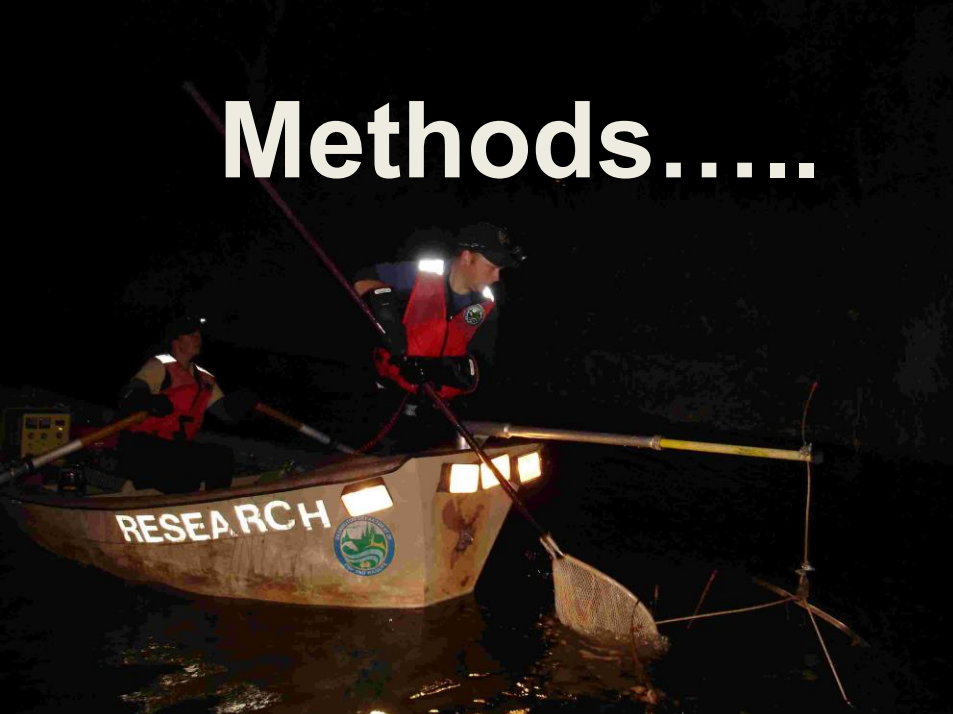
$\leq 40\%$



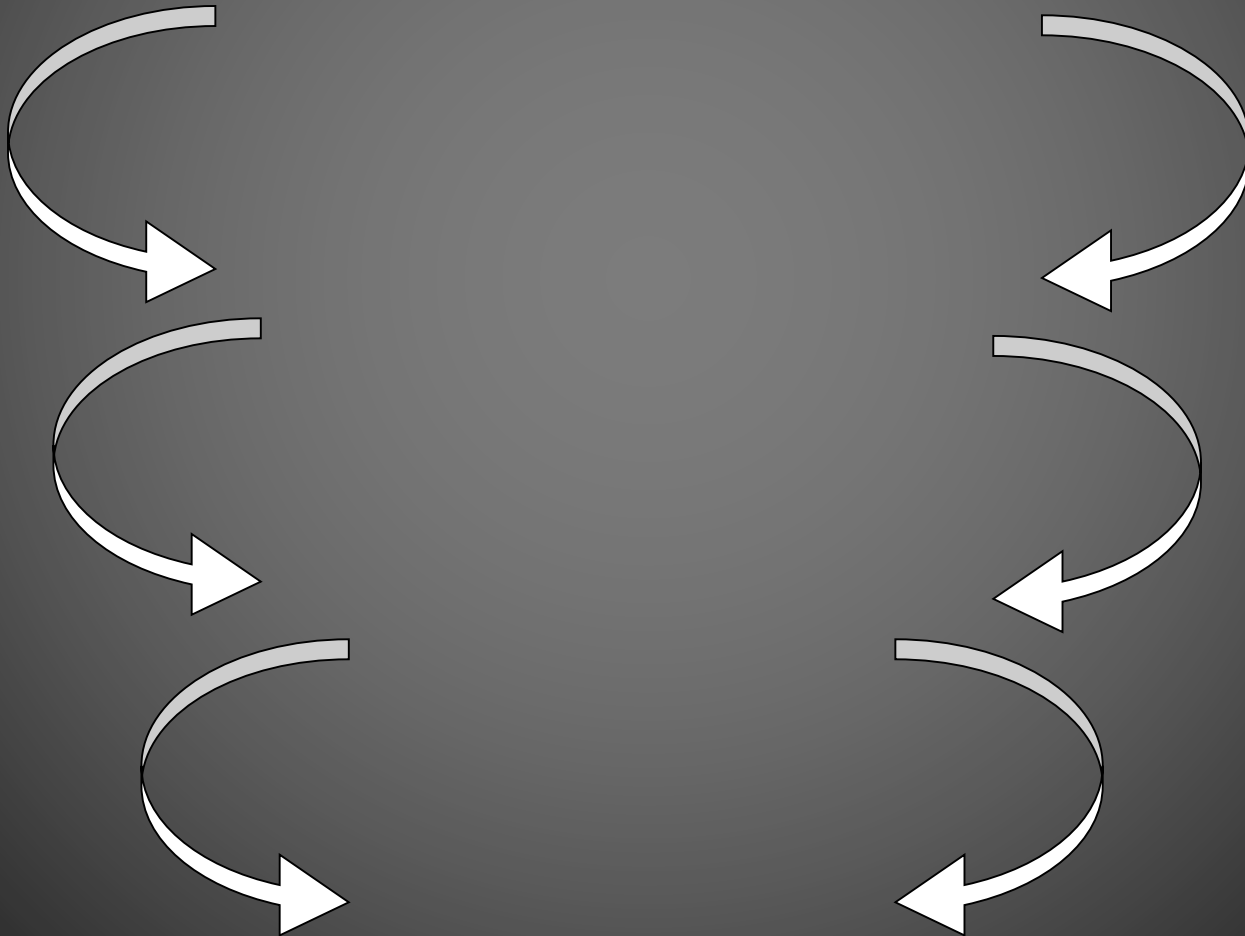
sustainability



Methods.....



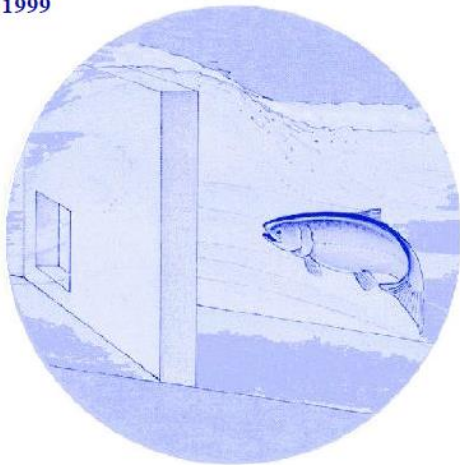
Risk Management Seive



Feasibility and Risks

Feasibility and Risks of Coho Reintroduction in Mid-Columbia Monitoring and Evaluation

Annual Report
1999



DOE/BP-12540-1

October 1999

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Taneum Interactions Study



- 5 year study in Taneum Creek
- Released sexually mature adult Coho into experimental reaches- encouraged them to spawn there
- Monitored for impacts to *O. mykiss* abundance, size, growth, condition, biomass
- Did not detect impacts attributable to the reintroduction



Study In Progress

Please Do Not Disturb!

This is a research site designed to evaluate the spawning success of silver salmon and the future effectiveness of their offspring with other resident fish species. This research is being conducted by the University of Washington (UW) and the Washington Department of Fish and Wildlife (WDFW).

Please do not disturb rocks, logs, or fish.

For more information, contact:
Dr. Michael Keller
at the University of Washington

PVC PIPE 1" IPS 200 PSI 875°F SR 21 PVC 1120

CLFD 1181-NSF61 81UL S21 82-117-107-21 07 07

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Take Home

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- Monitoring programs in place to ensure ecological responsibility
- Adaptively managed
- Continue risk management monitoring-NTTOC
- Planning additional interactions experiments - stay tuned

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LEAVE YOUR MARK

NOT A STAIN

