

Tracking Hatchery and Harvest Reform to Support Recovery in the Lower Columbia Region



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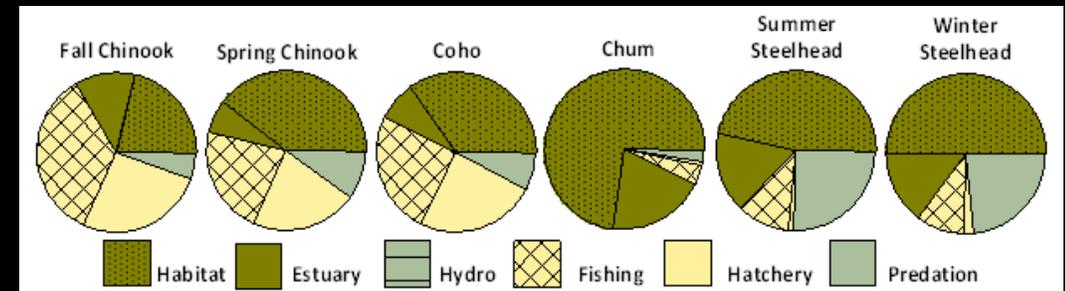
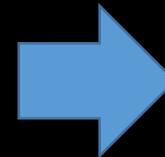
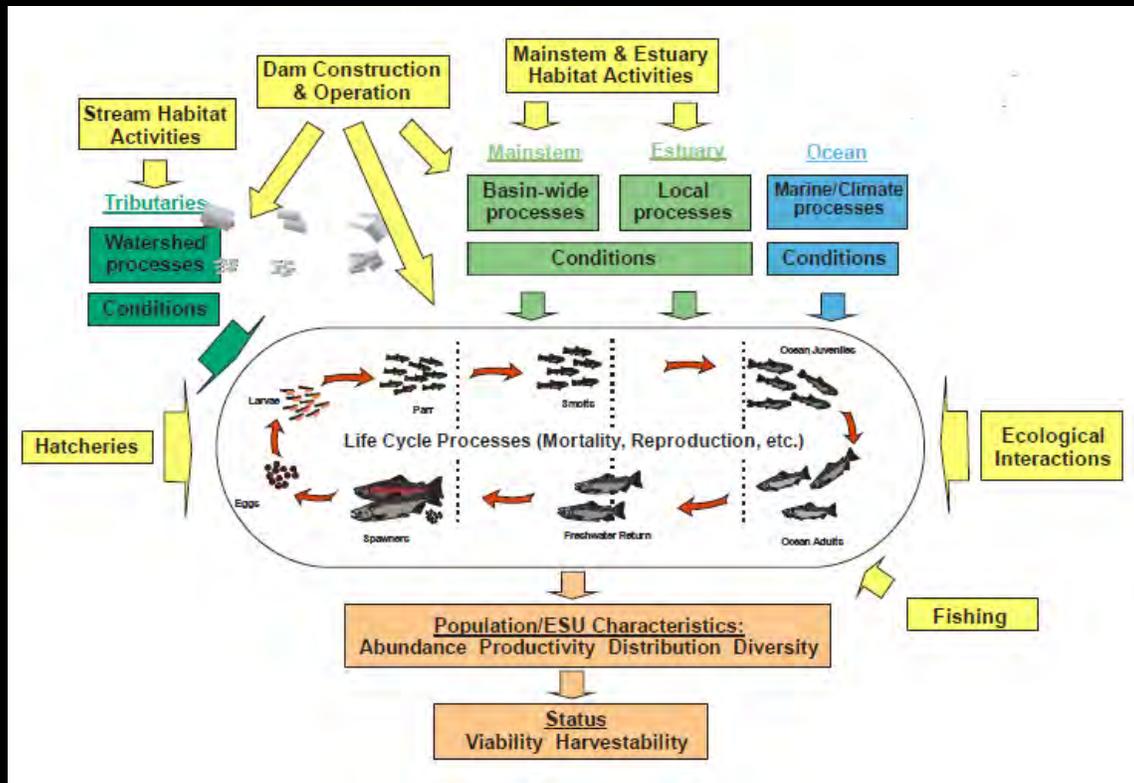
Salmon Recovery Conference

April 8, 2019

Lower Columbia Recovery Plan



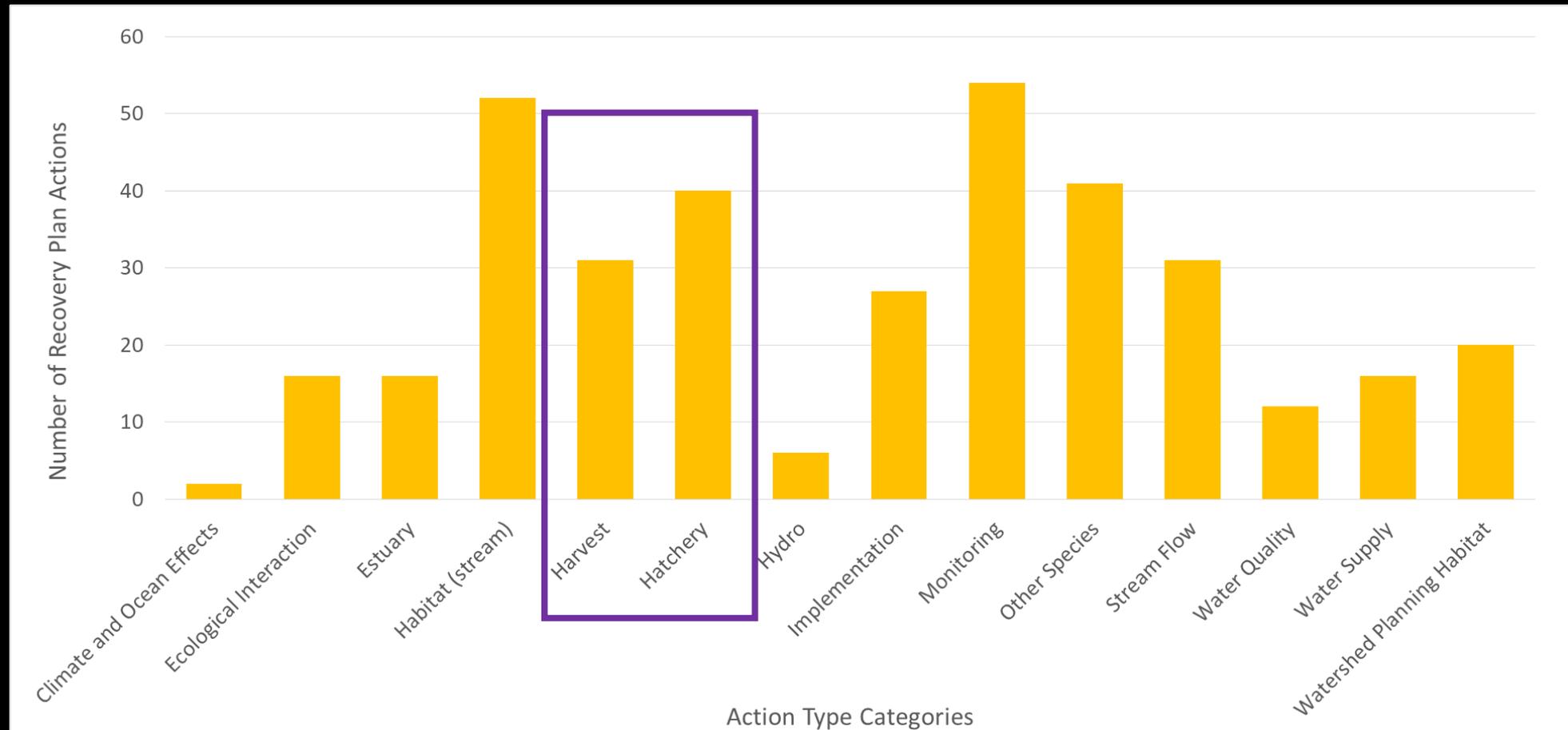
An All-H approach to recovery distributes threat reduction burden across impacts



Lower Columbia Recovery Plan



300+ actions identified for 80+ partners to support threat reduction and salmon and steelhead viability



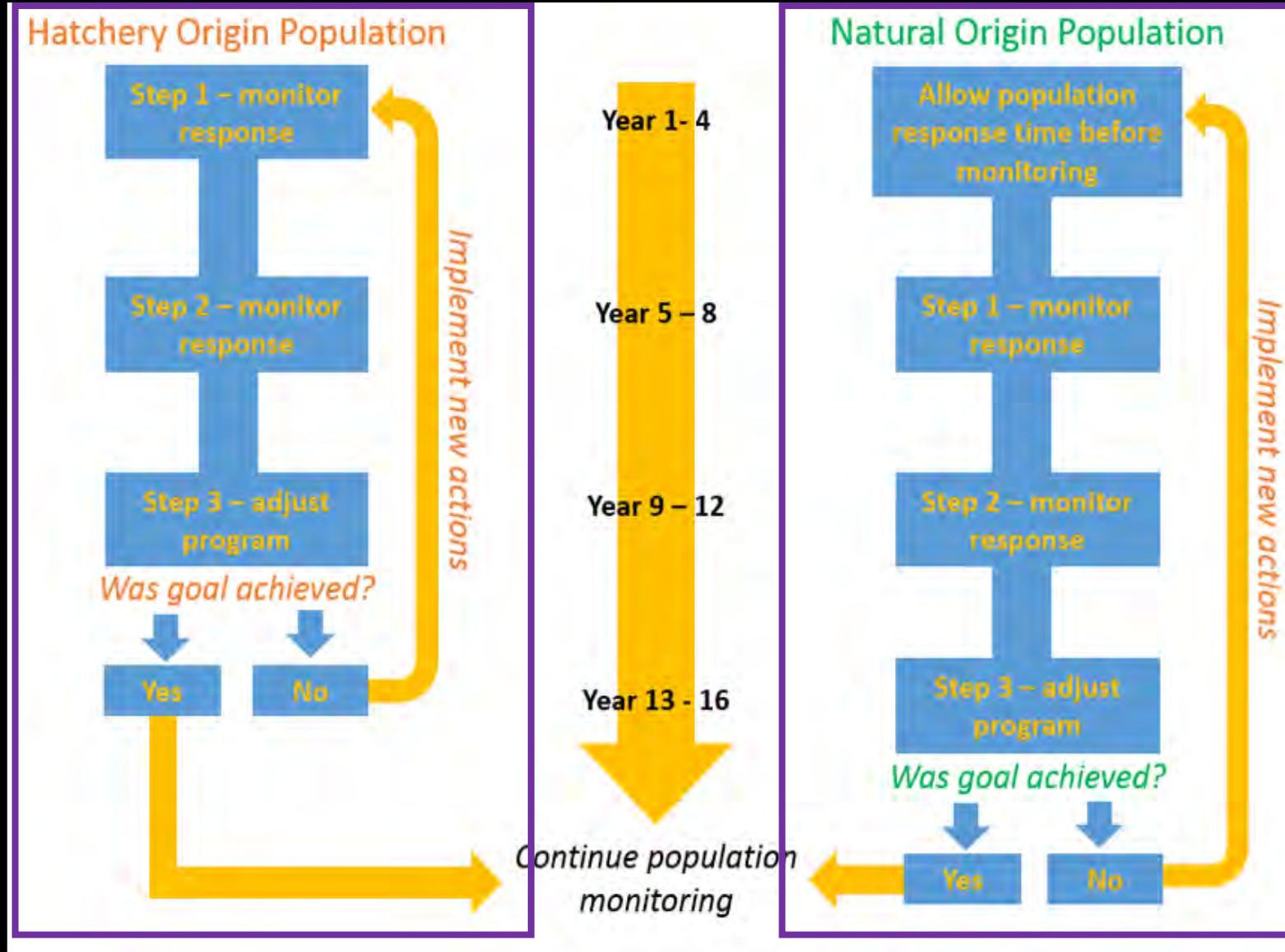
Lower Columbia Conservation and Sustainable Fisheries Plan



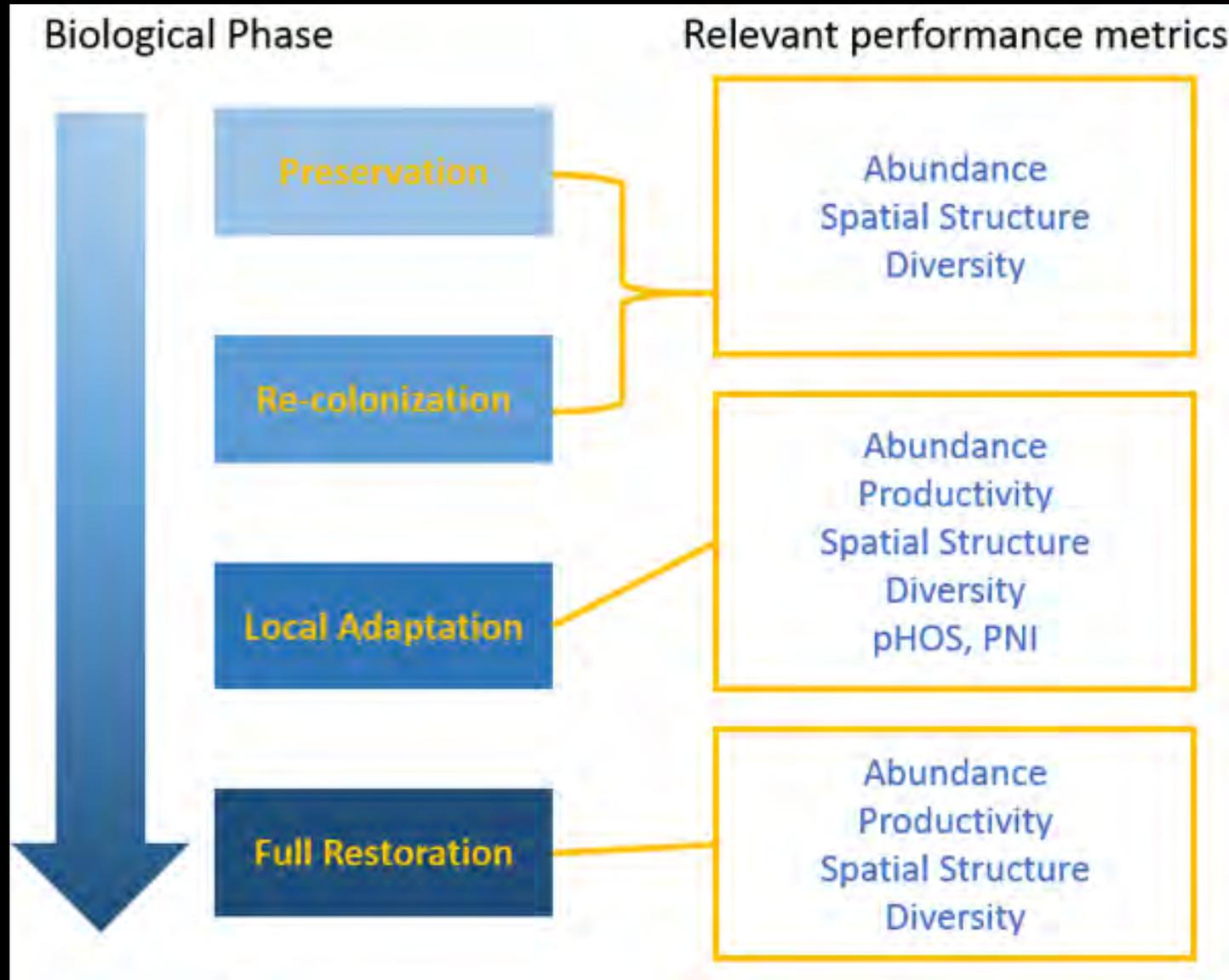
- LCFRB and WDFW collaborated on a plan and adaptive management process
- Reform actions developed to support achieving healthy and harvestable recovery goals while also supporting commercial, recreational and tribal fisheries.
- Annual reporting on action and monitoring progress is key to implementation



Monitoring population responses



Population and Species Recovery Progress



Key Reform Action Types



- **Modify hatchery programs**
 - Eliminate hatchery production to establish gene banks
 - Change hatchery production to maintain consistency with HSRG/NOAA standards



- **Manage harvest**
 - Set abundance-based management guidelines to reduce conservation risk
 - Modify harvest methods



- **Modify physical infrastructure**
 - Improve and restore access to natural origin spawning habitat
 - Install weirs to manage hatchery origin fish access to natural origin spawning areas

Manage Harvest



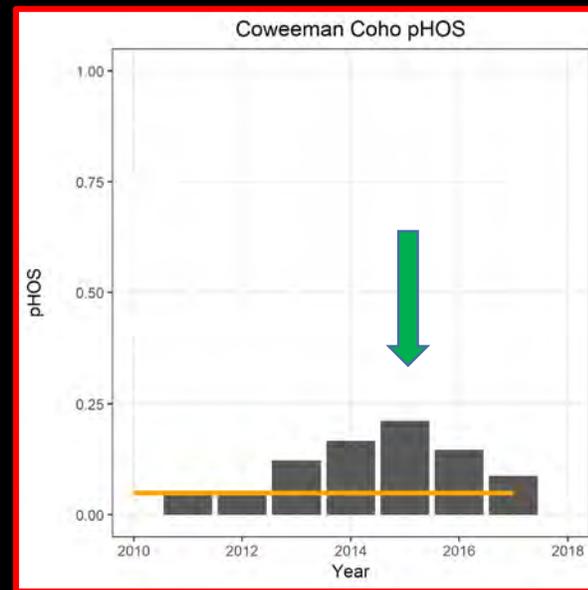
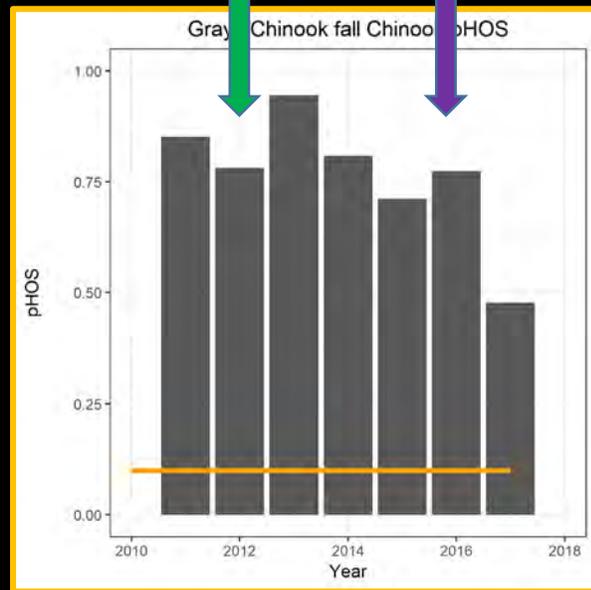
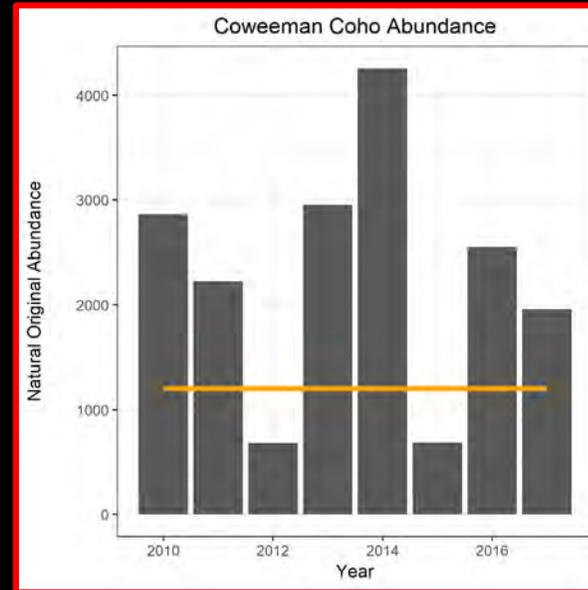
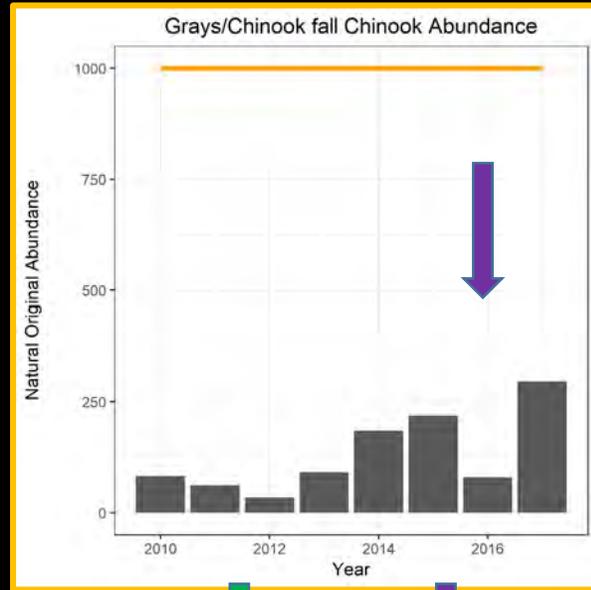
1. Adopt abundance-based harvest matrix to set harvest rates for natural origin fall Chinook (2012 --) and Coho (2015 --)

Action Purpose: provide harvest opportunities and support natural origin escapement

Performance Metric: CSF Plan pHOS and PNI targets for each population, achieve delisting abundance goals



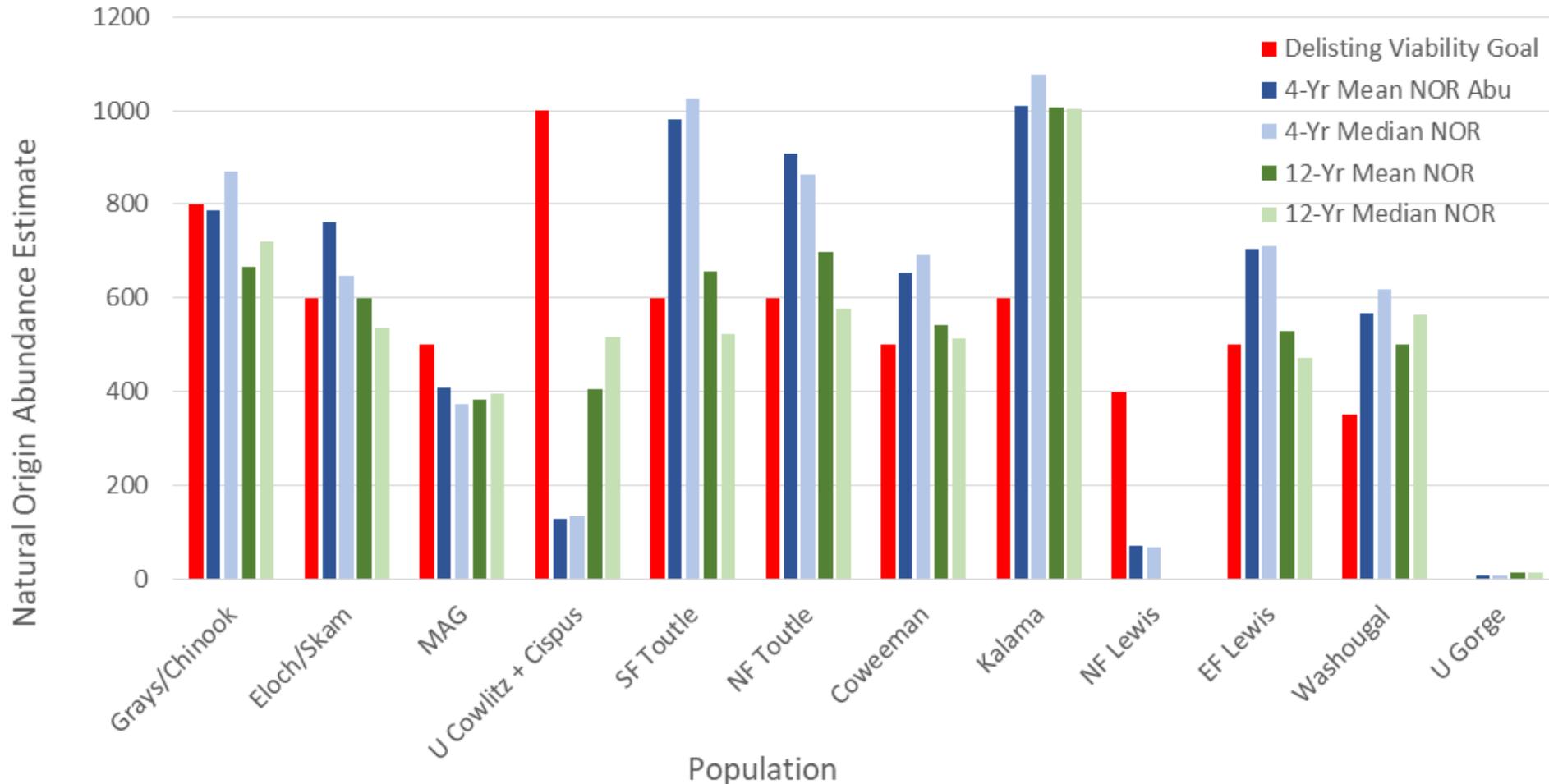
Manage Harvest



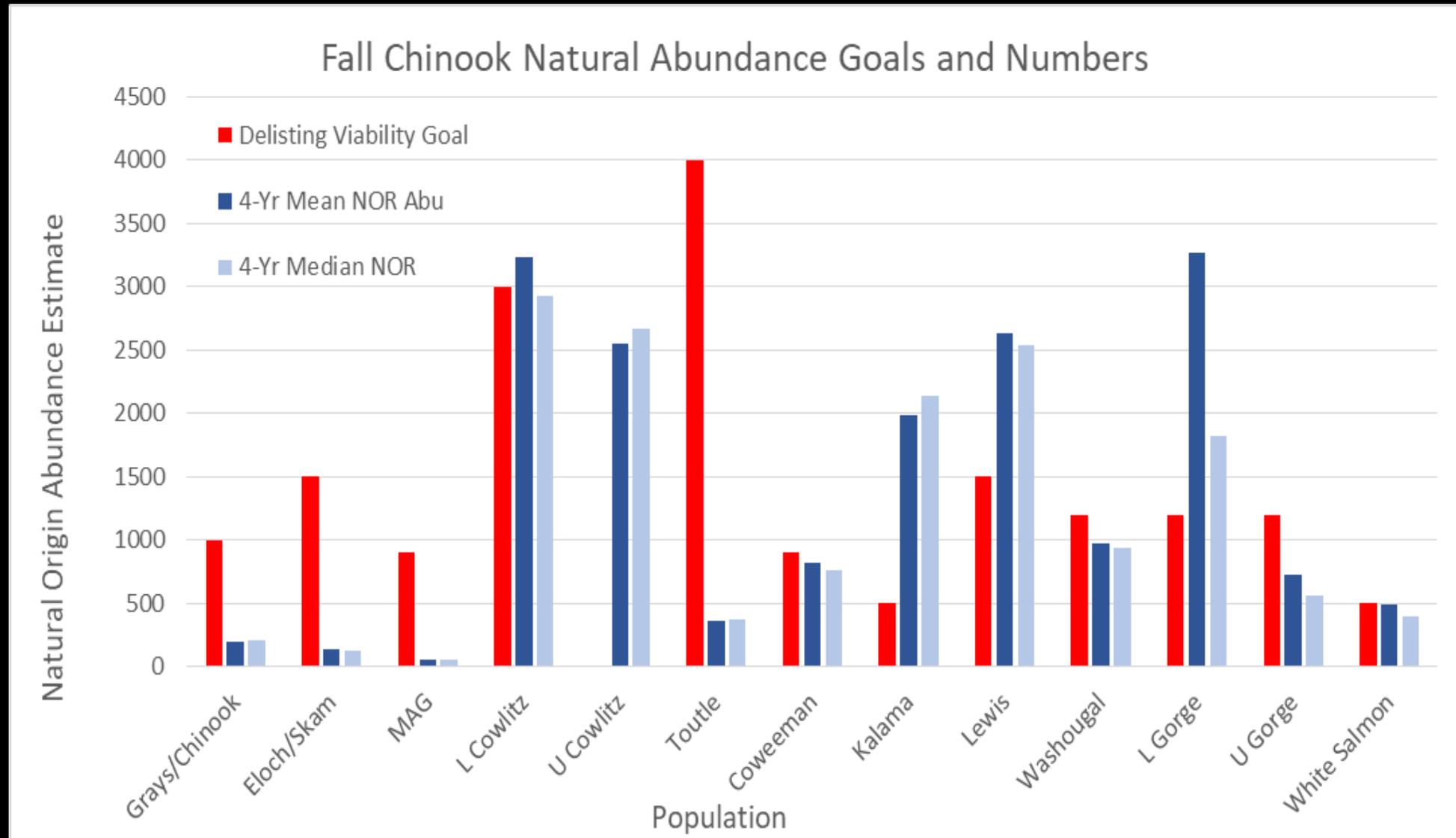
Assessing Recovery Progress Across Populations



Winter Steelhead Natural Abundance Goals and Numbers



Assessing Recovery Progress Across Populations



What are we learning?



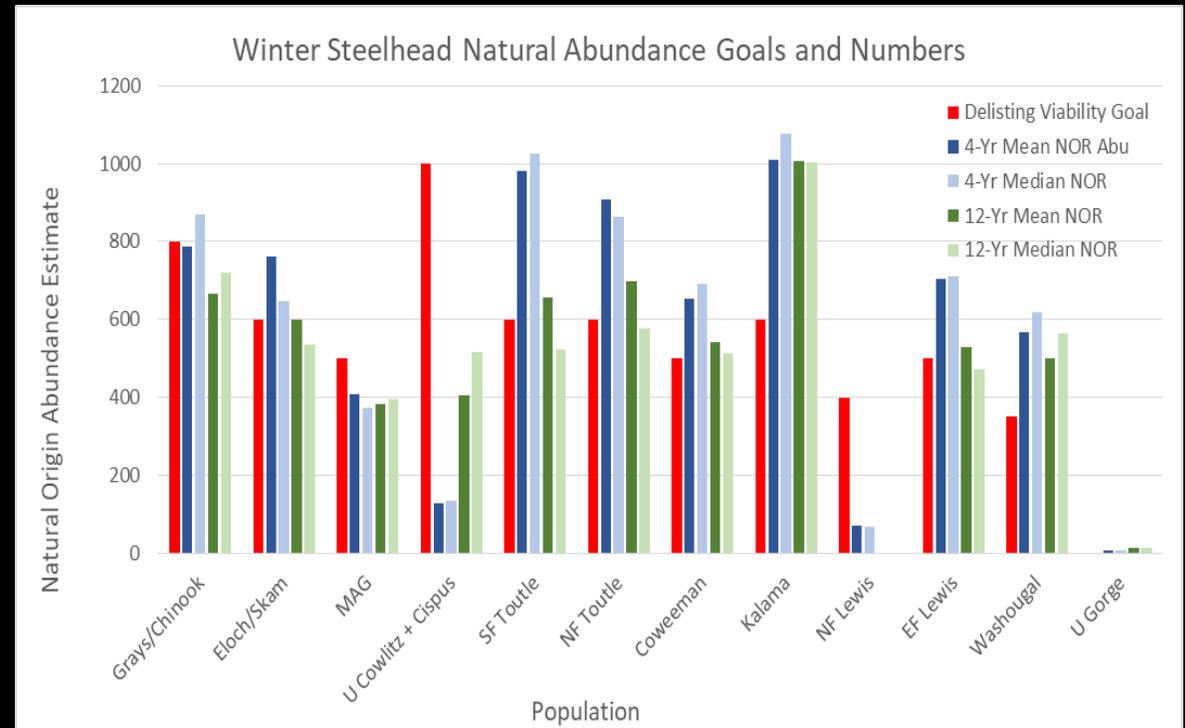
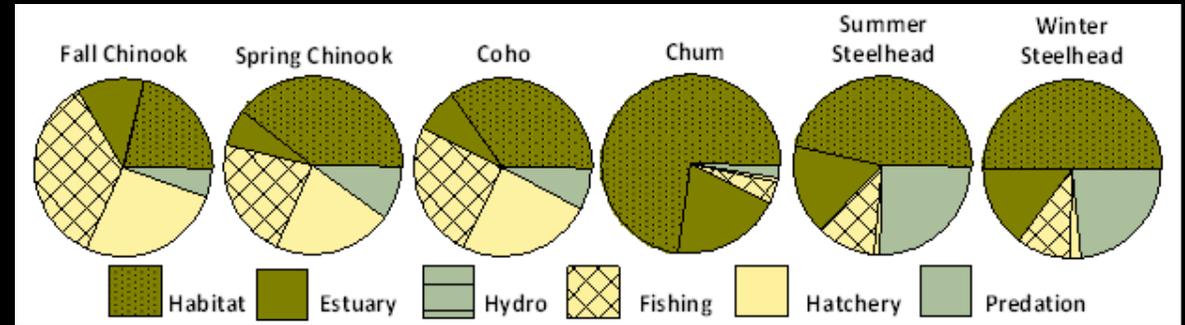
- Reform actions depend on federal, regional, and state standards and policies
- Reform actions often overlap, making for complex monitoring!
- Patience is key – monitoring is in the early phase for many actions



What happens next?



- Report in review with WDFW
- Integrate other threat reduction information
- Apply results and recommendations to recovery plan adaptive management





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Modify Hatchery Programs



1. Release chum fry into the Grays, Elochoman, Lewis River and Duncan Creek (varying start dates --)

Action Purpose: Increase abundance of recolonizing populations

Performance Metric: achieve delisting abundance goals

