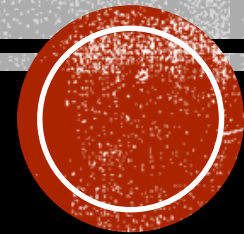


# SALMON RECOVERY IN WASHINGTON STATE



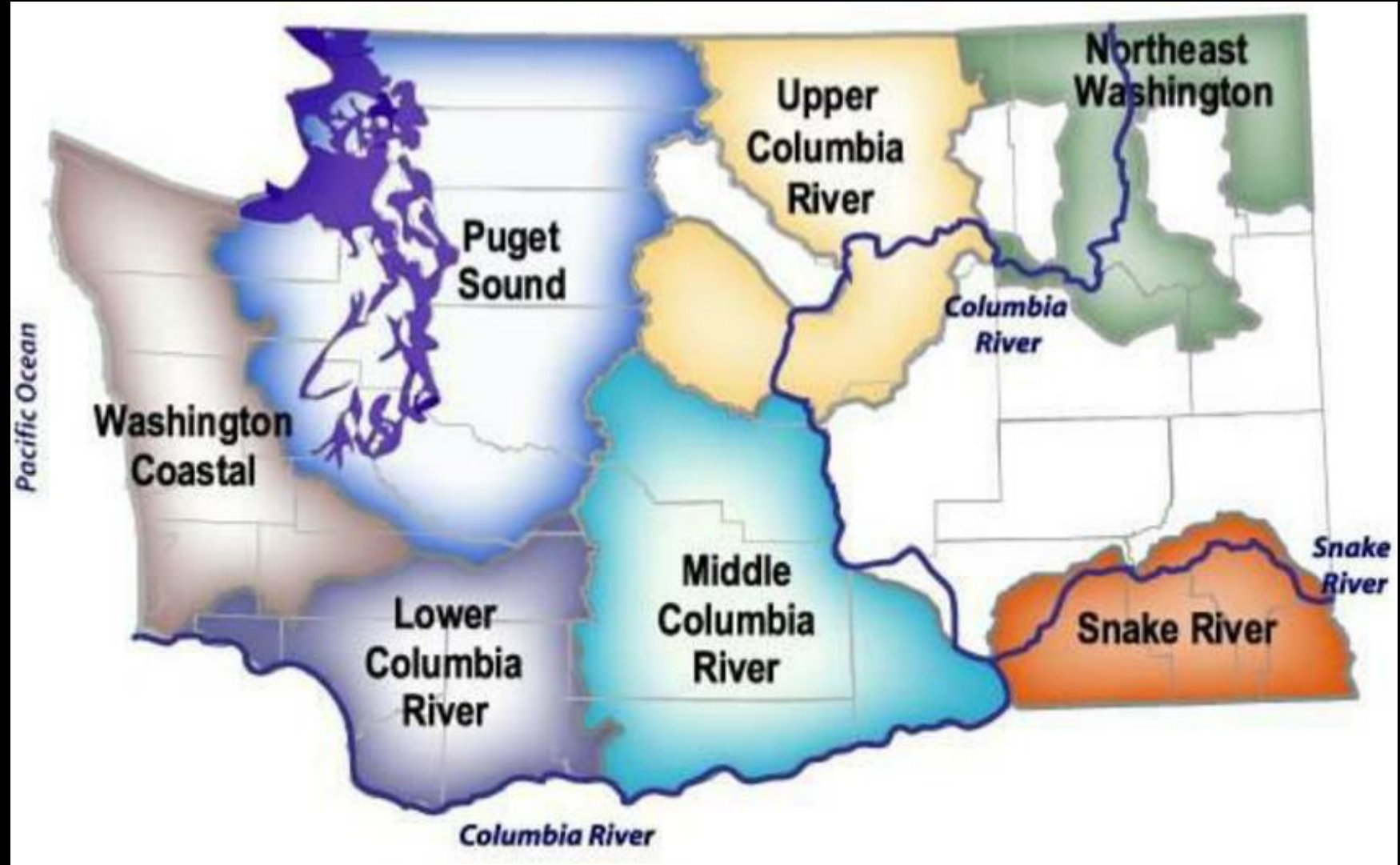
# OVERVIEW

- Statewide Salmon Recovery Structure
- Role of Regional Recovery Organizations
- Council of Regions
- Focus
- Recovery Approach
- Addressing Key Limiting Factors – All H + PI
- Coordination Opportunities
- Moving Recovery Forward & Questions



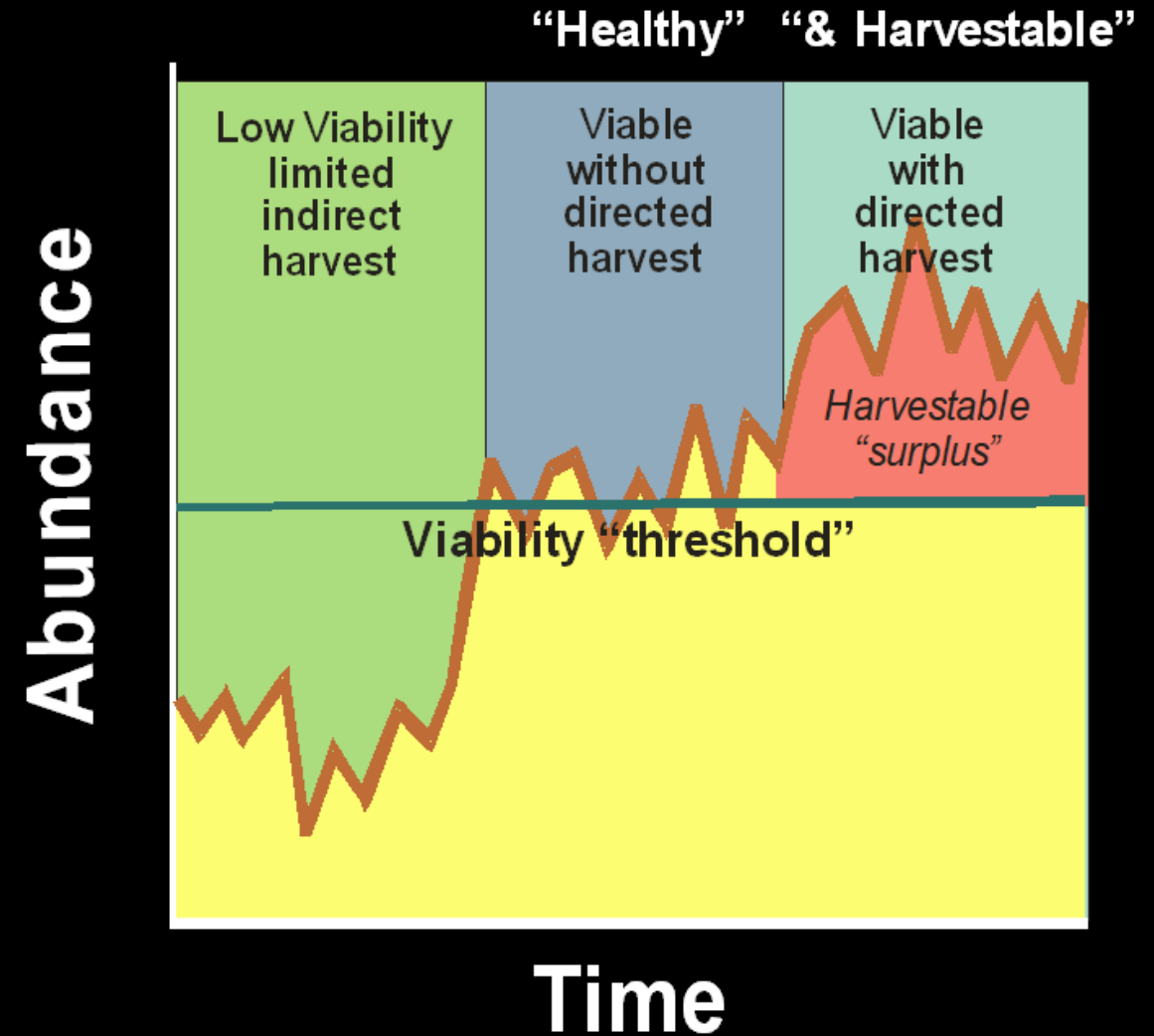


# SALMON RECOVERY STRUCTURE



# ROLE OF REGIONAL RECOVERY ORGANIZATIONS

- Serve as the foundation for statewide recovery network
- Facilitate preparation of recovery plans
- Oversee, guide, monitor and adaptively manage implementation
- Track and report progress





# OUR FOCUS

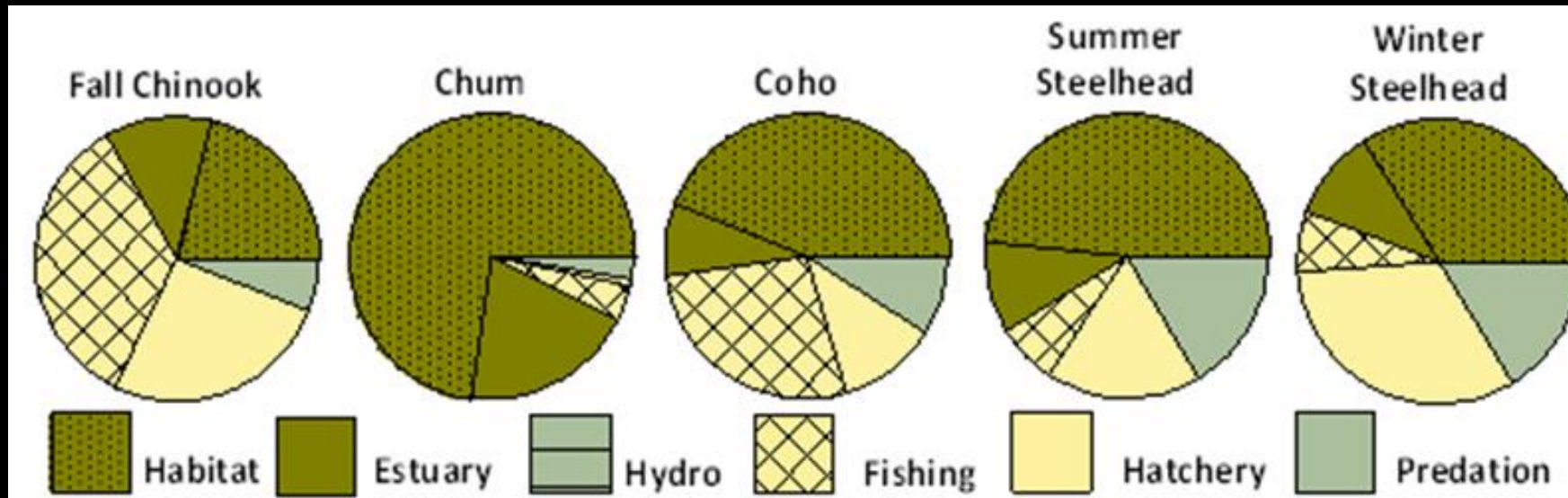
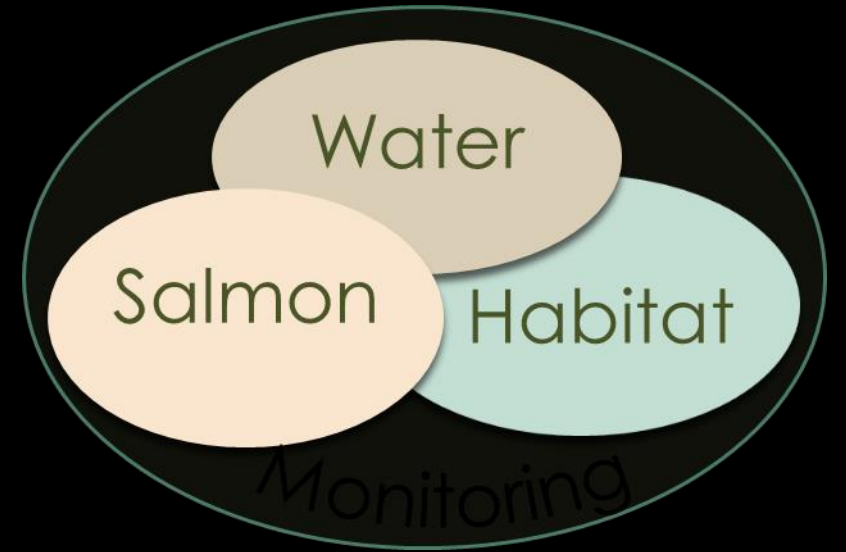
Washington State:

- 178 ESA-listed salmon and steelhead populations
- 38 ESA-listed Bull Trout populations
- 274 non-listed populations



# OUR APPROACH

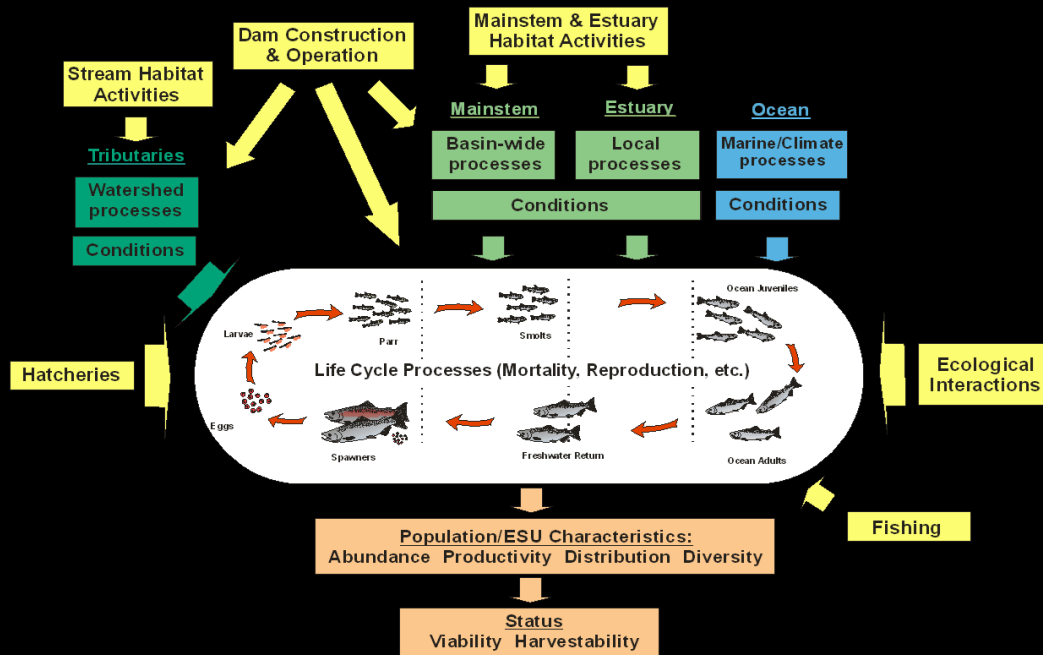
To challenge the status quo.  
*Extinction is NOT an Option*



- **Locally Driven**
- **Diverse and collaborative participation**
- **Integrated with other planning efforts**
- **WDFW is a key partner in plan development, implementation, and adaptive management**



# ADDRESSING KEY LIMITING FACTORS – ALL H + PI



- Harvest management
- Hatchery management
- Habitat protection/restoration
- Hydropower engagement
- Predation
- Invasives
- Science: research and monitoring





# COORDINATION OPPORTUNITIES

- Harvest Management
- Hatchery Management
- Habitat Management
- Hydropower
- Predation and Invasives
- Science: Research and Monitoring



# MOVING RECOVERY FORWARD QUESTIONS?

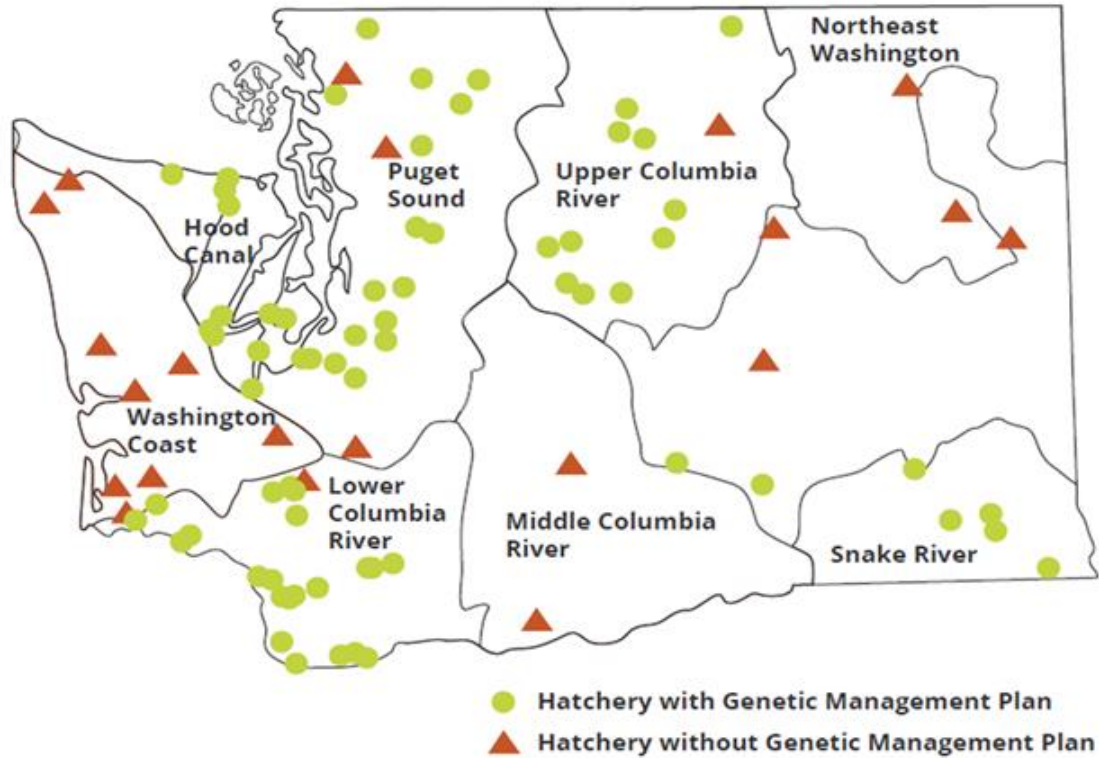


# HARVEST MANAGEMENT

Parental Escapement (% of full seeding)		Marine Survival Index (based on return of jacks per hatchery smolt)			
		Critical (<.08%)	Low (<.15%)	Medium (<.40%)	High (>.40%)
High	>0.75	<8%	<15%	<30%	<45%
Medium	0.75 to 0.50	<8%	<15%	<20%	<38%
Low	0.50 to 0.20	<8%	<15%	<15%	<25%
Very Low	0.20 to 0.10	<8%	<11%	<11%	<11%
Critical	<0.10	0-8%	0-8%	0-8%	0-8%



# HATCHERY MANAGEMENT



## Lower Cowlitz Fall Chinook

ESA Listing Status: Threatened

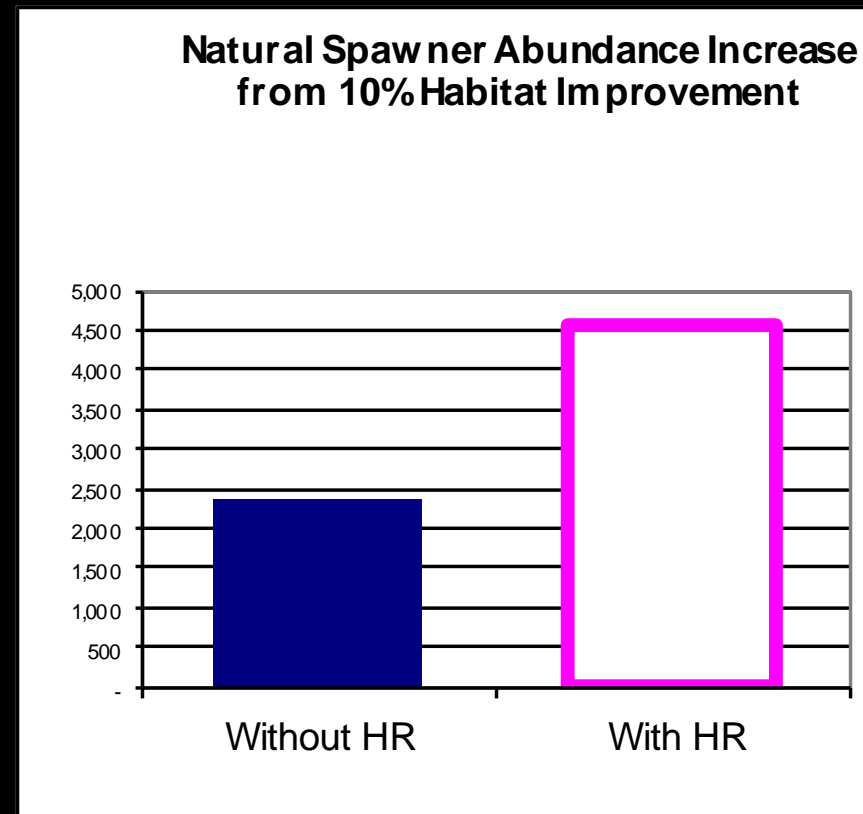
Population Designation: Contributing

Goals		Historical	Rec. Plan Baseline	Recovery Plan Minimum Viability Goal
Minimum Viability			Very Low	Medium+
Escapement	Natural Origin Fish	24,000	500	3,000
Gene Flow (pHOS or PNI)			PNI 0.10	PNI >0.50
Fitness			0.50	0.51
Harvest Rate	Hatchery Origin Fish		65%	63%
	Natural Origin Fish		65%	63%





# HABITAT MANAGEMENT



# HYDROPOWER

- Fish Passage
- Spill Management
- Reintroduction Efforts
- Instream Flow Maintenance
- Mitigation for Habitat Impacts

