

US EPA ARCHIVE DOCUMENT

WRIA 1 Salmonid Recovery Plan: Overview



Treva Coe, Nooksack Tribe
Alan Chapman, Lummi Nation

OUTLINE

- **Background**
- WRIA 1 Salmonid Recovery Plan
- Implementation Progress

Salmon Recovery in WRIA 1

1970-1989

- Co-managers initiate harvest, population, habitat studies
- Dramatic cutbacks in fisheries
- Hatchery programs
 - NF @ Kendall
 - SF @ Skookum

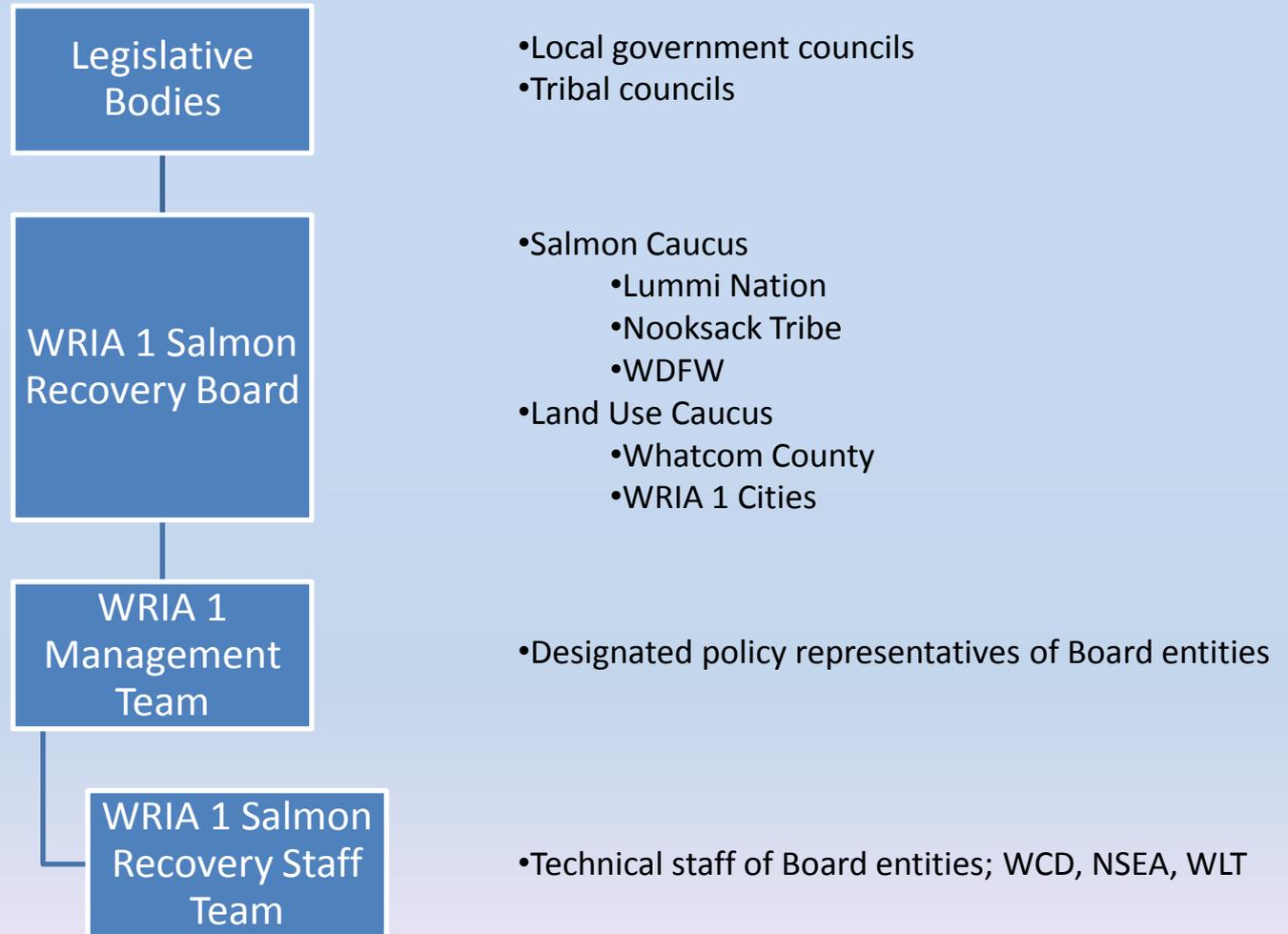
1990-1998

- *SASSI*: Nooksack native chinook critically depressed
- **Nooksack Recovery Team** formed
 - Riparian
 - Road abandonment
 - Limited wood placement
 - Acquisition
 - Nutrient
- **NEAT** formed
 - Initiated salmon recovery planning

1999-2005

- ESA listings
 - Puget Sound Chinook
 - Coastal/Puget Sound Bull trout
- WA State *Salmon Recovery Plan Act*
 - **SRFB** formed
 - Local project ranking
- **Shared Strategy for Puget Sound** formed
- **WRIA 1 Salmon Recovery Board** formed 2004
- *WRIA 1 Salmonid Recovery Plan* adopted

Organizational Structure



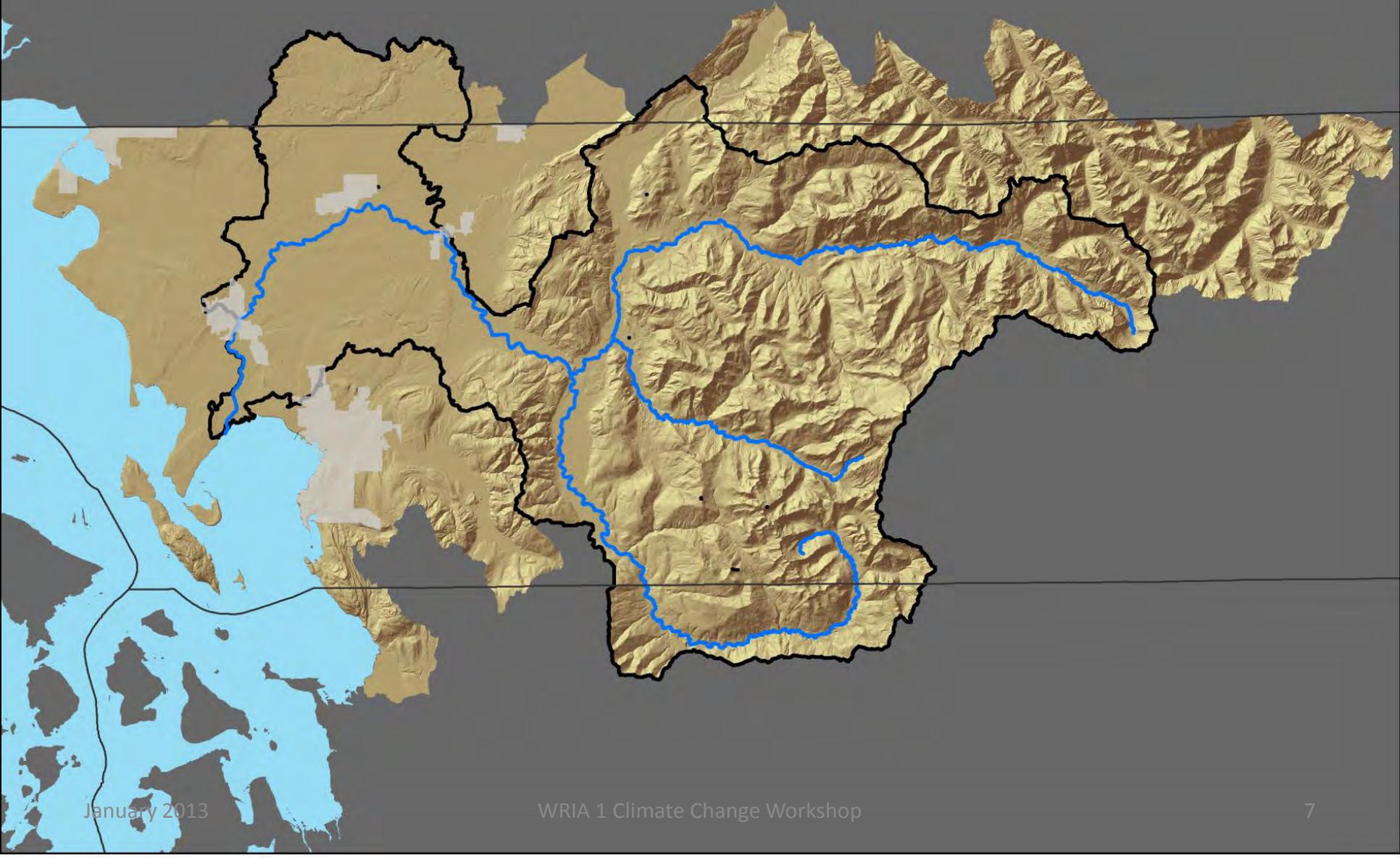
OUTLINE

- Background
- **WRIA 1 Salmonid Recovery Plan**
- Implementation Progress

WRIA 1 Salmonid Recovery Plan

- • Introduction and Scope
- • Goals
 - Background (watershed, chinook, bull trout)
- • Limiting Factors (4 H's)
 - Management Strategies and Actions (4 H's)
 - Implementation
 - Appendices
- • – Near Term (10-Year) Salmon Recovery Actions

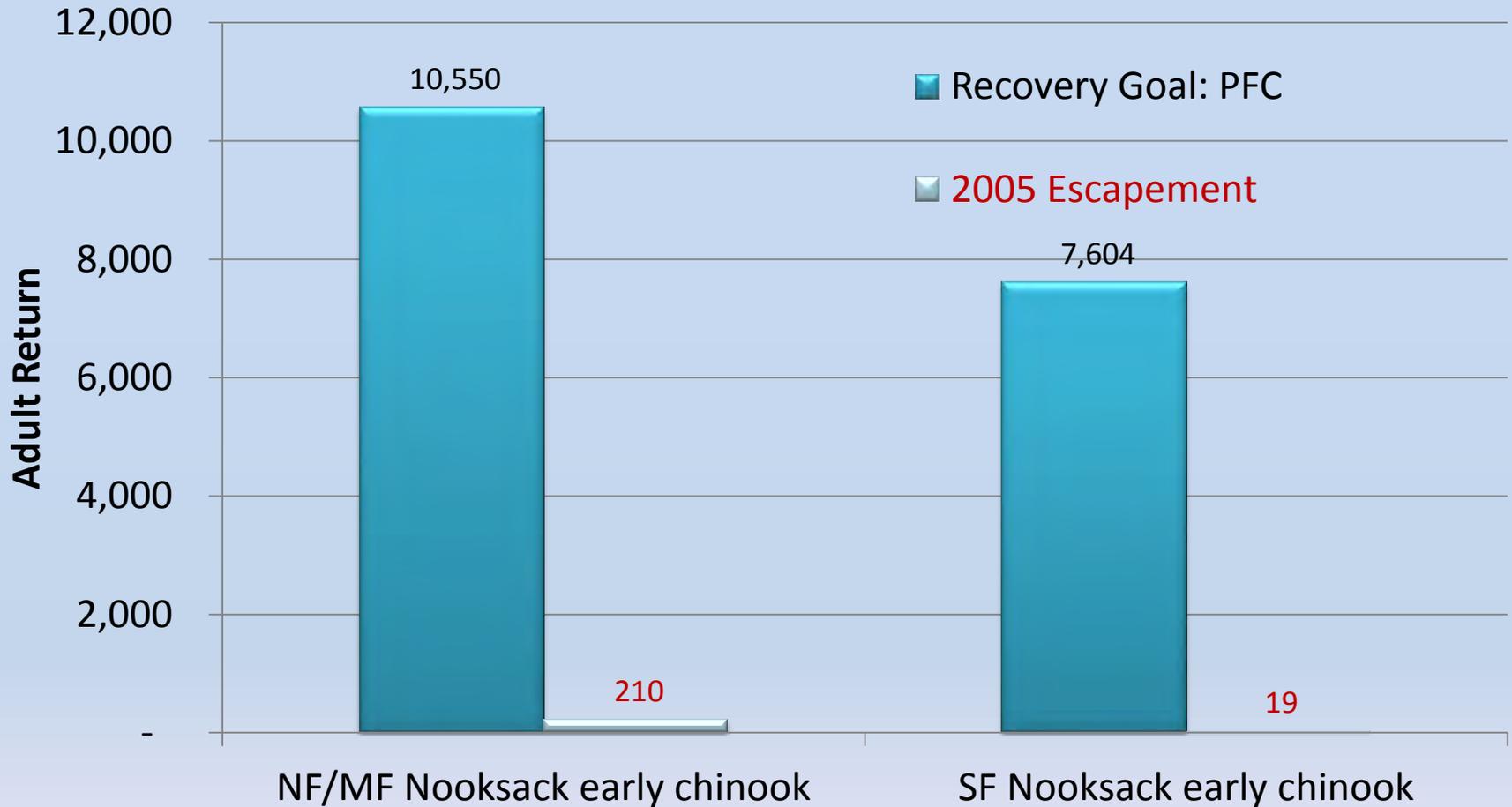
WRIA 1 Salmonid Recovery Plan: Scope



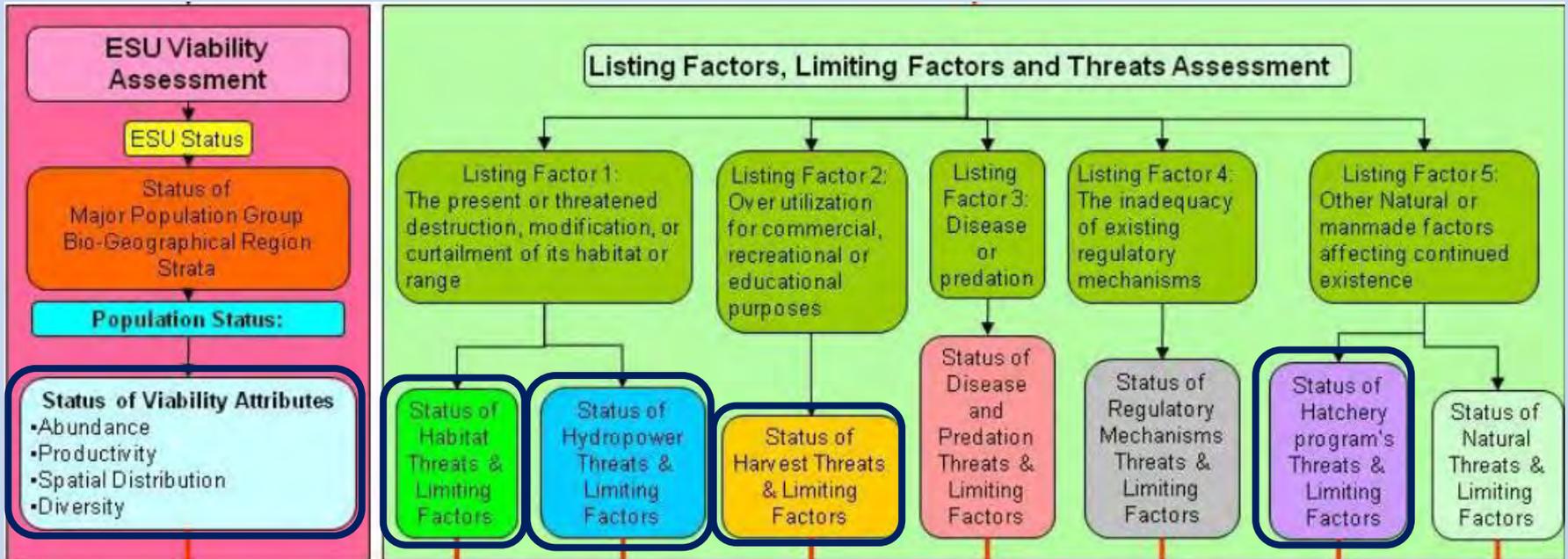
WRIA 1 Salmonid Recovery Plan: Goals

- Watershed vision:
...to recover self-sustaining salmonid runs to harvestable levels...
- Priorities
 1. Focus on and prioritize SF and NF/MF Nooksack early chinook
 2. Address fall chinook through adaptive management
 3. Facilitate bull trout recovery by removing fish passage barriers
 4. Address other salmonids by
 1. Protection (regulatory, incentive)
 2. Support voluntary actions without diverting from chinook

Wild Chinook Recovery Goals



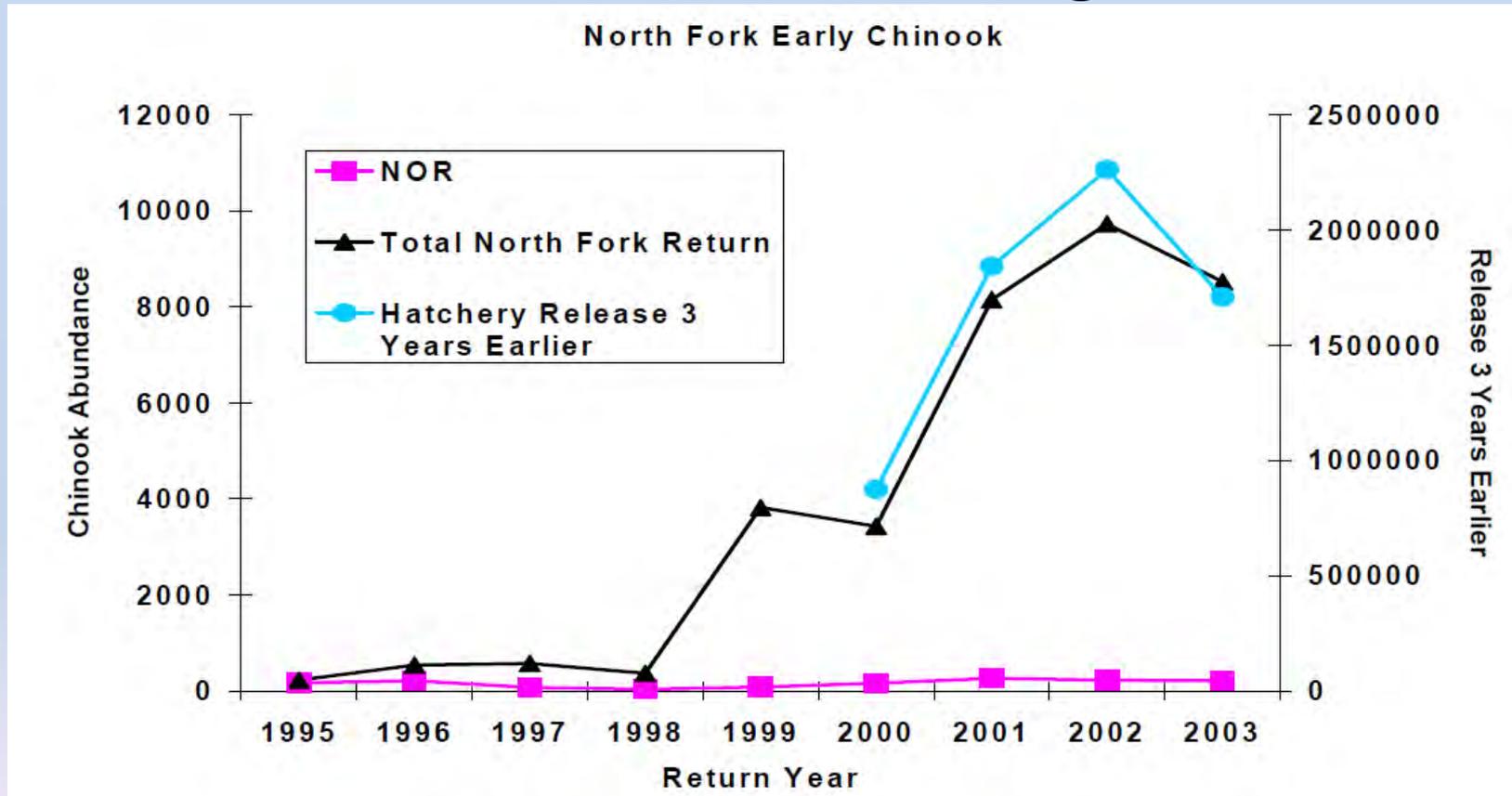
Limiting Factors



Source: NOAA

Limiting Factors: Harvest

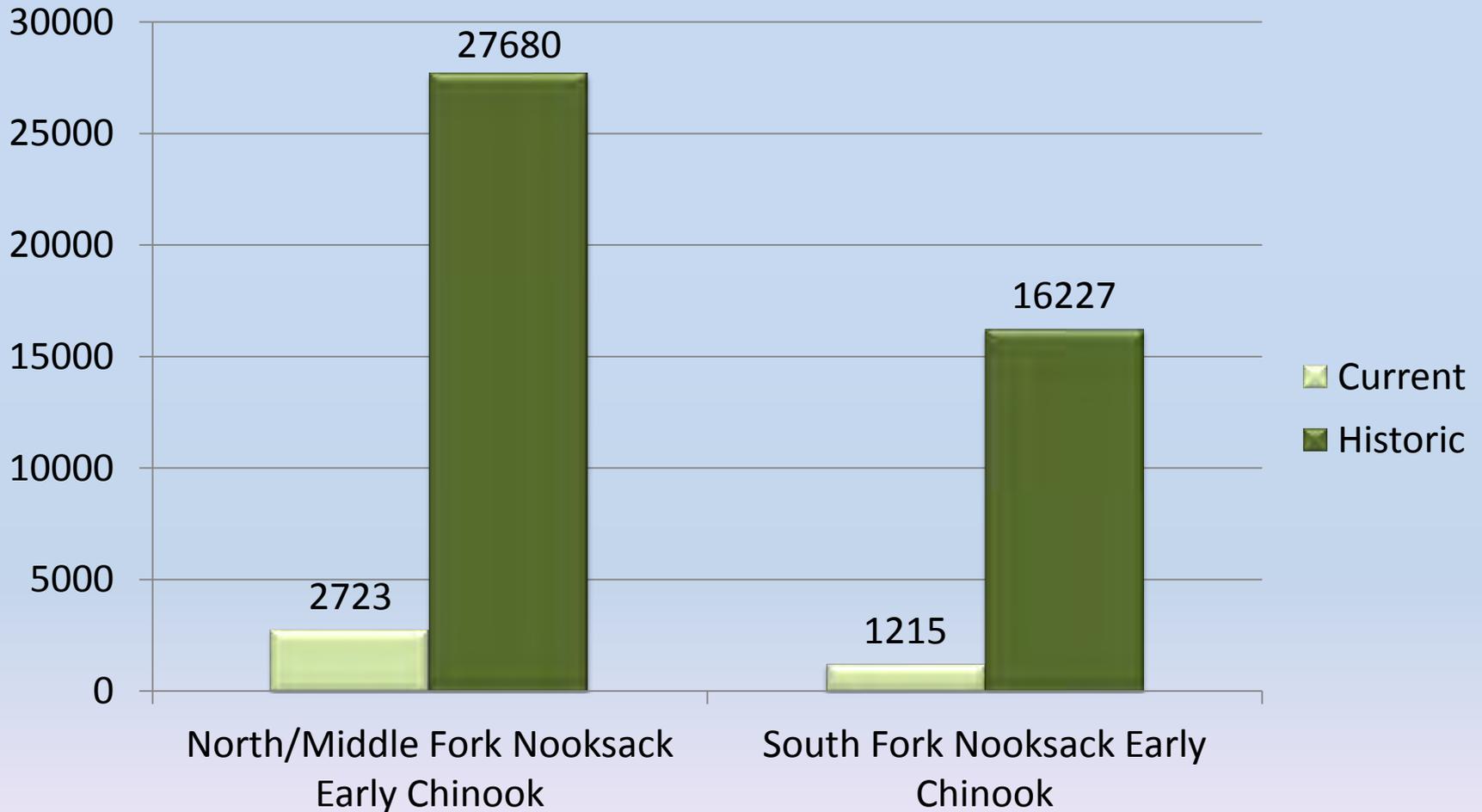
- Southern US harvest not limiting



Limiting Factors: Hatcheries

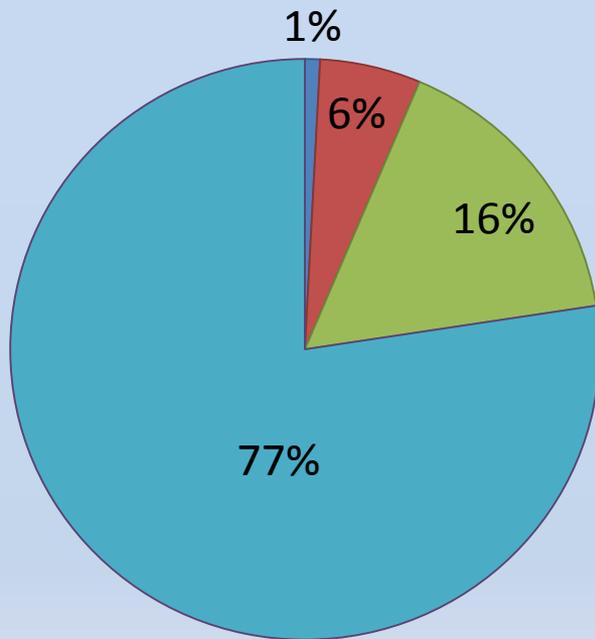
- Genetic diversity impacts
 - Nooksack chinook genetically divergent
 - Moderate: straying into SF; limited broodstock NF/MF
- Abundance impacts
 - High, positive impact on abundance (Kendall)
- Other programs
 - Co-occurrence limited; coho/fall production slashed

Limiting Factors: Loss of Habitat Capacity

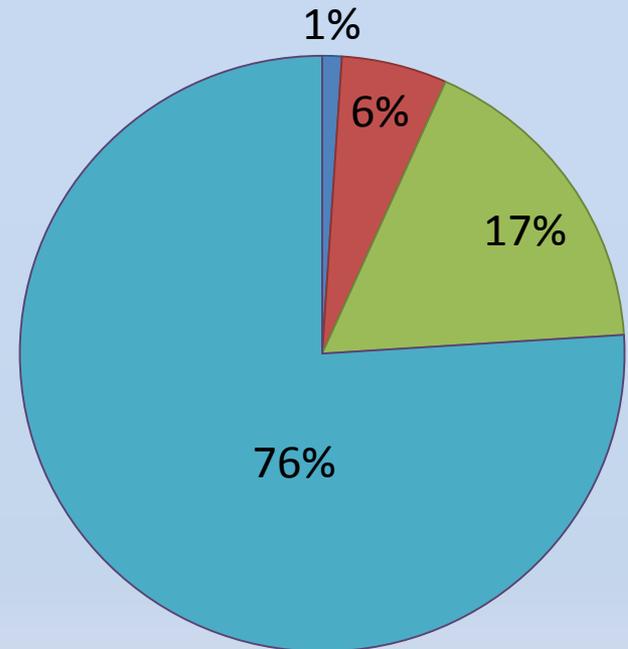


Importance for Restoration

NF/MF Nooksack Chinook



SF Nooksack Chinook



- Nearshore
- Estuary
- Lower Nooksack
- Forks

* As determined by estimated change in abundance with restoration to PFC.

Limiting Factors: Habitat

- Nooksack chinook most limited by habitat
 - North and Middle Forks
 - Fish passage barriers: MF Diversion dam, Canyon Creek
 - Channel instability that scours redds
 - Loss of stable side channel habitat
 - High levels of fine sediments
 - South Fork
 - Lack of deep holding pools with cover
 - Low habitat diversity
 - High levels of fine sediments
 - High temperatures
 - Mainstem Nooksack
 - Low habitat diversity and loss of floodplain rearing habitat

10-Year Action Plan

1. Restore passage at major chinook barriers
2. Restore freshwater early chinook habitat
3. Integrate salmon recovery and floodplain mgmt
4. Integrate salmon recovery into regulatory updates
5. Establish a South Fork rescue program
6. Establish new instream flows in WRIA 1
7. Protect and restore estuarine and nearshore areas
8. Protect and restore lowland tribs
9. *Continue to manage harvest and hatcheries to not impede recovery*

OUTLINE

- Background
- WRIA 1 Salmonid Recovery Plan
- **Implementation Progress**

Progress: Assessment/planning





Progress: Chinook Instream Projects

Progress: Chinook Habitat

- Detailed habitat assessment and restoration planning
 - Nooksack River Forks (78 miles)
- Instream projects implemented
 - 25 projects
 - 227 log jams (177 ELJ's)
- Priority areas acquired (HMZ+300')
 - 758 acres
- Passage restored
 - Canyon Creek
 - MF Diversion Dam (design work complete)

Progress: Other

- Harvest
 - Within Chinook Comp Plan limits
- Hatcheries
 - South Fork Nooksack chinook program established in 2006
 - Cutbacks, shifts in hatchery releases
- Land use
 - Whatcom SMP/CAO updated; cities in progress
- Monitoring
 - Status and trends of chinook, (habitat, water quality)
 - Hatchery releases otolith-marked, monitored
 - Harvest monitored by catch area, stock origin
 - Instream habitat project effectiveness: SF, (NF/MF)

| Year | Captive Brood Progeny Released in South Fork |
|------|--|
| 2011 | 1,900 |
| 2012 | 32,900 |
| 2013 | ~300,000 (anticipated) |

QUESTIONS??



Source: Pictometry via Bing