



Next Steps for Steelhead Recovery Planning in the Yakima Basin



Presented by Alex Conley

Executive Director

Yakima Basin Fish and Wildlife Recovery Board

Our Mission

To conserve and restore sustainable and harvestable populations of native fish and wildlife species in close partnership with the local communities of the Yakima River Basin.



What is the Yakima Basin Fish & Wildlife Recovery Board?



An independent Non-Profit corporation
Led by Tribal, County & City Governments

Uses consensus decision making

Runs the local SRFB Grant Review

Funded with a mix of state and federal \$s

One of 7 state-recognized Regional Salmon
Recovery Organizations

COULDN'T EXIST WITHOUT OUR PARTNERS!

2009 YAKIMA STEELHEAD RECOVERY PLAN

Extracted from the
2005 Yakima Subbasin Salmon Recovery Plan

With Updates

Final
August 2009



Ancient History...

- Endangered Species Act requires a recovery plan for each listed species
- Mid-Columbia Steelhead were listed as threatened in 1999
- NOAA Fisheries and the State of Washington empowered local partners to write salmon recovery plans
- In 2005-2008, YBFWRB convened partners to write the Yakima Steelhead Recovery Plan
- In 2009, NOAA formally adopted our plan as a chapter in the Middle Columbia Steelhead Recovery Plan

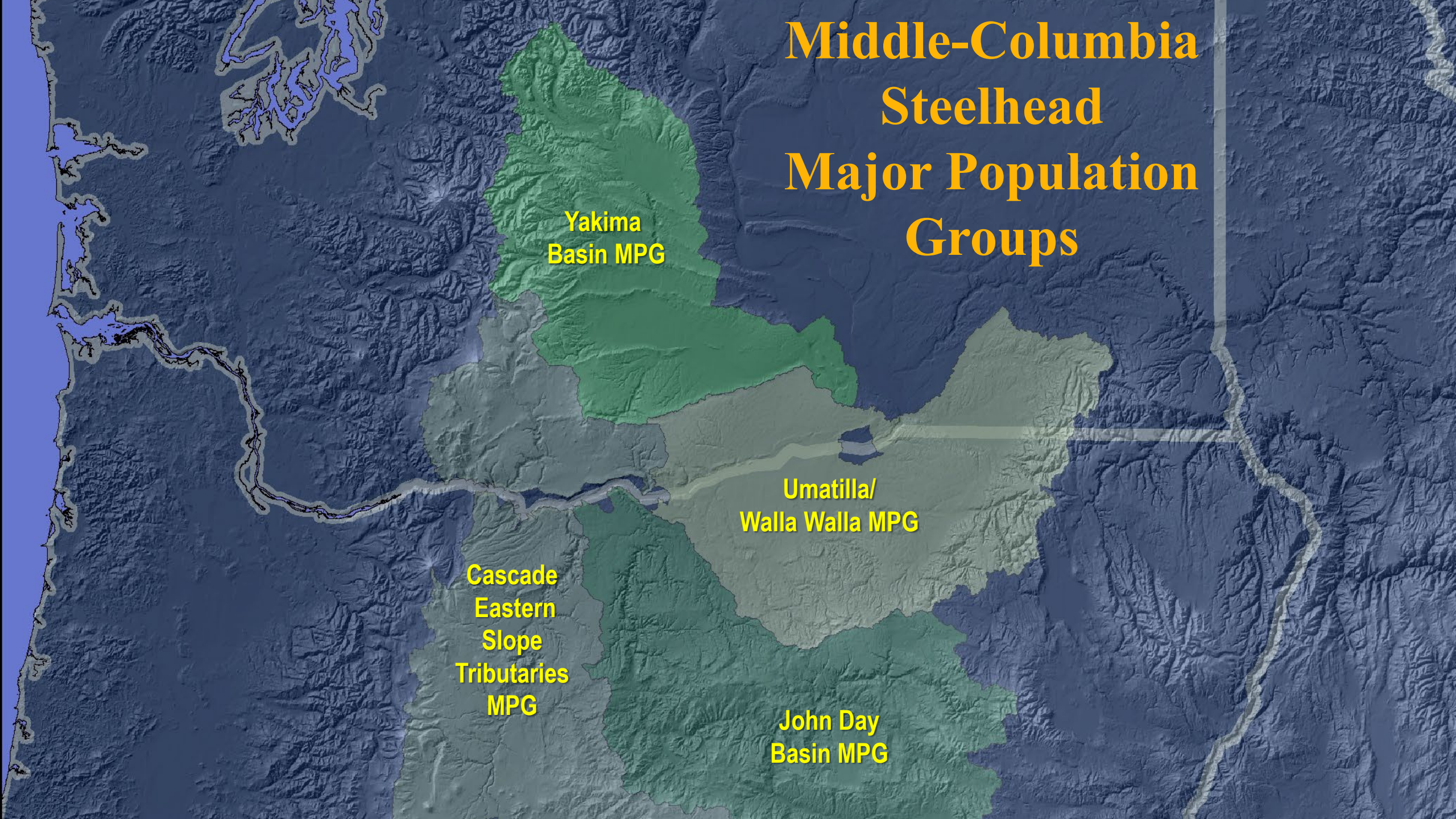
Middle-Columbia Steelhead Major Population Groups

Yakima
Basin MPG

Umatilla/
Walla Walla MPG

Cascade
Eastern
Slope
Tributaries
MPG

John Day
Basin MPG

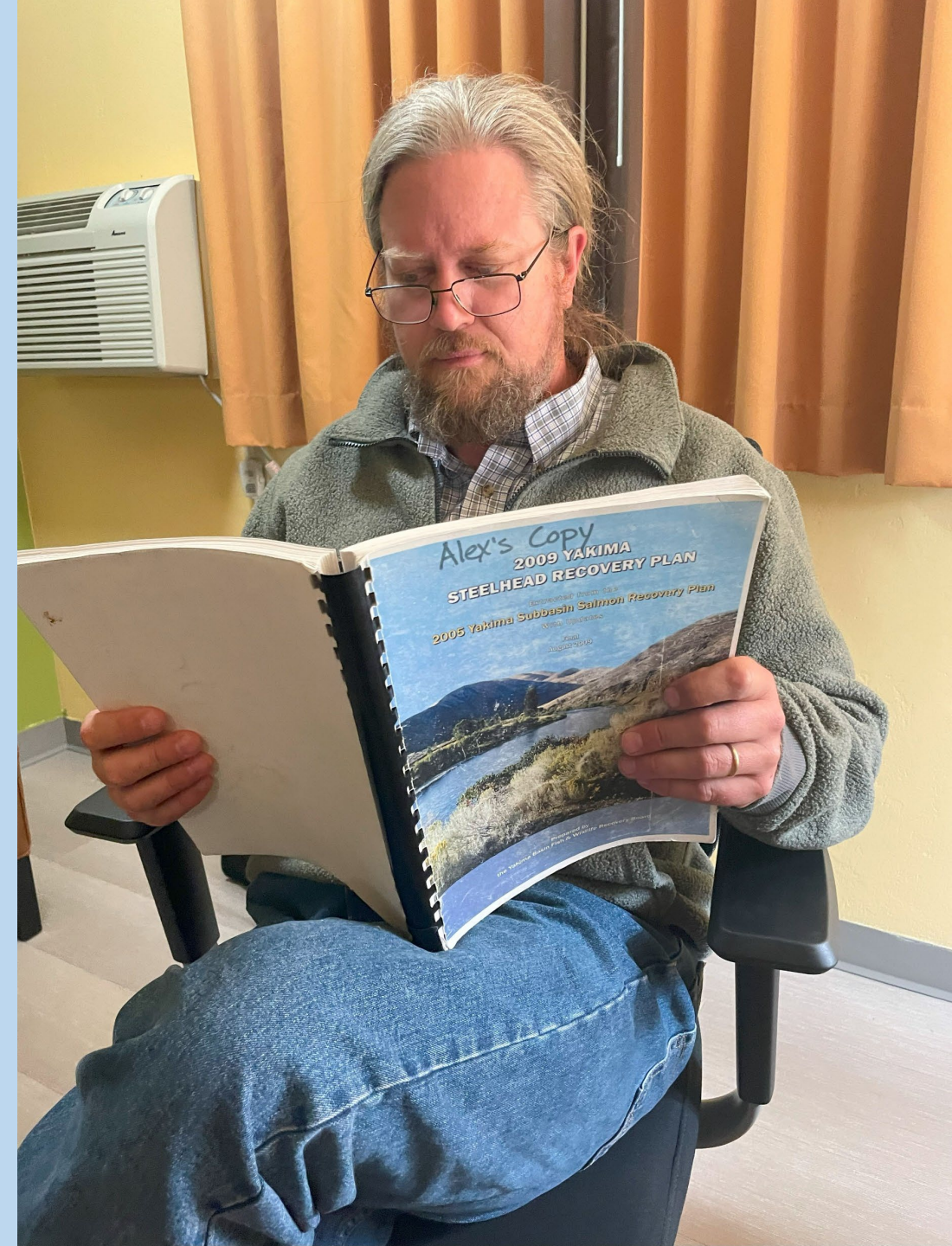


What Does the Plan Include?

- Reviews biology/status of Yakima steelhead populations (Ch 2)
- Summarizes threats and limiting factors (Ch 3)
- Sets measurable goals and strategies for recovery (Ch 4)
- Identifies specific actions (Ch 5)
- Discusses how to implement & adaptively manage the Plan (Ch 6)
- Identifies uncertainties and monitoring needs (Ch 7)
- Identifies outreach needs (Ch 8)

Uses of the Plan

- Point to needed actions
- Justify requests for funding
- Provide goals to measure progress
- Highlight critical questions to answer
- Inform other plans (e.g. YBIP)
- Others?



Implementing the Plan

Impressive progress
implementing recovery
actions:

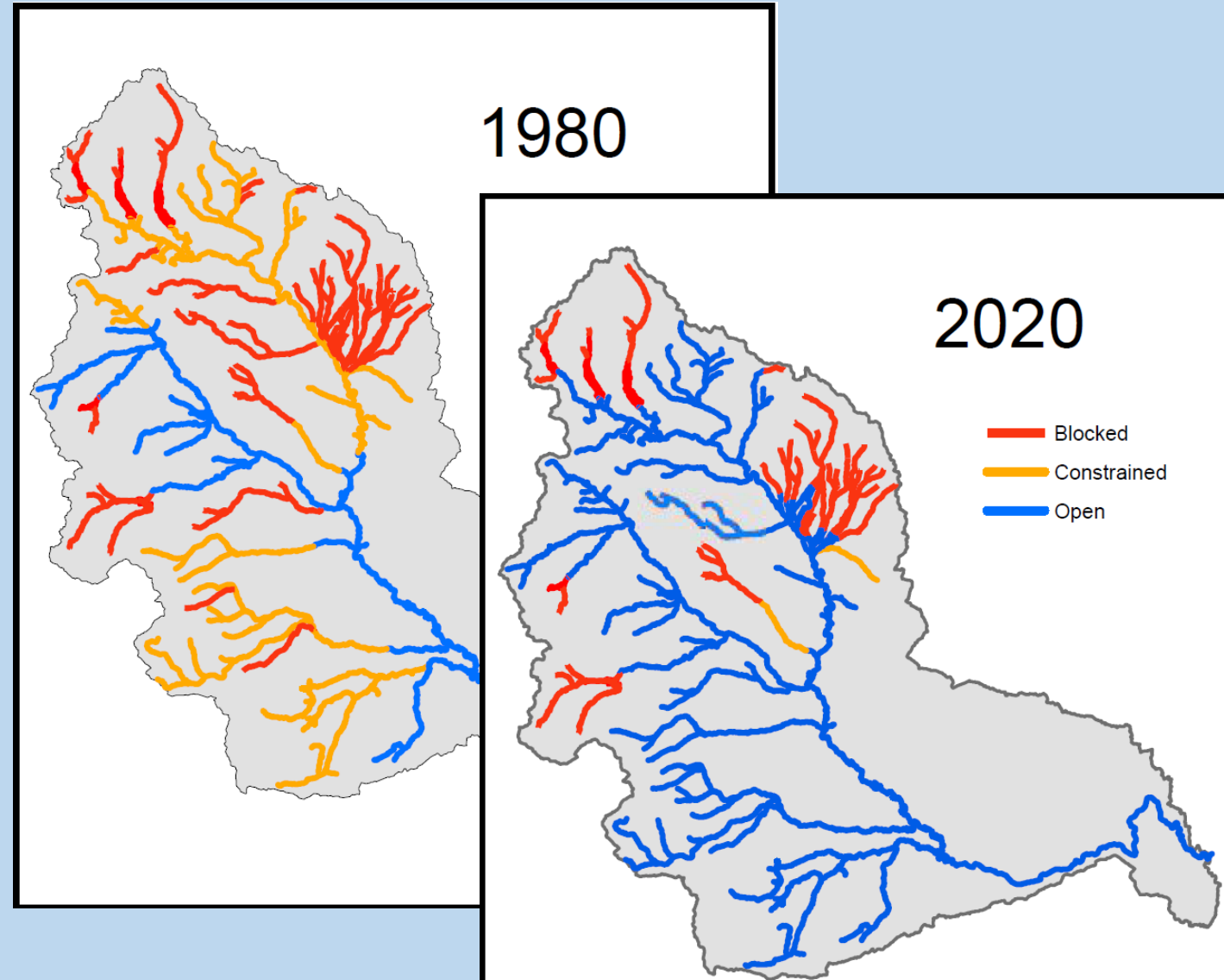
- Incredible partnerships
- Significantly increased funding
- Lots of great projects completed
- Many plan actions done or nearing completion



Implementing the Plan

Some threats much reduced:

- Access much better
- Fish screening in place
- Improved flow in key streams
- Fisheries well regulated
- Reduced hatchery strays
- Improved forest management



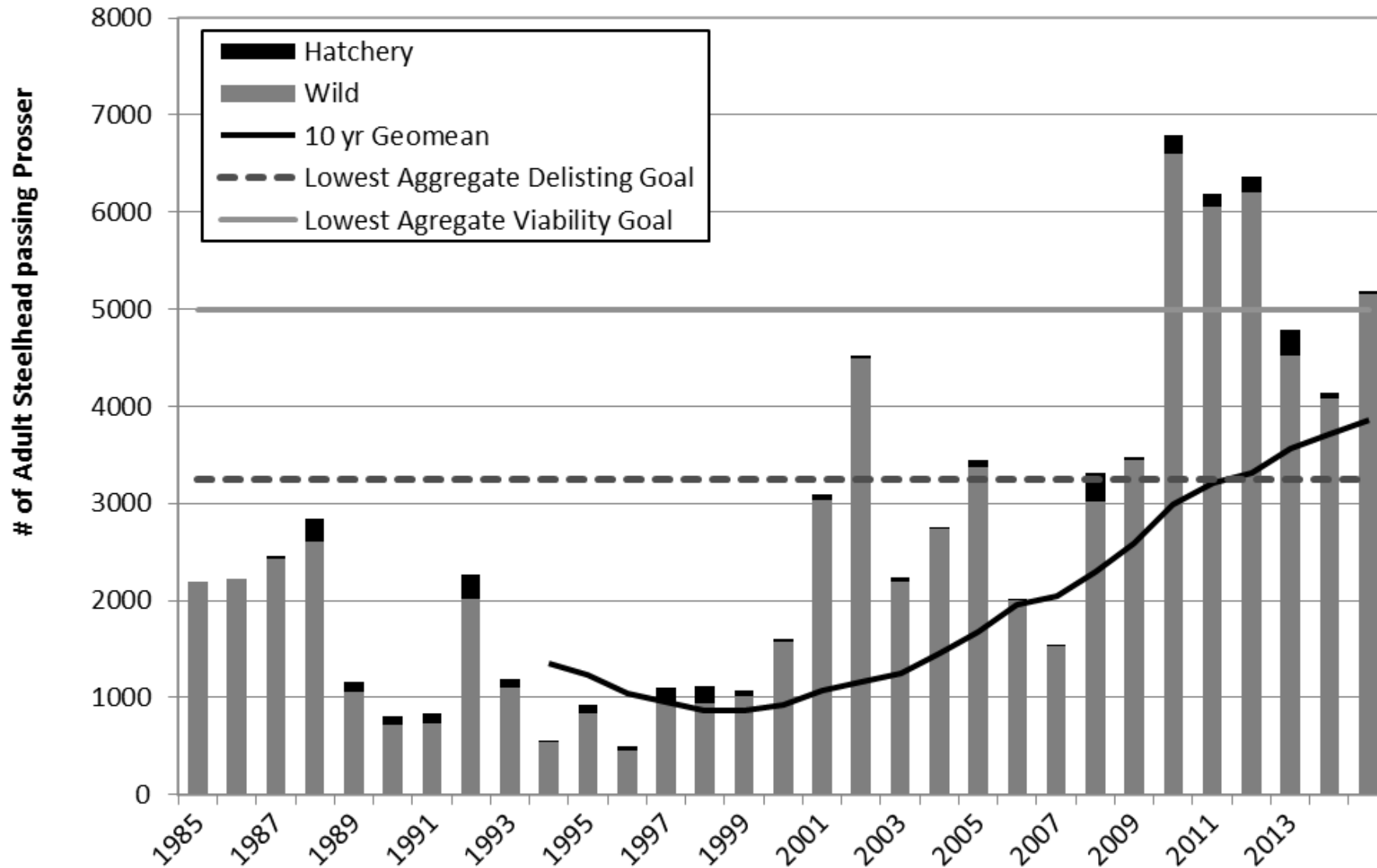
Implementing the Plan

New science = new knowledge

- 2012 Steelhead Monitoring Plan
- Steelhead VSP project
- Resident/Anadromous Study
- Smolt Survival Studies
 - Mainstem Yakima*
 - Toppenish Creek*
- Adult tracking in the Columbia
- Development of Life Cycle Models

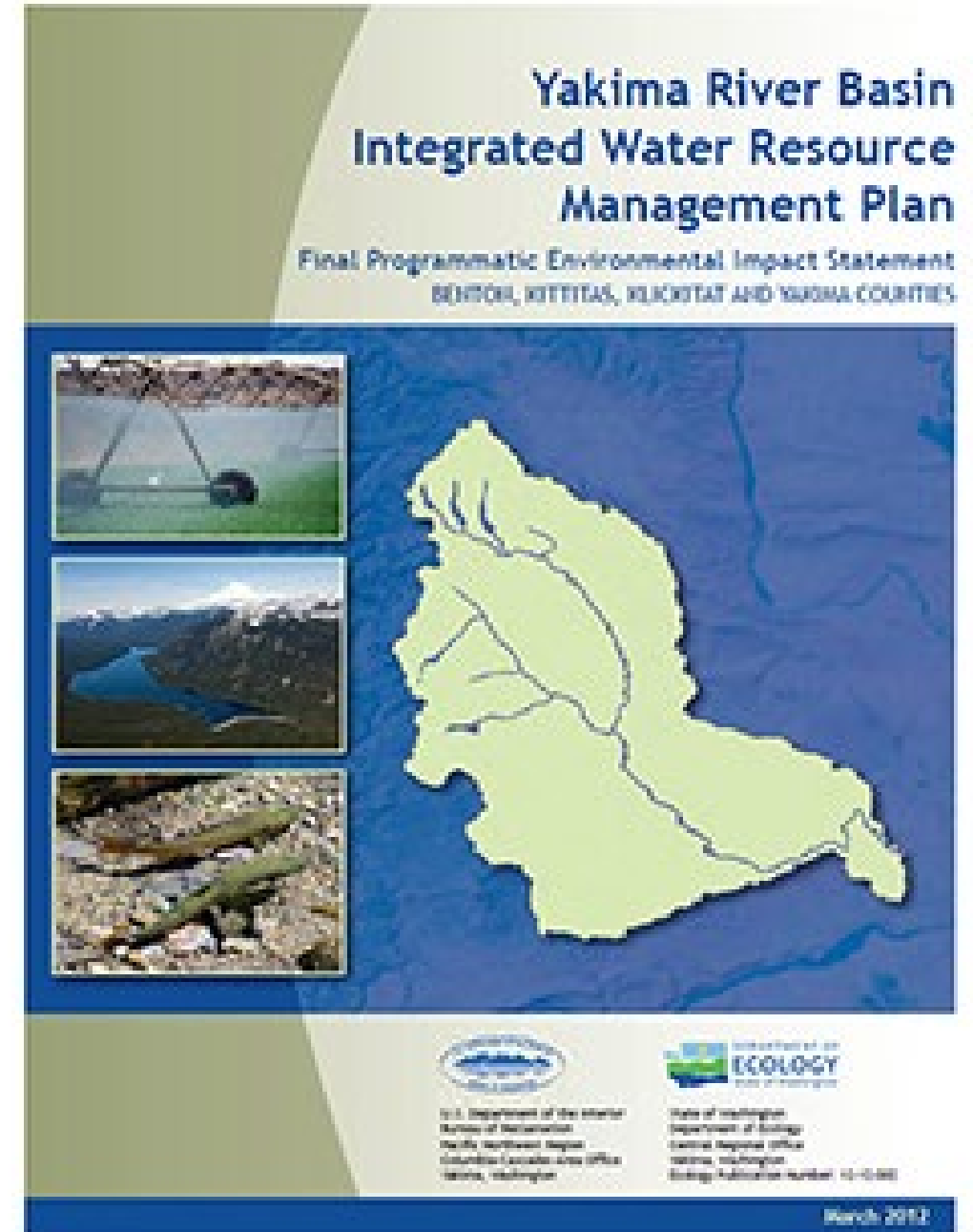


Implementing the Plan

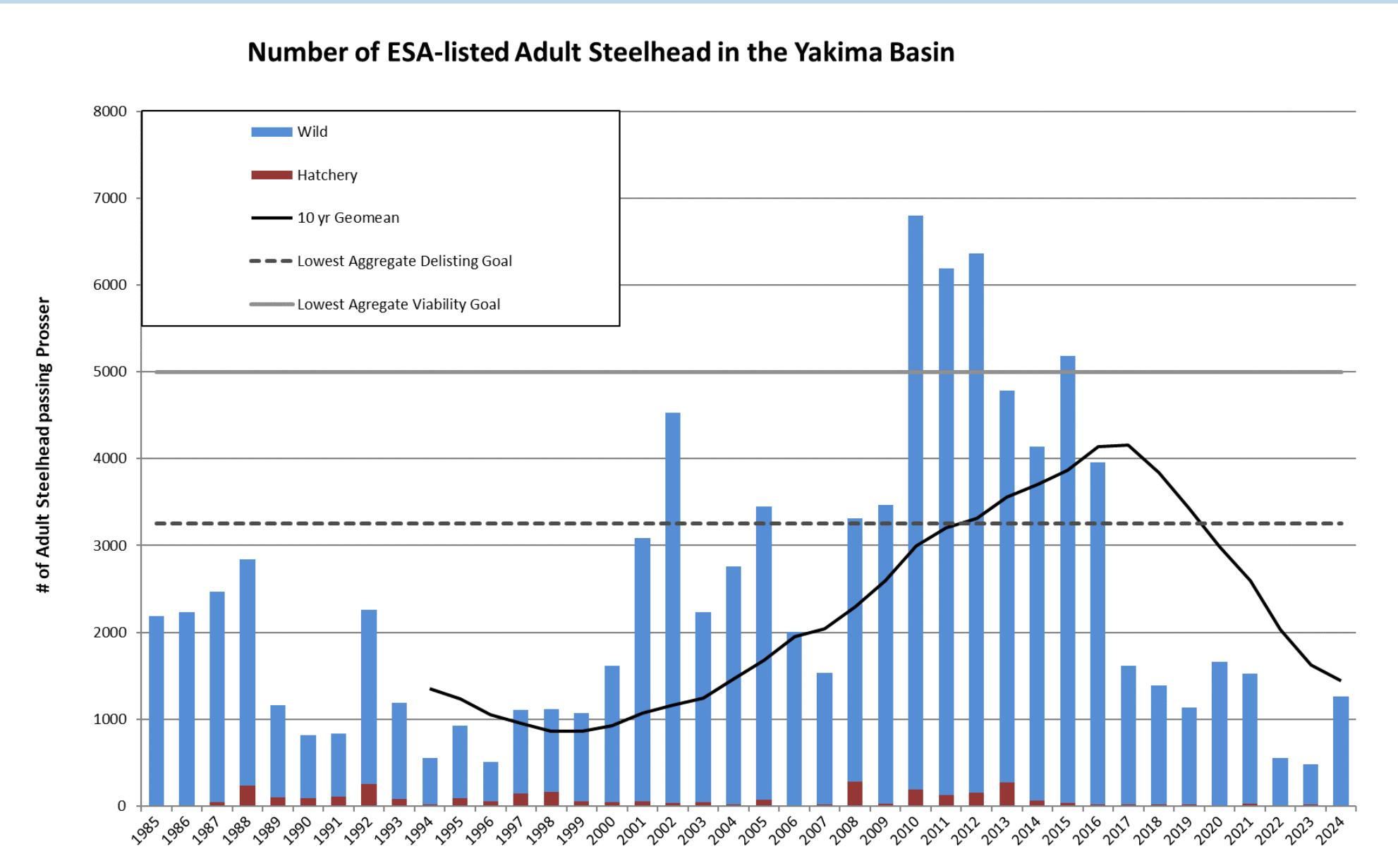


Changing Foci

- All in on Yakima Integrated Plan Development; Steelhead plan adopted as guide for habitat element
- YN Accords and changing role of BPA in the Basin
- Recovery Board focus on developing and implementing the Yakima Bull Trout Action Plan
- Less NOAA focus on recovery plans & coordination
- General emphasis on implementation over new plans
- COVID....
- Recovery Board focus on expanding SRFB programs



The Good Times Don't Last....

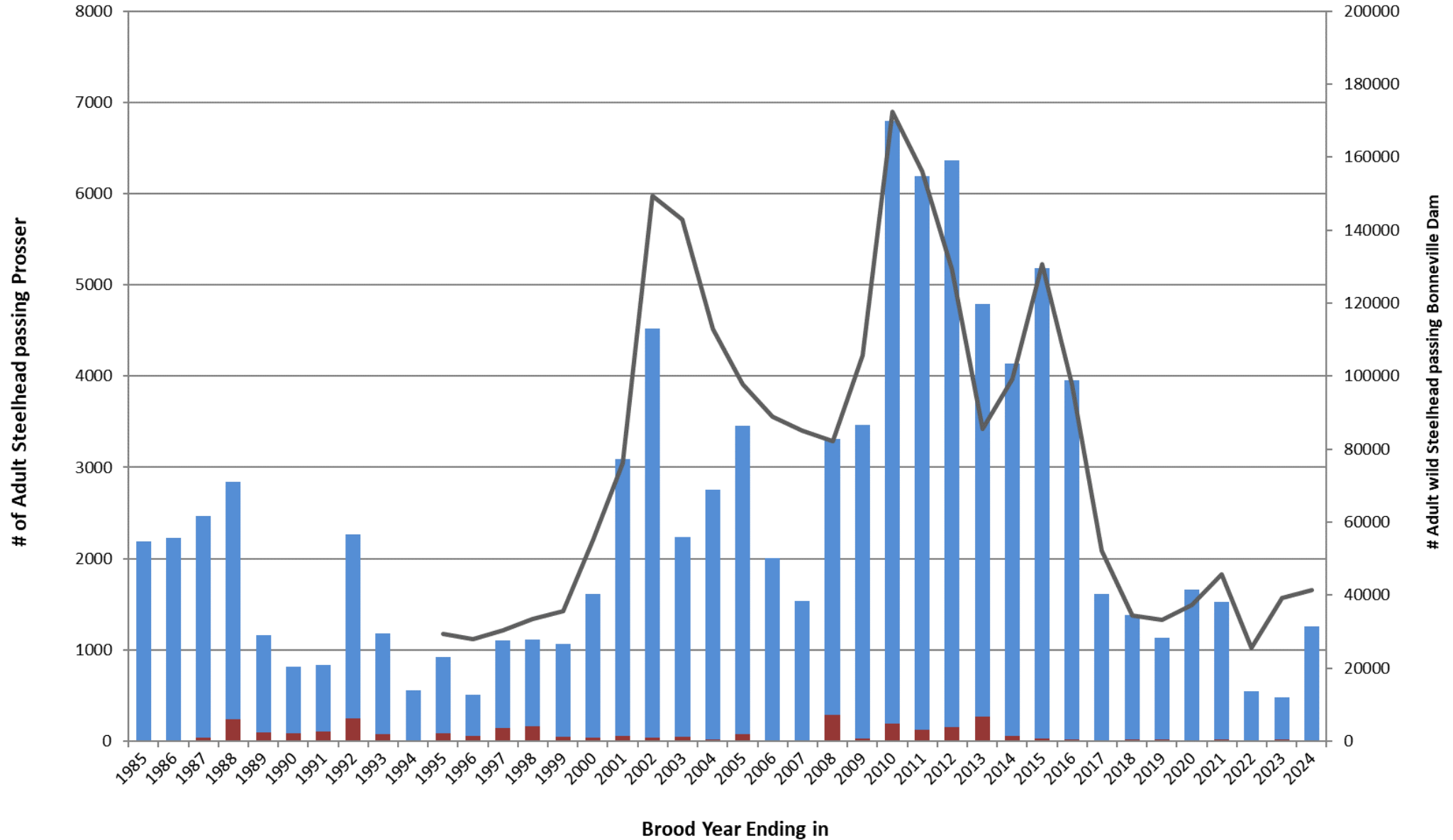


Out of Basin Issues?

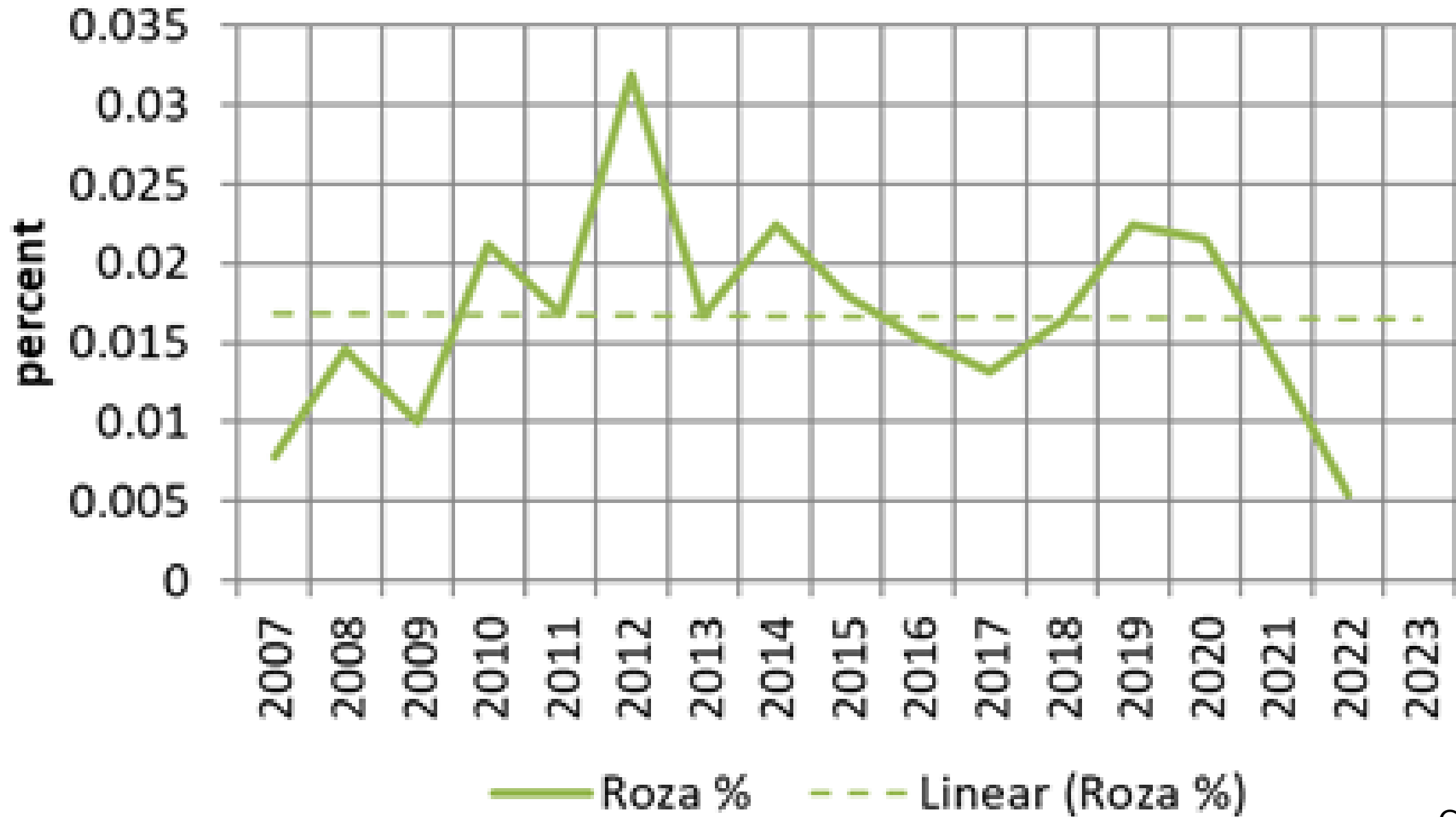
- *Poor ocean conditions*
- *Smolt survival as fish move through Columbia River?*
- *Marine mammal predation?*
- *Loosing more adults than expected in the Columbia above Bonneville?*



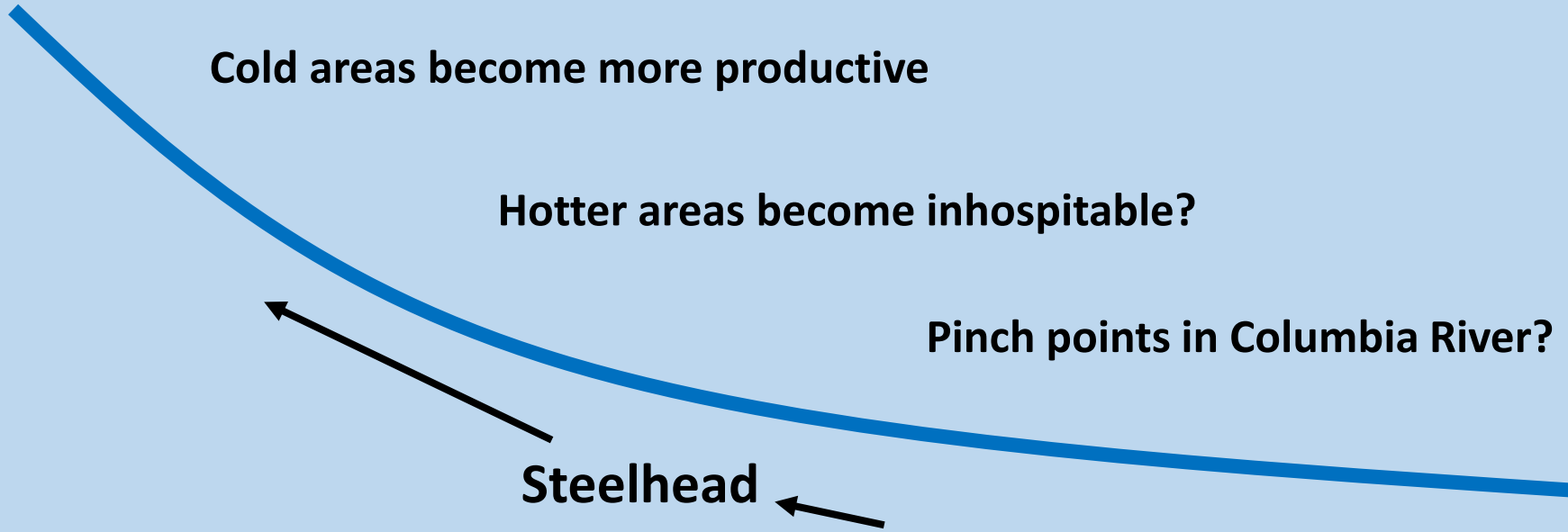
Comparing Bonneville and Yakima Basin Counts



Prosser Steelhead Run as % of Bonneville Wild A Run



Climate Change?



Lower Basin Issues

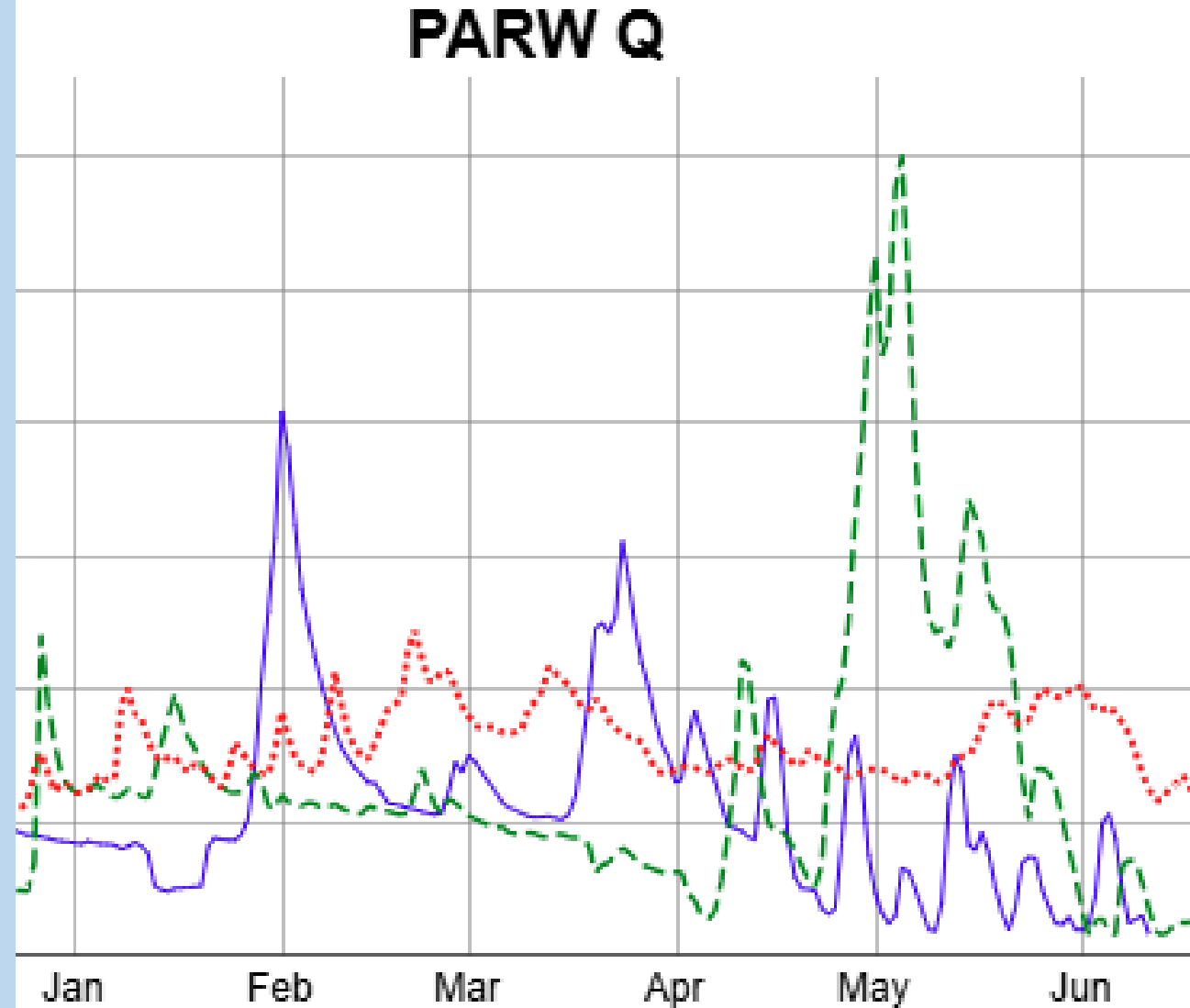
- Poor smolt survival in lower end of tribs and mainstem Yakima
- Later smolt departures?
 - 38% leaving in April or earlier
 - 42% in May (the cusp month)
 - 21% June or later...
- Adult migration issues?



Lower Basin Actions

- *Improved pulse flow management*
- *Focus on lower basin facility improvements*
- *YN focus on screening in lower Toppenish Creek*
- *Increased attention to predation*
- *Future storage for fish releases?*

Lots of Progress, but still many uncertainties to resolve!



Current Data Graph

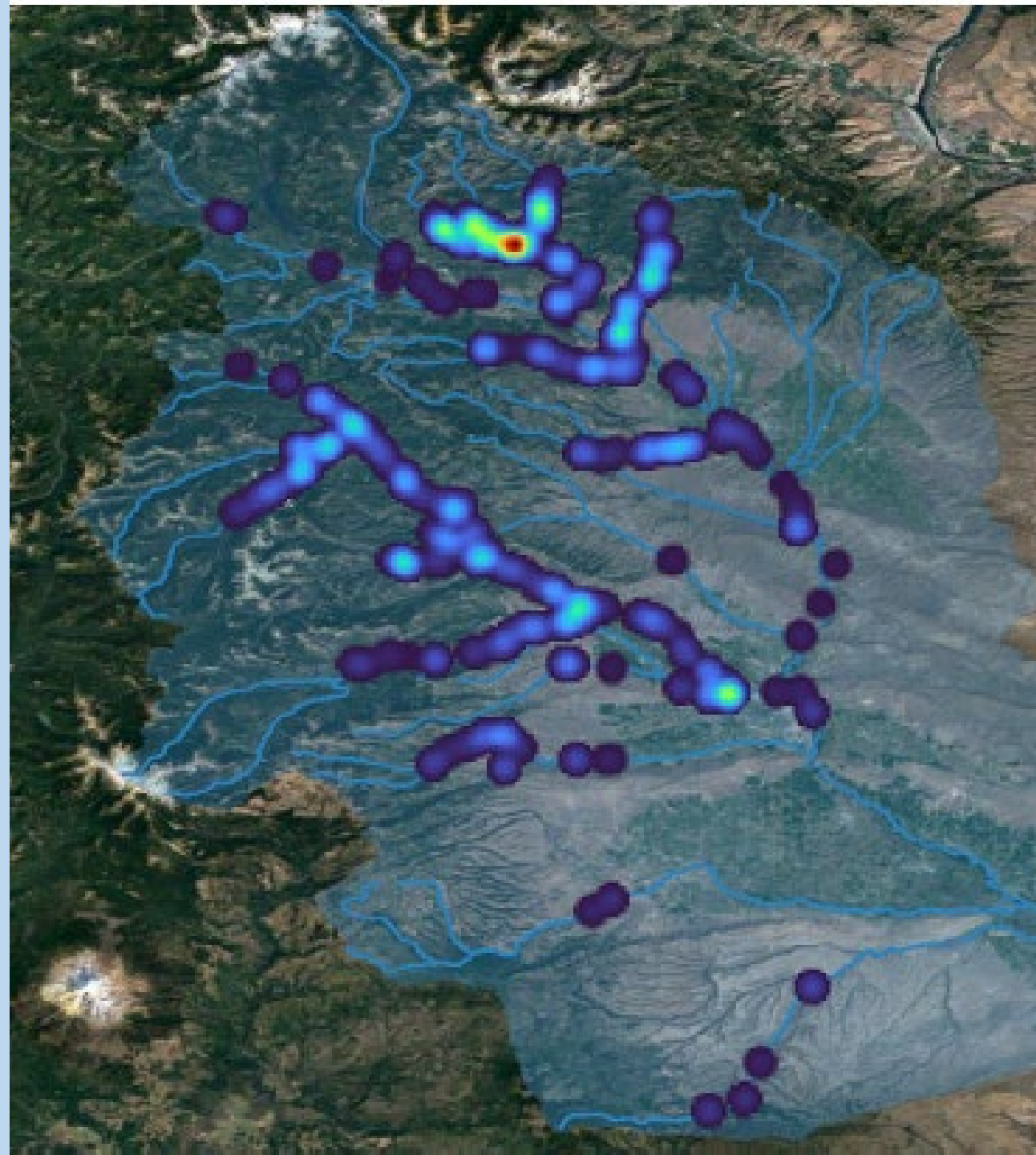
PROVISIONAL DATA - Subject to change

Upstream Capacity?

- Specific tributaries and mainstem reaches support the vast majority of production
- Small streams support limited production
- Fish densities and primary production vary widely between streams
- How productivity is allocated between steelhead production, resident *O. mykiss* and other species also varies widely
- Still unclear which habitat factors drive increased steelhead production

NEED TO CRACK THE GOLDILOCKS PUZZLE....

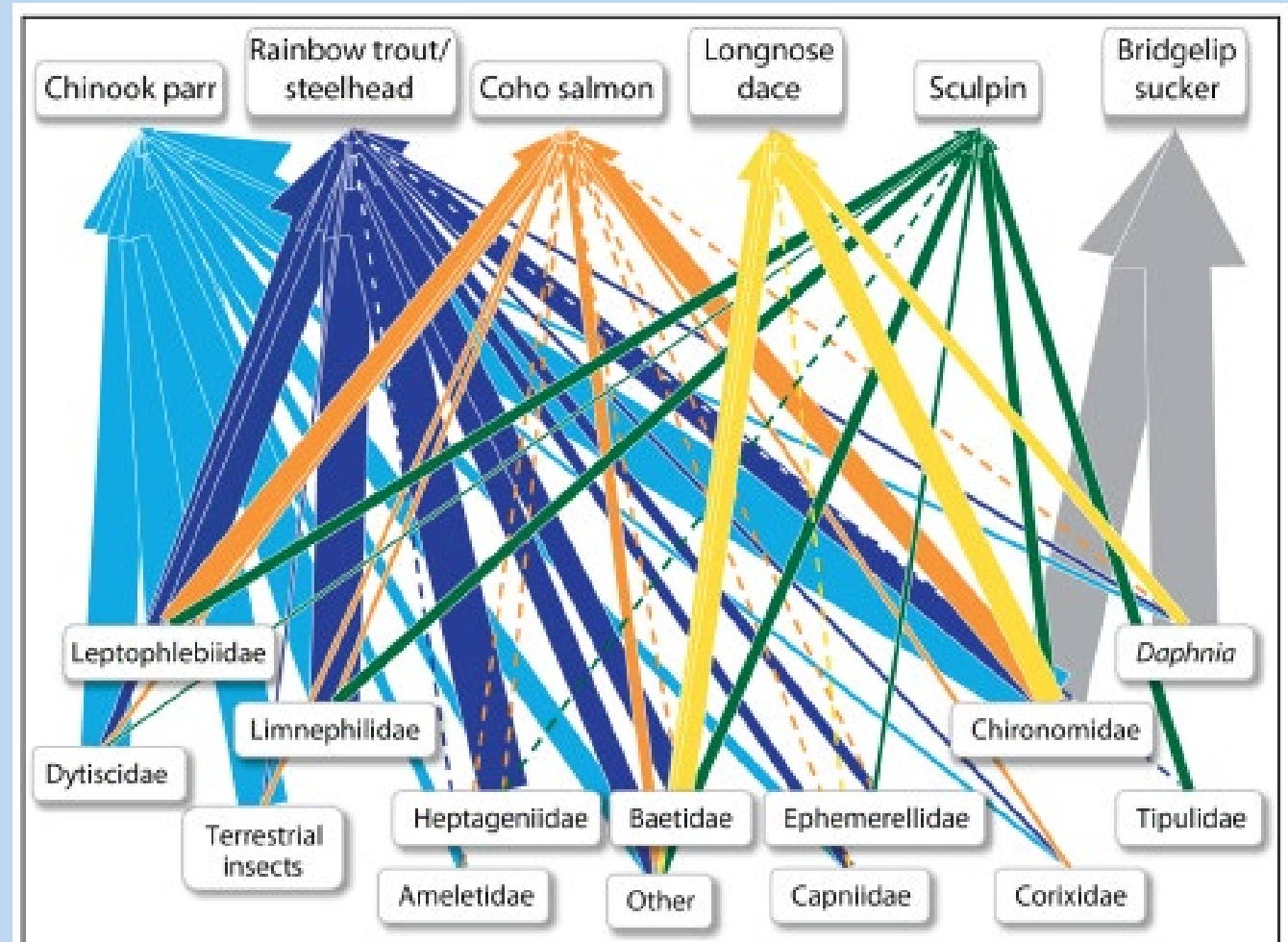
Map from Yakima Steelhead VSP Project Report for 2023



Fish Ecology

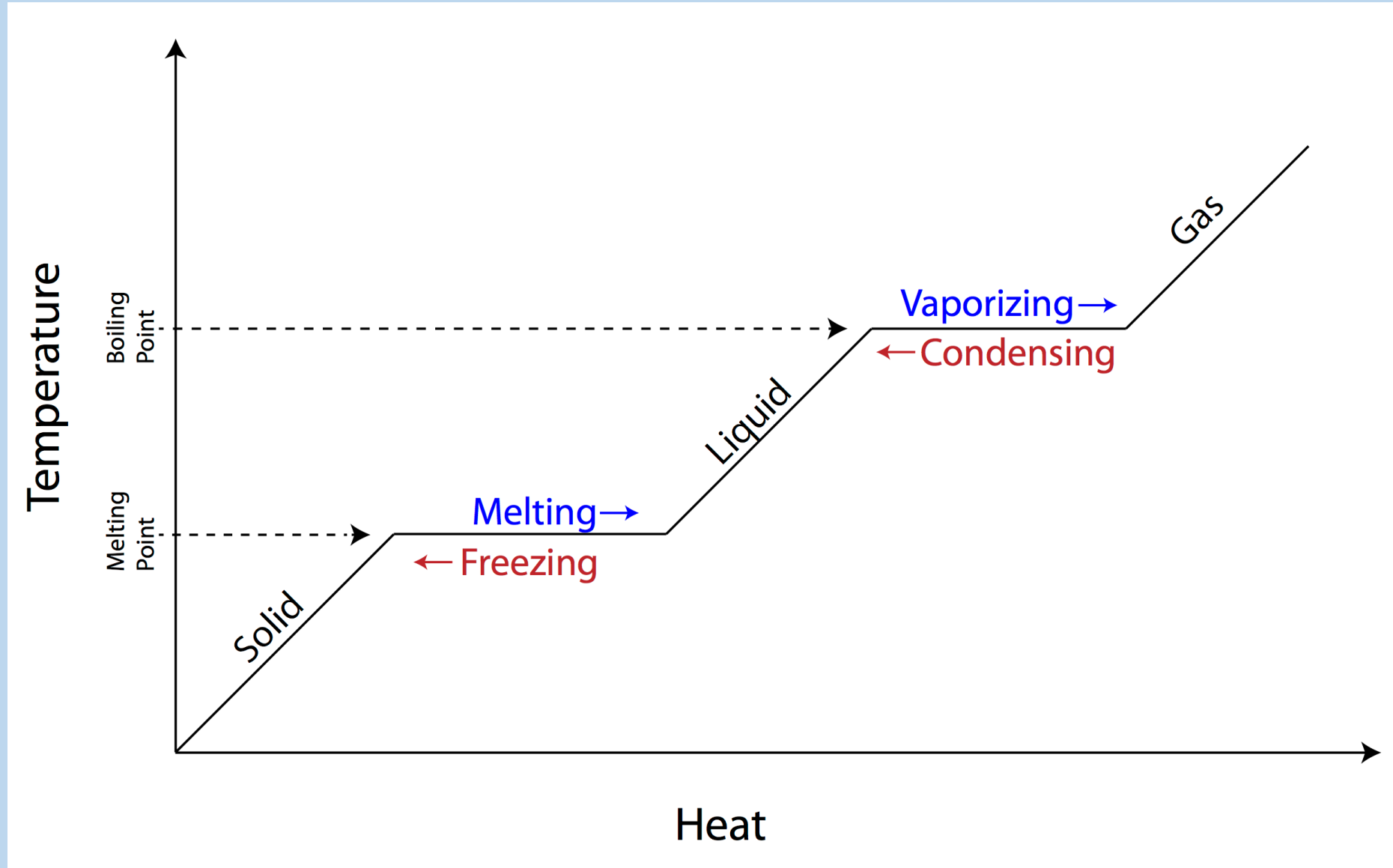
- Need for a better understanding of fish ecology!
- Need to identify key habitat characteristics that promote increased steelhead production
- Need to identify habitat actions that significantly change those characteristics

NEED TO ID PHASE CHANGES!



A visual representation of one food web in the Methow River. The thicker the arrow between prey and fish, the more fish consume of that invertebrate. (adapted from Bellmore et al. 2013).

MAKING PHASE CHANGES!



So Where Are We At?

- A 15 year old plan...
- Many actions already done
- Lots of new knowledge
- Sobering fish counts
- Some major uncertainties
- A new set of challenges!



Recovery Plan Supplements

- Lower Yakima Predation White Paper (2017)
- Water Stargrass White Paper (2021)
- Fish Barrier Analysis and Prioritization (2024?)
- Yakama Nation update of plan elements for on reservation tributaries (2024)
- Development of GIS portal for recovery & restoration data
- Initiation of Naches Assessment

Management and Control Techniques for Water Stargrass in the Lower Yakima River

FINAL Report to the Yakima Basin Fish & Wildlife Recovery Board



Photo: Yakima River, 2019 by Stephen Ingalls, Benton Mosquito Control

Aaron Pelly, Marcella Appel, Rachel Little

Benton Conservation District, Kennewick, Washington

September 17, 2021

NEXT STEPS

- Board has new state funding to support plan updates
- No specific guidance from NOAA
 - *What matters is what is useful for us in the basin!*

Working with partners to convene a steelhead working group to:

- *Share progress on steelhead science and recovery*
- *Identify specific updates that would best support steelhead recovery efforts*
- *Oversee development of selected updates*

YOUR THOUGHTS?

