

Ad-hoc Coastal Steelhead Advisory Group: Feb 17 Meeting

Kelly Cunningham
James Losee
Toby Harbison
WDFW Fish Management





Coastal Steelhead Proviso Project Overview

Steelhead Proviso

In 2021, WDFW formed the Ad-Hoc Coastal Steelhead Advisory Group to inform the development of a plan to protect native and hatchery-produced steelhead for major river systems of Grays Harbor, Willapa Bay, and coastal Olympic Peninsula, as required by the Washington Legislature in the 2021-23 budget. The Department will submit the ensuing plan to the Legislature by the end of 2022.

Mission Statement

The Ad-hoc Coastal Steelhead Advisory Group will provide input on the development of a long-term management strategy for coastal steelhead as required by the Washington Legislature in the 2021-23 budget.



Freshwater Habitat for Steelhead

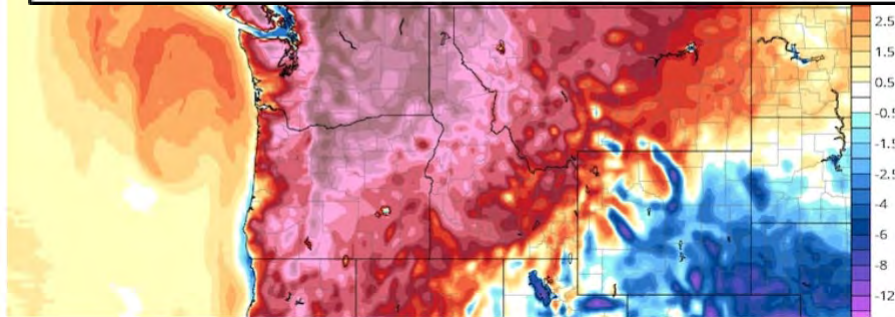
Canada sets new all-time heat record of 121 degrees amid unprecedented heat wave

The British Columbia village of Lytton set the country's heat record for a third straight day Tuesday, after Portland and Seattle notched all-time highs Monday.

Marine and freshwater regime changes impact a community of migratory Pacific salmonids in decline

Kyle L. Wilson, Colin J. Bailey, Trevor D. Davies, Jonathan W. Moore

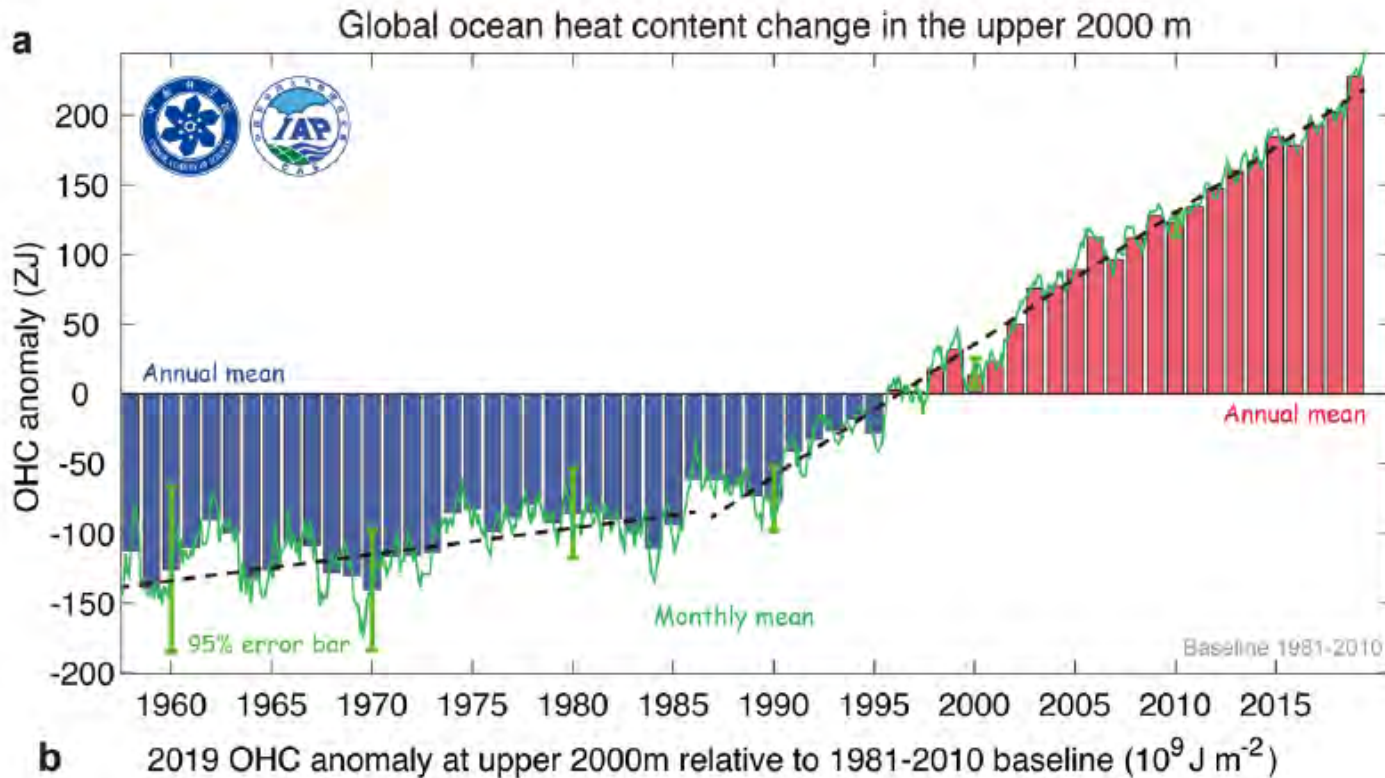
Global Change Biology



Recent record temps and low flows in steelhead freshwater habitat.



Steelhead Biology-Ocean Conditions



ADVANCES IN ATMOSPHERIC SCIENCES, VOL. 37, FEBRUARY 2020, 137-142

• News & Views •

Record-Setting Ocean Warmth Continued in 2019

Lijing CHENG^{1,2,11}, John ABRAHAM³, Jiang ZHU^{1,2}, Kevin E. TRENBERTH⁴, John FA
Tim BOYER⁵, Ricardo LOCARNINI⁶, Bin ZHANG^{2,6}, Fujiang YU⁷, Liying WAN
Xingrong CHEN⁷, Xiangzhou SONG⁸, Yulong LIU⁹, and Michael E. MANN¹⁰

ADVANCES IN ATMOSPHERIC SCIENCES, 2021

• News & Views •

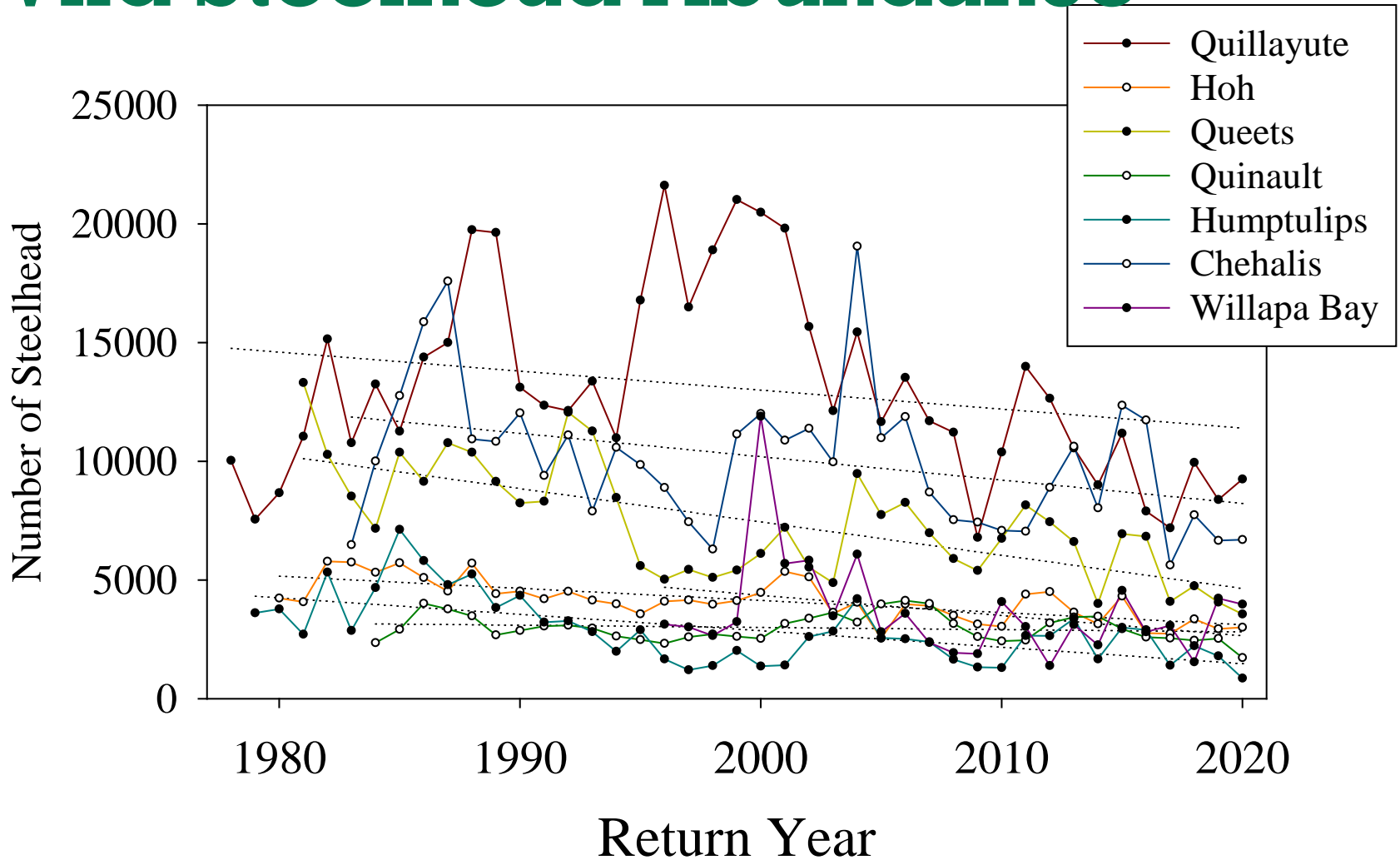
Upper Ocean Temperatures Hit Record High in 2020

Lijing CHENG^{1,2}, John ABRAHAM³, Kevin E. TRENBERTH⁴, John FASULLO⁴, Tim BOYER⁵,
Ricardo LOCARNINI⁶, Bin ZHANG^{2,6}, Fujiang YU⁷, Liying WAN⁷, Xingrong CHEN⁷, Xiangzhou SONG⁸,
Yulong LIU⁹, Michael E. MANN¹⁰, Franco RESEGNETTI¹¹, Simona SIMONCELLI¹²,
Viktor GOURETSKI^{1,2}, Gengxin CHEN¹³, Alexey MISHONOV^{5,14}, Jim REAGAN^{5,14}, and Jiang ZHU^{1,2}

https://www.ncei.noaa.gov/access/global-ocean-heat-content/monthly_analysis.html



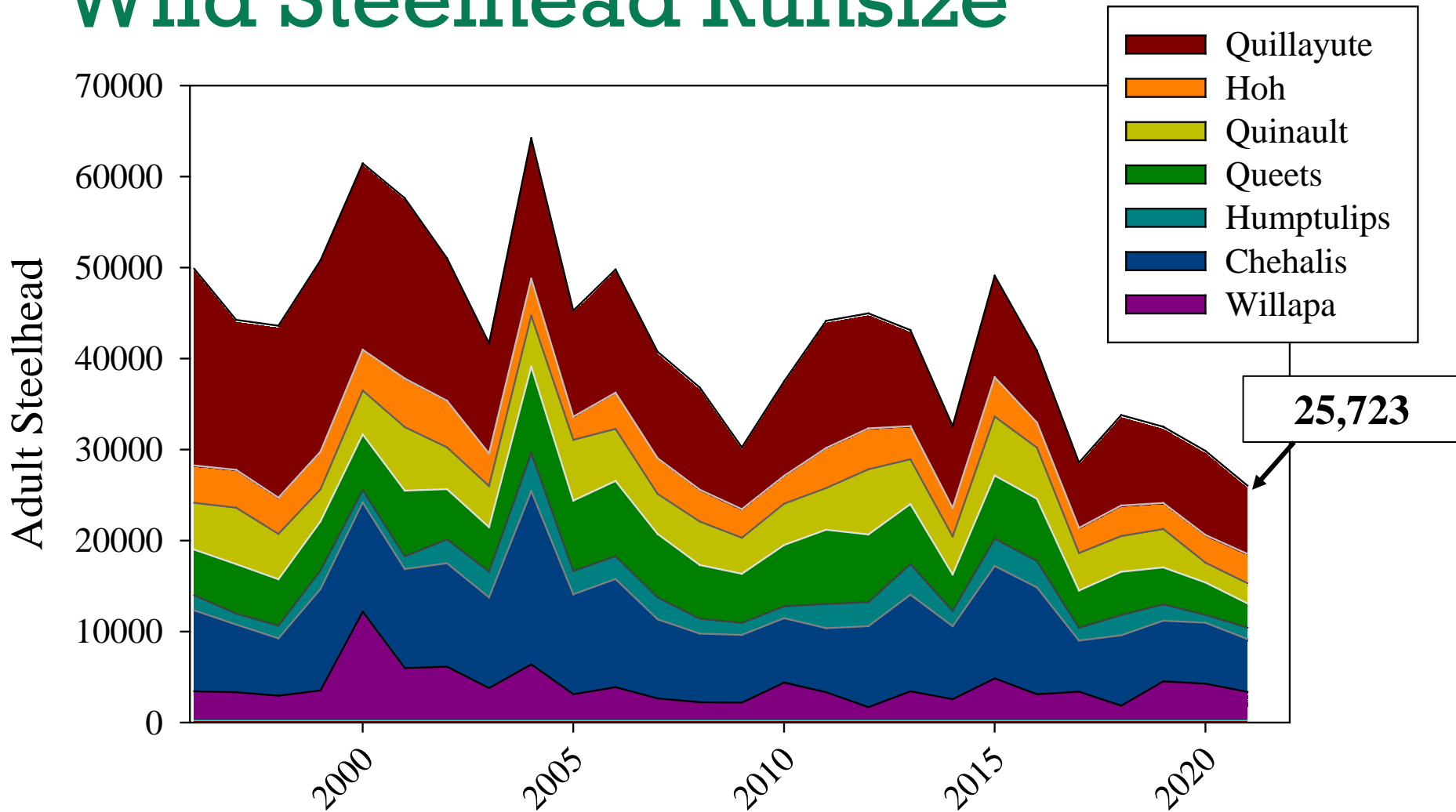
Wild Steelhead Abundance



Declining populations of steelhead in all coastal populations.



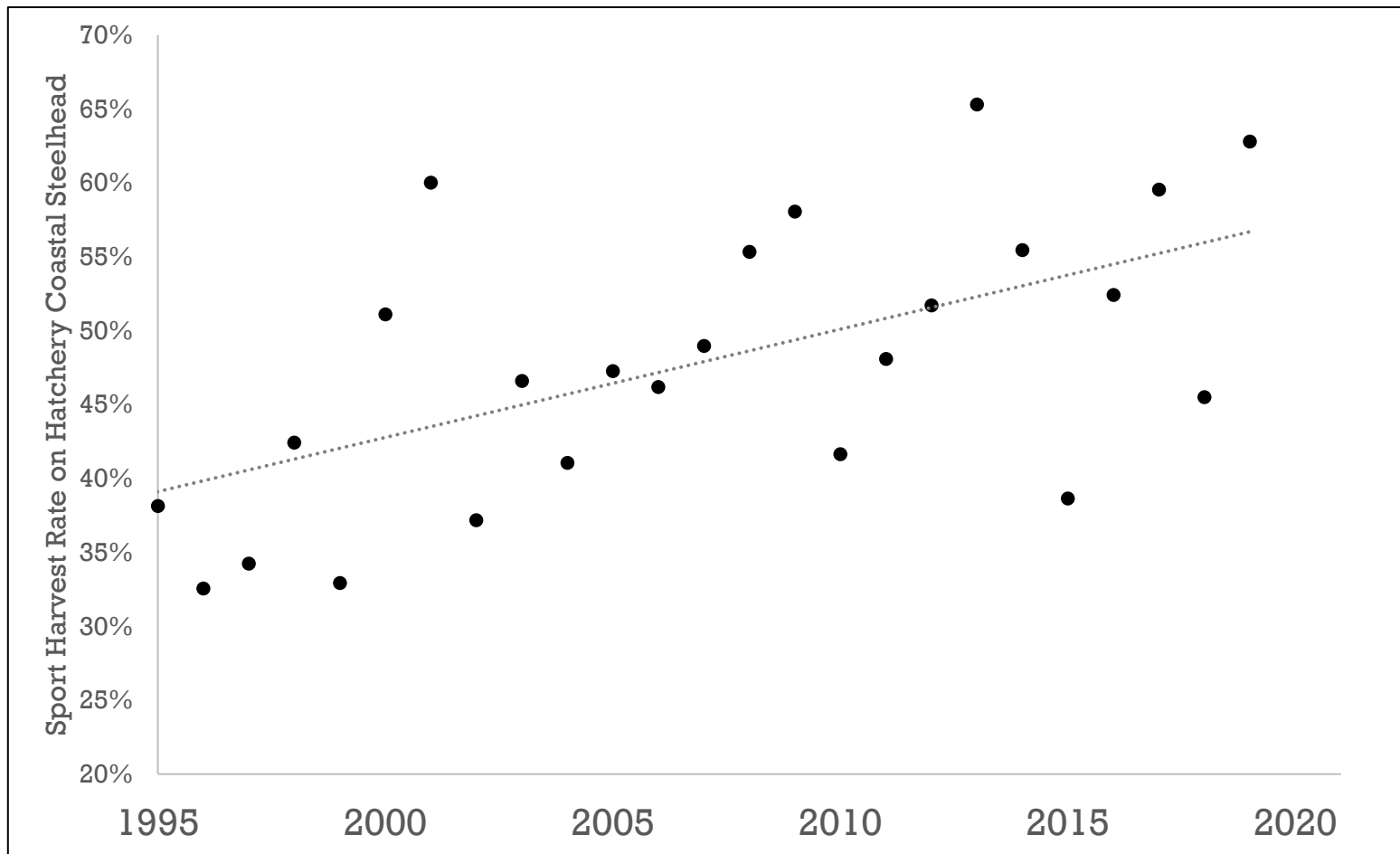
Wild Steelhead Runsize



2021 total returns to the Washington Coast were the lowest on record.



Hatchery Steelhead Harvest Rate



Increased encounters/harvest of steelhead.



Coastal Steelhead Status

- Declining abundance trends in majority of coastal rivers.
- Forecasts below escapement goals in majority of coastal rivers.
- **Chehalis and Humptulips**: Failure to meet escapement goal and exceedance of 10% ER in recent years.
- **Willapa Bay**: Failure to meet escapement goal in last 5 years. ER < 10%
- **Queets and Quinault**: Failure to meet escapement goal and exceedance of 10% ER in recent years.



Review of Recent Management

- **February 2020**-Closure of Chehalis and Willapa Bay.
- **Fall 2020**- Public Town Hall Meeting and Commission Meetings.
- **December 14, 2020**-Coastwide Rule Changes (Time, place, gear etc.)
- **March 8, 2021**-Early Closure.
- **Fall 2021**-Multiple Town Hall Meetings and accelerated comanager timelines
- **Fall 2021**-Coastwide Rule Changes
- **Winter of 2021**-Coastal Steelhead Proviso

Changes to the coastal steelhead season

The Washington Department of Fish and Wildlife Dec 8, 2020 · 10 min read



Note: This information has been updated as of March 3, 2021, to reflect a March 8 closure to the coastal steelhead season.

Amid low returns, [today we announced a March 8 closure](#) to sportfishing in the Queets, Quinault, Humptulips and Chehalis river systems as well as tributaries of Willapa Bay to further protect wild steelhead

populations.

This follows [measures we implemented earlier this winter](#) to modify the coastal steelhead season, restricting fishing from a boat and using bait, to help more wild steelhead safely return to the spawning grounds. The Quillayute and Hoh rivers remain open for coastal steelhead through March 31 under these previously adopted conservation regulations.

We recognize that this is really discouraging news for the angling and



Steelhead Management-Key Terms

Wild steelhead-Steelhead that were produced in the natural environment.

Hatchery steelhead-Steelhead that were produced in a hatchery.

Run- A group of anadromous fish on its return migration, identified by species, race and water of origin.

Escapement-Number of steelhead surviving to the spawning grounds or hatchery.

Redd-Spawning nest.

Runsize-Number of steelhead returning to the freshwater. Escapement + Harvest.

Survival-Number of steelhead produced by each parent spawner. Recruit per spawner.

Forecast-Predicted number of adult steelhead returning in future years.

Integrated hatcheries-Genetically integrated with natural population.

Segregated hatcheries-Genetically segregated from natural population.

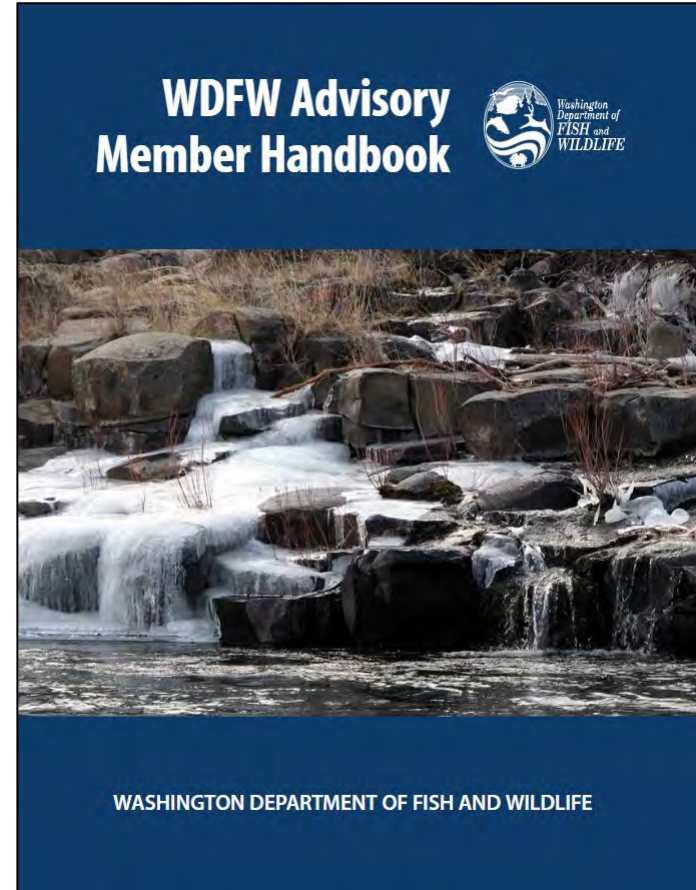




WDFW Advisory Committee Orientation

Advisory Group Process

- **Role of Advisors**
- **Process**
- **Ground Rules**



How do advisors support WDFW?

- Provide recommendations to the agency on operations and communications.
- Help improve communication between the agency and fishing constituents and industry.
- Identify and raise concerns about issues/ challenges facing recreational fishers, the industry and the resource.
- Identify opportunities for partnerships that benefit the agency and the resource.



Expectations of Advisory Committee Members

- Attend meetings regularly and fully participate.
- Come prepared so meetings are productive.
- Read and provide comment on committee work products.
- Stay informed of issues that impact the committee's work.
- Communicate respectfully, openly and transparently.
- Respect diverse opinions and recognize compromise may be necessary to reach consensus.
- As a representative of the committee, help disseminate information to fellow anglers and behave professionally during committee meeting and in other forums.



How will we support you?

- Support the committee in implementing it's mission.
- Provide meeting support, scheduling, facilitation, agenda development and meeting summaries.
- Provide relevant background and other briefing materials. Provide timely opportunities for the group to advise the agency and provide timely communication on emerging issues.
- Respect all views and perspectives represented by committee members.
- Communicate advisor recommendations/ perspectives to agency leaders in time to influence decisions.



Ground Rules

- **Listen** actively, avoid side conversations and interruptions
- **Communicate** positively, productively and proactively
- **Respect** each other and our diverse opinions
- **Assume the best** of one another
- **Build trust** by speaking the truth, to the best of our knowledge
- **Build each other up**, don't tear each other down
- **Respect each other's time** by honoring the agenda

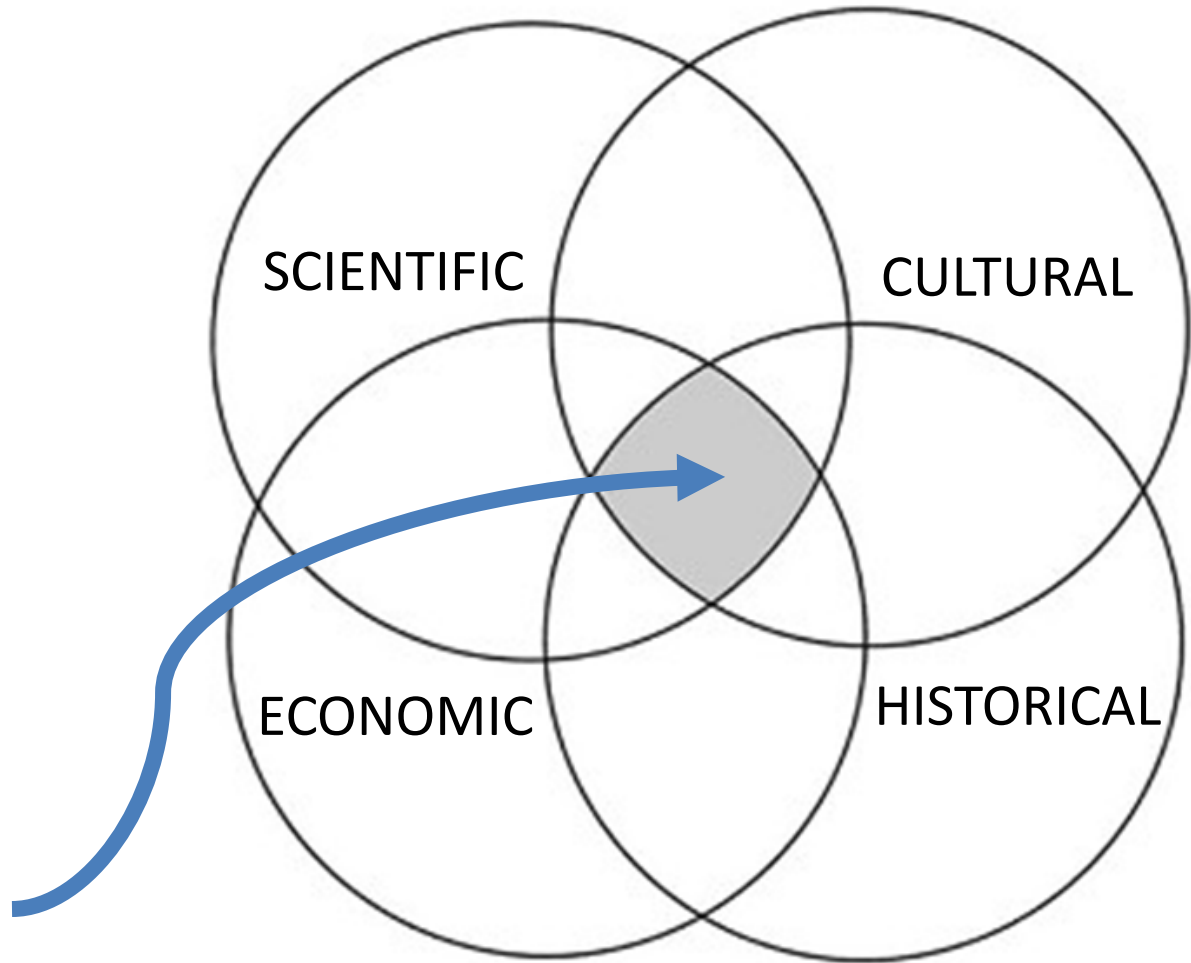




Coastal Steelhead Fishery Plans and Timeline

Background

STEELHEAD MANAGEMENT



Background

- Steelhead biology
- Hatchery rearing
- Commercial harvest
- Tribal co-management
- Population models
- Conservation concern
- Recreational fishery
- Habitat



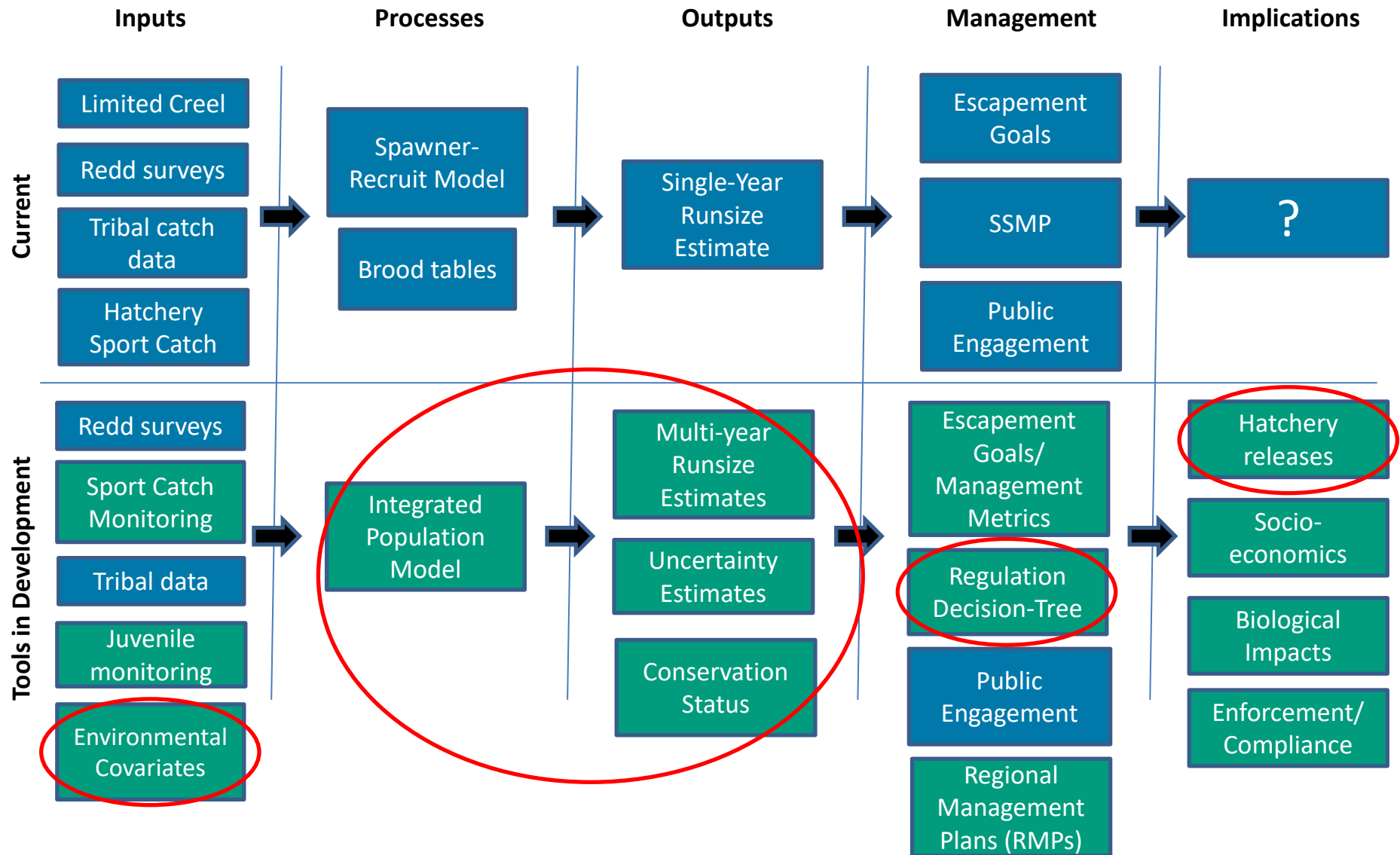
Management Framework:

From Linear to Adaptive

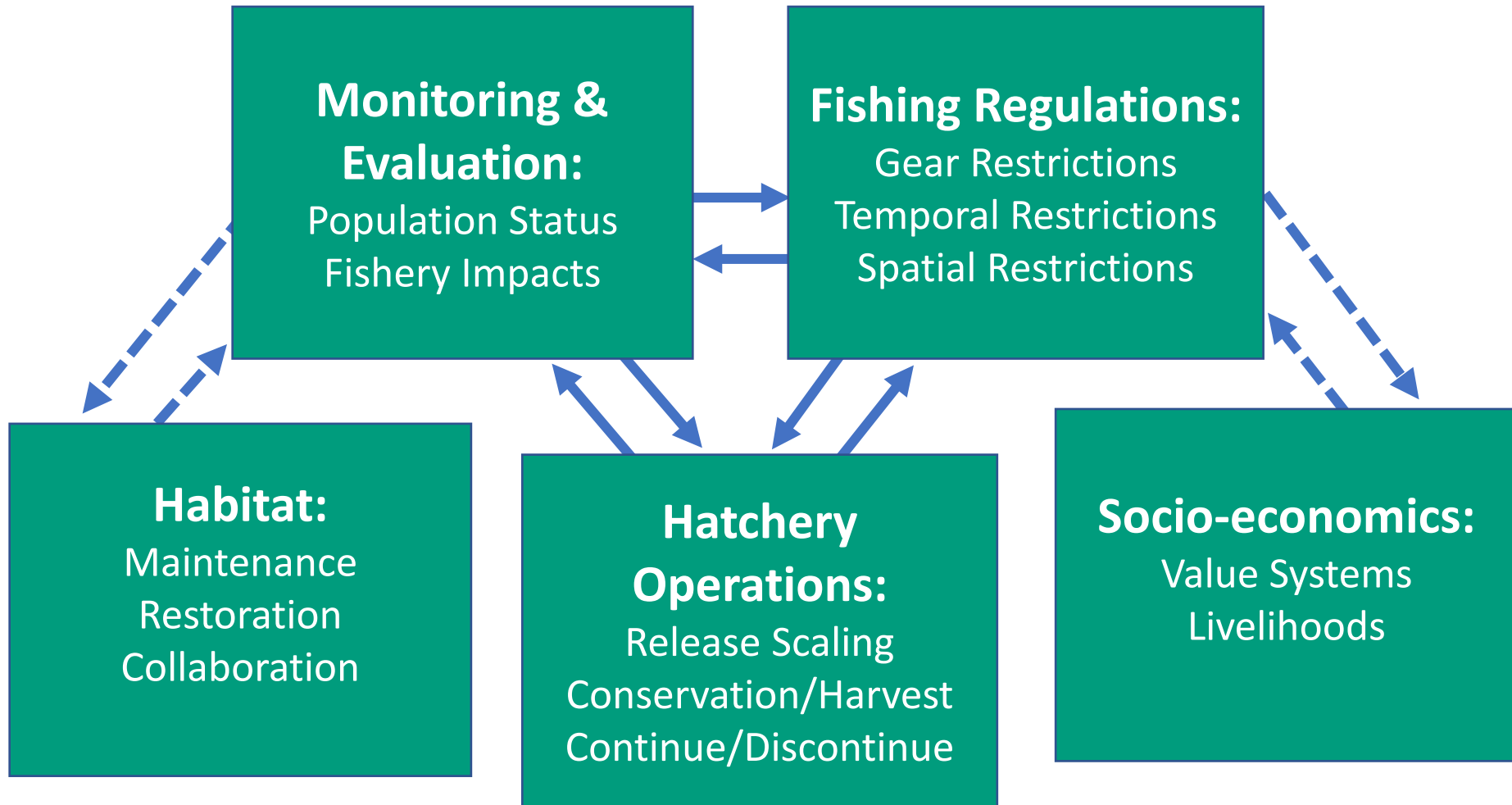
1. Develop an overall framework
2. Apply that framework to each major river system of Willapa Bay, Grays Harbor, and the coastal Olympic Peninsula



Management Framework:



Management Framework



Management Framework

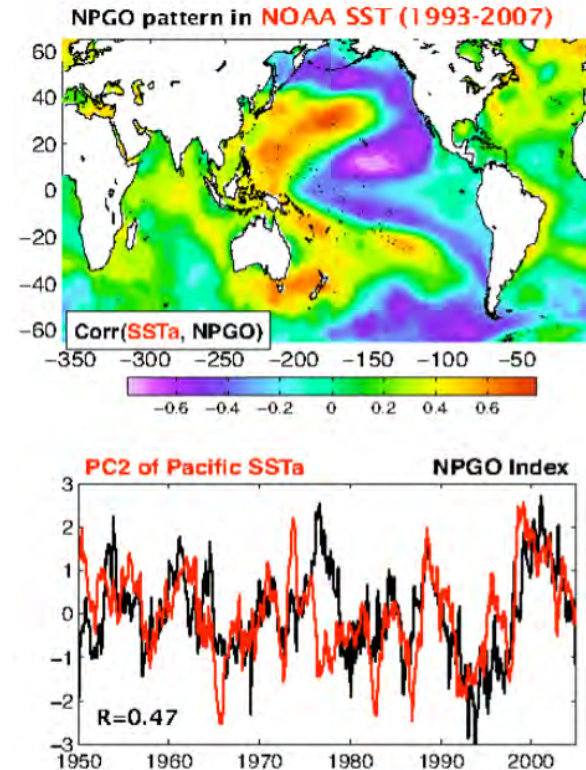


- **Applied to each major river system:**
- Monitoring and Evaluation
- Fishing Regulations
- Hatchery Release Scaling
- *Socioeconomics*
- *Habitat*



Fisheries Modeling

- Integrated Population Model (Sheurell et al. 2019)
- Environmental covariates: ocean conditions (NPGO) & stream flow
- Uncertainty estimates



<https://www.aviso.altimetry.fr/fileadmin/documents/OSTST/2008/schneider.pdf>



Regulation

“Decision Tree”

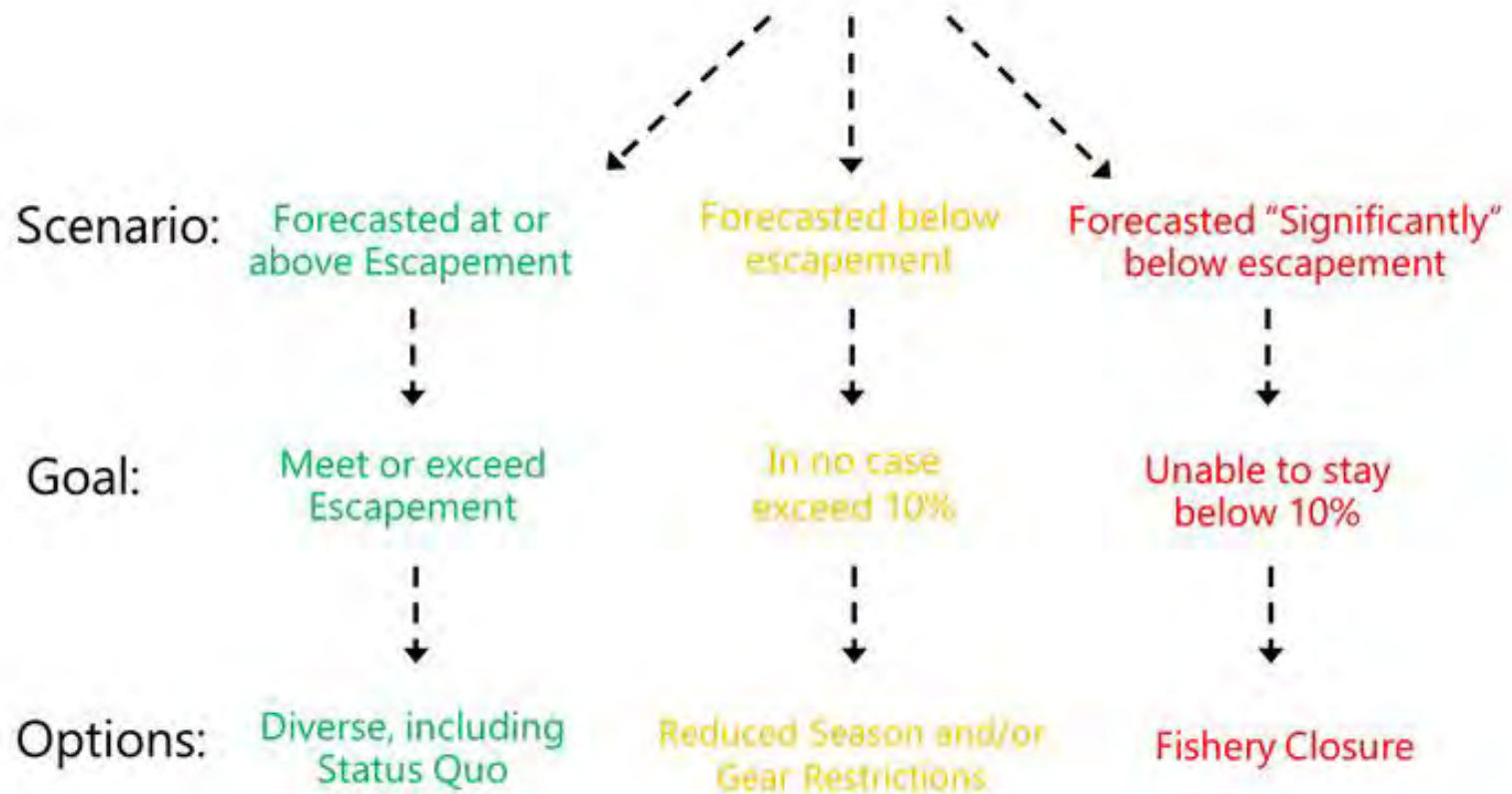
- Which recreational fishery regulation options will allow us to meet our management objectives?
 - *Pre-season & in-season tools*
- SSMP: Escapement goals, 10% allowable mortality below escapement
- Continue with current forecasting methodology pre-season to generate final rule package



<https://onetreepanted.org/blogs/stories/mother-trees-mothers-day>



Regulation “Decision Tree”



Hatchery Release Scaling

- SSMP: wild populations will not exceed **2% geneflow and/or 30% pHOS**
- Scale hatchery releases
- Design targeted fisheries around hatchery racks
- Conversation about Wild Steelhead Management Zones



Socioeconomics & Habitat



Collaborative partnerships!



Apply Framework to Major River Systems

- Willapa Bay
- Chehalis
- Humptulips
- Quinault River
- Queets/
Clearwater
- Quillayute
System
- Hoh River



Communications

- Media engagement
- Online Resources
 - Social Media
 - Landings Webpage
 - Blog
 - Public Comment Form
- Meetings
 - Townhalls
 - Partner Data Sharing
 - Briefing Public Officials
- Coastal Steelhead Advisory Group

Coastal Steelhead Management

Nov. 2021: [State, tribal co-managers announce conservation-minded approach to coastal steelhead season amid expectations of lowest on-record returns](#)



WDFW is committed to helping to advance conservation of coastal steelhead while maximizing possible angling opportunities. As fishery managers delve into the scientific data and research gathered from the 2020-2021 season, WDFW will continue to engage anglers to ensure that the most up to date information is available ahead of next season.

For more information about the 2021-2022 season, which included changes to past regulations on the coast, please [see our November 30, 2021 news release](#). For more information about some of our recent coastal steelhead research efforts, visit us [on YouTube to see a video](#). You can also [learn about the new Ad-Hoc Coastal Steelhead Advisory Group on this webpage](#).

More information about our recent and future town hall meetings this fall is available in our timeline below.

Share feedback with WDFW fishery managers:

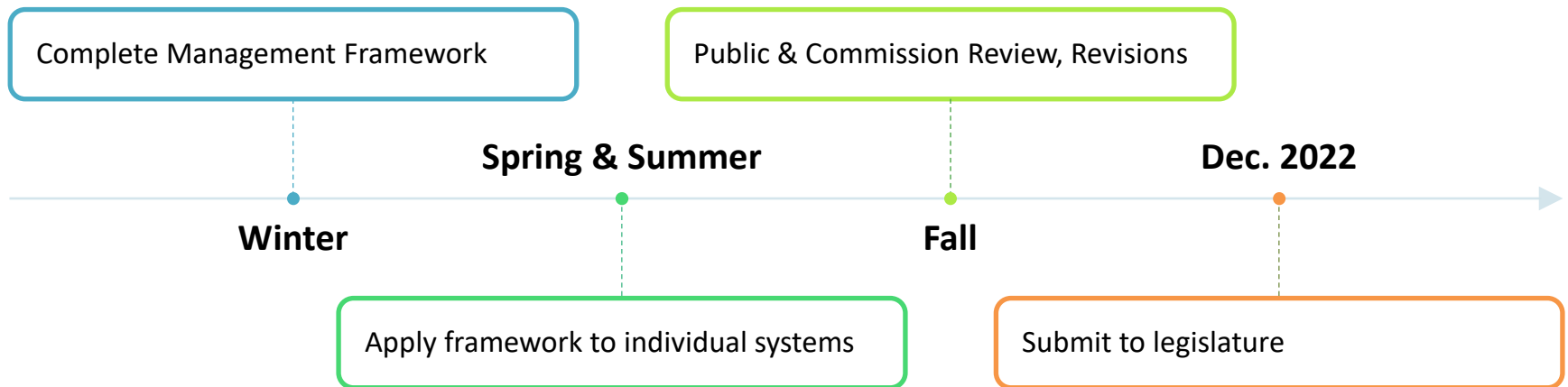


Additional Plan Elements

- Regional Management Plan Outline
- Critical Research
- Implementation Timeline
- Budget Projections
- Appendices



Timeline





Thank you!

Questions or Comments?

Zoom reminders for public comments

- You can type a question through the Q&A function or ask a question by “raising your hand.” If you’re calling in you can raise a hand by dialing *9 on your phone, or if you’re calling from a computer, you can find the hand icon at the bottom of your screen.
- To speak you will need to unmute yourself by using the mute button on your computer or mobile device or enter *6 if you’re calling from a land line.
- If you have a technical issue, please drop us a note in the Q&A and we will help you through it.
- You can also submit general feedback on coastal steelhead management at wdfw.wa.gov/coastal-steelhead

