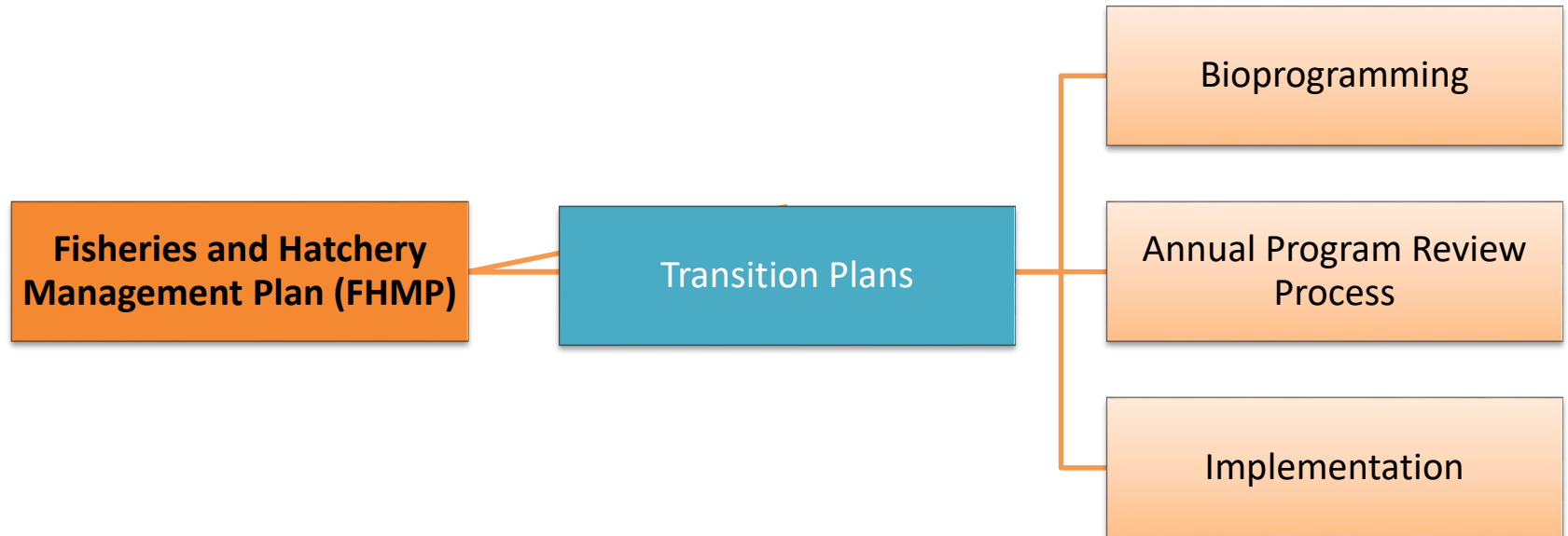


# 2023 Cowlitz Annual Program Review and Science Conference

- Matt Bleich / Natural Resources Manager  
Tacoma Power
- Bryce Glaser / Southwest Washington Fish Program Manager (Region 5)  
WDFW
- Eric Shoblom / Cowlitz Fish Facilities Manager  
Tacoma Power

August 22, 2023

# Overview

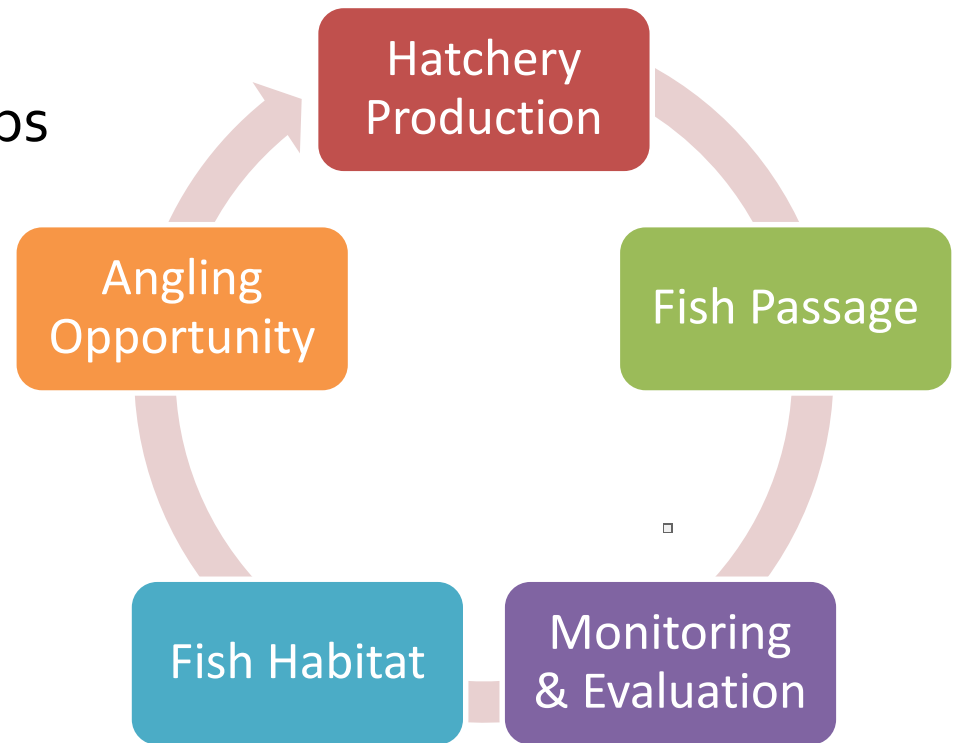


# What is in the FHMP?

- **History of Cowlitz**
  - How did we get here
  - Why this work is important
- **Recent history of each population and program**
  - Trends
  - Current programs and why
- **Concepts for next phase**
  - Recovery
  - Harvest

# Transition Plans

- Called for in FHMP
- Detail transition/implementation
- Include public feedback
- Establish clear relationships



# Annual Program Review (APR)

What is it?

- Fish production plan

Why should you care?

- Sets number of fish reared and released and other important actions



Chinook



Steelhead



Coho

# Annual Program Review (APR)

- Intent – develop population management strategy for the coming season
- Steps
  - Update key metrics
  - Update status and trends
  - Annual Program Review – set annual management targets
  - Annual Operating Plan

# Recent History

Species	Before 2011 FHMP Update	2018 APR Goal	2019 APR Goal	2020 APR Goal	2021 APR Goal	2022 APR Goal
Fall Chinook	4,800,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000
Spring Chinook	959,800	1,738,529	1,738,529	1,738,529	1,738,529	1,678,000
Coho	2,835,000	2,178,000	2,178,000	2,178,000	2,178,000	2,178,000
Winter Steelhead	690,000	647,000	647,000	647,000	647,000	647,000
Summer Steelhead	550,000	625,000	650,000	650,000	650,000	650,000
Cutthroat	160,000	100,599	100,599	100,599	100,599	100,599

# FHMP Transition Plans

What have we done so far?

- Increased summer steelhead recycling cap to 6,600 adults (from 3,300)
- Improved lower river fall Chinook abundance estimates
- Advanced brood collection of lower winter steelhead
- Improved spring Chinook rearing strategies





# Winter Steelhead

- Earlier harvest opportunity
- Rebalance programs



	<b>Current</b>	<b>Transition</b>	<b>Difference</b>
Lower Cowlitz Winters	478,500	308,500	-170,000
Tilton Winters	48,000	100,000	52,000
Upper Cowlitz Winters	118,000	236,000	118,000
Total:	644,500	644,500	0

# Fall Chinook

- Improved monitoring
- Marking at Mayfield
- Retain existing full program onsite (3.5 M)
- Improve rearing conditions within hatchery



# Coho

- One integrated program
- Shift tagging to Mayfield
- Maintain current program (2.178 M)



- Pilot net pen program

# Spring Chinook

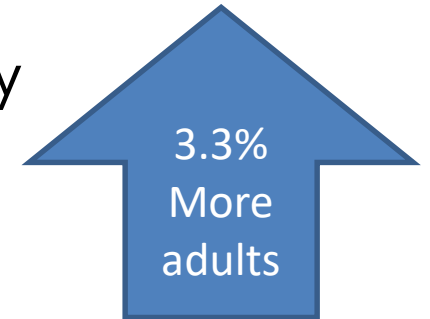
- Improve Smolt to Adult Return ratio (SAR)
- SAR analysis
  - Bigger is better
  - Portfolio for resiliency
  - Extend release dates



# Spring Chinook - Continued

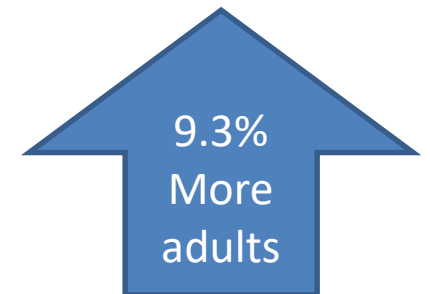
- **Option 1:**

- Poundage neutral - no rebalancing necessary
- Shifts the fall release from 16fpp to 12fpp
- Rebalances/adds 5's and reduces the 8's



- **Option 2: (pending funding approval)**

- Increases pounds (13,652 lbs)
- Increases 5fpp group
- Requires rebalancing
  - One year coho net pen pilot
  - Rebalance across multiple programs



# Summer Steelhead and Cutthroat

- Summer Steelhead
  - No Transition Plan developed as no changes recommended
  - Maintain 650k program



- Cutthroat Trout
  - No Transition Plan developed as no changes recommended
  - Maintain 100,599 program

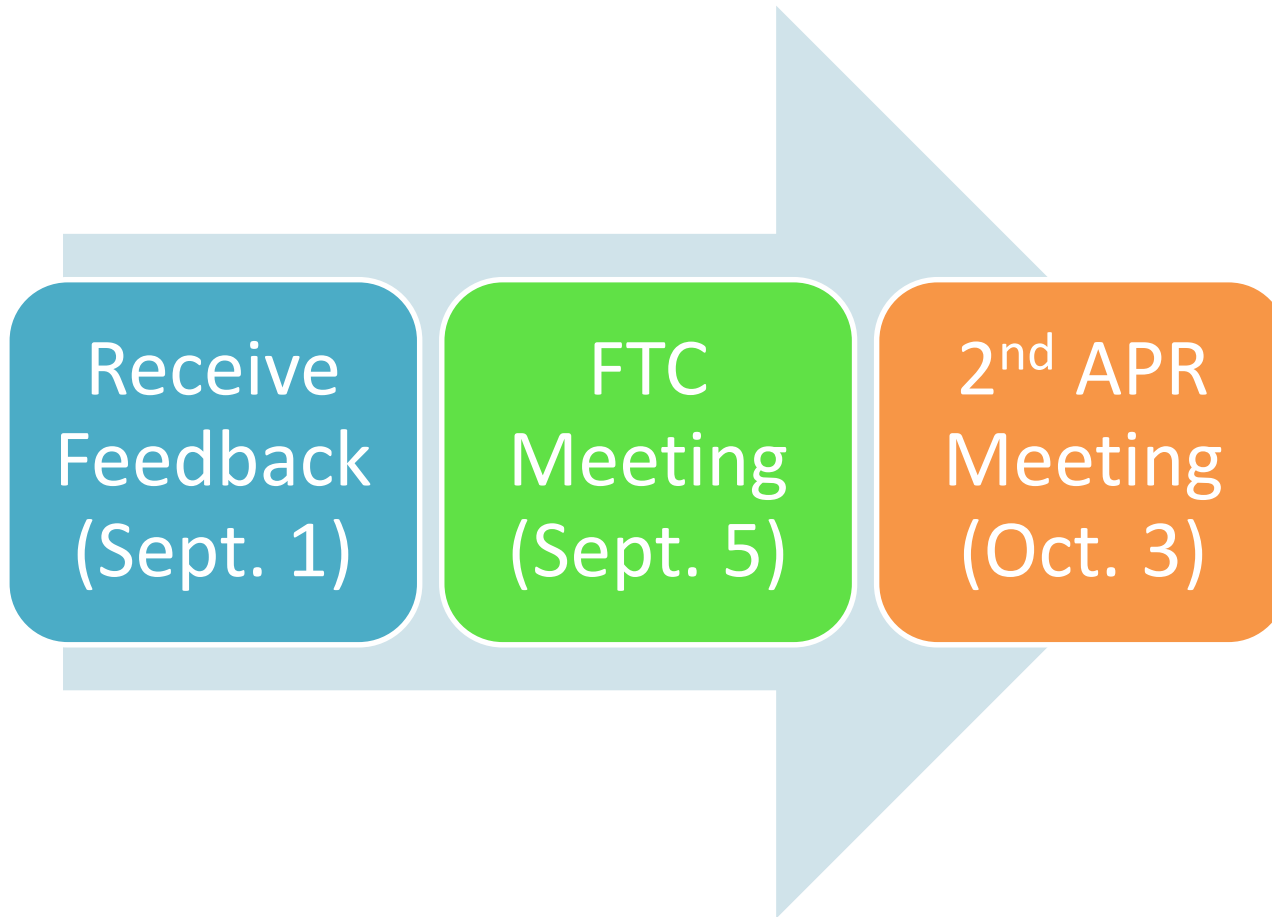




# 2023 Hatchery Production Plan

Species	Before 2011 FHMP Update	2019 APR Goal	2020 APR Goal	2021 APR Goal	2022 APR Goal	2023 APR Goal
Fall Chinook	4,800,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000
Spring Chinook	959,800	1,738,529	1,738,529	1,738,529	1,678,000	1,678,000
Coho	2,835,000	2,178,000	2,178,000	2,178,000	2,178,000	2,178,000
Winter Steelhead	690,000	647,000	647,000	647,000	647,000	647,000
Summer Steelhead	550,000	625,000	650,000	650,000	650,000	650,000
Cutthroat	160,000	100,599	100,599	100,599	100,599	100,599

# Next Steps





# Public Comment



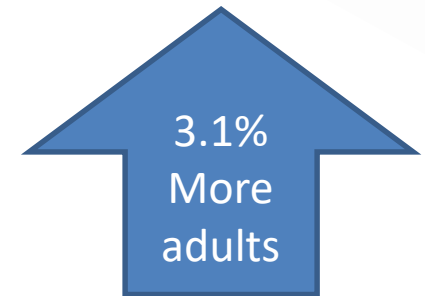
# Bioprogramming

- Spring Chinook - *neutral poundage option (N)*

16FPP	Population	Size	Pounds	Release Date
Current	500K	16fpp	36,000*	Nov
Proposed	575K*	12fpp	47,917	Dec
<b>Difference:</b>	+75k	4fpp	+11,917	+4 weeks

8FPP	Population	Size	Pounds	Release Date
Current	800K	8fpp	100,000	Early Mar
Proposed	603K	8fpp	75,375	Mid Mar
<b>Difference:</b>	-197k	0fpp	-24,625	+1-2 wks

5FPP	Population	Size	Pounds	Release Date
Current	437K	5fpp	87,600	Early Mar
Proposed	500K	5fpp	100,000	Mid Apr
<b>Difference:</b>	+63k	0fpp	+12,400	+5 wks



# Bioprogramming

- Spring Chinook – gain of 13,652 lbs (B)

16FPP	Population	Size	Pounds	Release Date
Current	500K	16fpp	31,250	Nov
Proposed	537K	12fpp	44,750	Dec
<b>Difference:</b>	+37k	4fpp	+13,500	+4 weeks

8FPP	Population	Size	Pounds	Release Date
Current	800K	8fpp	100,000	Early Mar
Proposed	420K	8fpp	52,500	Mid Mar
<b>Difference:</b>	-380k	0fpp	-47,500	+1-2 wks

5FPP	Population	Size	Pounds	Release Date
Current	437K	5fpp	87,400	Early Mar
Proposed	700K	5fpp	140,000	Mid Apr
<b>Difference:</b>	+263k	0fpp	+52,600	+5 wks

