Columbia River Basin Salmon Management Policy C-3620

Consideration of Policy Updates

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Briefing Objectives

1) Provide information on purpose and performance of policy.
2) Identify any additional information needs for Commission consideration in January.
3) Seek Commission guidance on any changes to options.

Briefing Outline

- Process Schedule
- Policy Purpose
- Fishery Performance
- Options for Update
- Public Comments
- Commission Direction on Options

Process Schedule

Nov. 5	Policy overview
Dec. 1	Commission identified options for comment
Dec. 2	Options released for public comment
Dec. 10	Review of policy performance Public comment Commission refinement of options (as necessary)
Dec. 14	Revised options released for public comment
Jan. 6	Public comment period ends
Jan. 14	Presentation on revised options Public comment Commission consideration of policy updates

Policy Purpose

RCW 77.04.12 provides guiding principles for Commission in management of state fish and wildlife resources:

- Conservation
- Orderly Fisheries
- Economic Well-Being of State Fishing Industry

The policy reflects these principles and the paramount importance of conservation.

Conservation

Most Columbia River Salmon & Steelhead ESA-Listed

- Snake Sockeye
- Upper Columbia River Steelhead
- Snake River Basin Steelhead
- Middle Columbia River Steelhead
- Upper Willamette River Steelhead
- Lower Columbia River Steelhead
- Upper Columbia River Spring-Run Chinook
- Snake River Spring/Summer-Run Chinook
- Snake River Fall Run Chinook
- Upper Willamette River Chinook
- Lower Columbia River Chinook
- Lower Columbia River Coho

Conservation

Hatchery Fish

- Interbreeding of hatchery & natural-origin fish can reduce productivity and diversity.
- Commission Hatchery Reform Policy provides guidance to limit proportion of hatchery-origin spawners in natural spawning areas.
- ESA-permitting sets limits on program sizes consistent with survival and recovery of listed species.

Mitchell Act discussions have emphasized importance of controlling hatchery-origin Chinook and coho spawning in lower Columbia rivers.

Conservation

Policy Statements:

"The Department shall promote the conservation and recovery of wild salmon and steelhead and provide fishery-related benefits by maintaining orderly fisheries and increasingly focus on the harvest of abundant hatchery fish."

"The Department shall seek to implement mark-selective salmon and steelhead fisheries, or other management approaches that are at least as effective in achieving spawner and broodstock management objectives."

Orderly Fisheries

Columbia River Compact (Washington & Oregon)

- Ensure rule consistency to promote conservation of fishery resources within concurrent waters.
- Congressionally-ratified interstate agreement

"All laws and regulations… over which the States of Oregon and Washington have concurrent jurisdiction, or any other waters within either of said States, which would affect said concurrent jurisdiction, shall be made, changed, altered, and amended in whole or in part, only with the mutual consent and approbation of both States."

Orderly Fisheries

Policy Statement:

"Seek to maintain consistent and concurrent policies between Oregon and Washington related to management of non-tribal fisheries."

Economic Well Being of State Fishing Industry

Policy Statements:

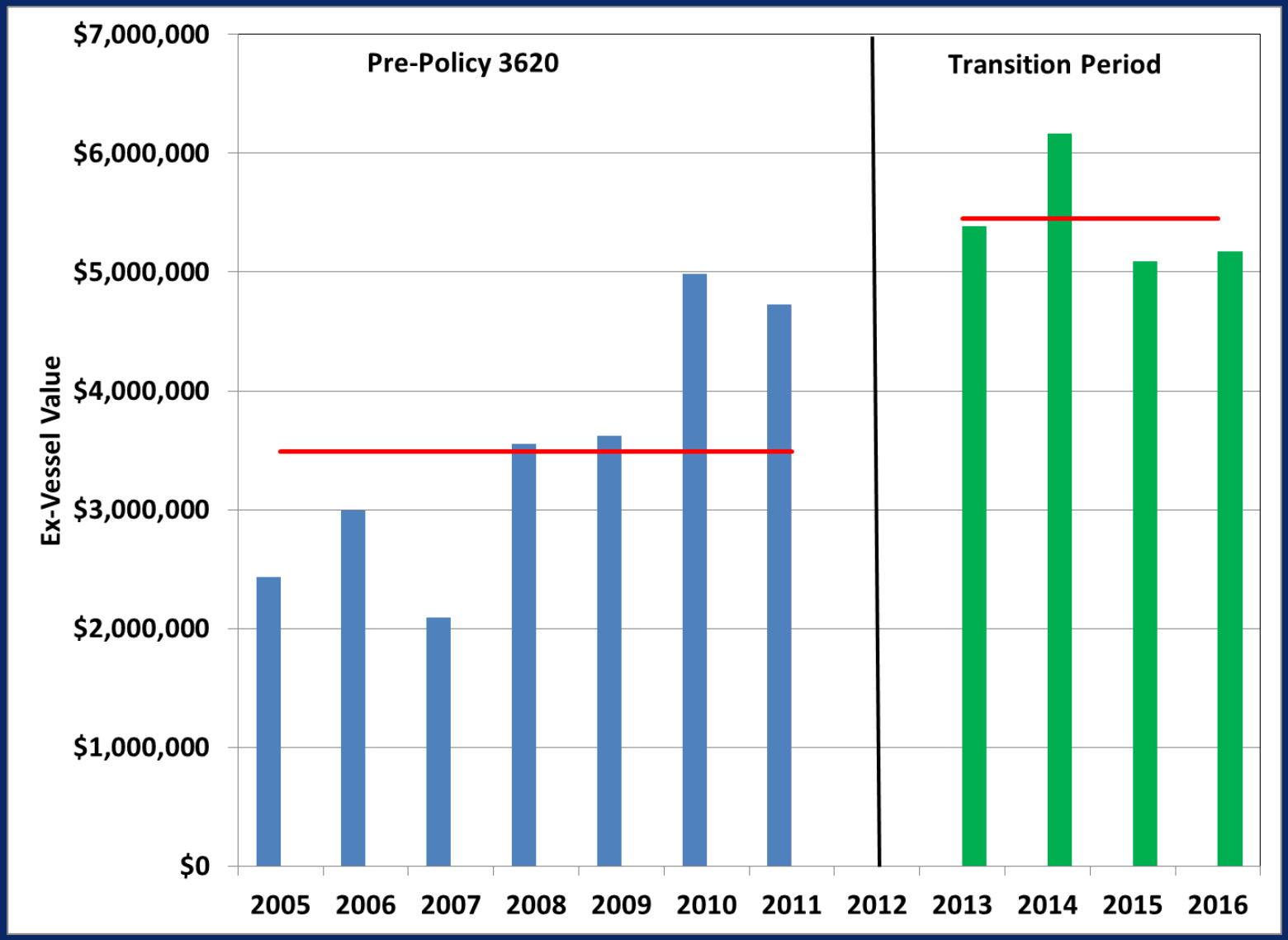
"…maintain or enhance the economic well-being and stability of the fishing industry in the state."

"In a manner that is consistent with conservation and does not impair the resource, seek to enhance the overall economic well-being and stability of Columbia River fisheries."

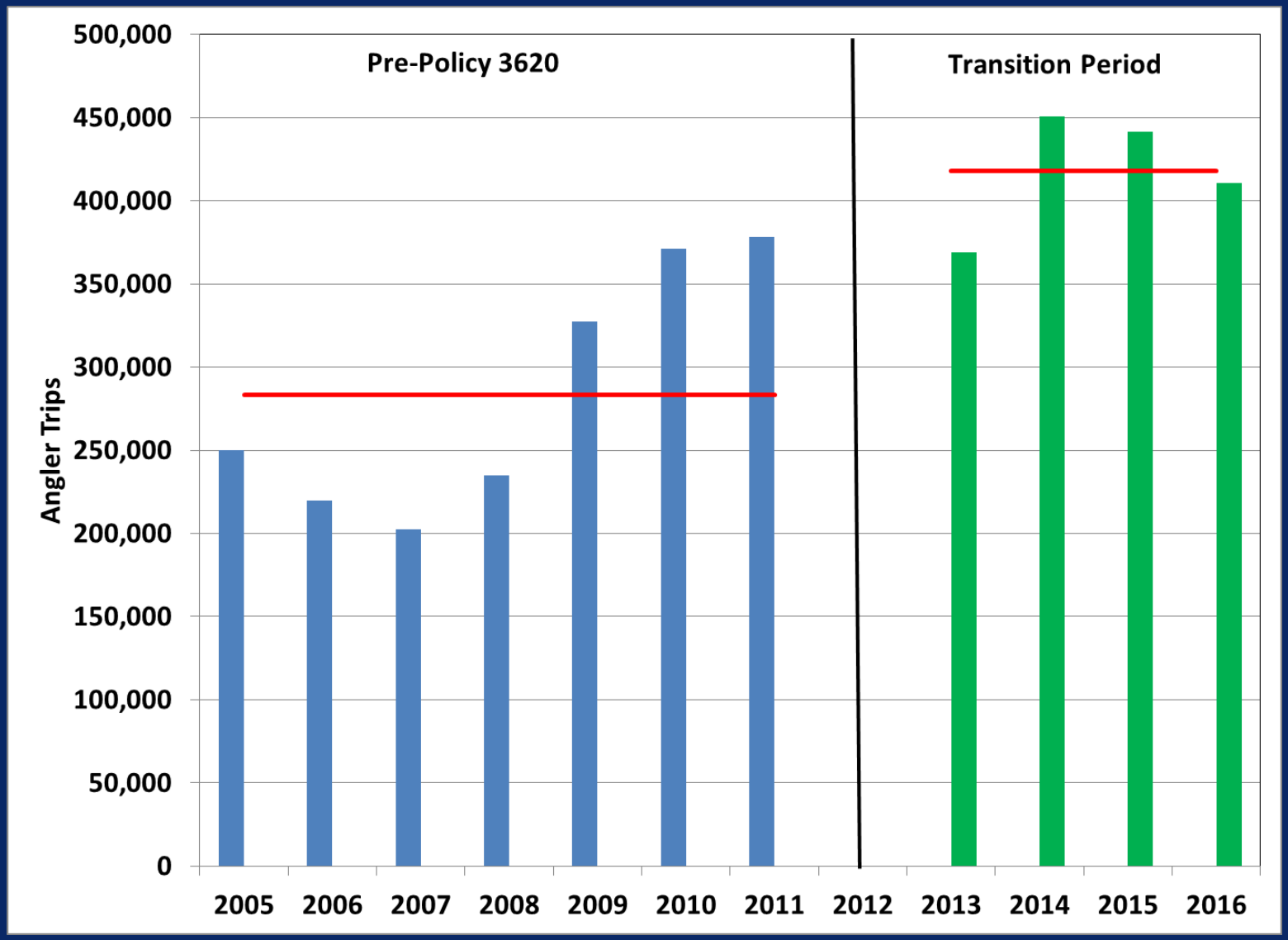
Fishery Performance

- Commercial Fishery
- Recreational Fishery
- Alternative Selective Gear

Commercial Fishery Performance



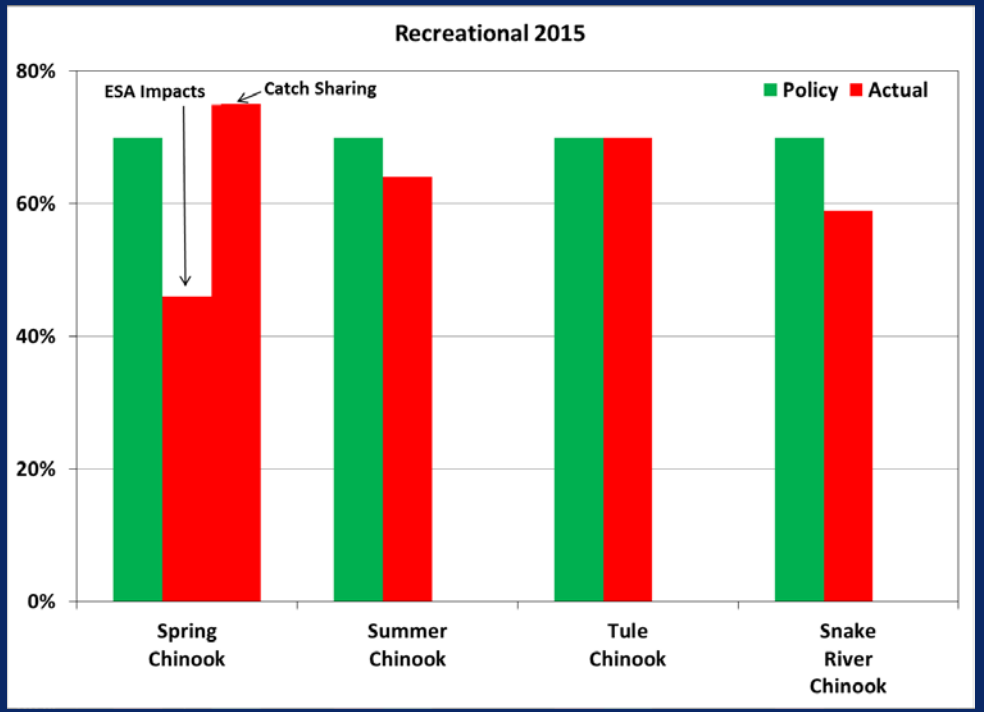
Recreational Fishery Performance



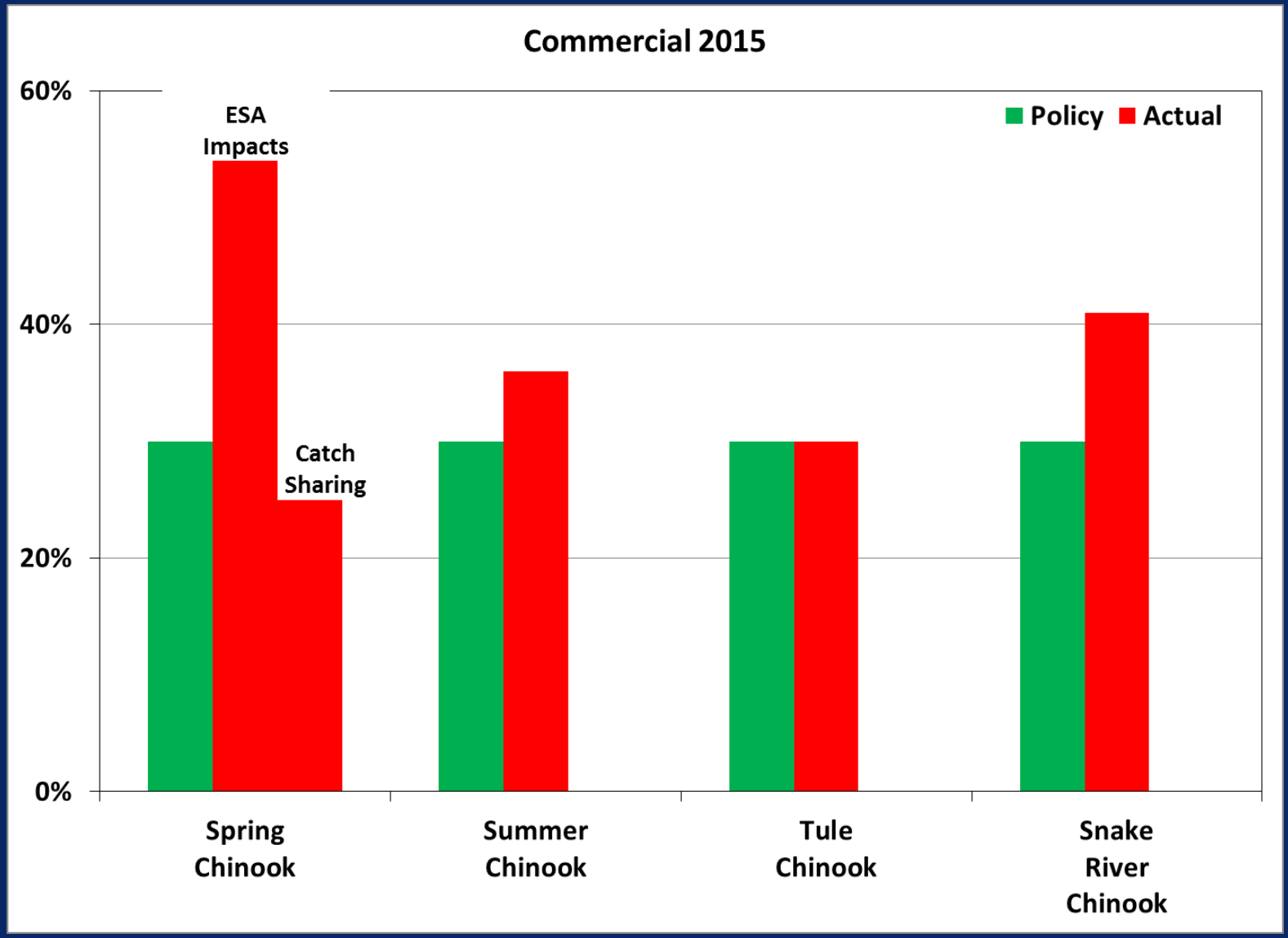
2015 Recreational-Commercial Sharing

Key Points

1) Sharing has been similar to policy guidance.
2) Spring Chinook: results depend on metric – ESA impacts or catch sharing.



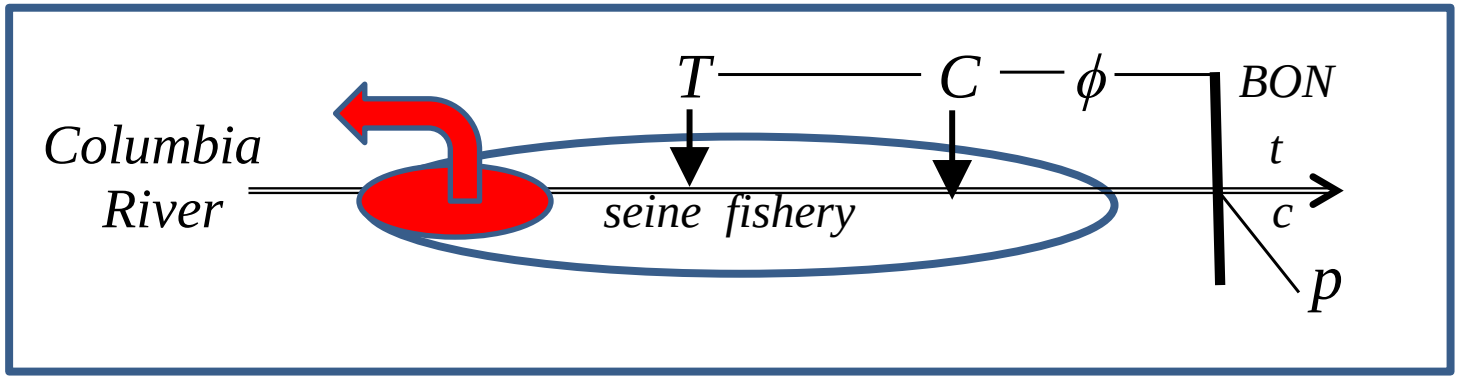
2015 Recreational-Commercial Sharing



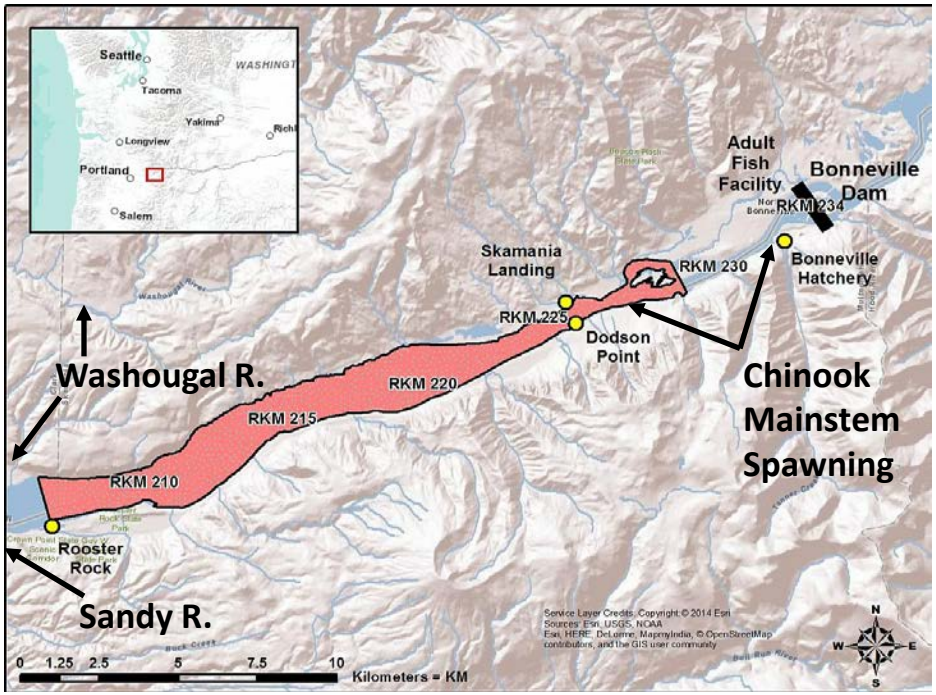
Alternative Selective Gear

- Ex-Vessel Value Lower than Projected
  - $61,000 versus projected $359,000
- Participants Expressed Concerns:
  - High start-up costs
  - Low mark rates
  - Gear conflict with recreational fishers
- Encounters of ESA-listed Steelhead & Sockeye
- Uncertainty in Release Mortality Rates

Ricker-Two-Release Study Design



- $\phi = \frac{t/T}{c/C} = \frac{\rho_t}{\rho_c}$, recapture of treatment relative to controls
- Key assumption is the control & treatment group are from the same population (e.g. they have the same probability of detection at BON)
- Estimates of survival are biased low when this assumption is not met

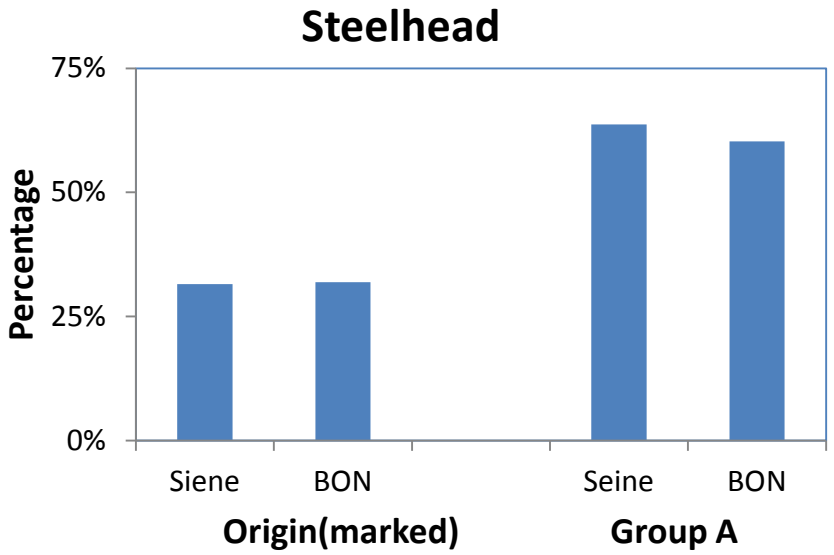


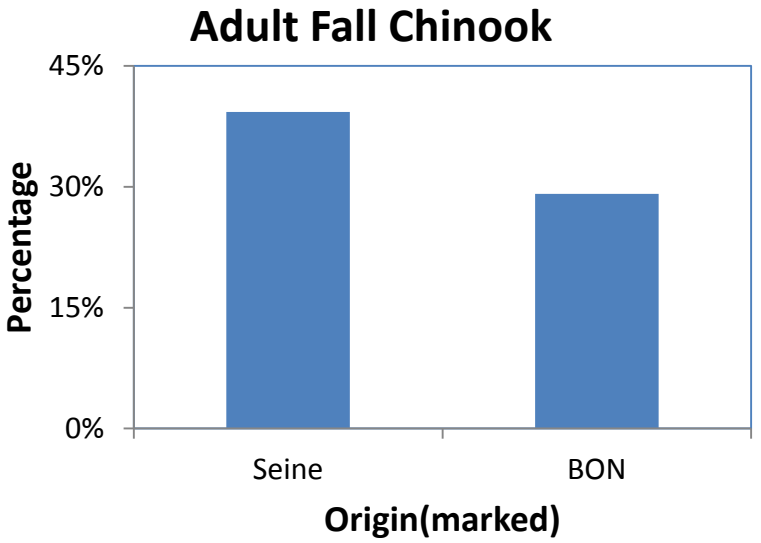
Steelhead (R2R Unbiased)

- no spawning from fishery to BON
- LCR steelhead in tributaries (e.g. Washougal) by start of fishery (Aug20)
- BON & seine populations are the same

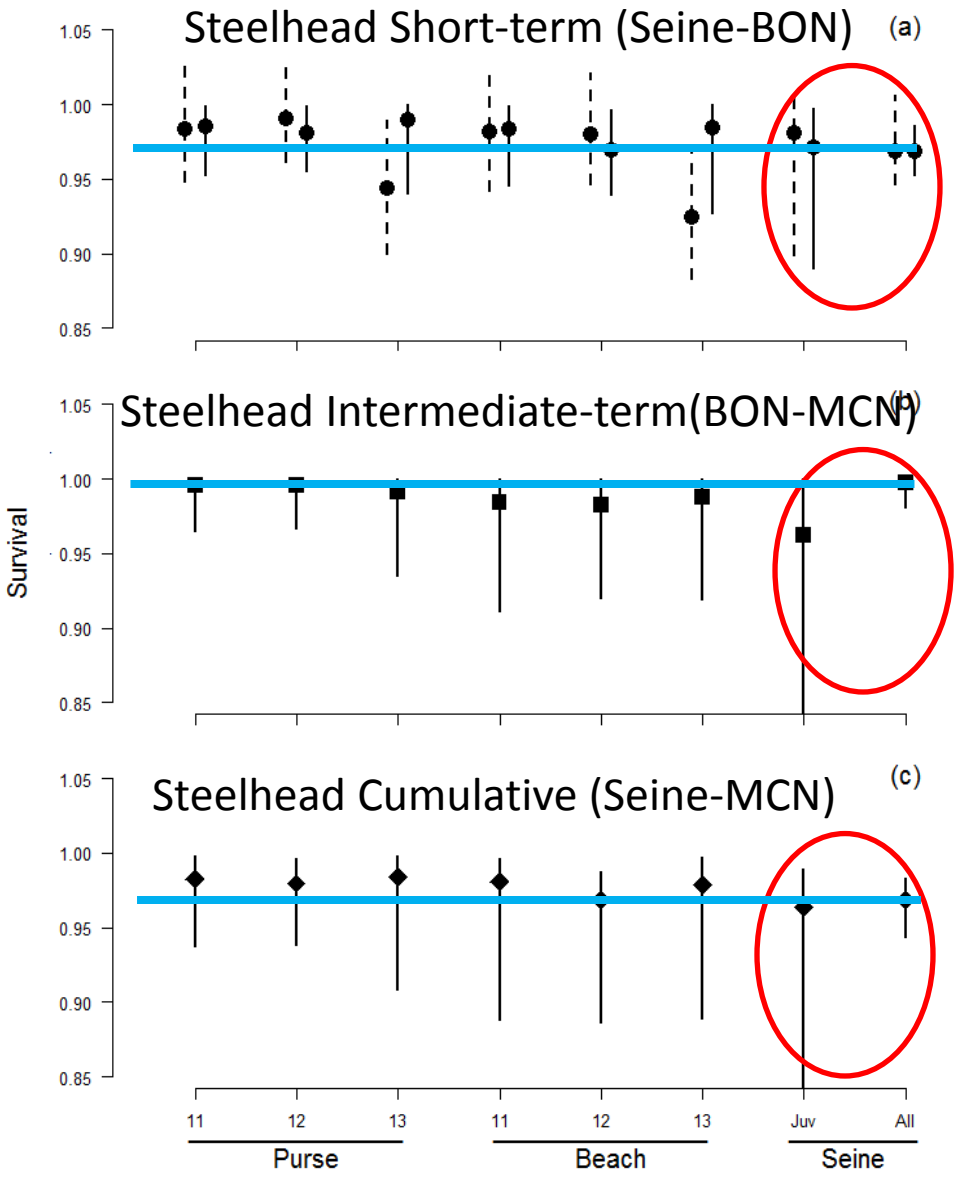
Salmon (R2R Biased)

- significant spawning at BON hatchery and mainstem and tributaries
- salmon from Washougal & Sandy rivers hold in fishery area
- BON & seine populations are the different; statistically different by origin





Steelhead Survivals



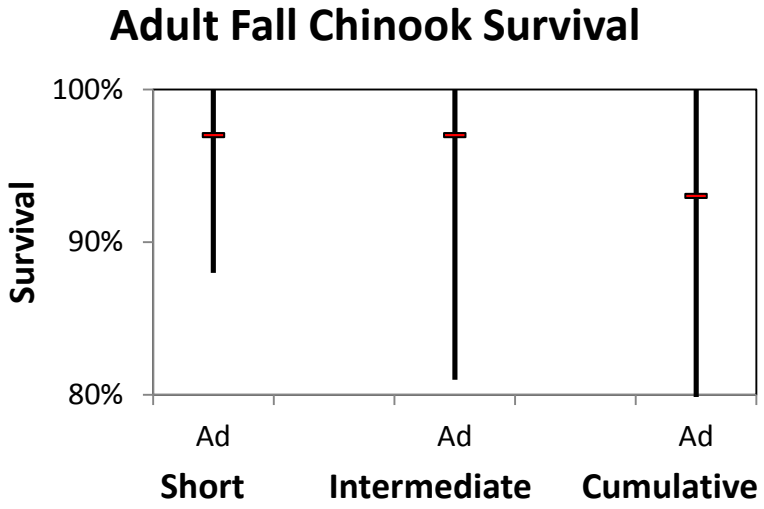
Steelhead Summary

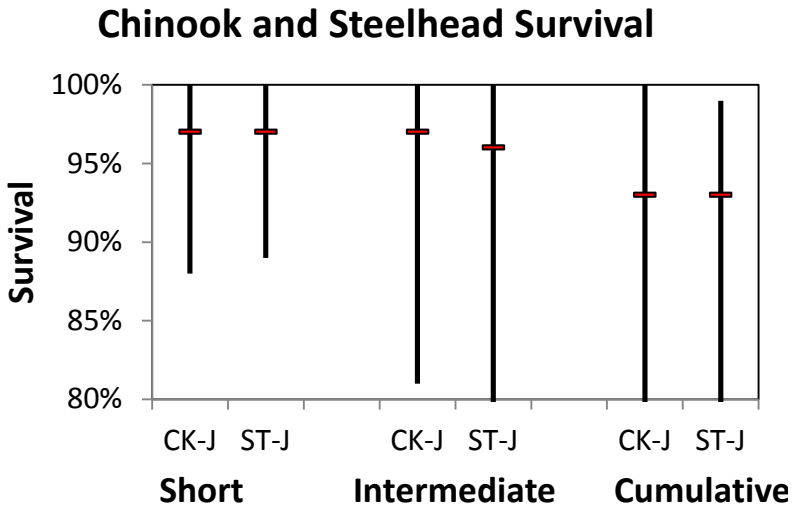
- R2R – solid lines
- Adjust Survival – dotted lines
- Similar survival for adjust & R2R

- Short-term survival ~97%
- Intermediate-term survival ~ 100%
- Cumulative survival ~ 97%

- Similar survival for adults WDFW PIT tagged in fishery and BON compared to juveniles tagged above BON that WDFW captured as adults in the fishery at BON

Salmon Survival Estimates





- Due to assumption violations Chinook survival estimates were calculated using juvenile tagged > BON with R2R model for 2011-13
- Adult survival was > 90%
- Short-term adult Chinook survival >90% for radio tag study in 2013 (not shown)
- Steelhead & Chinook survivals based on PIT tagged juveniles are the same

Alternative Selective Gear

Survival Rates AND Encounter Rates Control Effectiveness

Bycatch in seines

- Steelhead encounter rates, 2014-15 fall fisheries

	Kept Chinook	STH Handle	STH Mortality Rate	Wild B Mortalities	Kept Chinook per B Mortality
4-5 GN (Non)	169,565	2,506	0.59	54.5	3,112
Purse (MSF)	3,769	503	0.02	2.2	1,698
Beach (MSF)	2,018	677	0.05	4.4	459
Combined Seine (MSF)	5,787	1,180		6.6	875

Source: ODFW Briefing Paper

Contributing Factors to Fishery Performance

- Strong returns of summer & fall Chinook
- Increased hatchery production
  - 93% Target Spring Chinook
  - 97% Target Coho
  - 82% Target Select Area Bright
- Generally good prices for commercial catch
- Good management!
- Adaptive management

Adaptive Management

Central Component of Policy

"Reconsideration of state-managed mainstem fisheries may take place under the following circumstances:

- Lower than anticipated catch and economic expectations to the commercial industry
- Insufficient space in off-channel sites to accommodate the commercial fleet
- Biological, fiscal and/or legal circumstances that delay or preclude implementation of alternative gear, buyback of commercial permits, and/or additional off-channel hatchery investments
- Management objectives are not achieved for sport or commercial fisheries
- Conflicts with the terms of the *US v Oregon* Management Agreement with Columbia River tribes
- Failure to meet conservation objectives"

Adaptive Management

Central Component of Policy

Examples

- 2015 Spring Chinook Fishery: Implemented adaptive management to allow use of large-mesh gear to avoid shad and reduce salmonid handle time.
- 2016 Fall Chinook Recreational Fishery: Implemented adaptive management to provide mark-selective fishery from Tongue Point to Warrior Rock Sept. 16-30.

Summary of Key Points

- Policy Purpose
  - o Conservation and recovery
  - o Orderly fisheries
  - o Economic well-being and stability of the fishing industry in the state
- Strategies Include
  - o Promote the use of mark-selective gear in mainstem
  - o Enhance economic benefits of off-channel fisheries
  - o Develop and implement alternative selective gear
  - o Adaptively manage

Summary of Key Points

- Fishery Performance
  - 56% increase in ex-vessel value
  - 47% increase in angler trips
  - Sharing generally consistent with policy guidance
- Off-Channel Production
  - 93% Target Spring Chinook
  - 97% Target Coho
  - 82% Target Select Area Bright
- Alternative Selective Gear
  - $61,000 ex-vessel value versus projected $359,000

Options for Policy Update

- Spring Chinook
- Summer Chinook
- Fall Chinook

Spring Chinook

Subject to Adaptive Management Provisions

Option 1 Extend Transition	Option 2 ODFW Staff Proposal	Option 3 Current Policy
70% Recreational 30% Commercial	80% Recreational 20% Commercial	80% Recreational 20% Commercial
Tangle net and gill net in off-channel areas		
Mainstem tangle net	• Mainstem non-gill net selective gear after run update • Unused impacts from recreational fishery & off-channel	No mainstem commercial fishery
Run-size buffer applicable to all fisheries	Run-size buffer not applicable to off- channel fisheries	Run-size buffer not applicable to off-channel fisheries
20% catch buffer		0% catch buffer

Summer Chinook

Subject to Adaptive Management Provisions

Option 1 Extend Transition	Option 2 ODFW Staff Proposal	Option 3 Current Policy
70% Recreational 30% Commercial	80% Recreational 20% Commercial	Not Specified
Mainstem gill net	• 75% of commercial impacts for mainstem fisheries with non-gill net selective gear • Unused impacts transferred to recreational fishery upstream of Bonneville or to spawning escapement	

Fall Chinook

Subject to Adaptive Management Provisions

Option 1 Extend Transition	Option 2 Current Policy
70% Recreational 30% Commercial	80% Recreational 20% Commercial
Gill net in off-channel areas	
• Mainstem commercial fisheries with alternative selective gear. • Adaptive management provides for gill nets above the Lewis River if alternative selective gear is not available and practical, based on administrative, biological or economic factors.	• Mainstem commercial fisheries with alternative selective gear. • Adaptive management will be used to ensure available gear types and techniques are effective and that commercial fishers continue to have profitable mainstem access to Upriver Bright fall Chinook.

Fall Chinook

- With respect to Guiding Principle 9 (Alternative Selective Gear), the Department will:
  - Solicit funding to develop and test alternative selective commercial gear.
  - Provide the Commission in December 2017 with a proposed approach for providing incentives to commercial fishers to promote the transition to alternative selective gear.
- With respect to General Provision 9 (Enhance Fishery Management), the Department will:
  - Estimate the bycatch of sturgeon and steelhead in any mainstem gill net fisheries through onboard or other direct monitoring methods

Public Comments

- >100 comments received by email
  - Support for full implementation
    - Larger economic benefit from recreational fisheries
    - Selective fishery methods needed for conservation/recovery
  - Policy not working as planned, needs modification
    - SAFE areas and alternative gears not performing as expected
    - Gillnets are selective through time, area and gear size management
    - Maintain public access to salmon in stores and restaurants

Next Steps

- Today…
  - Questions for staff?
  - Recreational and Commercial panels
  - Public comment
  - Commission direction on option modifications
- January Commission Meeting
  - Staff briefing on options, management costs, revenue
  - Public comment
  - Commission considers policy updates