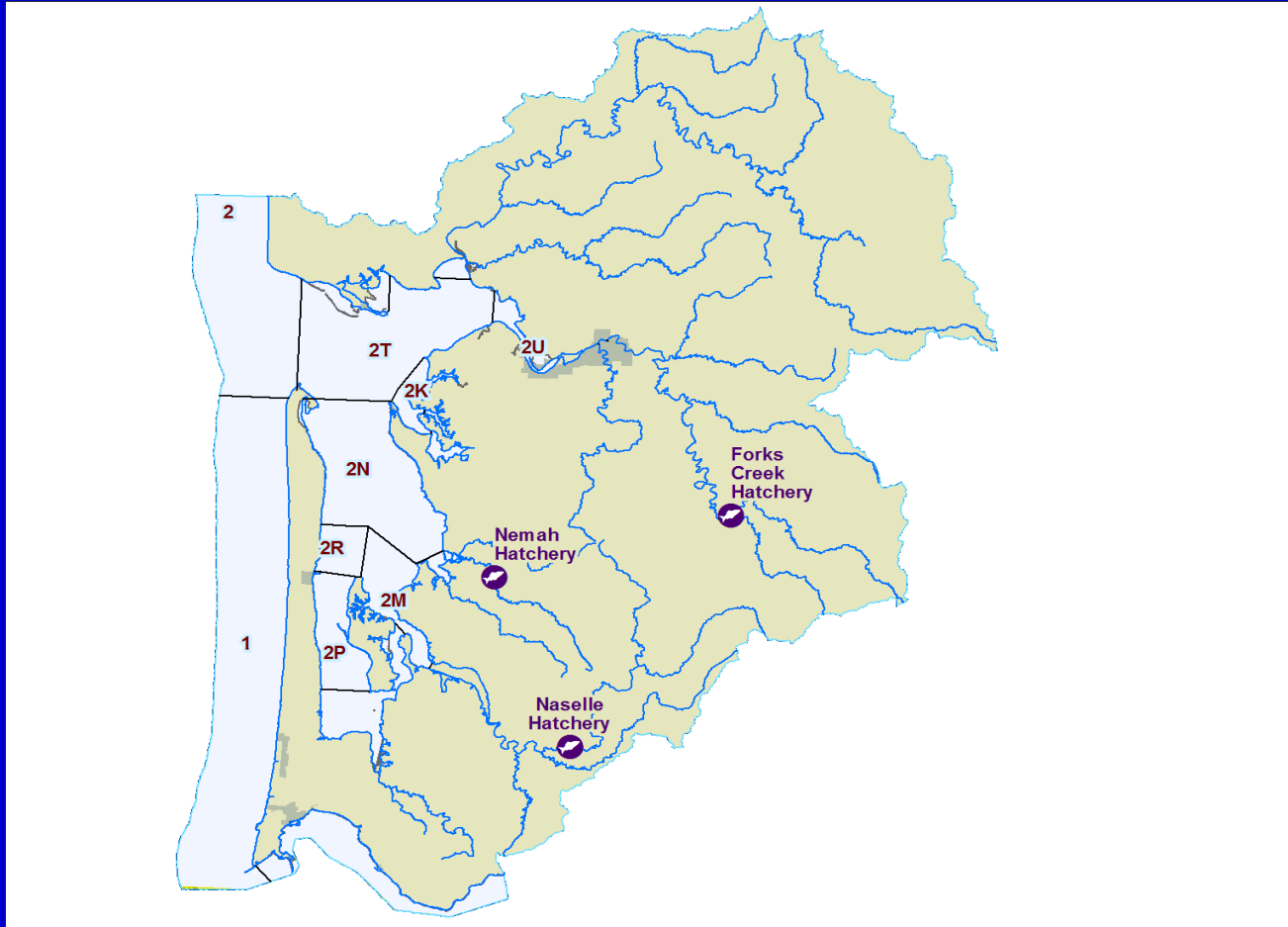




Willapa Bay Salmon Management Policy



**Steve Thiesfeld; Region 6 Fish Program Manager
Washington Fish and Wildlife Commission Meeting
June 13, 2015**

Purpose

- **Brief Commission on Willapa Bay Salmon Management Policy process**
- **Report on feedback from public**
- **Consider policy amendments**
- **Consider policy adoption**

Presentation Outline

- **Policy Development Schedule**
- **Mandate and Existing Guidance**
- **Why a policy is needed**
- **Conservation Concerns**
- **Fishery – Catches & Economics**
- **Option Analyses**
- **Public Comment**
- **Key Policy Decisions**
- **Staff Recommended Edits**

Policy Development Schedule

- **Nov - FWC reviewed initial Policy sideboards**
- **Dec - FWC briefed on Policy development**
- **Jan - FWC considers draft Policy**
 - **Receives public comment**
 - **FWC provides additional direction on Policy**
 - **Draft policy released for 3-week public comment period**
- **Feb - FWC considers revised draft Policy**
 - **Receives public comment on draft Policy**
 - **Provides additional direction**
 - **Revised draft policy released for 3-week public comment period**
 - **Need for 2015 interim guidance identified**

Policy Development Schedule

- **April - FWC considers revised draft Policy**
 - FWC adopts interim guidance for 2015 North of Falcon
 - Receives public comment on revised draft Policy
 - Provides additional direction
 - Revised draft policy released for 3-week public comment period

- **June - FWC considers adoption of Policy**

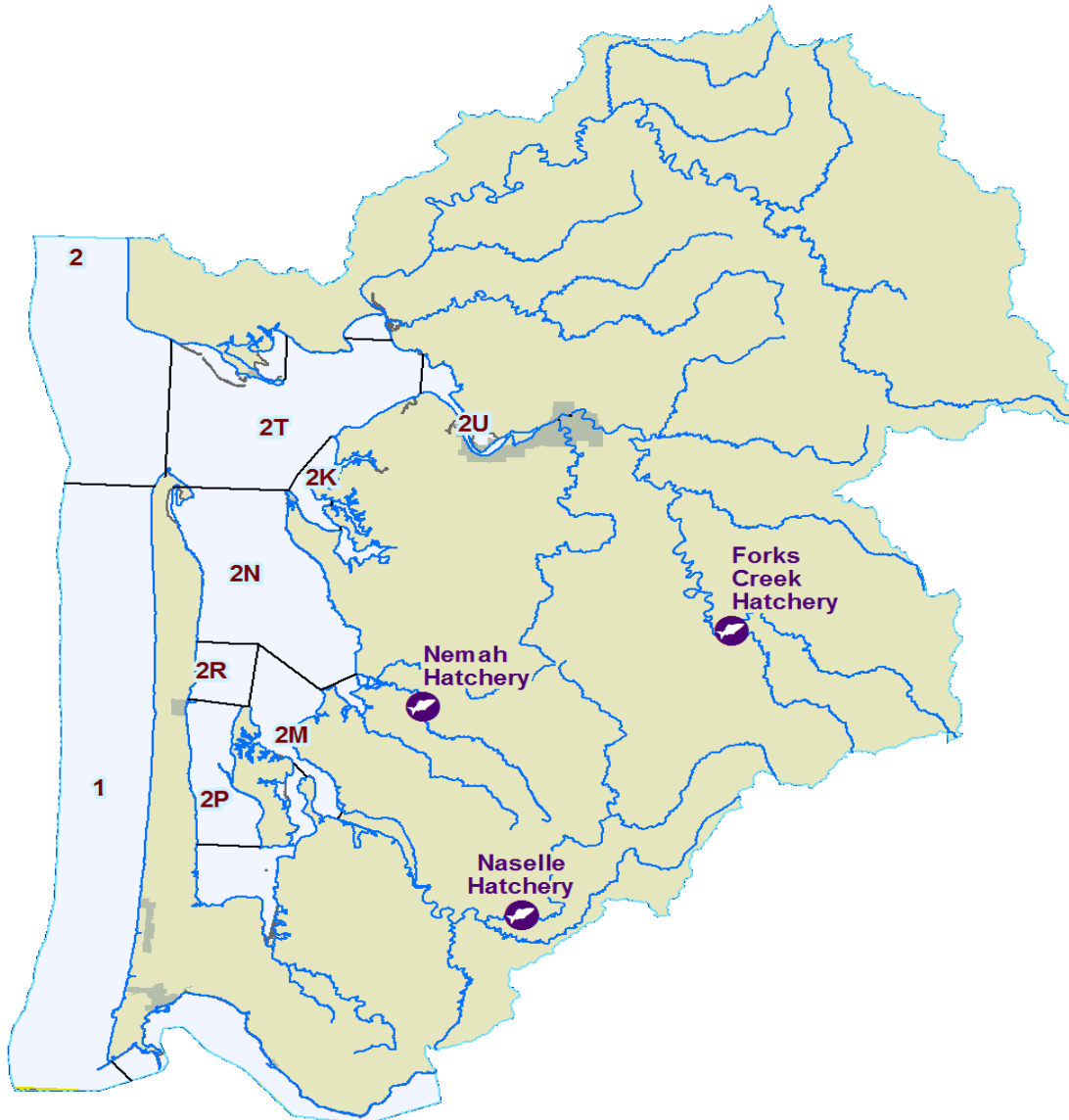
Public Process

- **Oct. 25th Open house**
- **Oct. 27th Ad-hoc committee/public meeting**
- **Nov. 1st Public workshop**
- **Nov. 13th Ad-hoc committee/public meeting**
- **Nov. 20th Ad-hoc committee/public meeting**
- **Dec. 6th Public workshop**
- **Dec. 30th, Public workshop – AHA modeling**
- **Jan. 6th, Ad-Hoc committee/public meeting**
- **Jan. 17th, Public workshop**

Mandate and Existing Guidance

- **RCW 77.04.12**
 - **Preserve, protect, perpetuate, and manage**
 - **Maintain the economic well-being and stability of the fishing industry**
- **2015-17 Budget Policy**
 - **Compare economic benefits in policy and budget decisions**
 - **Promote selective fisheries**
 - **Equitable sharing of the costs of management**

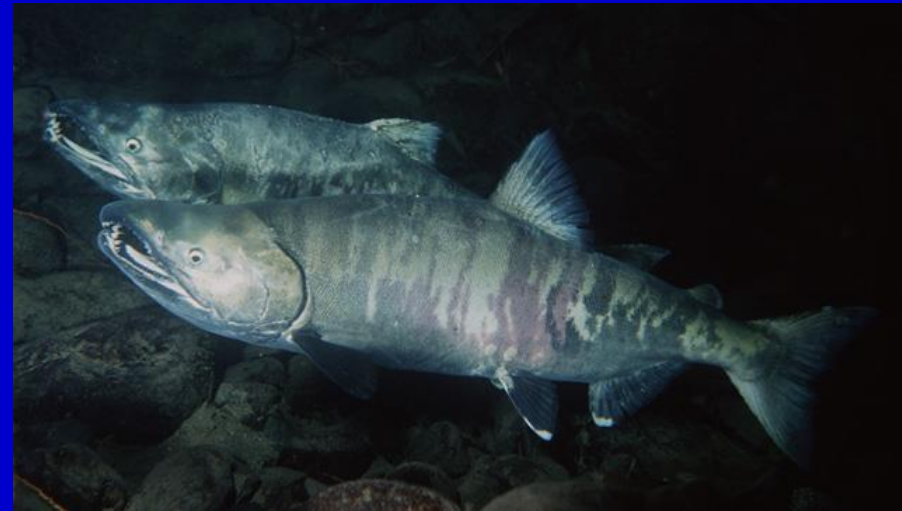
Willapa Bay Basin



Why is a Willapa Bay Salmon Management Policy Needed?

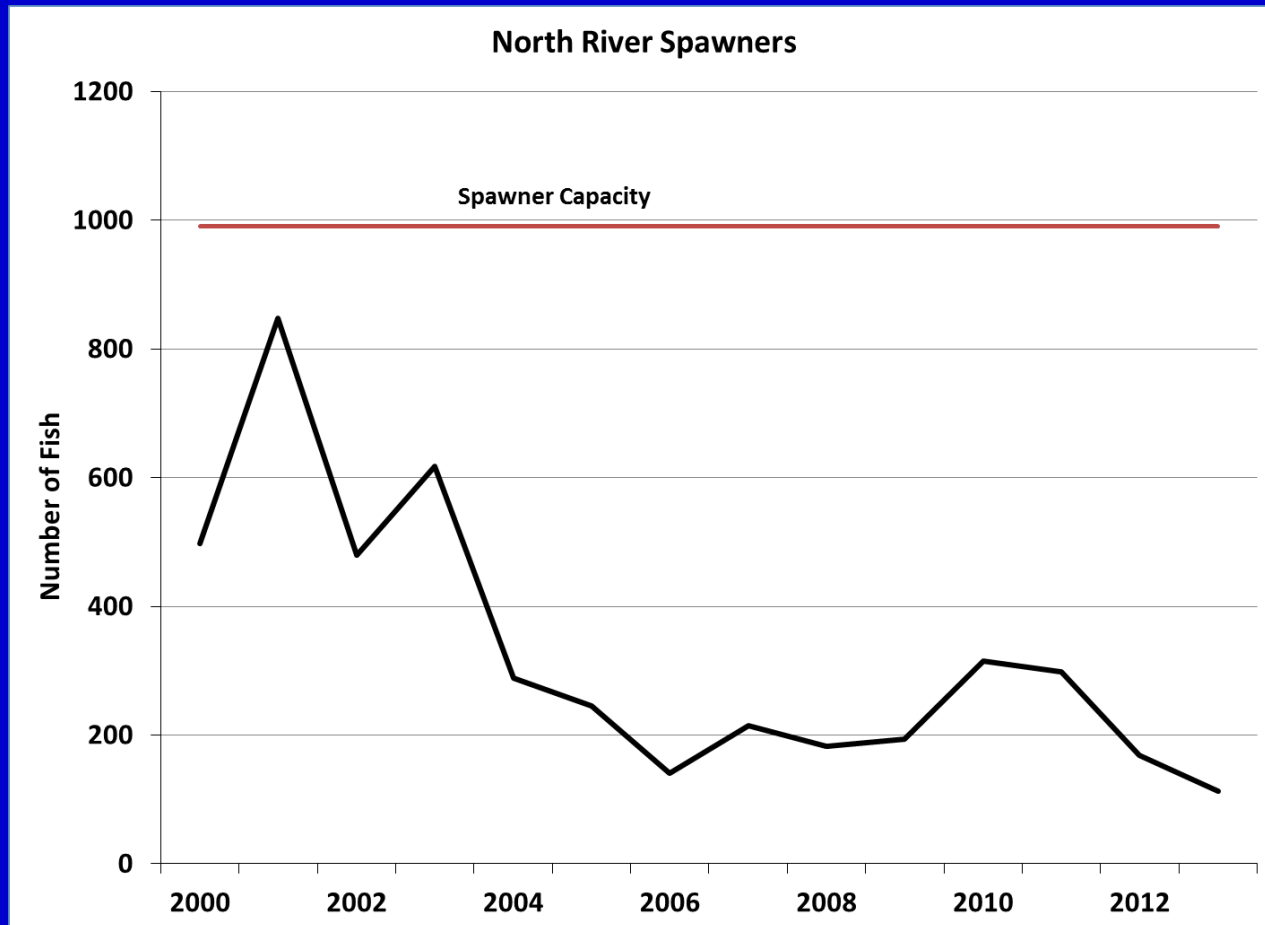
- **Greater Conservation Focus on Natural-Origin Fish**
- **Clarify Sharing of Impacts & Reduce Gear Conflict**
 - Valuable commercial fishery
 - Increasing interest in sport fishing
- **Restore and Maintain Public Trust**

Conservation Focus



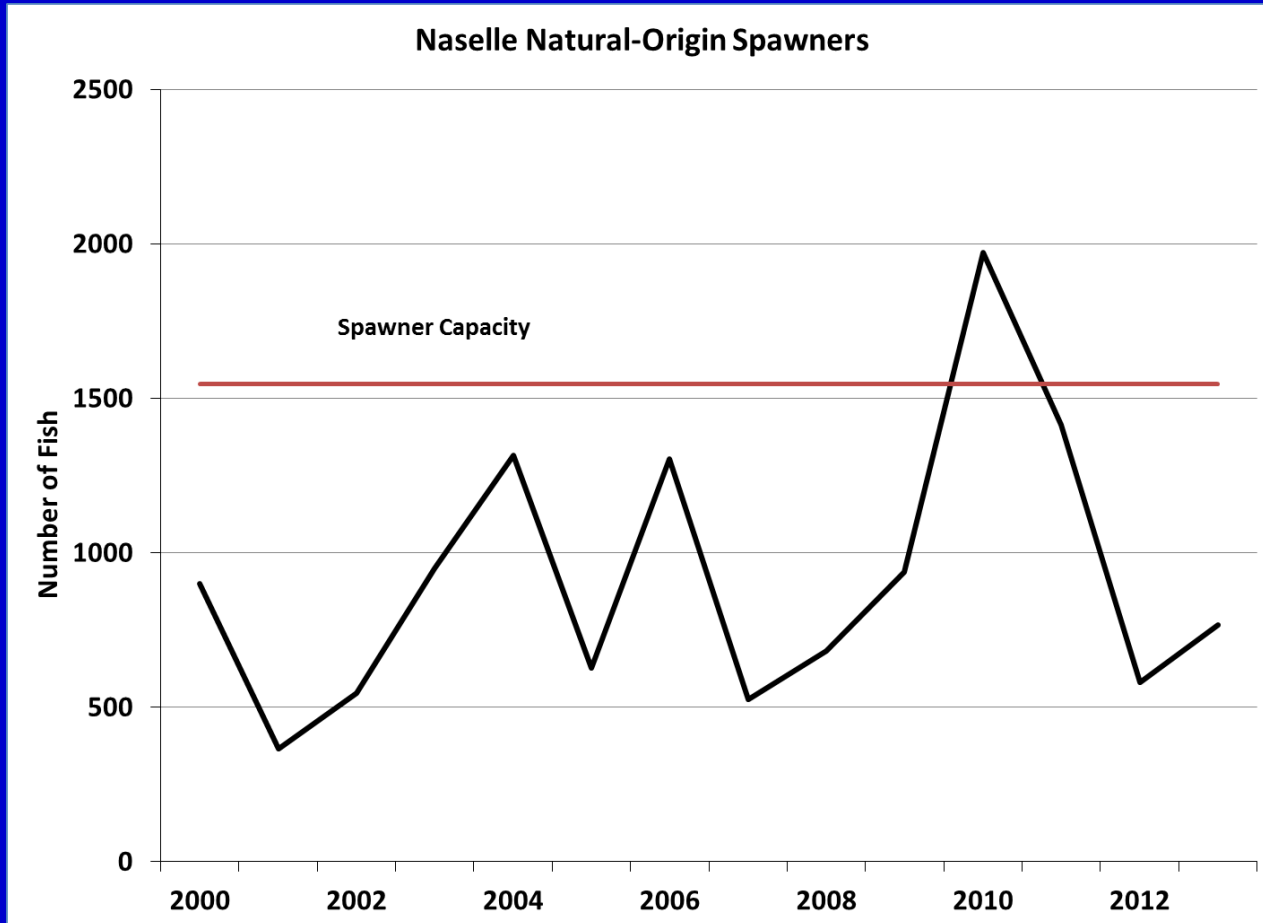
Conservation Concerns

2013 - North River Chinook Spawners 11% of Capacity



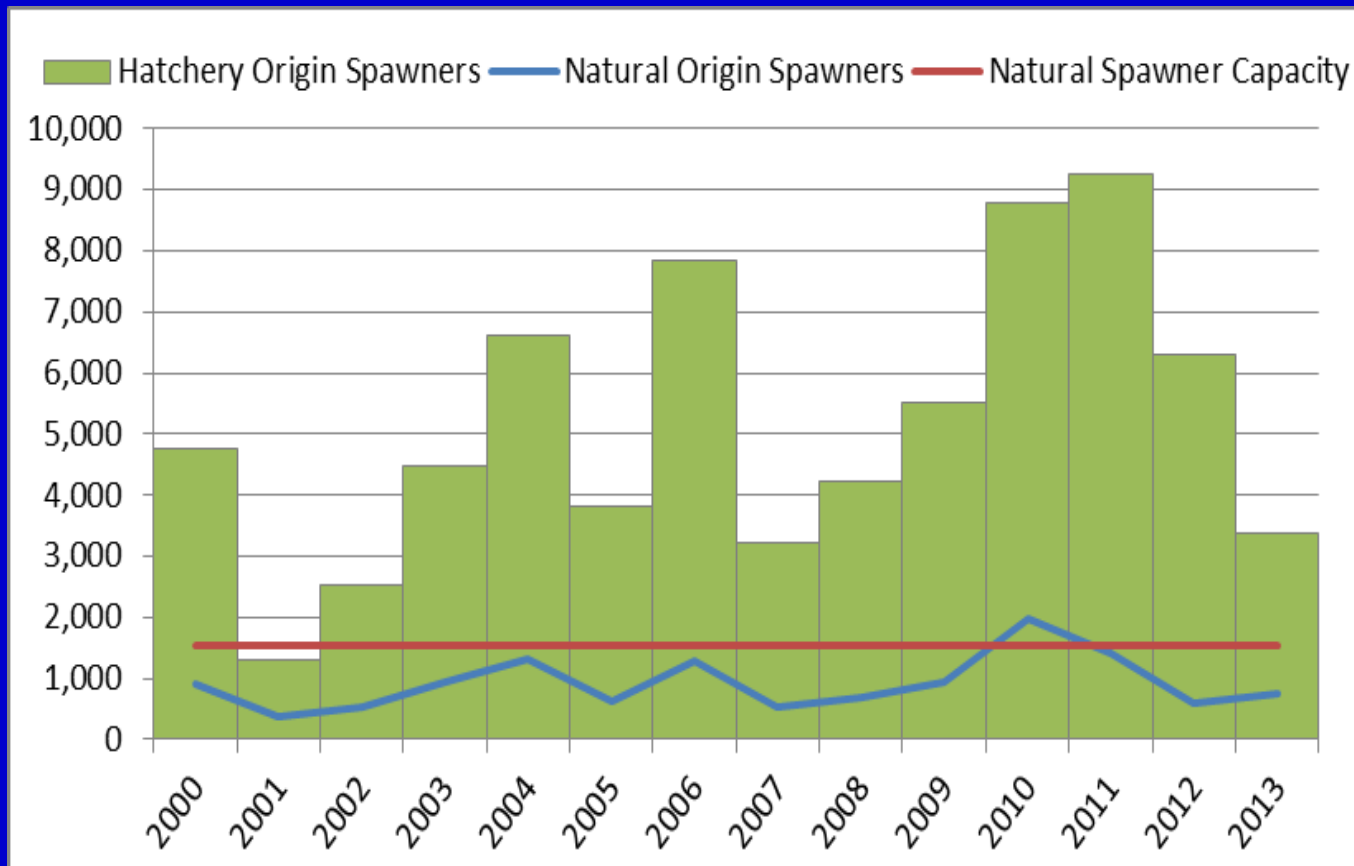
Conservation Concerns

2013 - Naselle River Chinook Spawners 50% of Capacity



Conservation Concerns

Too many hatchery-origin strays



Why be Concerned?

- **Could be getting more naturally produced salmon**
 - **Accrue benefits of habitat restoration**
 - **State funding not required**
- **Prevent ESA-Listing**



Current status of Coastal Chinook ESU

	Spawner Abundance		Long Term Trend	
	91-96 Mean	09-13 Mean	NOAA 1998	WDFW 2015
Hoko Fall	799	280	2.3	-1.8
Quillayute Spring	1,152	702	-1.8	-2.4
Quillayute Fall	5,702	3,819	3.3	-3.4
Hoh Spring	1,297	838	1.4	-3.7
Hoh Fall	3,000	1,766	2.2	-2.5
Queets Spring	602	452	4.2	-3.9
Queets Fall	3,535	2,560	2.8	-1.6
Humtulpis Fall	3,706	4,299	-0.1	0.1
Chehalis Spring	1,979	1,854	4.7	0.7
Chehalis Fall	11,345	9,690	n/a	-1.0
Willapa Fall	2,404	2,599	-7.0	2.4

Prevent ESA-listing

- Could Willapa Bay Chinook be listed?
- Examples:
 - Lower Columbia River
 - Nisqually River
 - Skokomish River

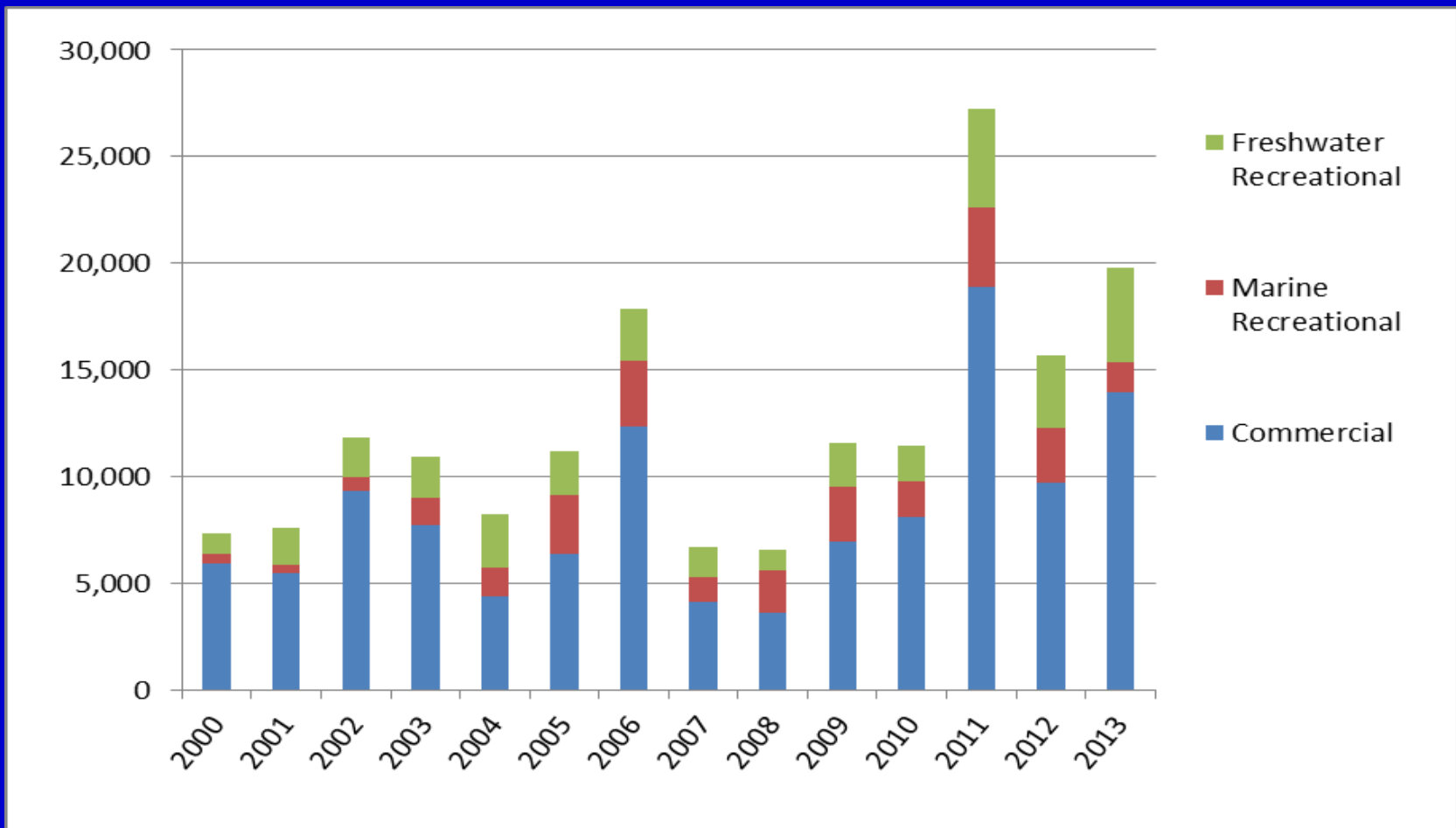


The screenshot shows the NOAA Fisheries West Coast Region website. The navigation bar includes links for NOAA HOME, WEATHER, OCEANS, FISHERIES, CHARTING, SATELLITES, CLIMATE, RESEARCH, COASTS, and CAREER. A search bar is present with the text "Search NMFS Site...". The main header features the NOAA logo and the text "NOAA FISHERIES | West Coast Region" with the subtitle "NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION". A left sidebar contains a menu with items: West Coast Region Home, About Us, What We Do, Aquaculture, Fish Passage, Habitat, Protected Species, Fisheries, Hatcheries, Resources, and Permits & Authorizations. The main content area has a breadcrumb trail: "West Coast Region Home » Salmon & Steelhead » Salmon & Steelhead Listings » Chinook". Below this is a large image of a Chinook salmon with the word "CHINOOK" overlaid in large, semi-transparent letters. Underneath the image, the title "Lower Columbia River Chinook" is displayed. At the bottom of the page, the text reads: "ESA Listing Status: Threatened on June 28, 2005 (299kb); updated April 14, 2014 (503kb)".

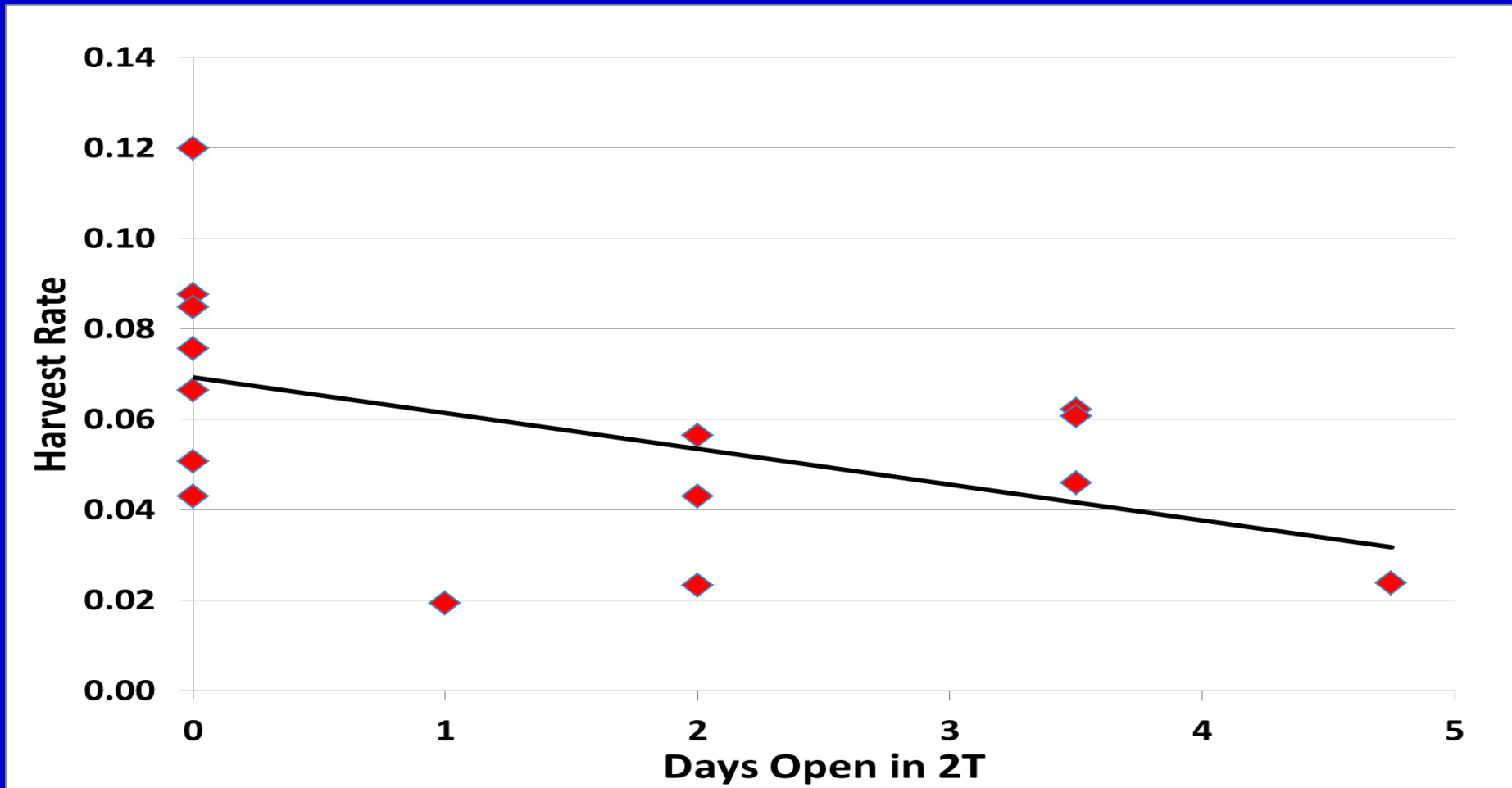
Fishery Catches & Interactions



Sharing - Fall Chinook Catches



Analysis 1 - Interaction of Commercial and Recreational Fisheries

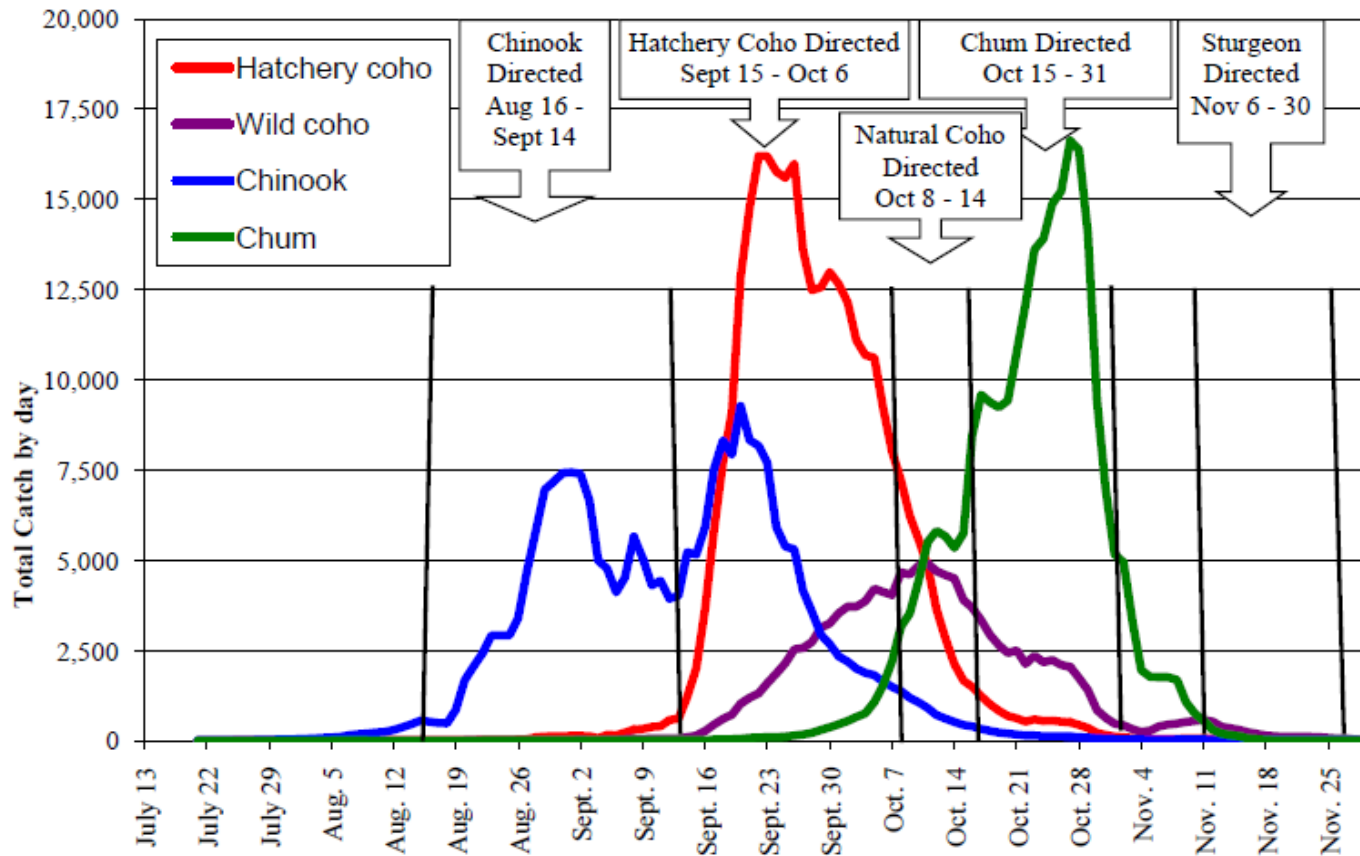


More commercial fishing – lower recreational harvest rate

Analysis 2 - Interaction of Commercial and Recreational Fisheries

- **2006 – 2009**
 - 0 days fished in catch area 2T
 - .069 harvest rate
- **2010 – 2013**
 - 3 days fished in catch area 2T
 - .051 harvest rate
- **35% increase in marine recreational harvest rate with no commercial fishery prior to Sept 8.**

Year	Number of scheduled Commercial Fishing Days prior to 9/8	Recreational Marine Harvest Rate
2006	0	0.066
2007	0	0.051
2008	0	0.085
2009	0	0.076
2010	2	0.043
2011	3.5	0.062
2012	3.5	0.061
2013	3.5	0.038
2006-2009	0	0.069
2010-2013	3.125	0.051



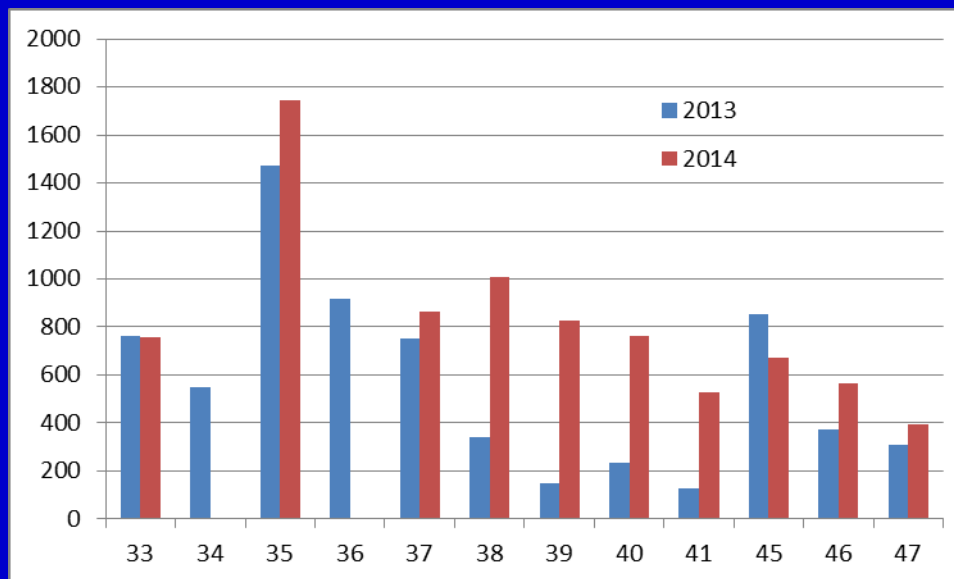
Early August commercial fishery

- Timing determines number of Chinook available
- Abundance increases rapidly in mid-August

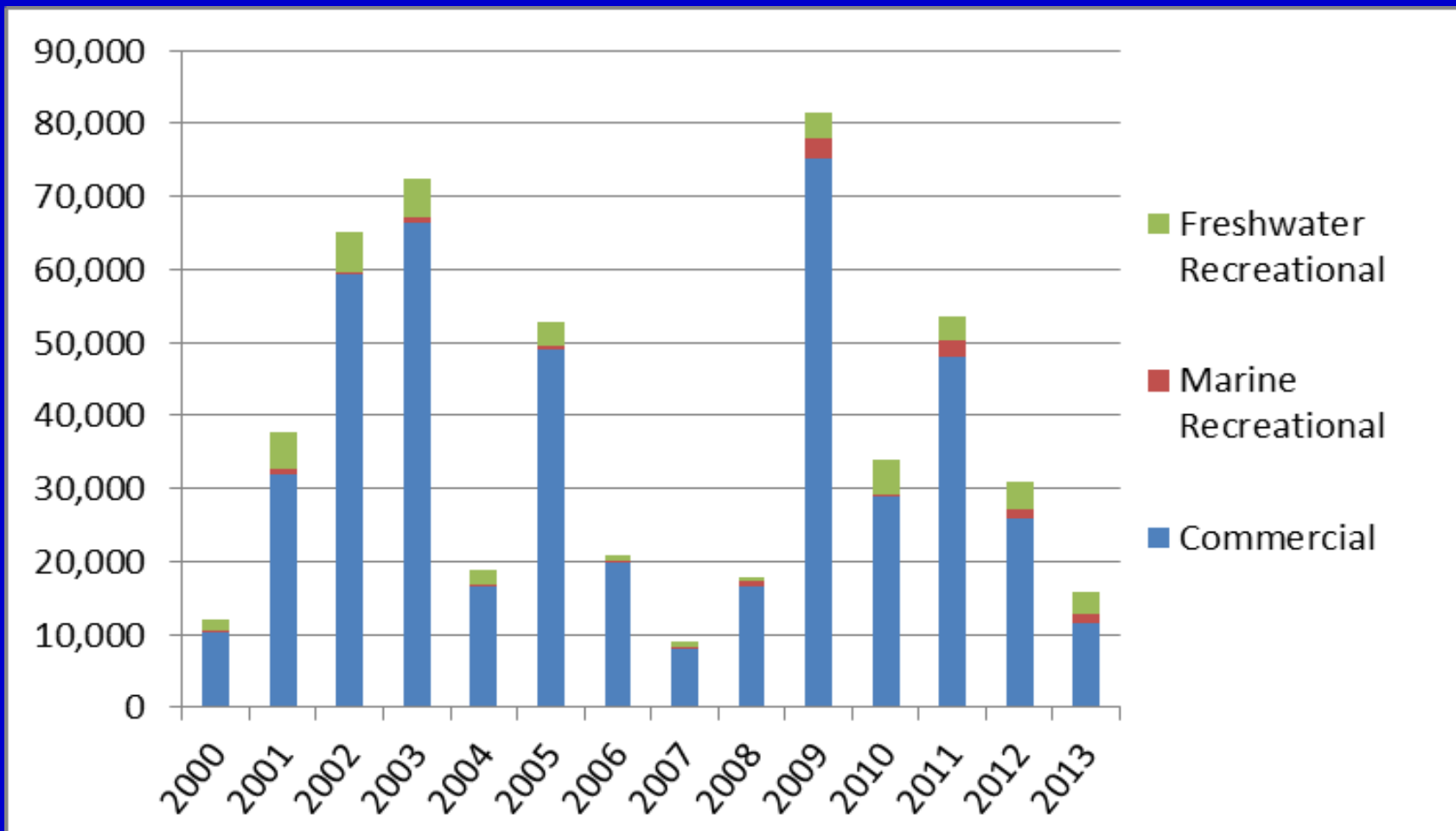
Interaction of Commercial and Recreational Fisheries

Importance of Early August commercial fishery

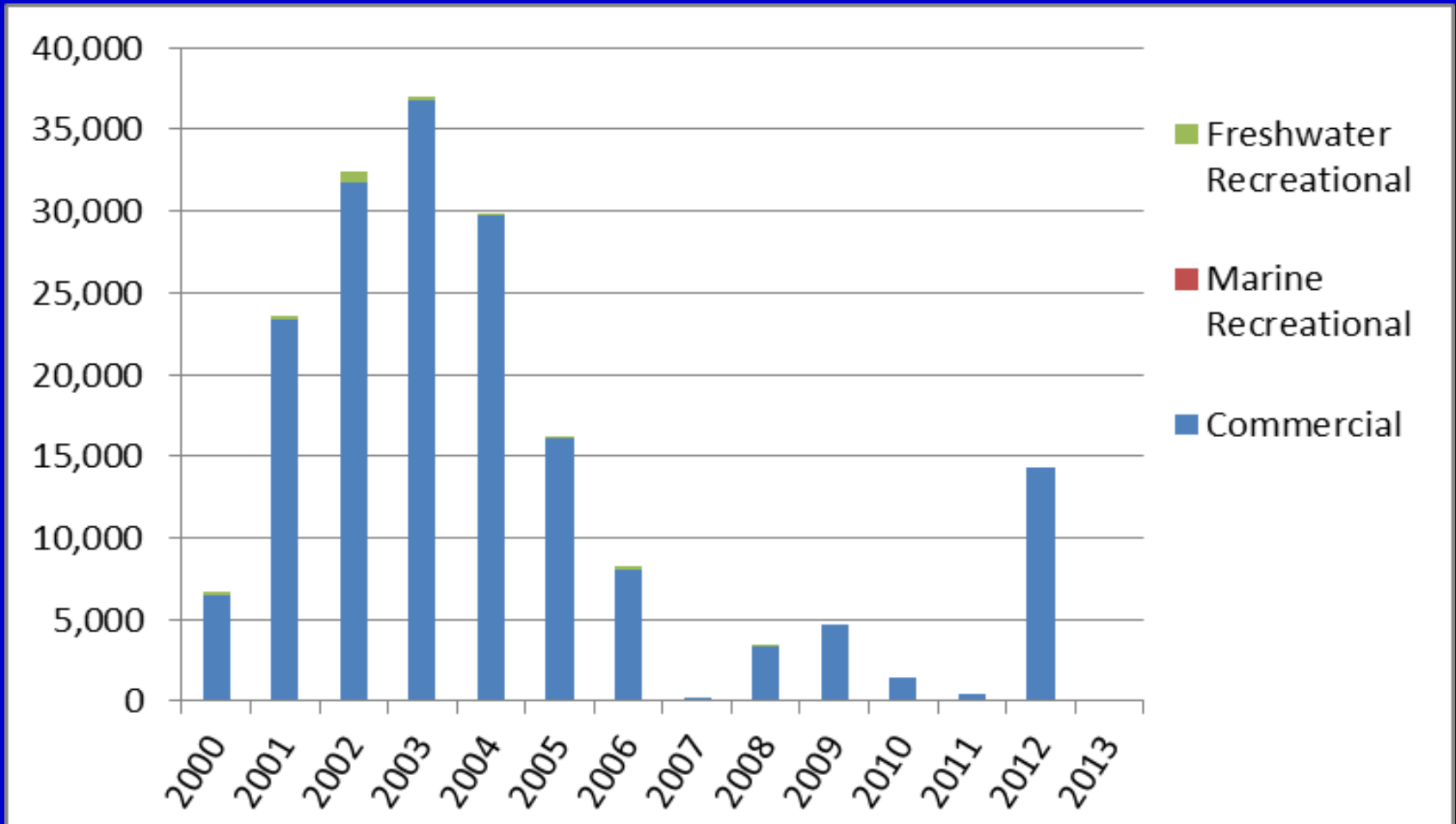
- High value product
- High economic return per day fishing
- Provides stable fishery; coho abundance and fishery more variable



Coho Catches



Chum Catches



Economics of Willapa Bay Fisheries



Commercial Fisheries Ex-vessel Value

2000-2013 Average = \$639,944

Year	Chinook	Chum	Coho	Total	Average
2000	\$151,907	\$36,322	\$62,316	\$250,545	\$382,797
2001	\$81,252	\$66,778	\$123,734	\$271,764	
2002	\$106,512	\$65,005	\$214,965	\$386,482	
2003	\$120,734	\$92,251	\$409,412	\$622,397	
2004	\$117,334	\$87,215	\$191,869	\$396,418	\$571,590
2005	\$137,852	\$70,491	\$604,308	\$812,650	
2006	\$477,618	\$39,726	\$334,863	\$852,207	
2007	\$166,855	\$1,180	\$134,631	\$302,666	
2008	\$139,769	\$19,686	\$334,552	\$494,008	\$914,016
2009	\$211,133	\$20,868	\$858,667	\$1,090,668	
2010	\$267,758	\$8,295	\$407,670	\$683,723	
2011	\$604,957	\$2,599	\$724,673	\$1,332,229	
2012	\$336,222	\$74,637	\$404,808	\$815,666	
2013	\$443,210	\$0	\$204,584	\$647,794	

**Gross Domestic Product inflation adjusted; normalized to real 2014 dollars*

Commercial Fisheries Economic Impact

2000-2013 Average = \$1,433,475

Year	Chinook	Chum	Coho	Total	Average
2000	\$340,271	\$81,361	\$139,589	\$561,220	\$857,466
2001	\$182,004	\$149,584	\$277,164	\$608,751	
2002	\$238,587	\$145,612	\$481,522	\$865,720	
2003	\$270,444	\$206,643	\$917,083	\$1,394,170	
2004	\$262,829	\$195,362	\$429,786	\$887,977	\$1,280,361
2005	\$308,789	\$157,899	\$1,353,649	\$1,820,337	
2006	\$1,069,864	\$88,986	\$750,093	\$1,908,943	
2007	\$373,756	\$2,642	\$301,574	\$677,973	
2008	\$313,082	\$44,098	\$749,397	\$1,106,577	\$2,047,396
2009	\$472,939	\$46,744	\$1,923,413	\$2,443,096	
2010	\$599,778	\$18,581	\$913,181	\$1,531,540	
2011	\$1,355,105	\$5,823	\$1,623,267	\$2,984,194	
2012	\$753,137	\$167,187	\$906,769	\$1,827,092	\$1,433,475
2013	\$992,791	\$0	\$458,268	\$1,451,059	

**Gross Domestic Product inflation adjusted; normalized to real 2014 dollars*

- Economic Impact = ex-vessel value * 2.24 (Wegge 2008)*

Recreational Fishery Economic Impact

2000-2013 Average = \$2,338,208

Year	Marine	Freshwater	Total	Averages
2000	\$282,680	\$629,514	\$912,193	\$1,982,310
2001	\$413,703	\$1,765,780	\$2,179,483	
2002	\$321,196	\$1,933,278	\$2,254,473	
2003	\$651,677	\$1,931,413	\$2,583,090	
2004	\$560,545	\$1,230,268	\$1,790,813	\$1,740,542
2005	\$1,194,340	\$1,395,102	\$2,589,442	
2006	\$1,142,068	\$810,059	\$1,952,127	
2007	\$474,572	\$573,592	\$1,048,164	
2008	\$885,180	\$436,985	\$1,322,165	\$3,220,593
2009	\$1,901,040	\$1,479,517	\$3,380,556	
2010	\$630,012	\$1,750,335	\$2,380,347	
2011	\$2,091,900	\$2,115,954	\$4,207,854	
2012	\$1,398,268	\$1,856,586	\$3,254,854	
2013	\$909,597	\$1,969,759	\$2,879,356	

**Gross Domestic Product inflation adjusted; normalized to real 2014 dollars*

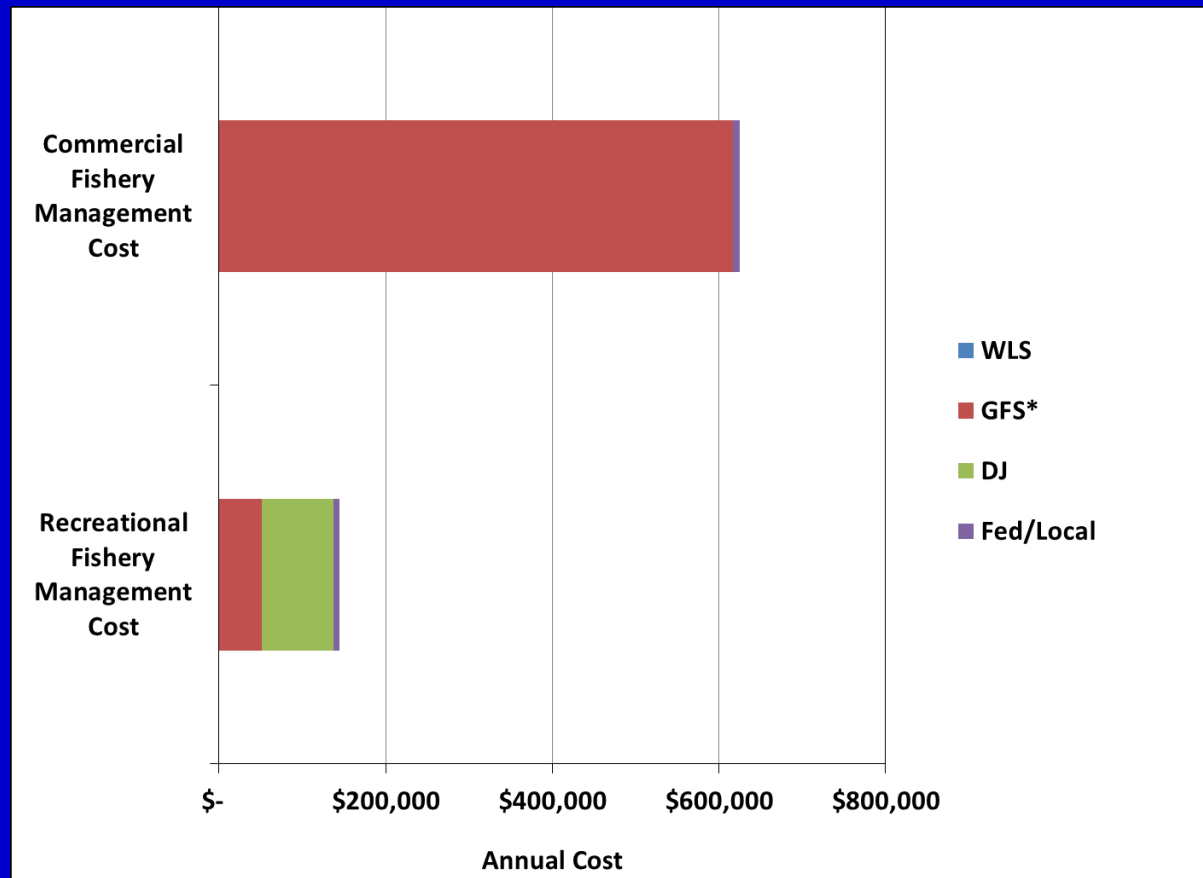
- *Economic Impact/trip = \$96.29 Marine, \$63.91 Freshwater (Wegge 2009)*

Limitations of Fishery Economic Analysis

- **Coarse scale analysis based on statewide studies**
- **Ex-vessel value does not necessarily reflect costs-profits of fishers**
- **Estimated economic impacts of recreational and commercial fisheries not directly comparable**
- **Difficult to predict future fishery economics**
- **Will use additional economic information as it becomes available**

Cost of Business

- Includes only regional Fish Program expenses
- Excludes CWTs, Fish Tickets, Catch Record Cards, etc.



Key Policy Decisions

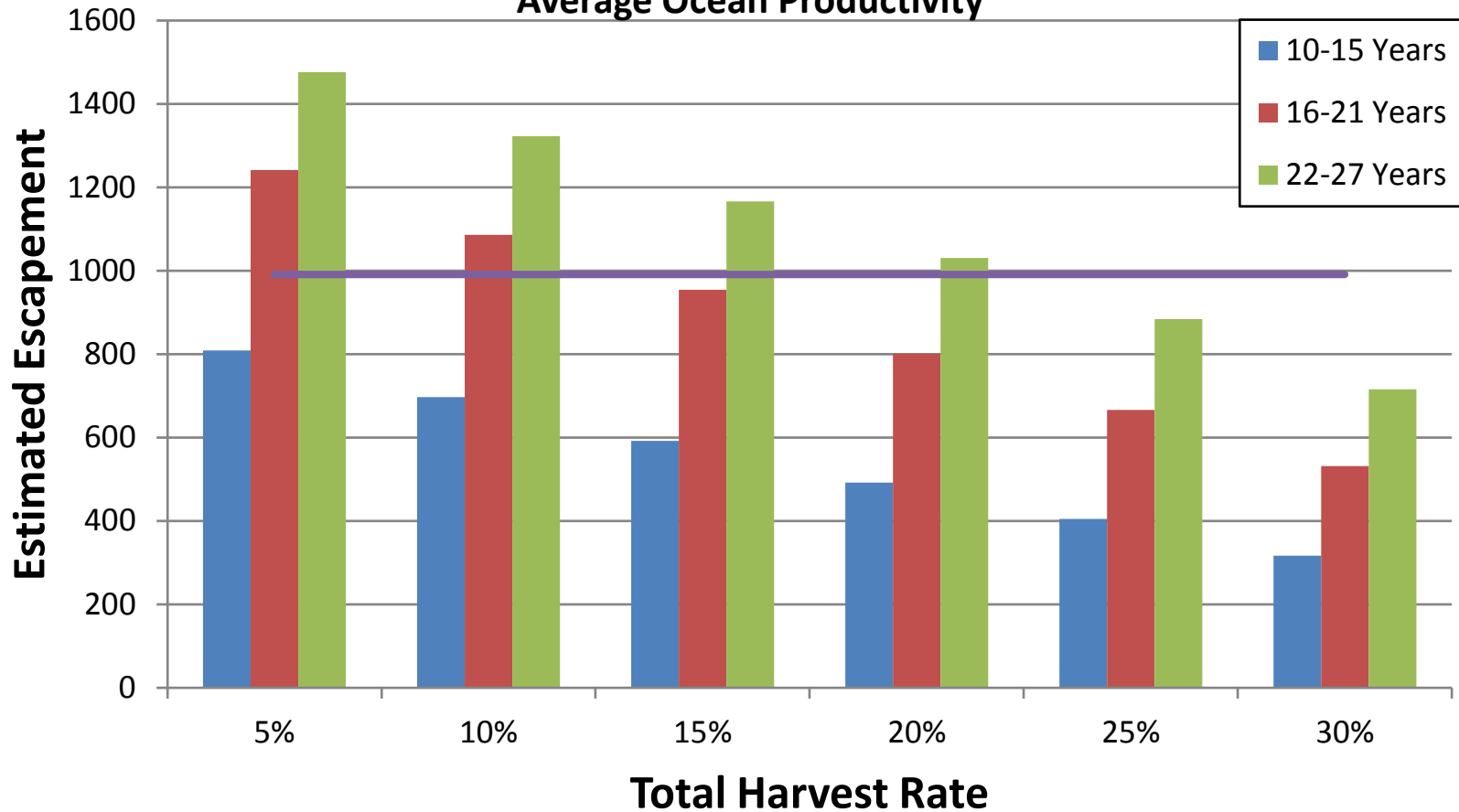
- **Strength of Conservation Measures**
- **Gear Conflict & Sharing of Impacts**
- **Rapidity of Implementation**

Conservation

Reduce Chinook Harvest Rates

North River - Draft Preliminary Analysis

Average Ocean Productivity



Developed 5 Chinook Options

Alternative	A	B	C	D	E
Primary	Willapa	Willapa	Willapa	Willapa	Willapa
Contributing	-	-	Naselle	-	Naselle
Wild Zone	North	North	North	North	North
Production	7M	7M	4.5M	7M	4.5M
Rebuilding Period	16-21	16-21	16-21	16-21	16-21
Harvest Rate	20%/14%	20%/14%	20%/14%	14%	14%
Commercial 2T,2U Start	Sept. 16	August 1	Sept. 16	Sept. 16	Sept. 16
Others Start	August 16	August 1	Sept. 7	August 16	Sept. 7

Coho Management

- **Continue to achieve the aggregate spawner goal**
- **Hatchery programs and fisheries managed to achieve broodstock standards**
- **Prioritizes commercial opportunity beginning Sept. 16 through Oct. 14**

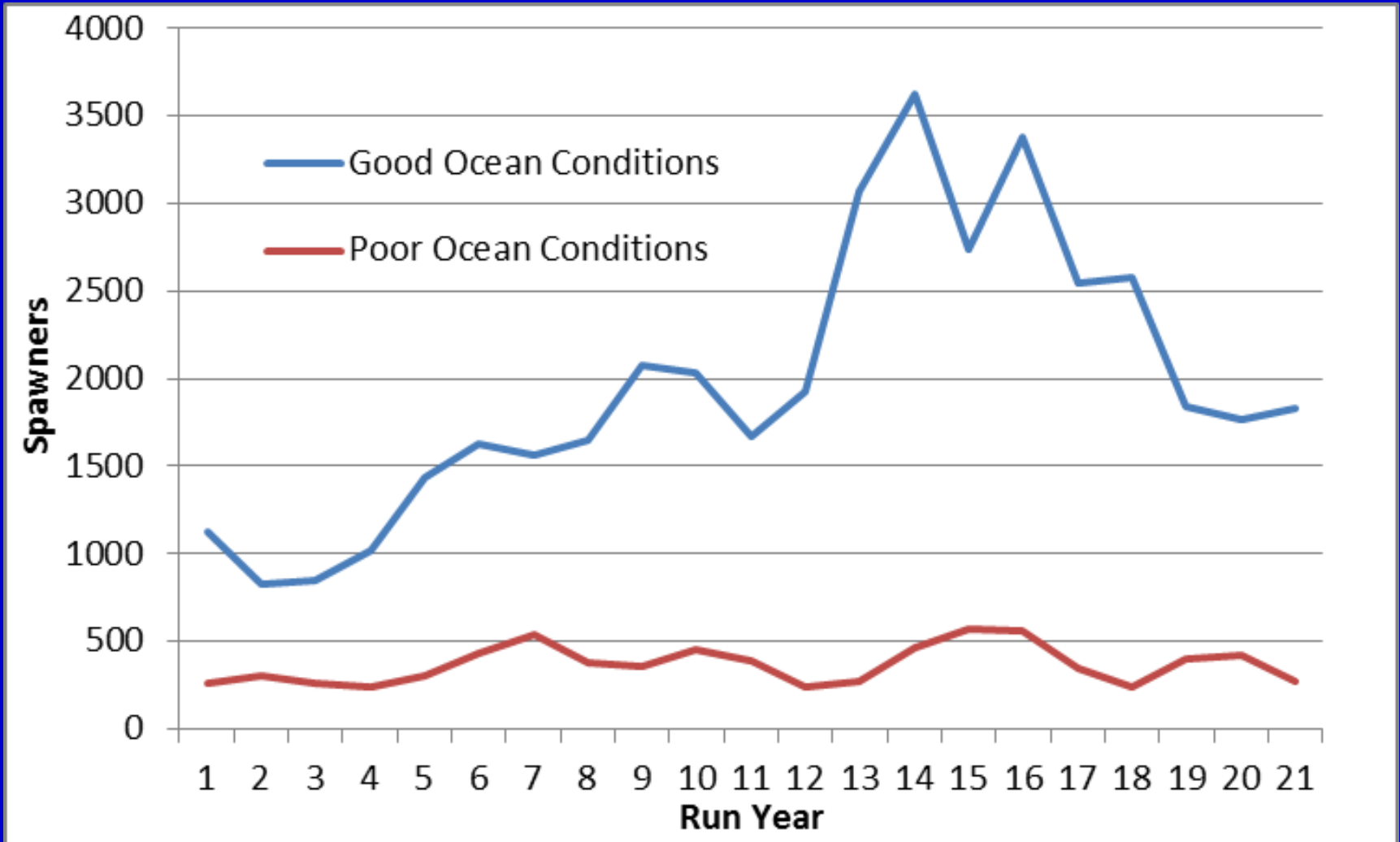
Chum Management

- **Achieve the aggregate spawner goal**
- **No Chum directed fishing and 10% impact limit until the spawner goal is achieved**
 - Option A: 1 year
 - Option B: 2 consecutive years, “penalty box” – 5% limit
- **Prioritizes commercial opportunity beginning Oct. 15 through Oct. 31**
- **Evaluate hatchery Chum enhancement**

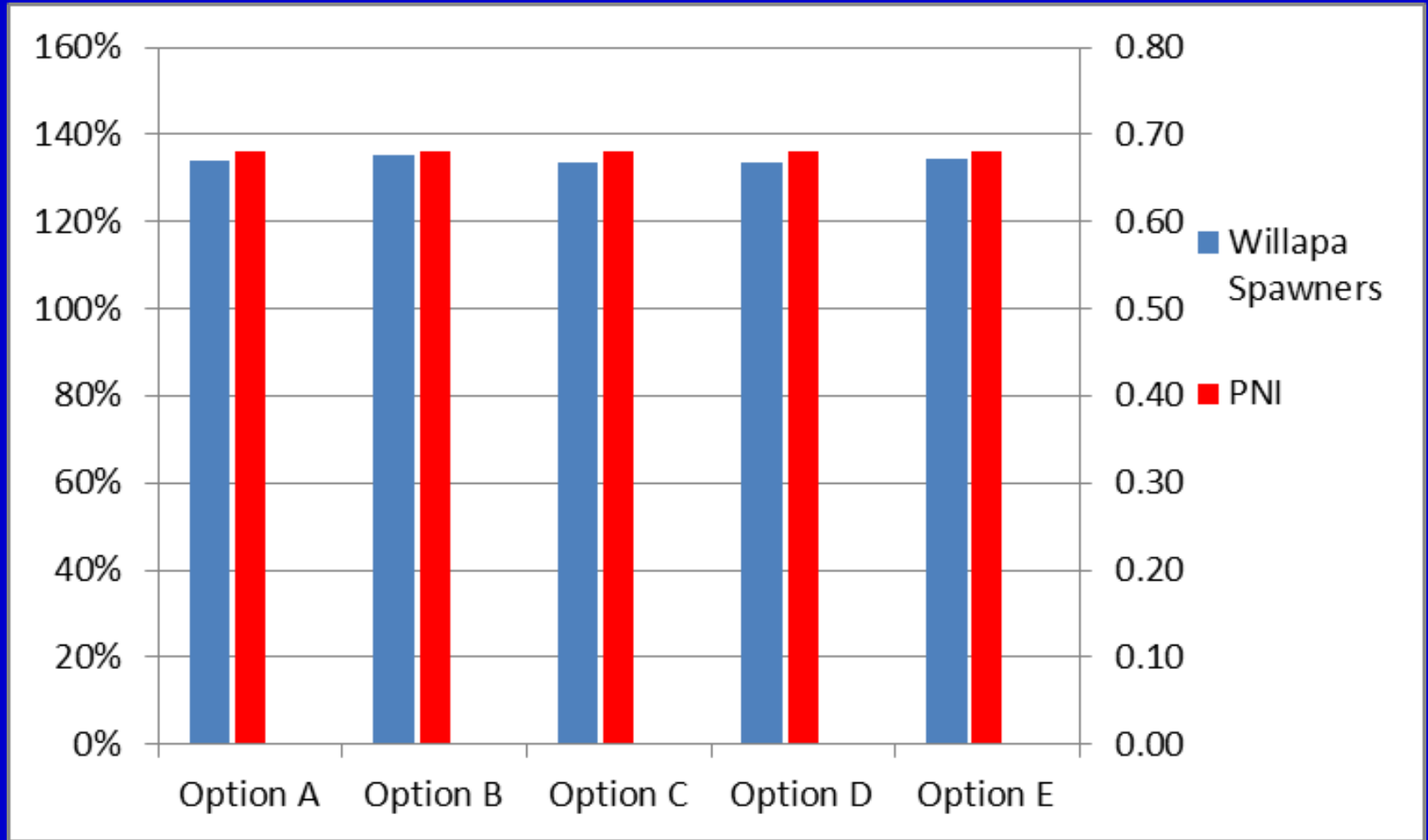
Evaluation Tool: All-H Analyzer

- **Cutting-edge analytical tool developed by HSRG**
 - New options (D&E) required new and more complex model
- **Integrated analysis of hatcheries, harvest, and habitat**
- **Incorporates variability in ocean survival and management uncertainty**
- **Cannot predict future environmental conditions - actual results will be different**
- **Adaptive management necessary**

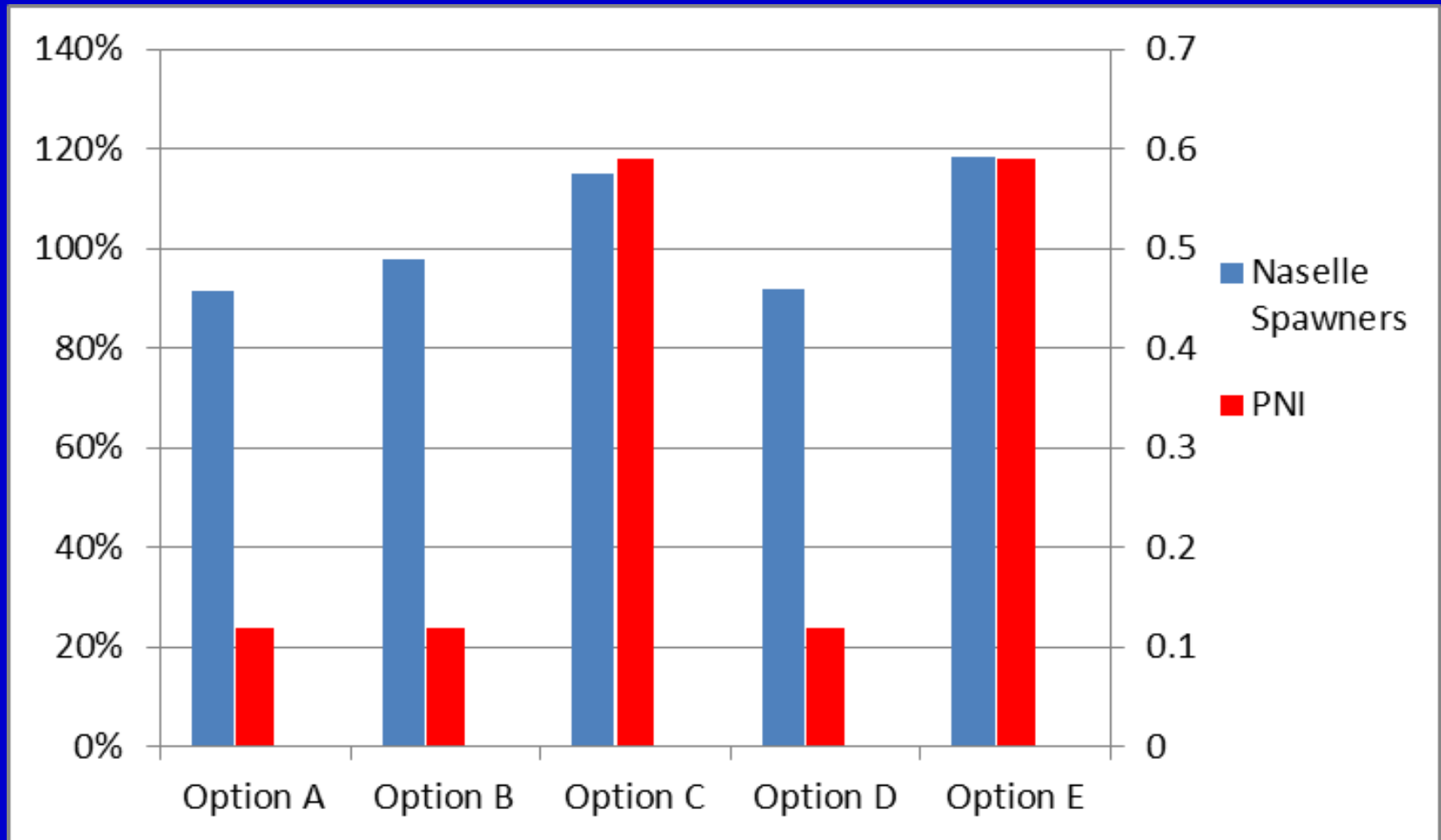
Uncertainty in Predictions



Achievement of Conservation Objectives Willapa

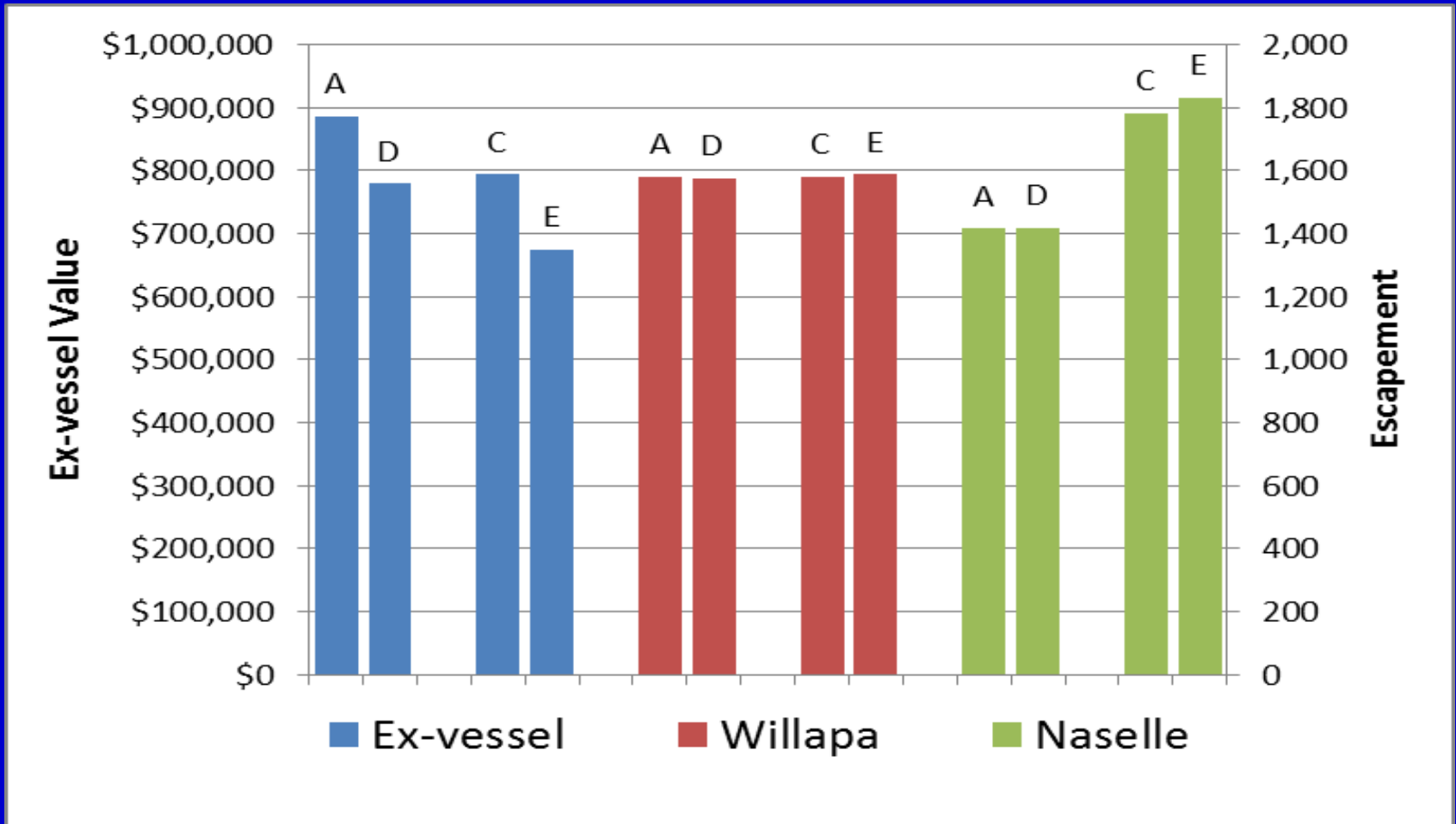


Achievement of Conservation Objectives Naselle



Transition Effects

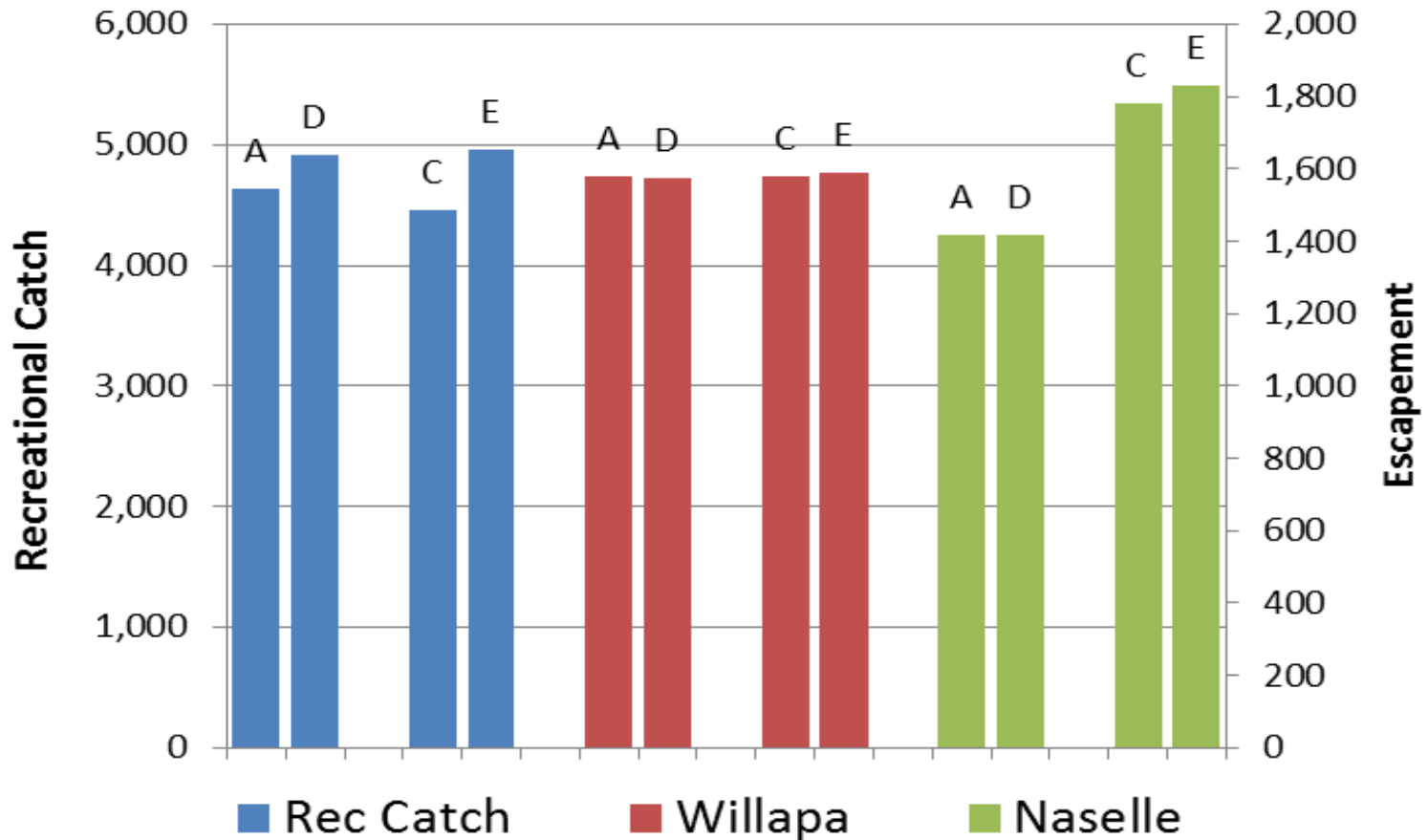
Commercial Ex-Vessel Value Years 1-4 Spawners Years 16-21



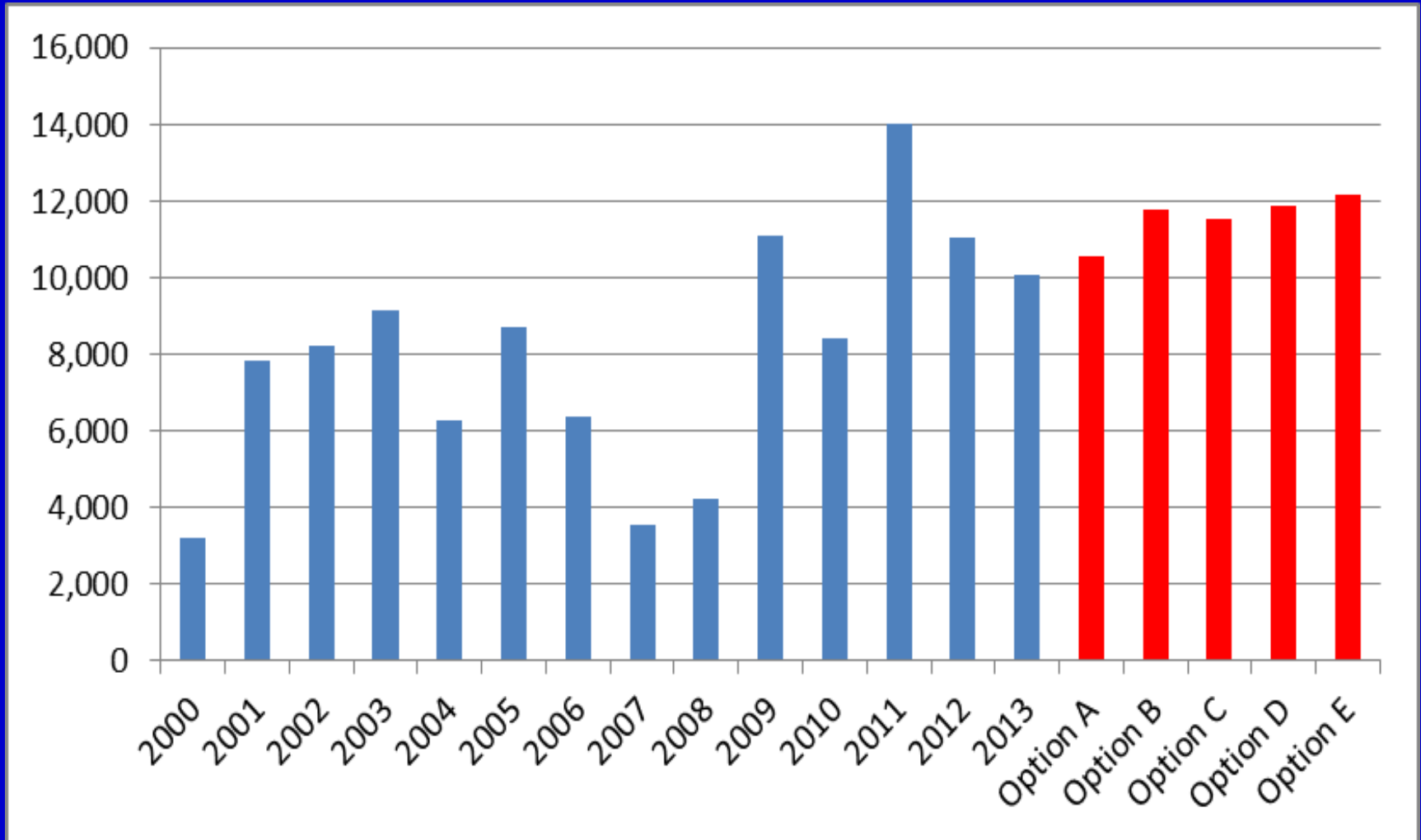
Transition Effects

Recreational Catch Years 1-4

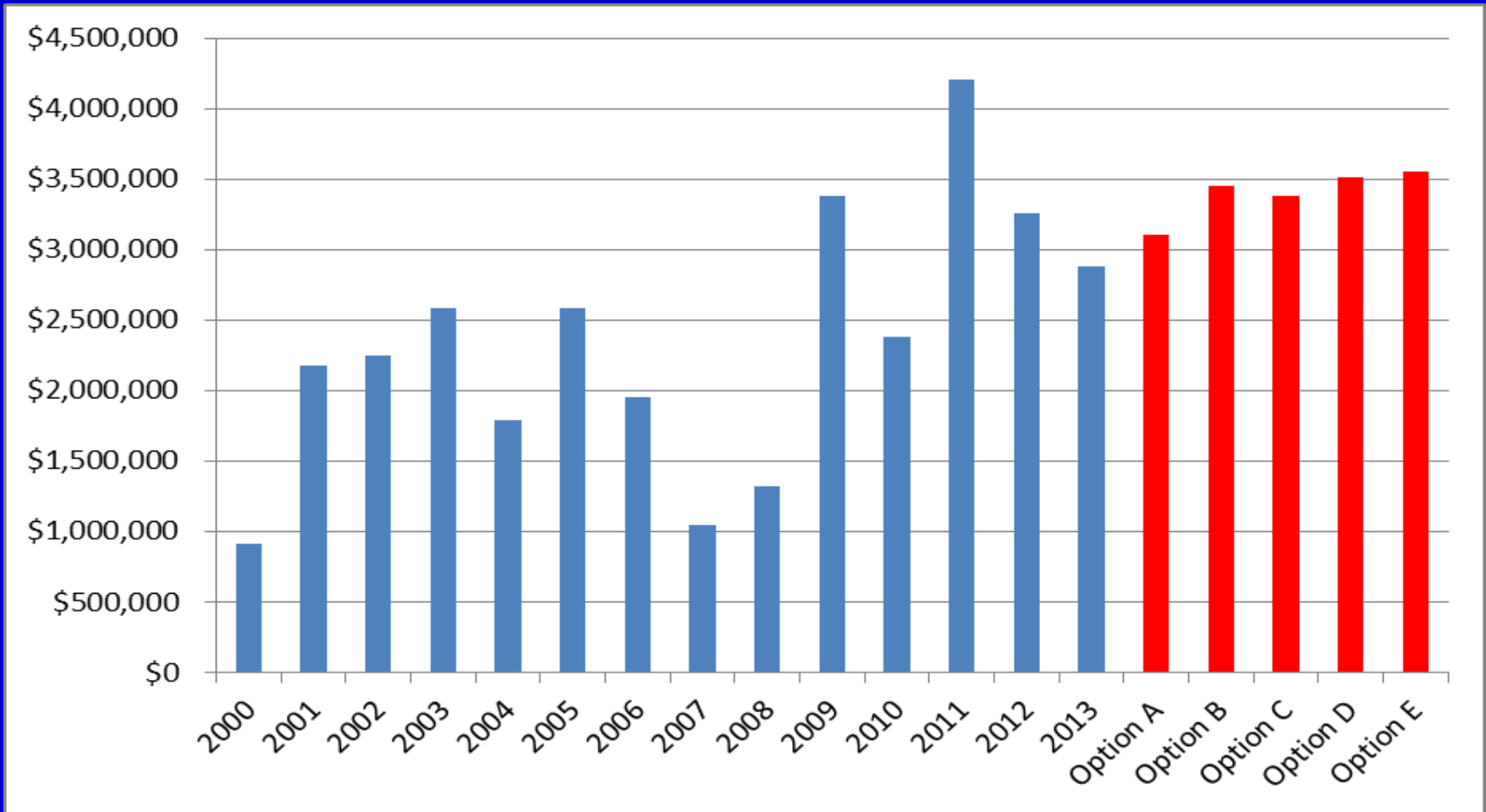
Spawners Years 16-21



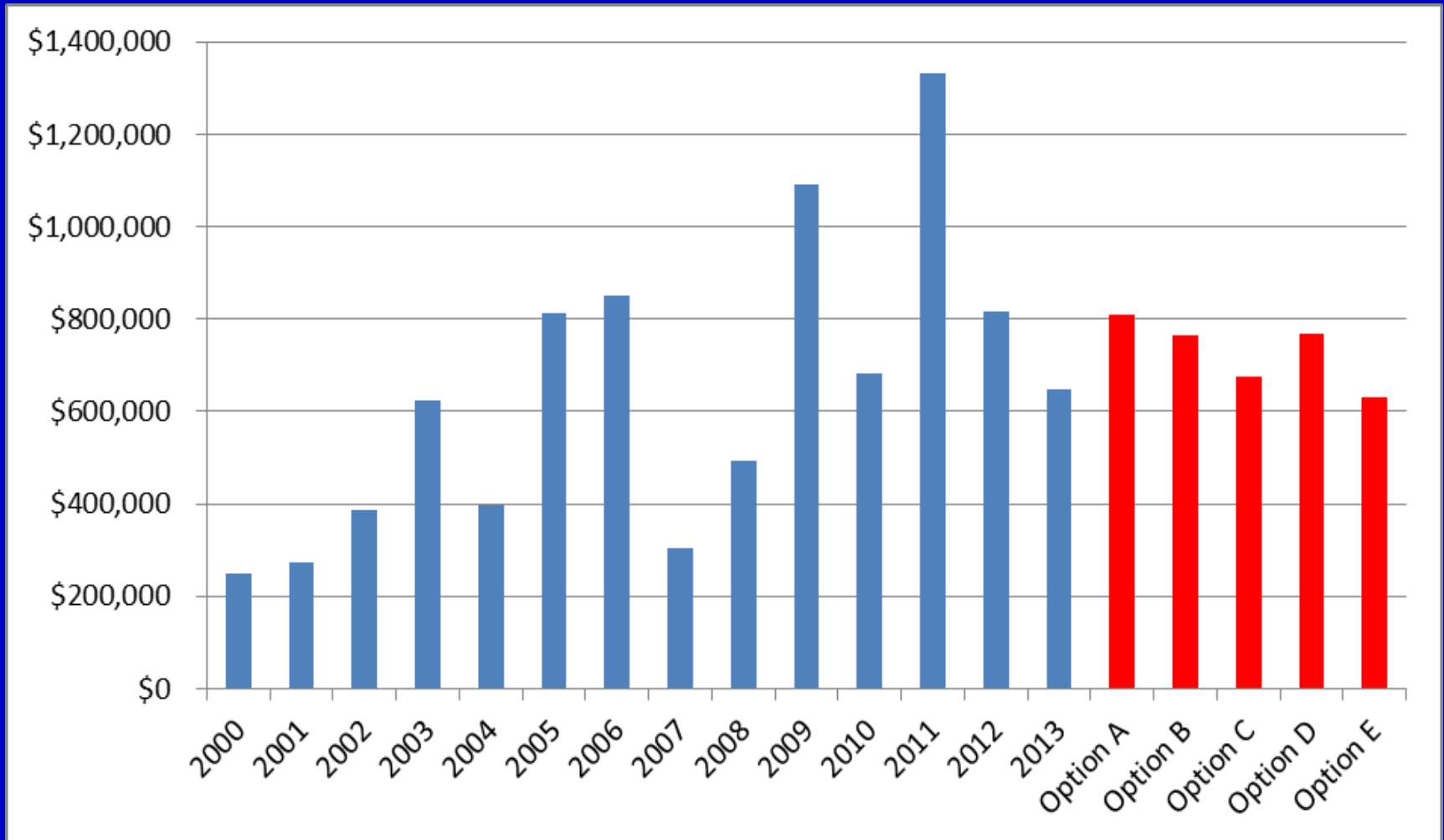
Recreational Catch Longterm (Years 1-10)



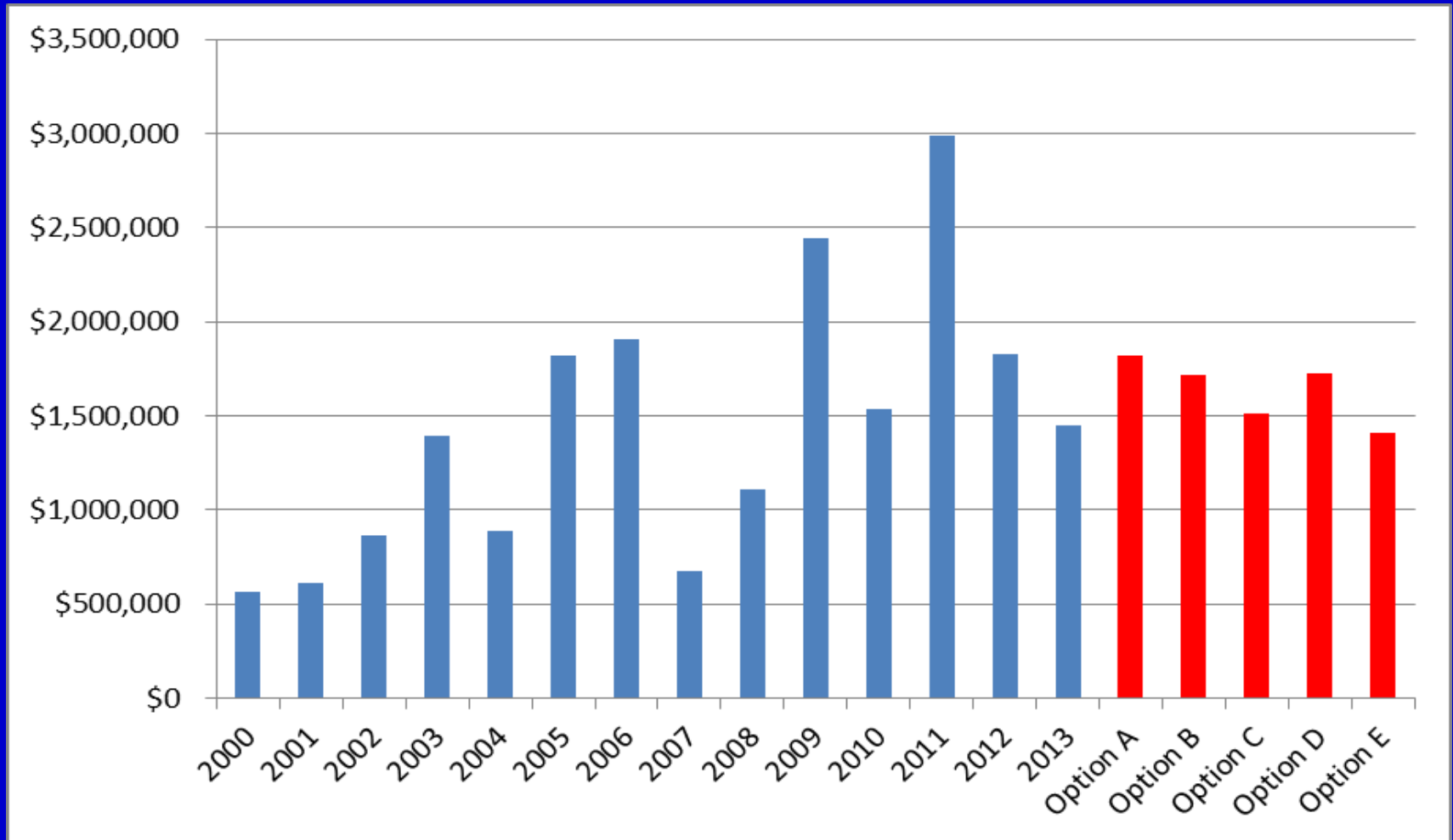
Recreational Economic Impact Longterm (Years 1-10)



Commercial Ex-Vessel Value Longterm (Years 1-10)



Commercial Economic Impact Longterm (Years 1-10)



What were the major points of public comment?

- **5 written comments**
 - **Some represented groups (up to 30)**
- **31 email comments**
- **Summarized into 7 categories**

Categories of Public Comment

- 26 – Options
- 21 – Conservation
- 20 – Hatcheries and Broodstock Management
- 13 – Fish Methods
- 5 – Economics
- 5 – Commercial Fisheries
- 3 – Recreational Fisheries
- 4 – Allocation
- 5 – Miscellaneous

Comments

- **Options**

- **Most support Chinook Option E or modified E**
- **A few want to start the process over**
- **Very few comments on Coho or Chum**
- **Support for Chum option B**

- **Conservation**

- **Support 14% and 20% Chinook harvest rate**
- **14% is arbitrary and capricious**
- **In-season management to meet harvest rate**
- **Don't aggregate**

Comments - Hatcheries

- **Hatcheries**

- Surpluses and concern for funding
- Need commercial fisheries to prevent
- Reductions at Forks Creek will adversely impact recreational fisheries
- Increase coho production

- **Broodstock**

- 14% rate will lead to higher PHOS
- Naselle as stabilizing, support, no support
 - Coho support for higher than stabilizing

Comments

- **Selective Gear**
 - Support for only selective methods
 - Opposed to selective gill nets, don't work
 - Start in 2015, reward use

- **Alternative Gear**
 - Would like to try traps
 - WBGA will seek alternative methods

Comments

- **Economics**

- Policy reduces commercial value and does not enhance nor maintain fishing industry
- Additional economic analysis is needed

- **Commercial**

- Policy is about eliminating commercial fisheries
- Support delaying commercial fishery until 9/16, especially in 2U and 2T

- **Recreational**

- Re-open closed areas on Nemah, Naselle, and Willapa

Comments

- **Allocation**

- **Policy does not prioritize Chinook for recreational sector**
- **Recreational catches will double, exceeding objective**

- **Other**

- **Commission does not have authority to prescribe time, place, manner, and method by policy.**

Summary

- **Extensive public process (8 months)**
- **Cutting edge analyses**
- **“Aspirational Objectives” used as planning tool**
 - Inspire the development of innovative strategies
 - Promote assessment of trade-offs
 - **Conservation Paramount Objective**
 - **Objectives are Not entitlements**
 - **Objectives may Not be achievable**

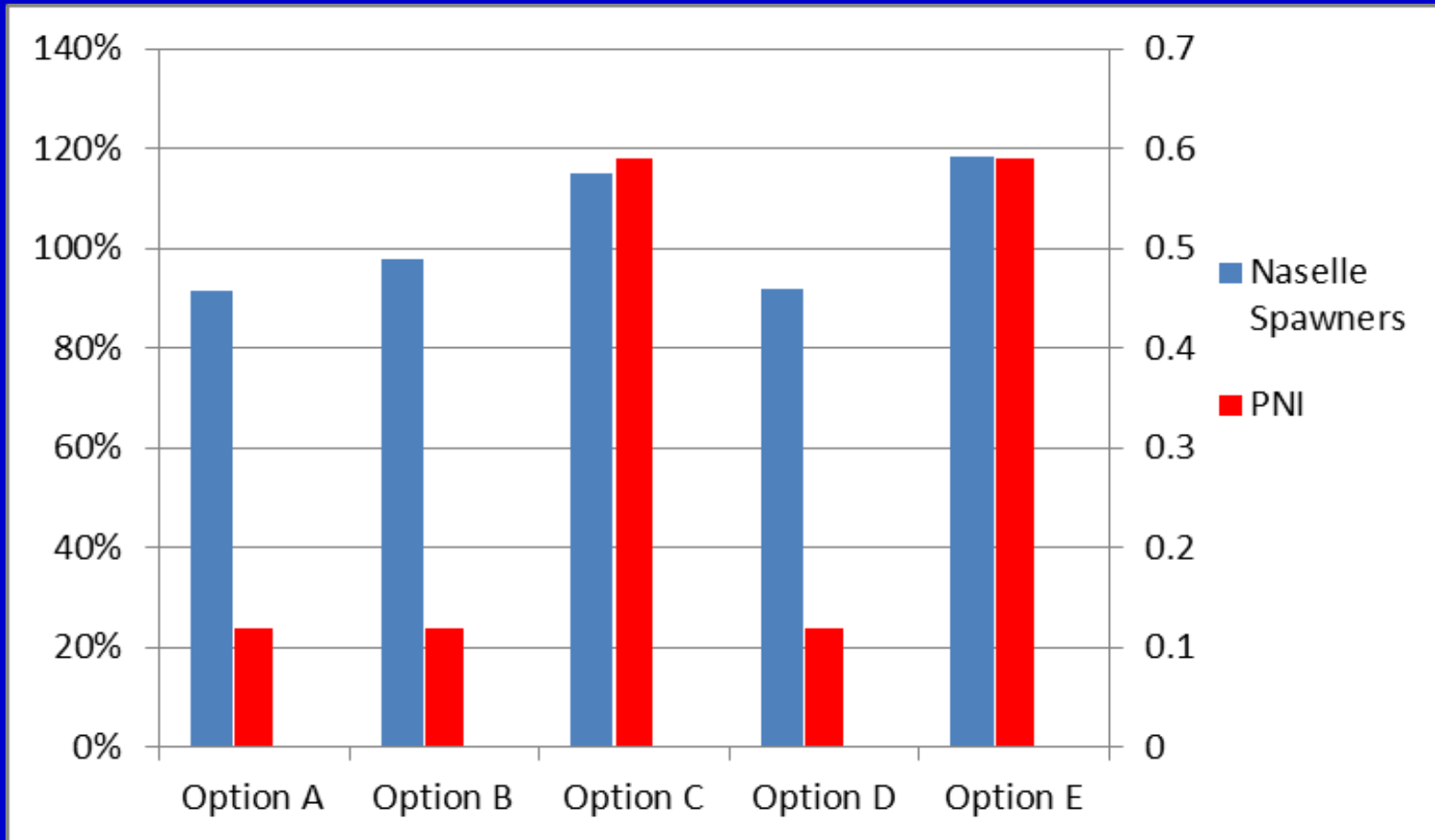
Key Policy Issues

Strength of Conservation Measures

- Substantial conservation actions in all options
- Cannot achieve all conservation objectives AND aspirational fishery objectives
- Strongest conservation actions in options C & E
 - Meet spawner capacity in North, Willapa, & Naselle
 - PNI exceeds 0.67 for Willapa & 0.50 for Naselle
 - No hatchery production of Chinook in North River

Key Policy Issues

Strength of Conservation Measures - Naselle



Key Policy Issues

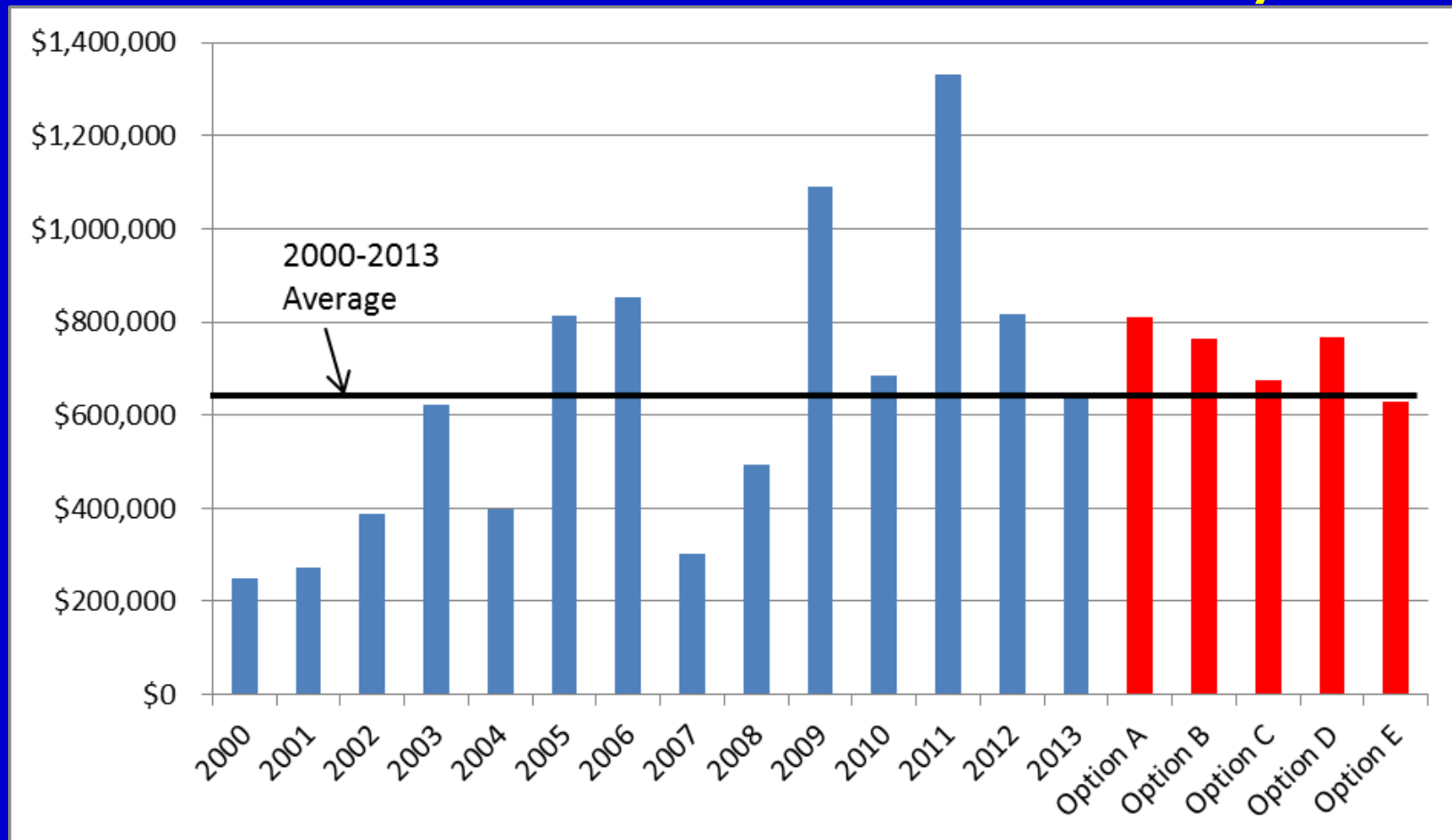
Gear Conflict & Sharing of Impacts

- All options reduce gear conflict**
- Option E has greatest reduction in gear conflict**
- Options A-D result in commercial ex-vessel value above 2000-2013 average and increased recreational opportunity**
- Option E results in commercial ex-vessel value less than 2000-2013 average**

Key Policy Issues

Gear Conflict & Sharing of Impacts

Ex-Vessel Value of Commercial Fishery



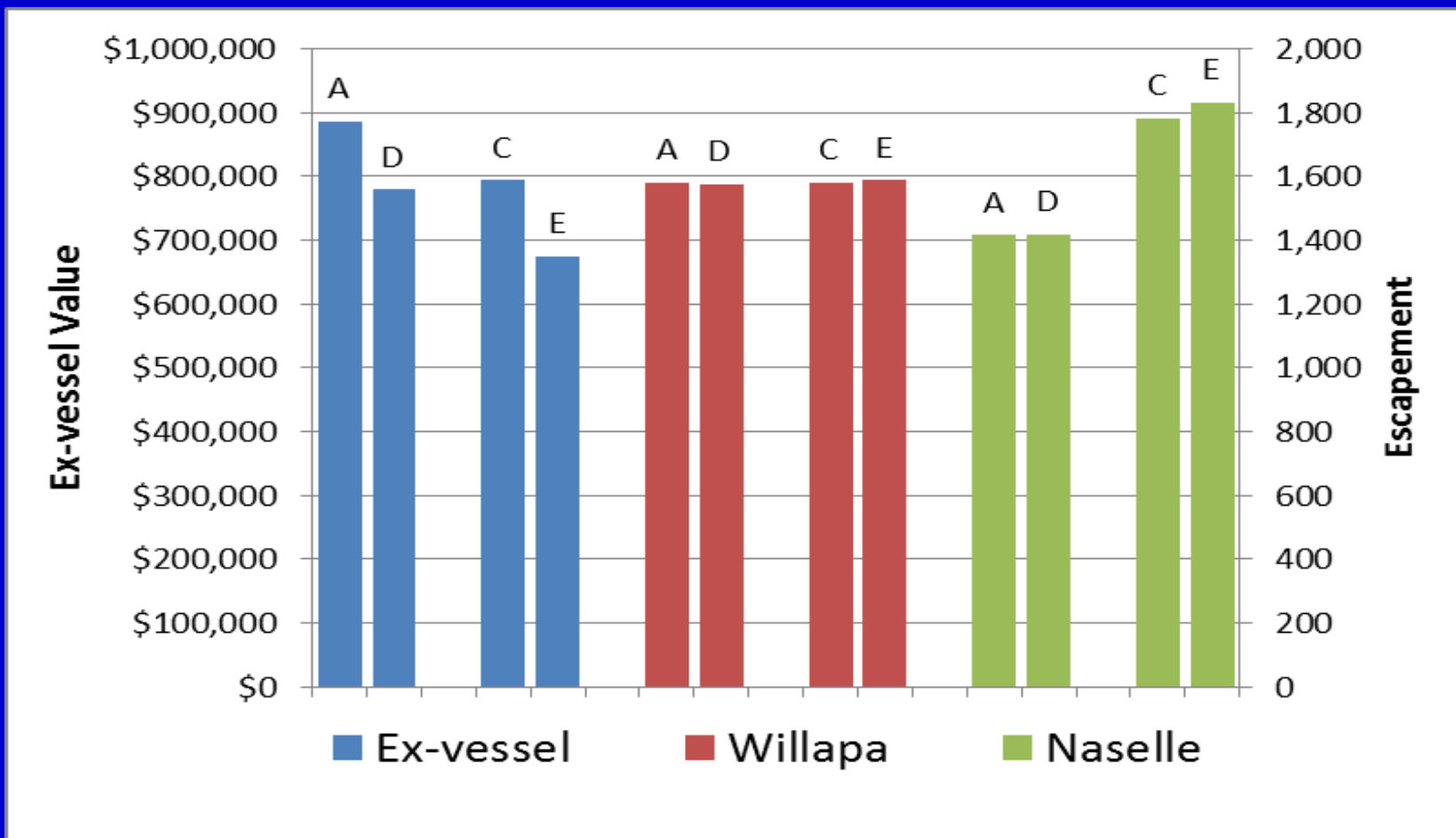
Key Policy Issues

Rapidity of Implementation

- **Transitional Harvest Rate (20% \rightarrow 14%) - Options A,B,C**
- **Immediate 14% Harvest Rate -Option D,E**
- **Immediate implementation of 14% harvest rate results in minor conservation benefits and a reduction in the ex-vessel value of the commercial fishery**

Key Policy Issues

Rapidity of Implementation



Staff Recommended Edits

Intended to:

- Clarify policy intent
- Enhance policy format