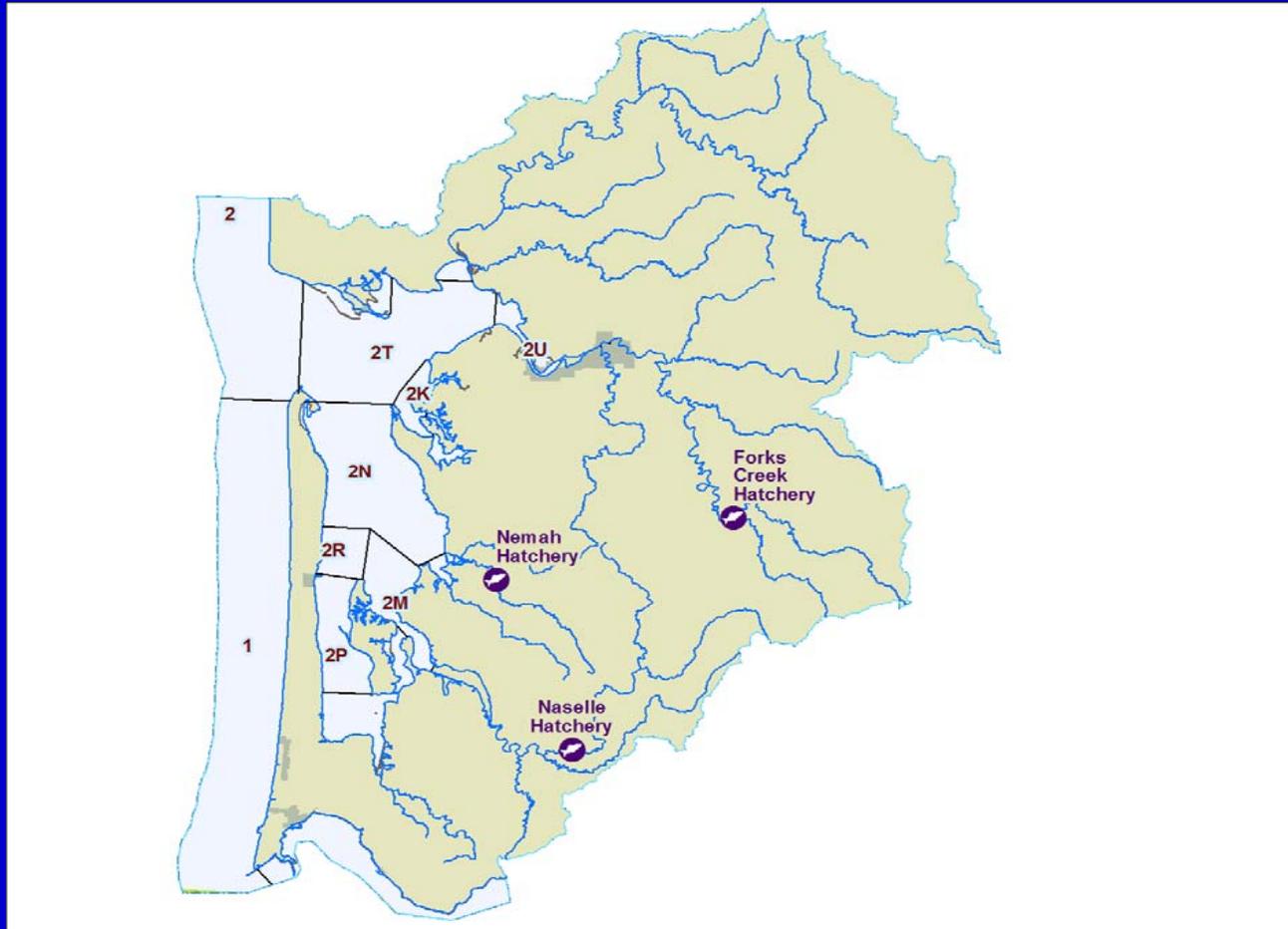


# Willapa Bay Salmon Management Policy



**Steve Thiesfeld; Region 6 Fish Program Manager  
Washington Fish and Wildlife Commission Meeting  
November 8, 2014**

# Purpose

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- **Overview of Willapa Bay Salmon and Fisheries**
- **Solicit public input**
- **Seek initial guidance for Willapa Bay Salmon Management Policy**

# Presentation Outline

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- **Schedule**
- **Guidance**
- **Willapa Bay Management**
- **Key Issues and Challenges**
- **Aspirational Objectives**
- **Next Steps**

# Proposed Schedule

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- Nov - FWC briefing and initial Policy guidance
- Dec - FWC approves draft Policy for public review
  - Draft Policy released for 3-week public comment
- Jan - FWC reviews public comment on draft Policy
  - FWC provides additional direction on Policy
  - Draft Policy released for 3-week public comment
- Feb - FWC considers adoption of Policy

# Mandate and Existing Guidance

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- **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

# Mandate and Existing Guidance

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- Hatchery and Fishery Reform Policy
  - Focus on the harvest of abundant hatchery fish
  - Goal of achieving the HSRG broodstock standards by 2015
- North of Falcon Policy
  - From a statewide perspective, fishing directed at chinook, coho, pink, sockeye, or chum salmon will not be exclusively reserved for either sport or commercial users
  - Fisheries shall be structured to minimize gear and other fishery conflicts

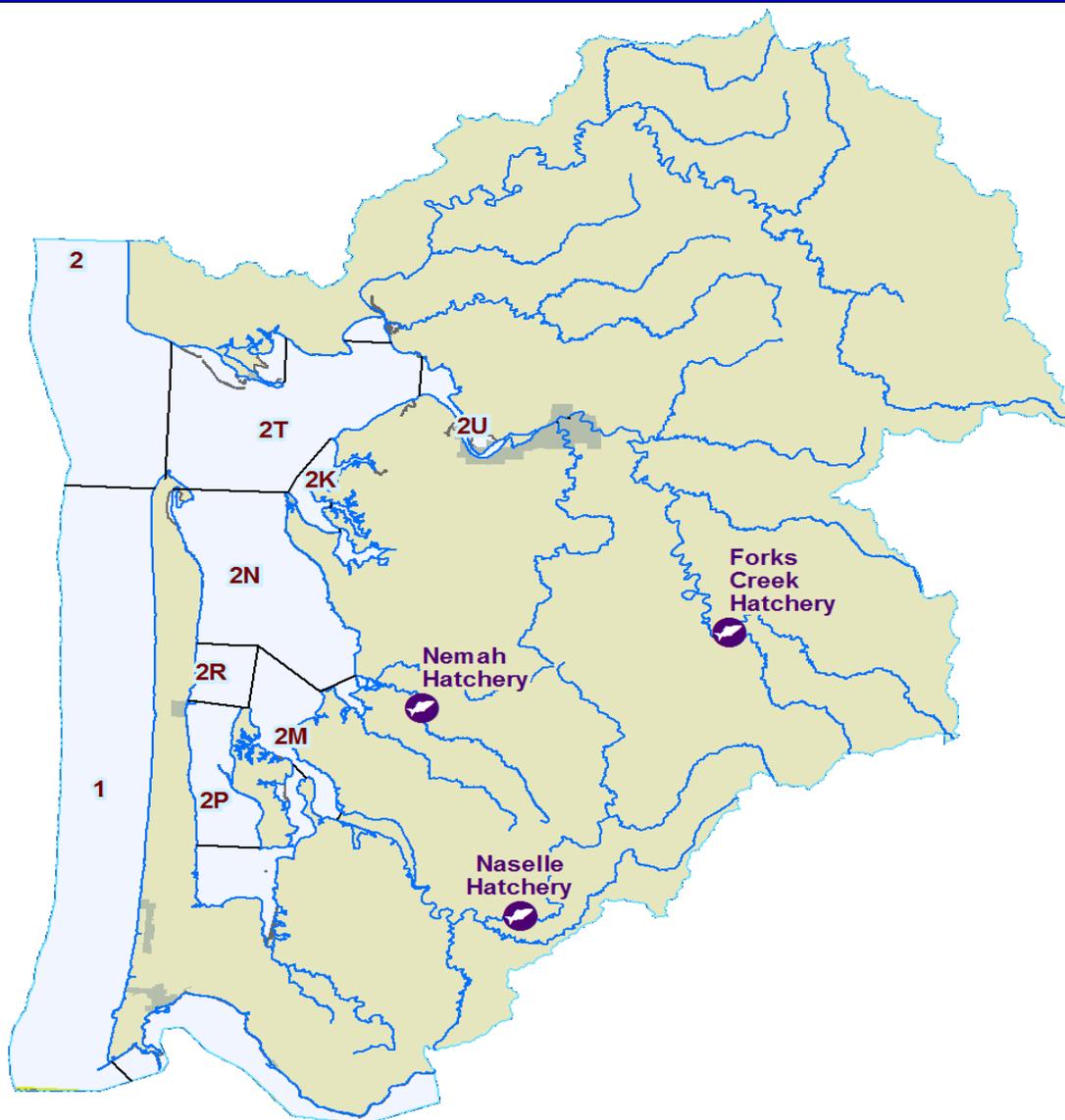
# Management Context

- Multiple Management Entities & Stakeholders

- Pacific Salmon Commission
- PFMC
- WDFW
- Commercial
- Recreational
- Estuary, freshwater



# Willapa Bay



# Timeline

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- **Early 1990's: All species – Hatchery management**
- **1999: All returning Coho mass marked**
- **2000-2006:**
  - **Coho & Chum: managed for natural production**
  - **Chinook: Willapa Bay harvest rate reduced from 47% to 30%**
- **2007: Chinook mass marking initiated**
- **2009: Hatchery and Fishery Reform Policy**
- **2010: All returning Chinook mass marked**
- **2010: Draft Willapa Bay Management Plan**

# 2010 Draft

## Willapa Bay Management Plan

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- **Improve Broodstock Management**
  - Identified Conservation Priorities
  - Categorized Populations
  - Realigned Hatchery Production
    - **Naselle Chinook**
      - Production reduced from 3.0M to 0.5M
      - Installed new weir to control hatchery spawners
    - **Willapa Coho**
      - Production reduced from 0.6M to 0.3M

# 2010 Draft

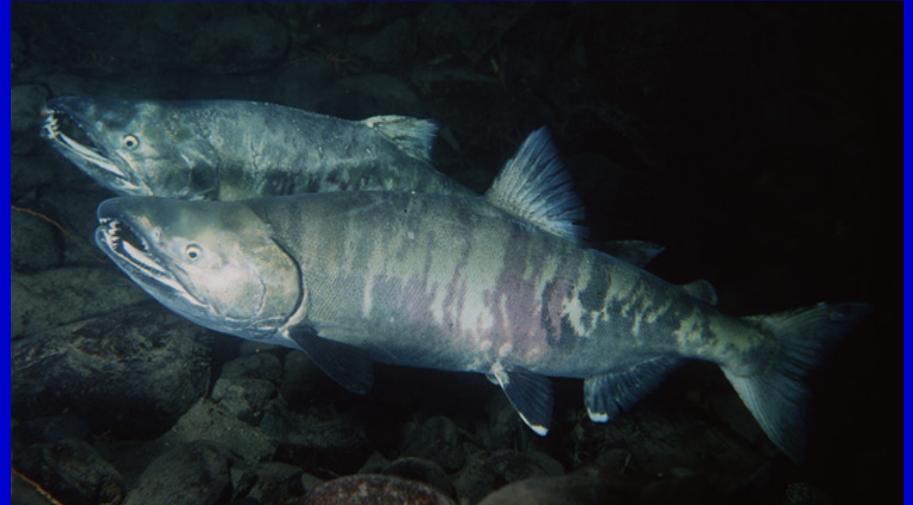
## Willapa Bay Management Plan

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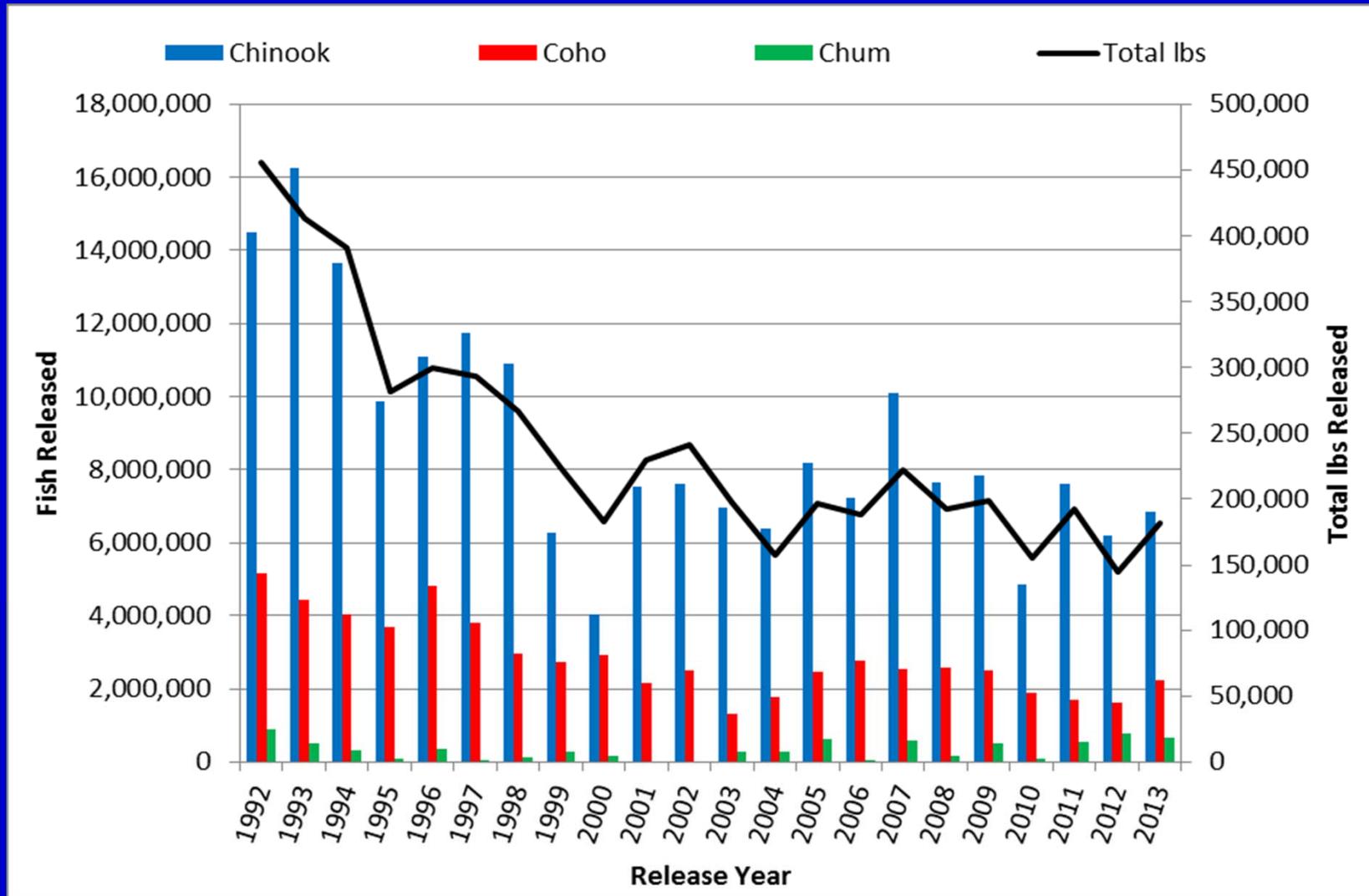
- **Focus Harvest on Abundant Hatchery Fish**
  - Implemented finer scale fishery management
    - Test fisheries to assess stock composition
    - Added and refined catch areas to focus harvest
    - Re-initiated late August commercial fisheries in outer bay (2T)
  - Initiated mark-selective fisheries
  - Moratorium on directed chum fishing through 2017
  - 30% harvest rate cap on Naselle Chinook
- **2014: further reduced harvest rate to 20% on Naselle**

# Willapa Bay Salmon

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# Hatchery Production



# Current Hatchery Production

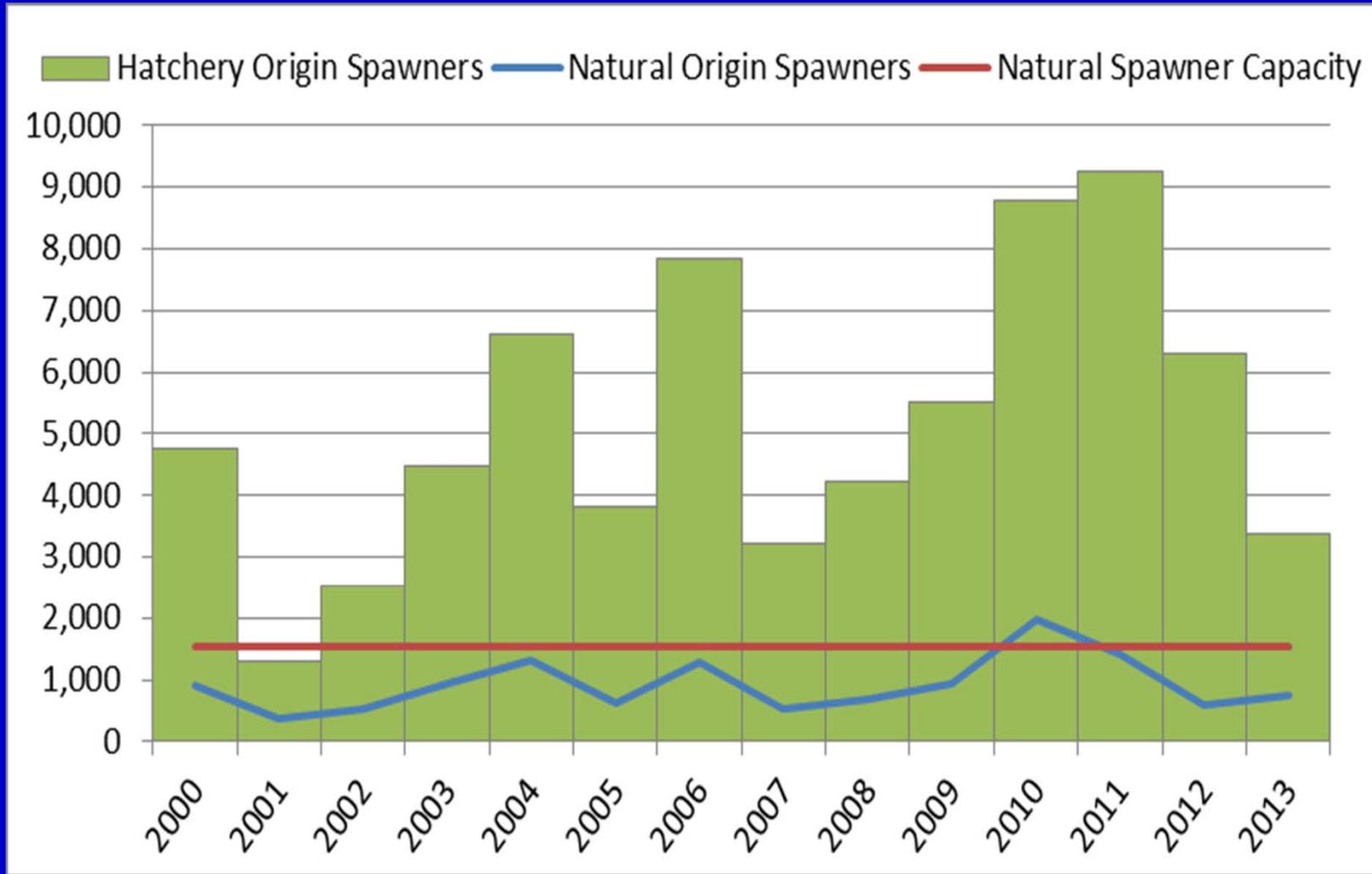
	Chinook	Coho		Chum	
	Smolts	Smolts	Eggs	Fry	Eggs
Forks	3.2M	300K	950K	300K	200K
Nemah	3.3M	--	--	300K	--
Naselle	500K	1.4M	300K	300K	--
<b>Total</b>	<b>7M</b>	<b>1.7M</b>	<b>1.25M</b>	<b>900K</b>	<b>200K</b>

# Willapa Bay Naturally Spawning Chinook

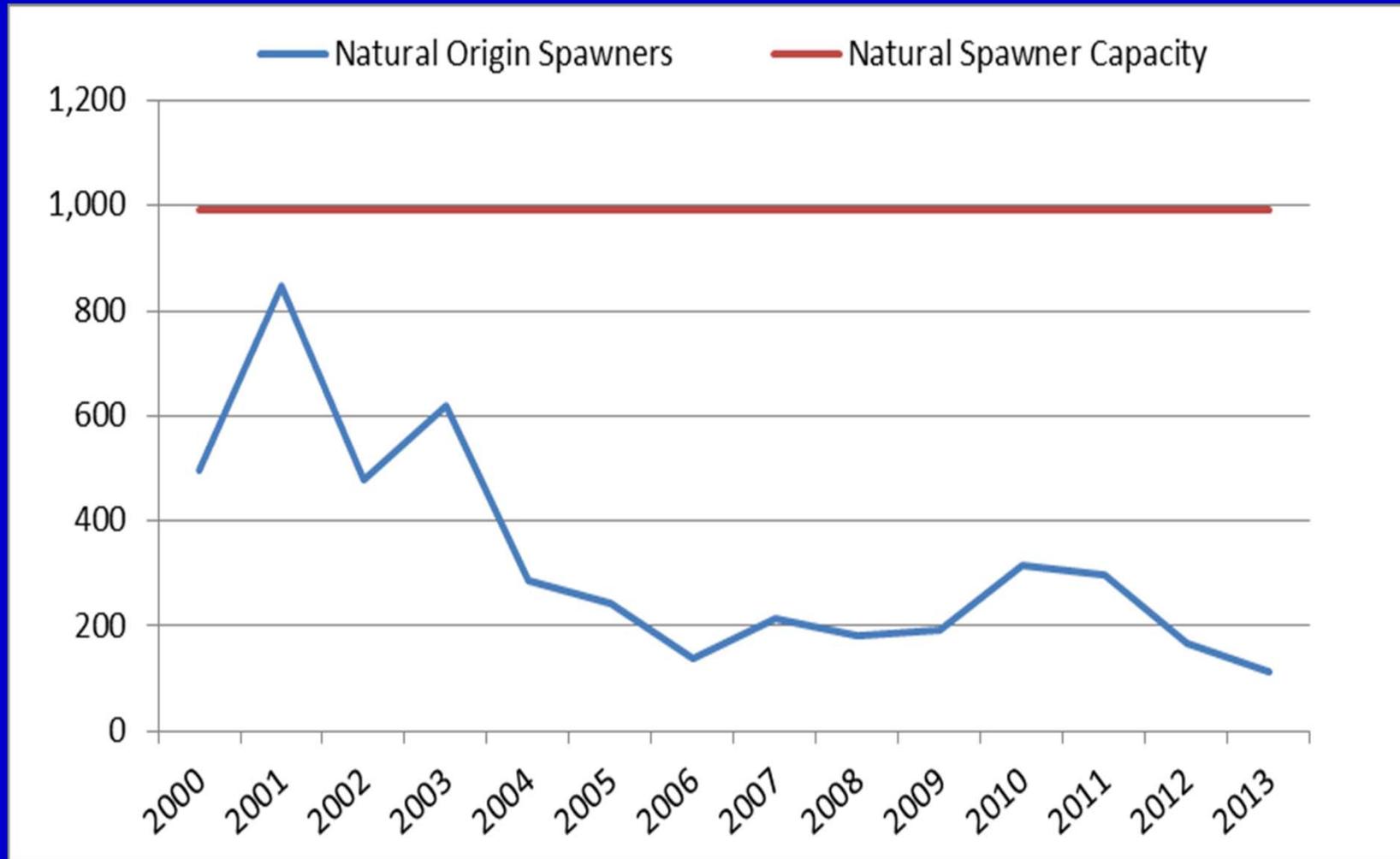
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- **Prior to 2010**
  - Limited information about hatchery versus natural composition
  - Assume high proportion of hatchery origin spawners in Naselle and Willapa
- **2010 to 2013**
  - Natural origin spawners declined to ~35% spawner capacity
  - High proportion of hatchery origin spawners in Naselle and Willapa
  - Not meeting broodstock standards in the Naselle River

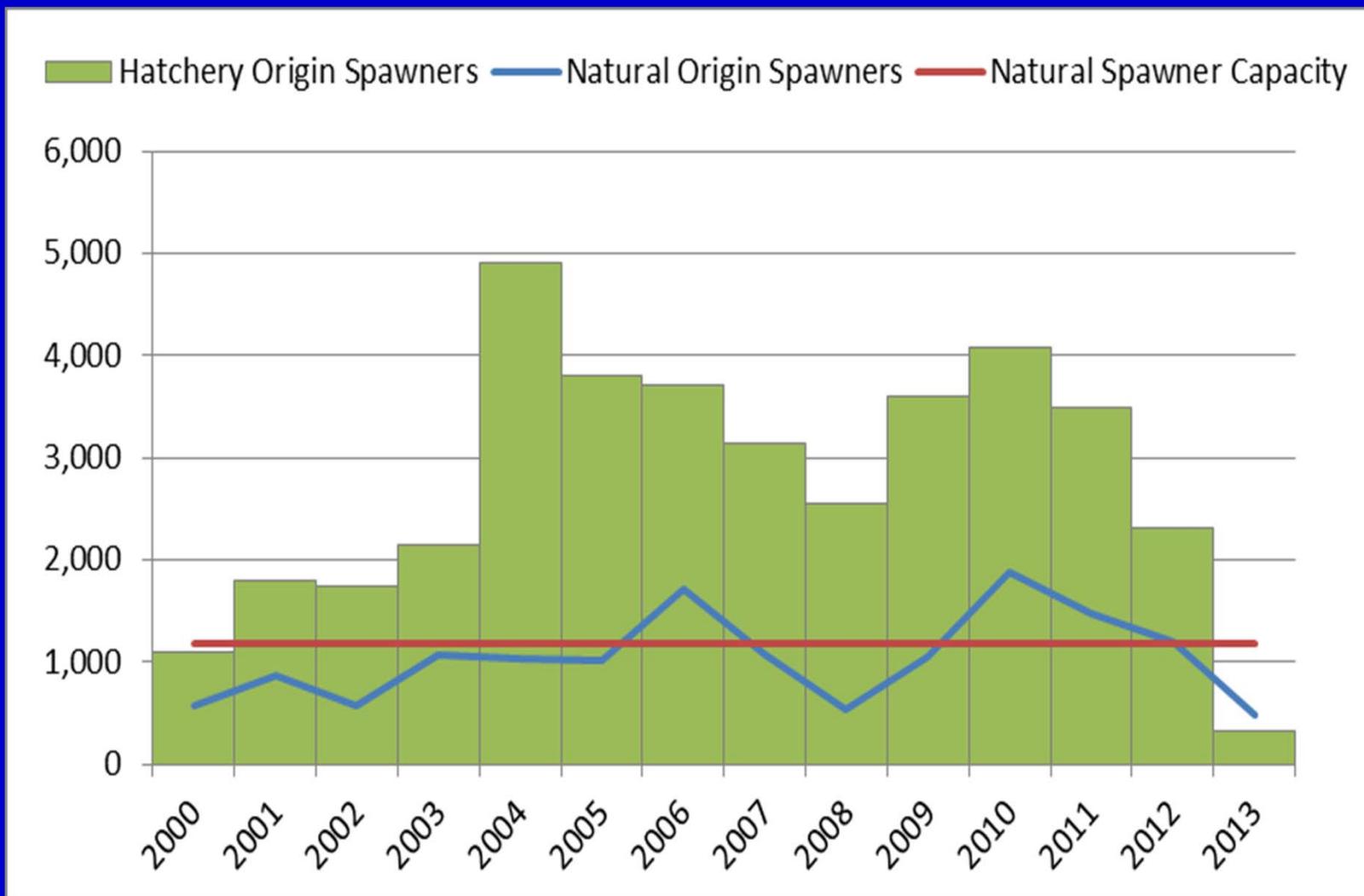
# Naselle River Watershed Fall Chinook



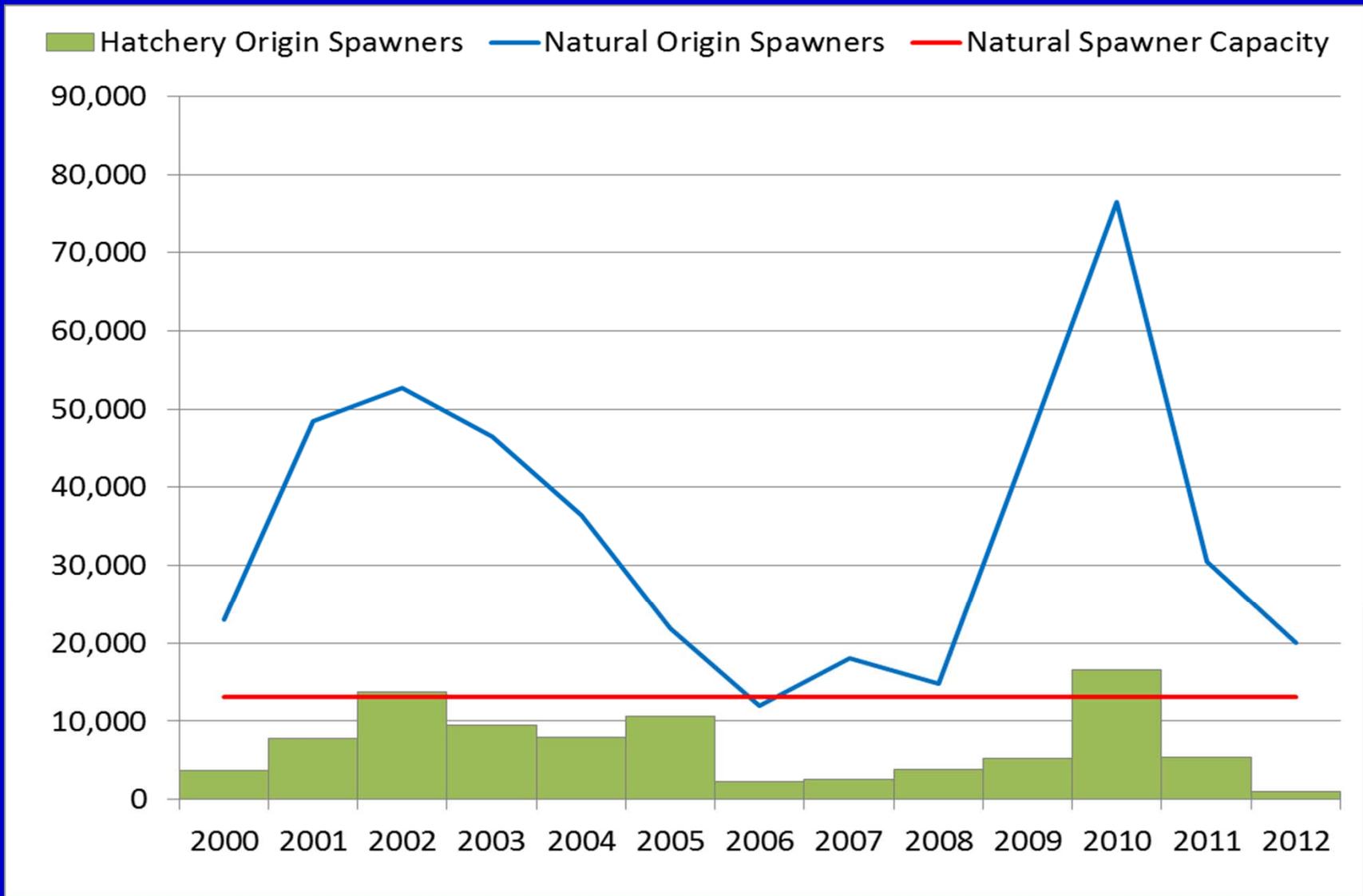
# North River Watershed Fall Chinook



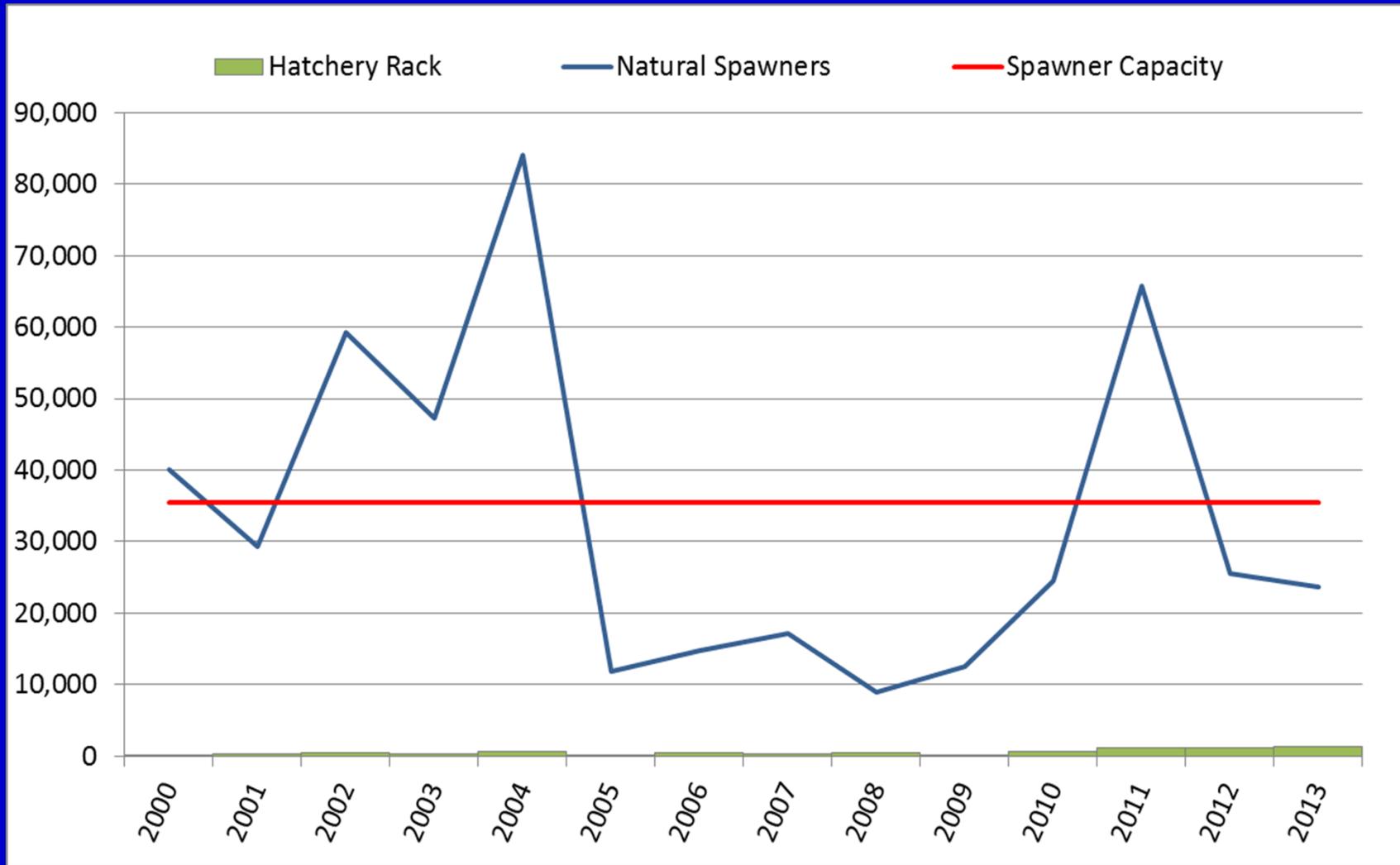
# Willapa River Watershed Fall Chinook



# Willapa Bay Coho

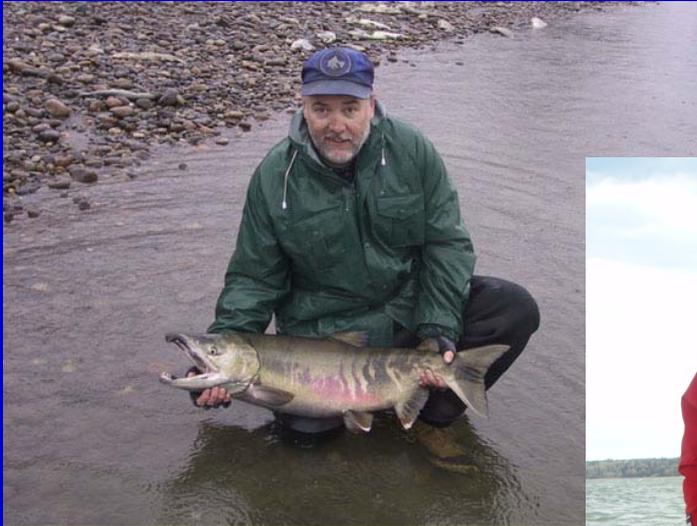


# Willapa Bay Chum

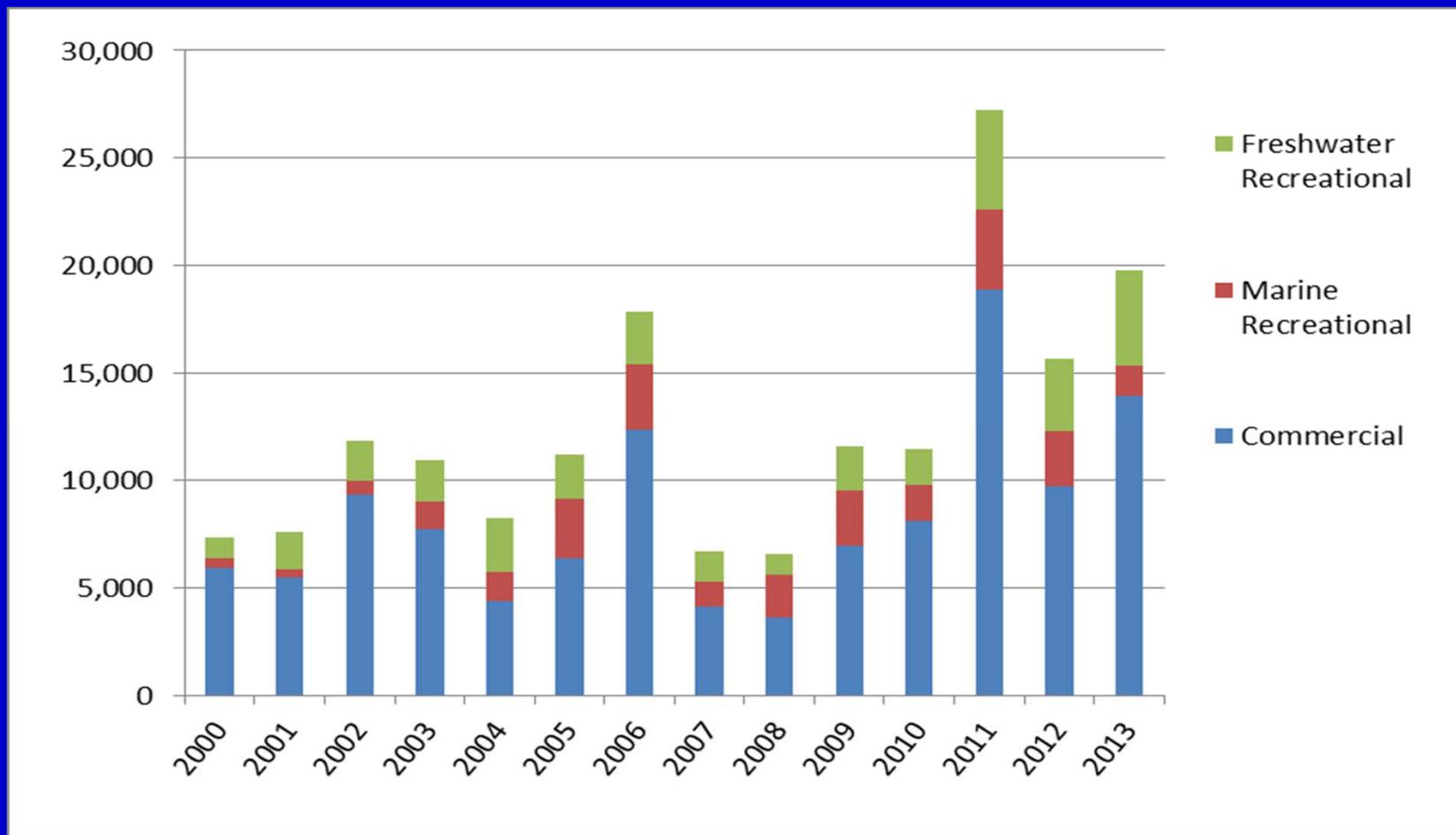


# Willapa Bay Fisheries

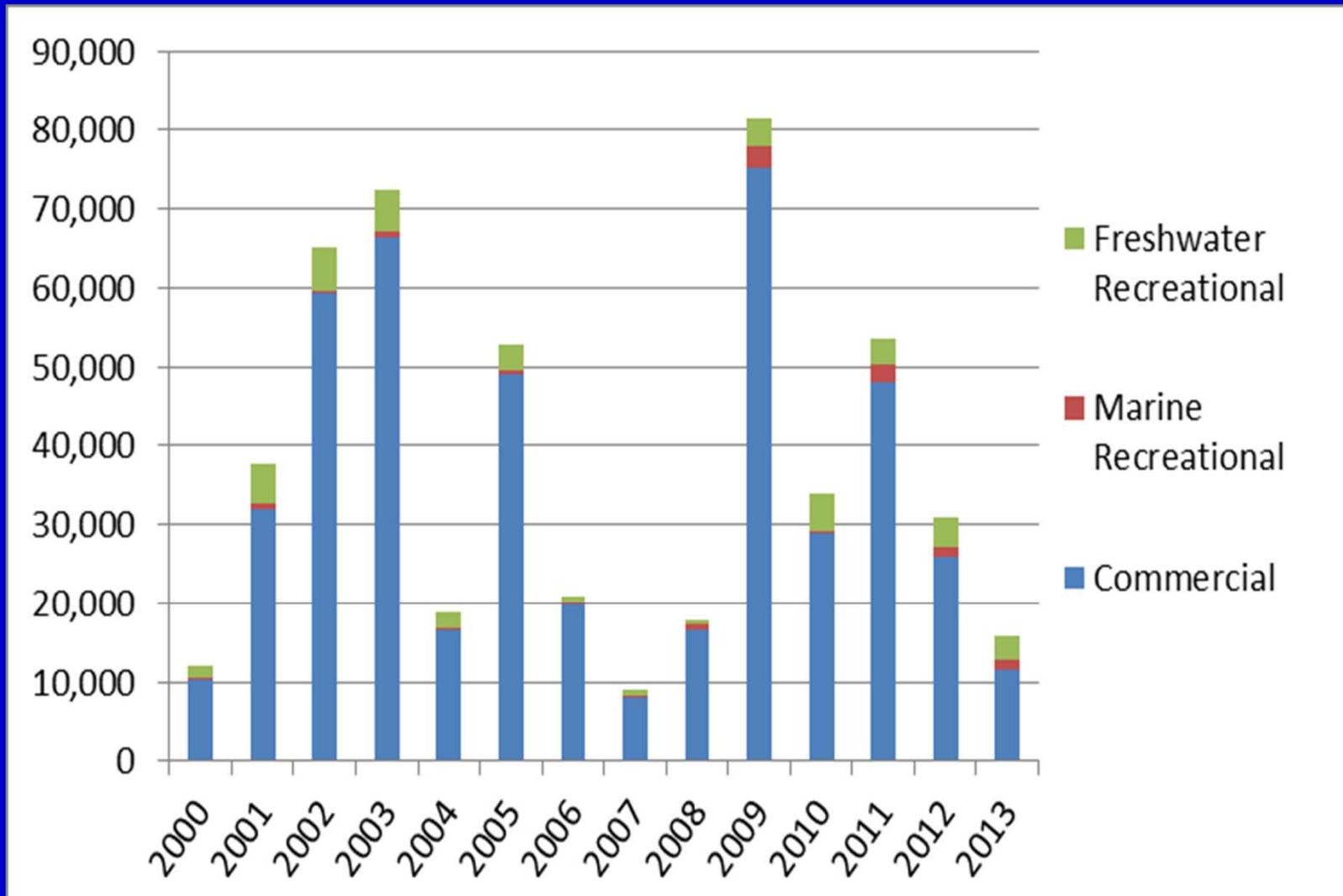
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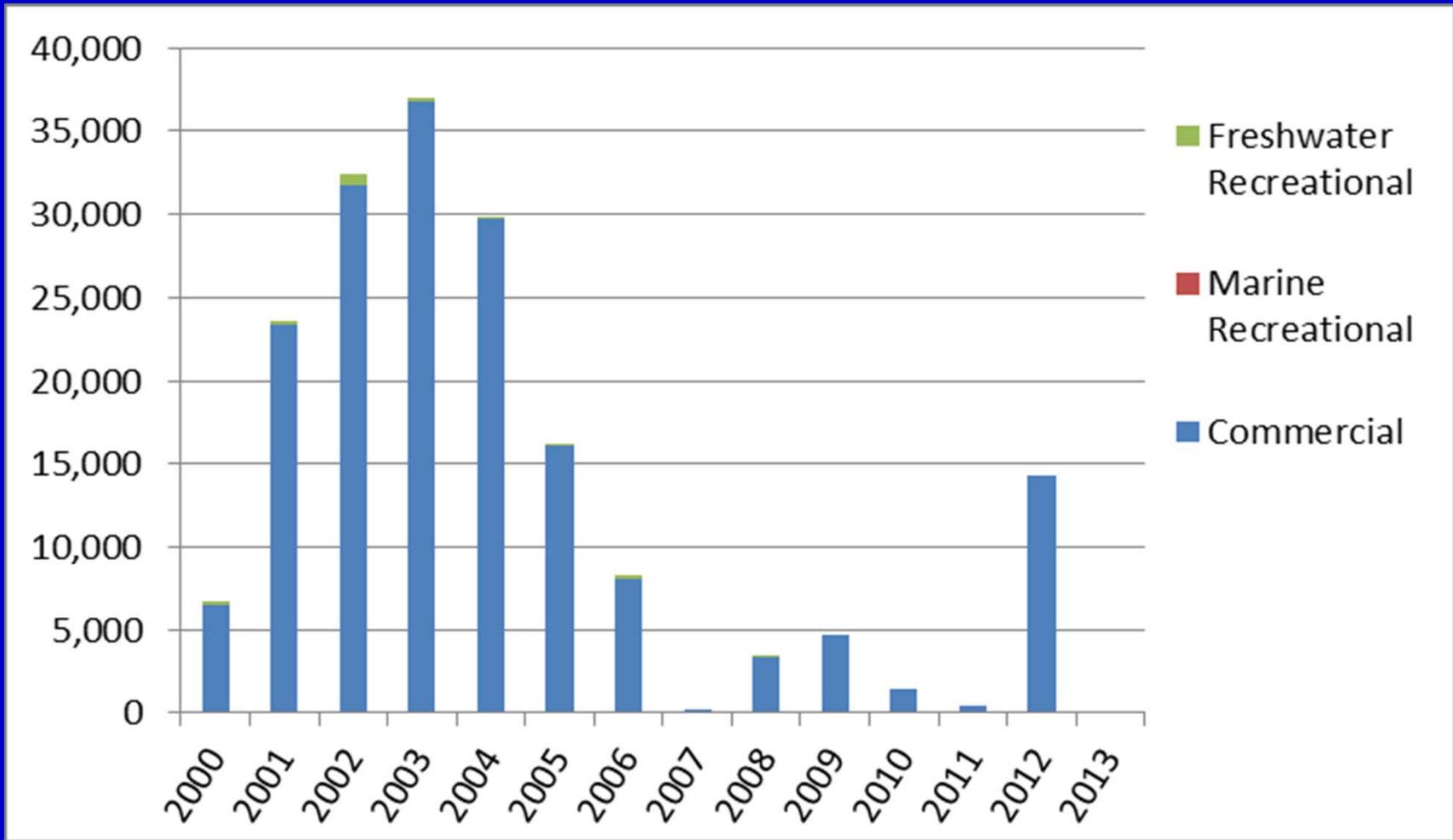
# Fall Chinook Catches



# Coho Catches



# Chum Catches



# Commercial Fisheries Ex-vessel Value

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	\$571,590
2004	\$117,334	\$87,215	\$191,869	\$396,418	
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

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	\$1,280,361
2004	\$262,829	\$195,362	\$429,786	\$887,977	
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	\$2,047,396
2008	\$313,082	\$44,098	\$749,397	\$1,106,577	
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	\$2,047,396
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

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	\$1,740,542
2004	\$560,545	\$1,230,268	\$1,790,813	
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	\$3,220,593
2008	\$885,180	\$436,985	\$1,322,165	
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	\$3,220,593
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)*

# Key Issues

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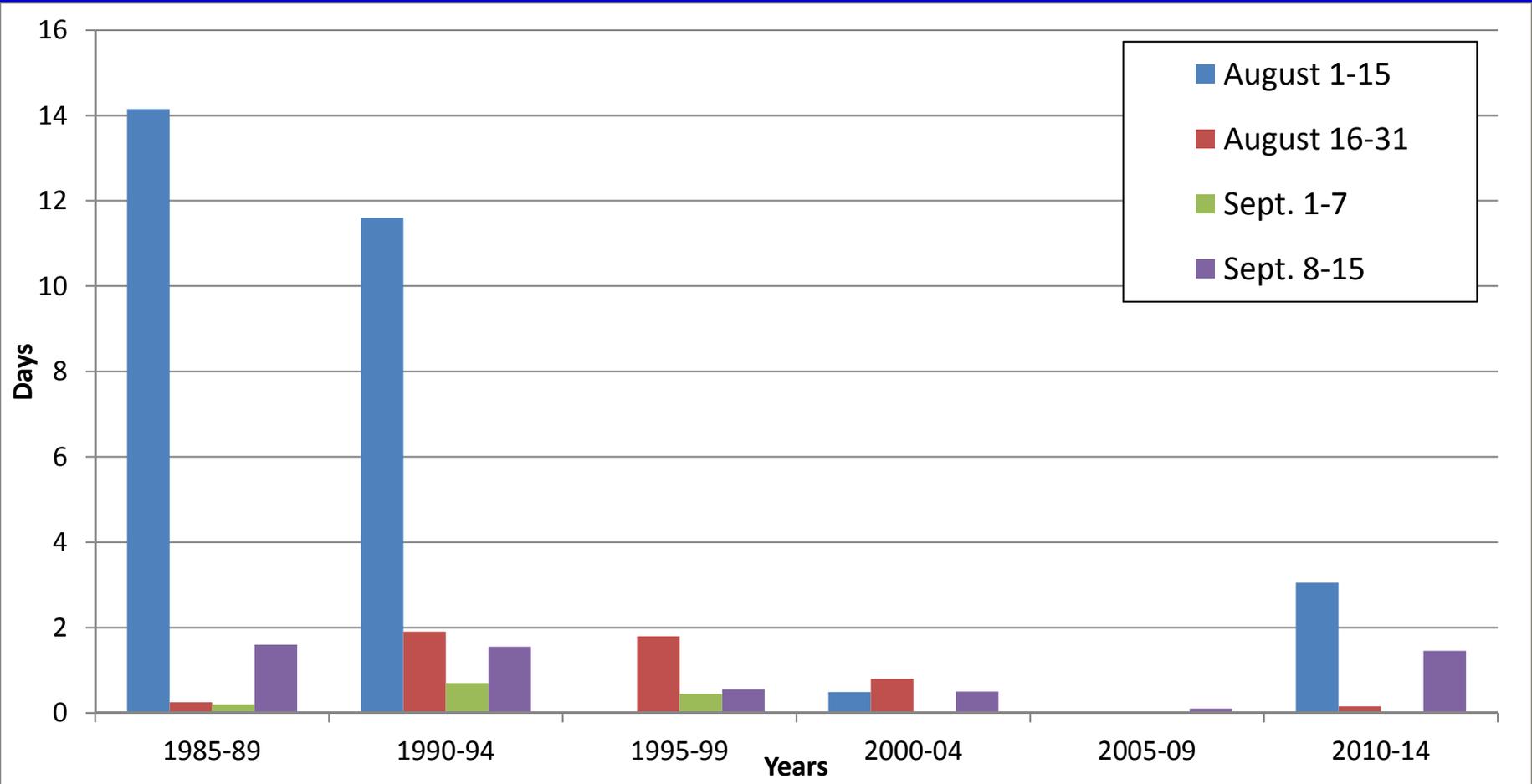
- **Transparency**
- **Monitoring and Enforcement**
- **In-Season Management**
- **Conservation - Hatchery Reform**
- **Fishery Challenges**

# Conservation and Hatchery Reform Challenges

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- **Chinook**
  - Transitioning from hatchery focused management
  - Natural origin spawners low and declining
  - Hatchery origin spawners high in Naselle and Willapa Rivers
- **Chum**
  - Spawners below goal 8 out of 10 years

# Fishing in Outer Bay (2T)



# Fishery Challenges

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- **Outer Bay (2T) Fishery**
  - Re-initiation of August – early September commercial fishery
    - Increased ex-vessel value
    - Recreational concern - reduced catch rates
- **Lower Willapa River (2U) Fishery**
  - Commercial fishery - 5 to 6 days/week prior to 2014
    - Lost opportunity and excess returns to hatcheries
    - Recreational concern - limited access
- **Mark Selective Fisheries for Chinook**
  - Gillnet: 56% release mortality rate
  - Hook and line: 14% release mortality rate

# Aspirational Objectives

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**Describe suite of outcomes that we will strive to achieve through the development of the policy.**

## **Purpose:**

- Inspire the development of innovative strategies
- Promote assessment of trade-offs between options

## **Are Not:**

- Entitlements

## **All:**

- May not be achievable

# Aspirational Objectives

Conservation

## Chinook

Spawners: Meet Naselle and North spawner goals in 10 years  
Broodstock Mgmt: Meet watershed-specific HSRG standards in 10 years

## Coho

Spawners: Meet Willapa Bay aggregate spawner goal  
Broodstock Mgmt: Meet watershed-specific HSRG standards

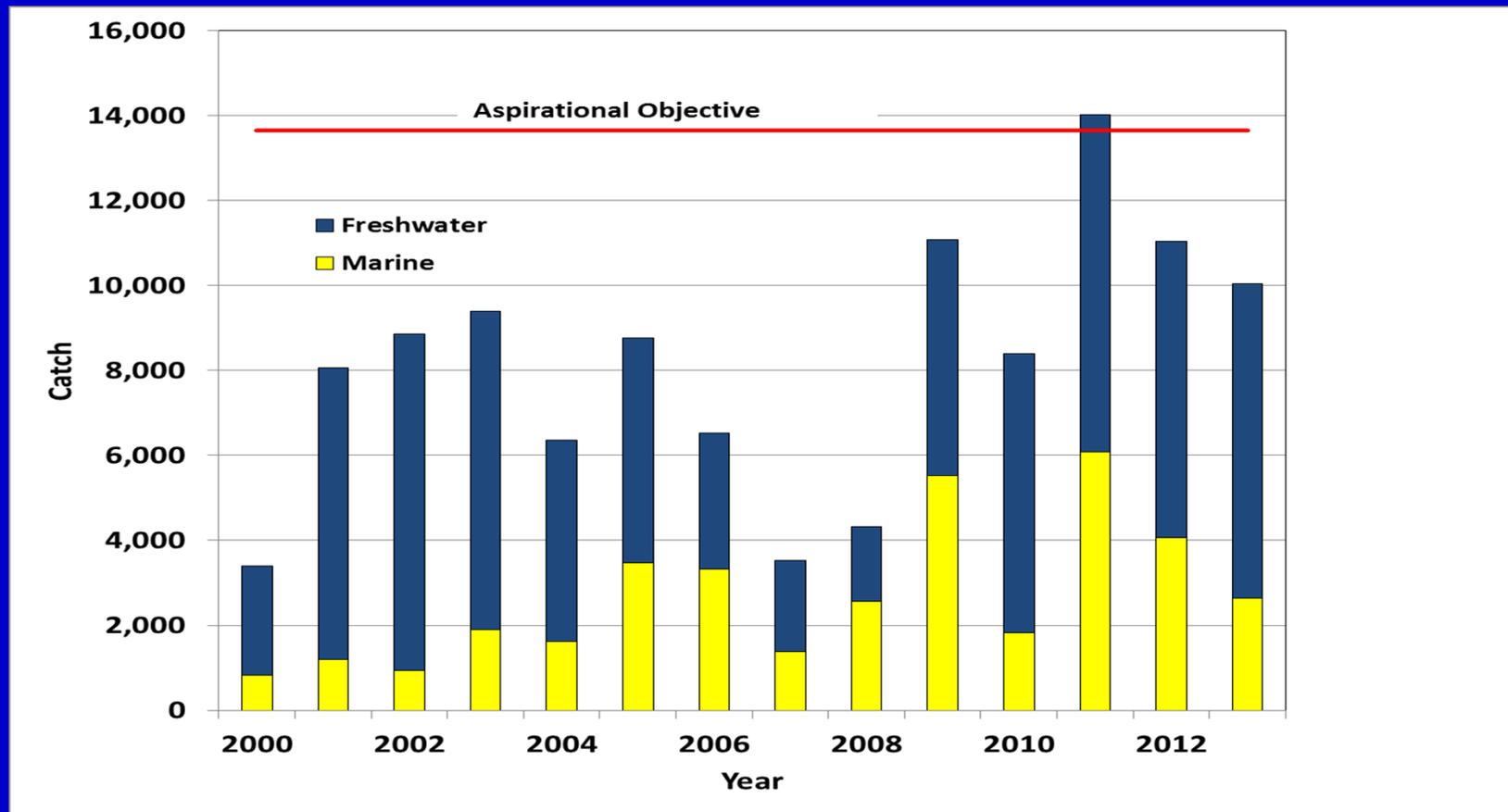
## Chum

Spawners: Meet Willapa Bay aggregate spawner goal in 2017  
Broodstock Mgmt: Meet watershed-specific HSRG standards

# Aspirational Objectives

Recreational Fisheries

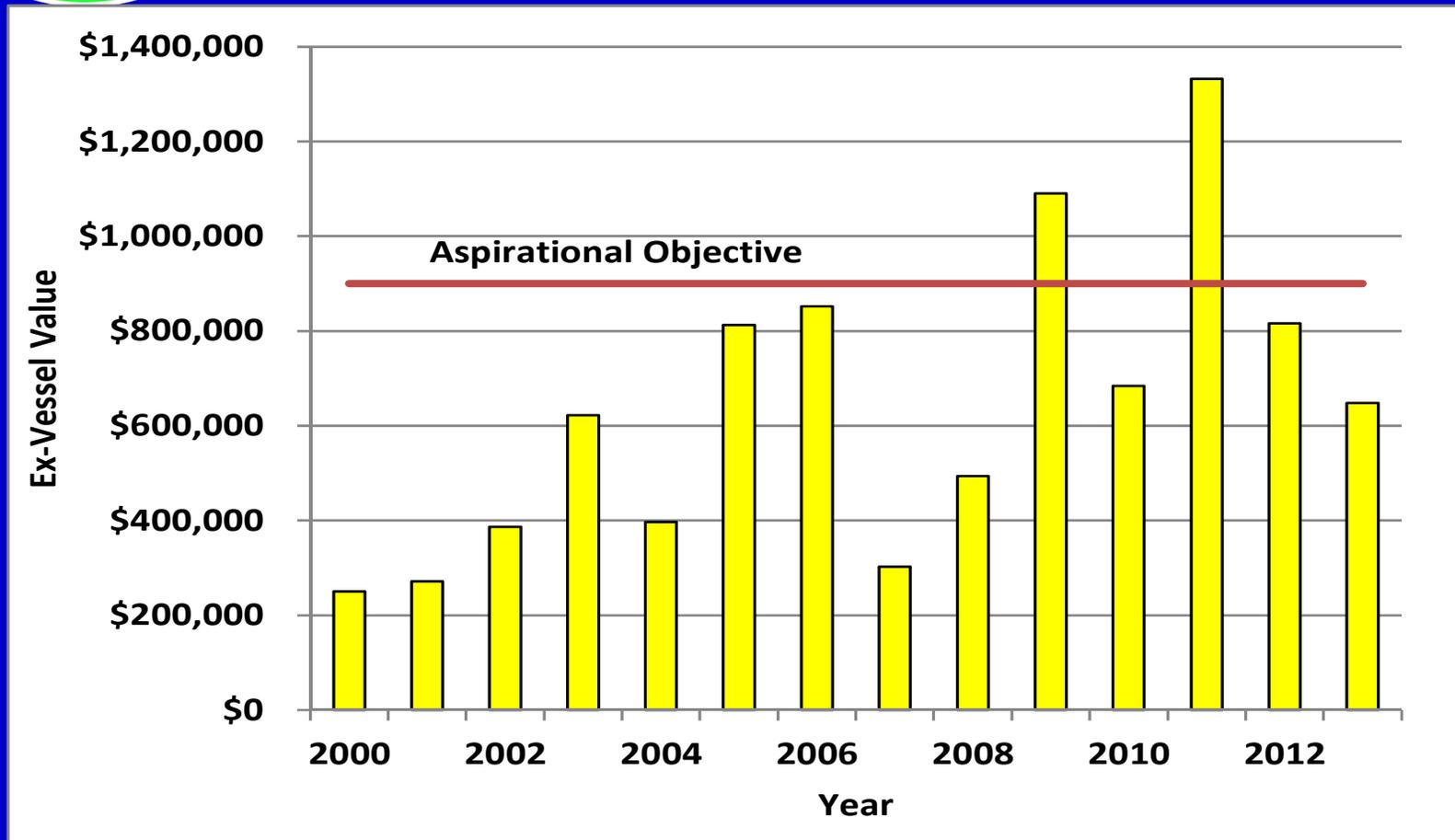
25% increase in catch within 5 years  
relative to 2009-2013 average



# Aspirational Objectives

Commercial Fisheries

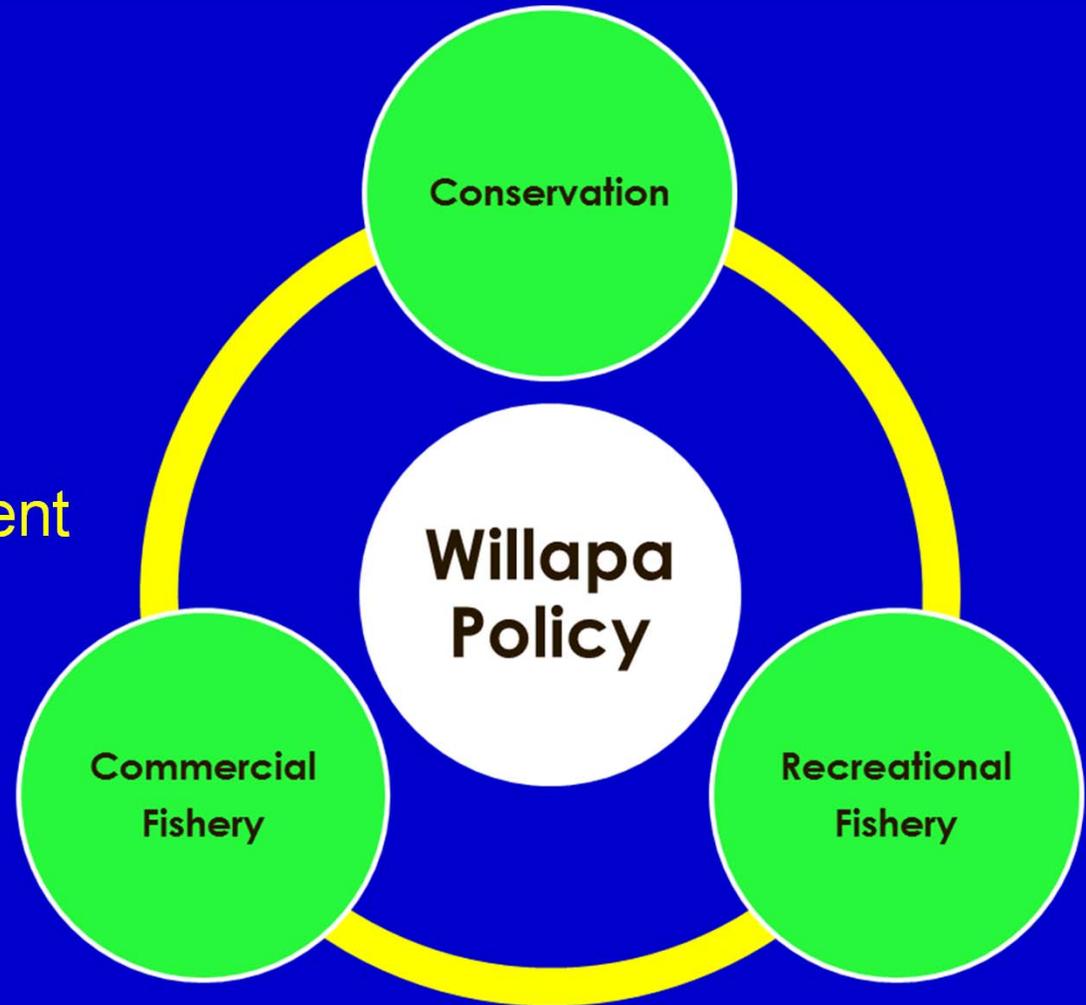
\$900,000 - average ex-vessel value



# Policy Development

## Potential Strategies

- Sector priorities
  - Time
  - Area
  - Species
- Hatchery production
- Broodstock management
- Alternative gear
- Mark-selective gear
- Marketing
- Liberalize regulations
- Habitat



# Next Steps

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- Questions?
- Public Input
- FWC initial guidance
  - Aspirational Objectives
  - Strategies

