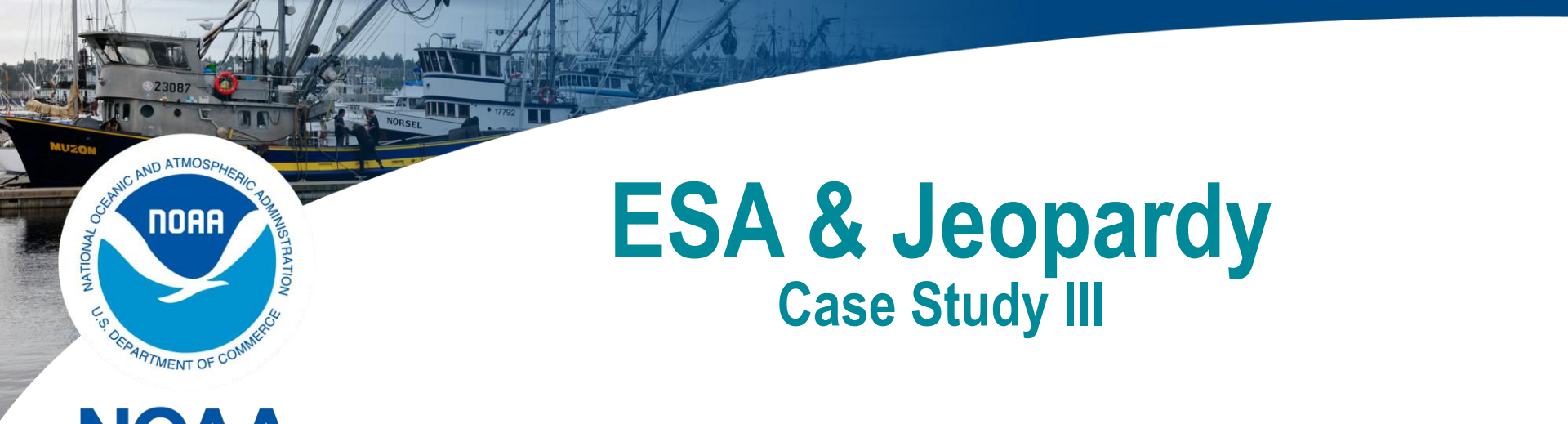

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ESA & Jeopardy

Case Study III

Lower Columbia River Tule Fall Chinook Salmon Abundance Based Harvest Management.

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Part I

The Action

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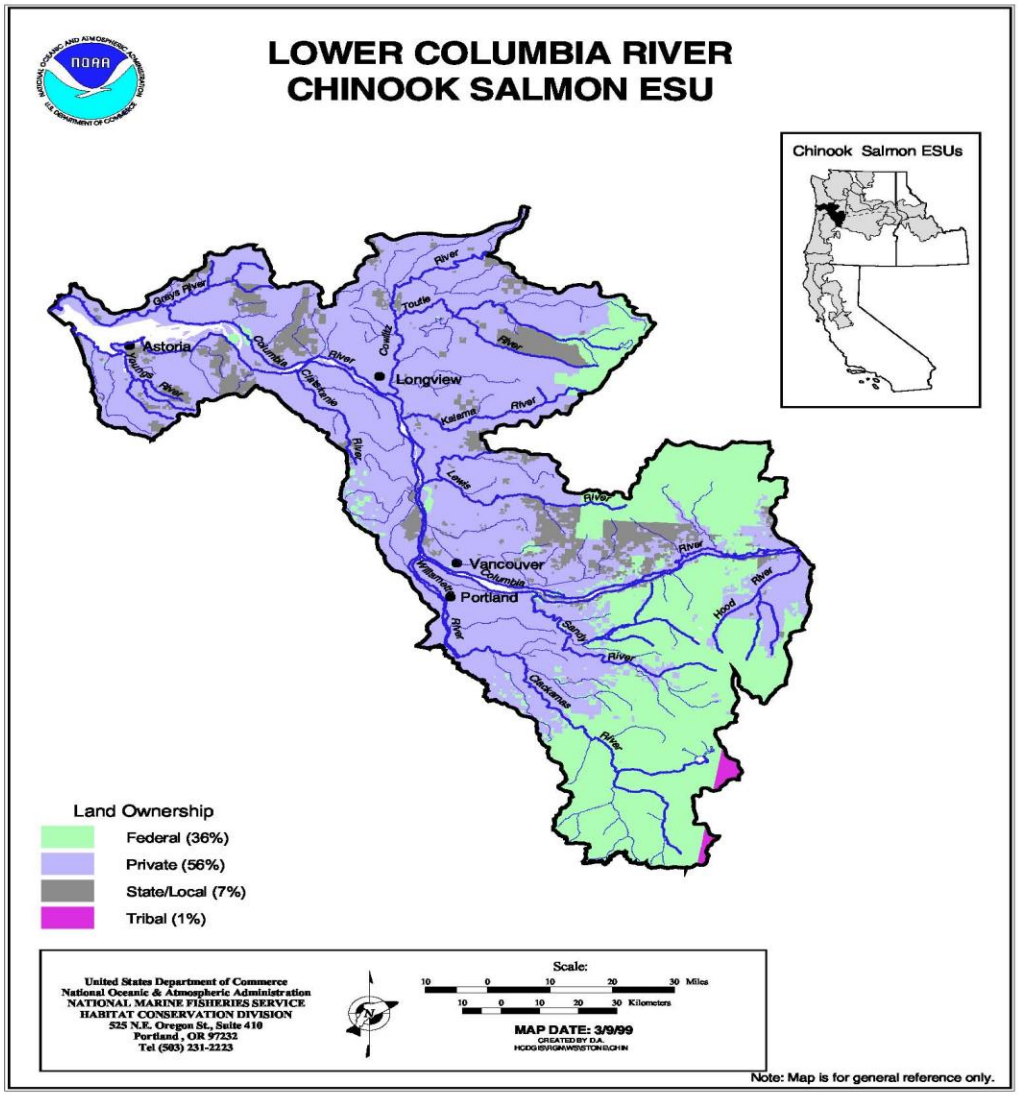

NOAA FISHERIES

PFMC manages fisheries along roughly 200 miles of Washington Coastline north of Cape Falcon, Oregon

Tule Chinook Catch by Area

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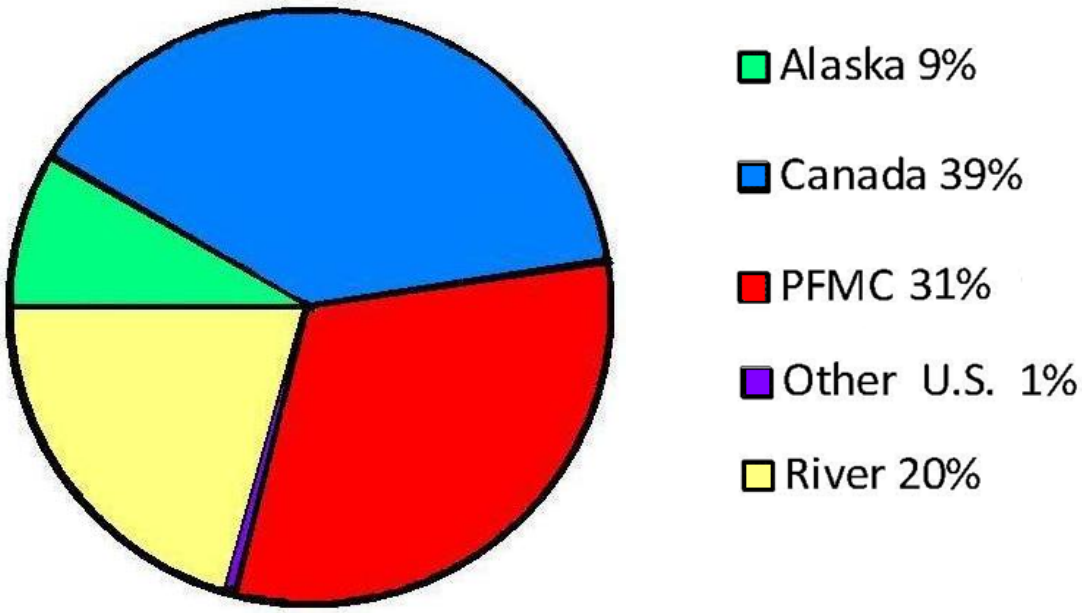
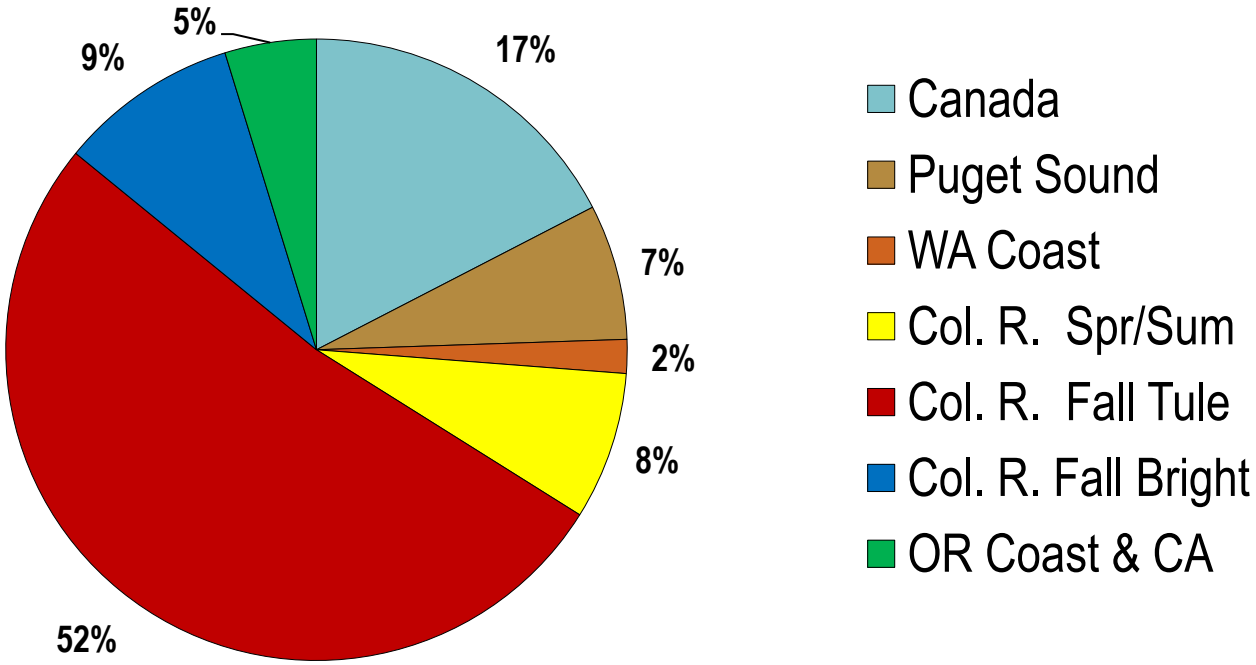


NOAA FISHERIES
Northwest Region

Chinook Stocks in PFMC Fisheries North of Cape Falcon, Oregon



Post season model estimates 2006-2010

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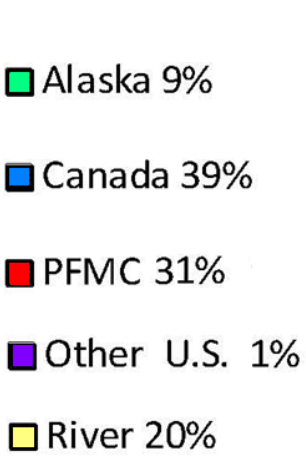
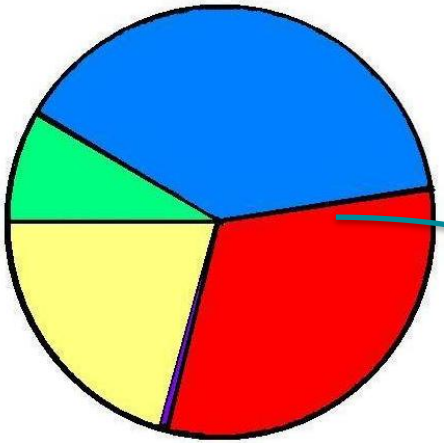
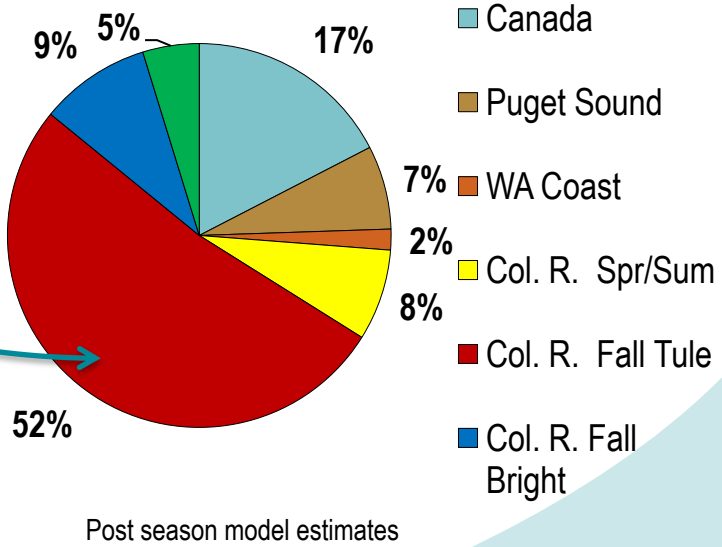
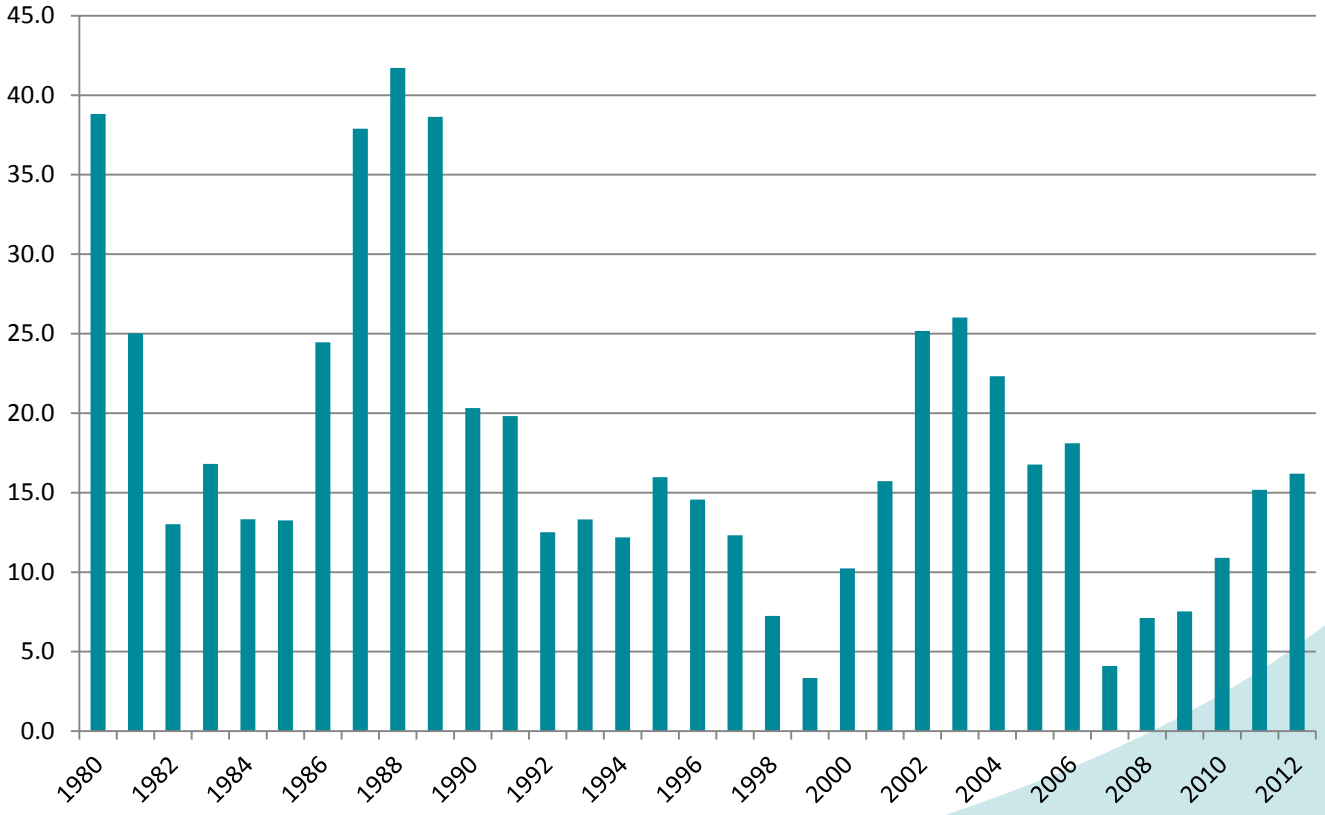




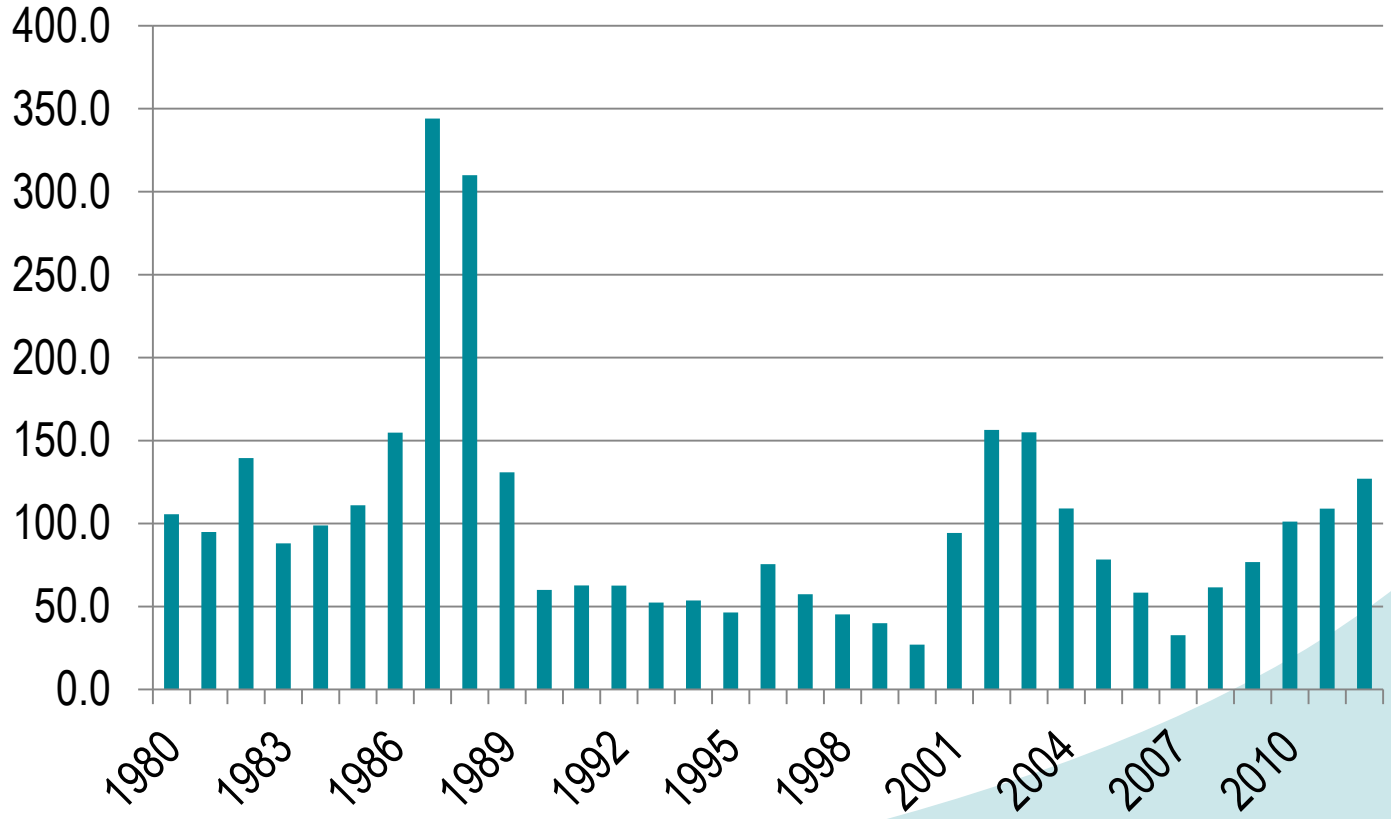


Post season model estimates

Lower River Wild Fall Chinook



Lower River Hatchery Fall Chinook



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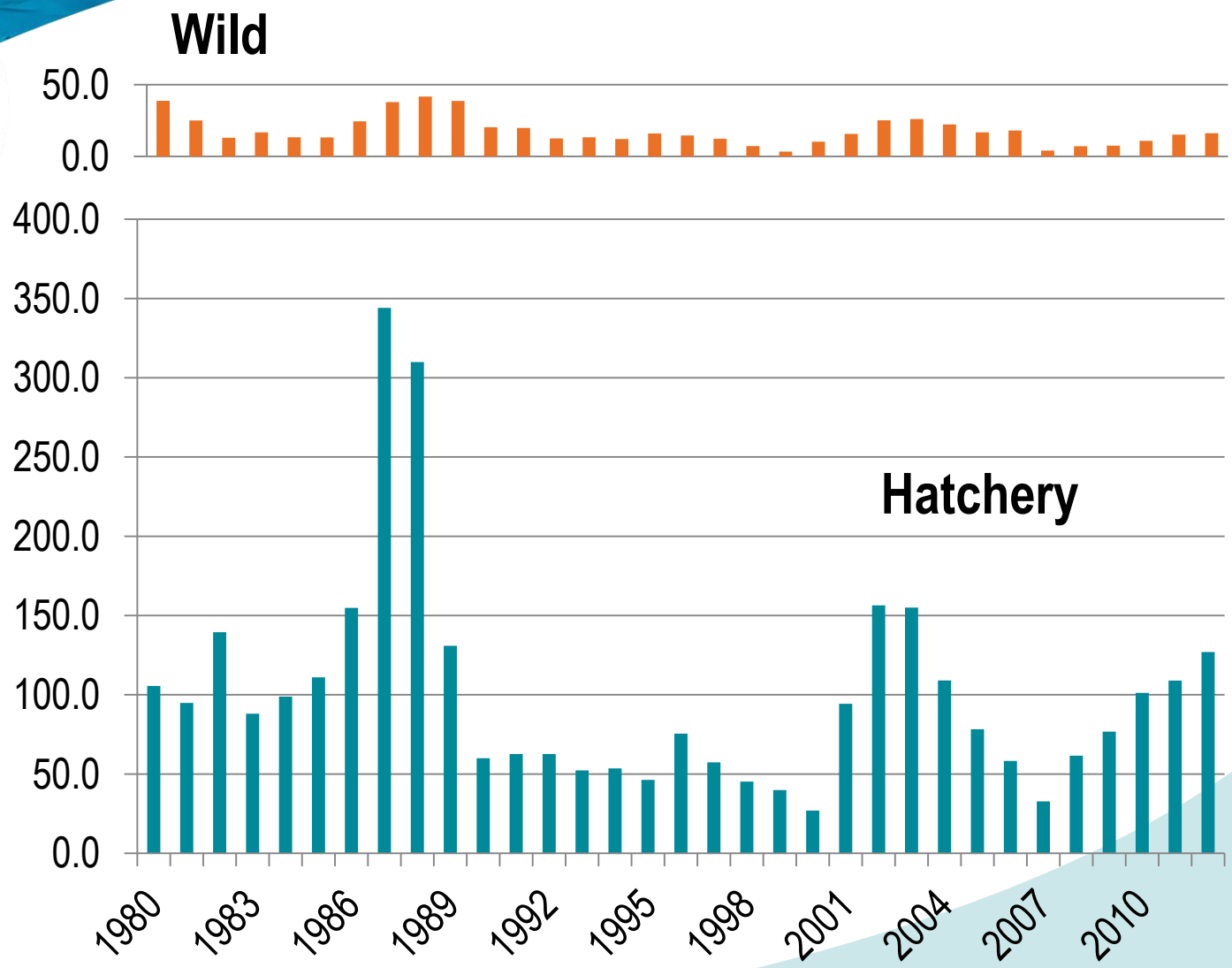


Lower River Chinook – Listed 1999

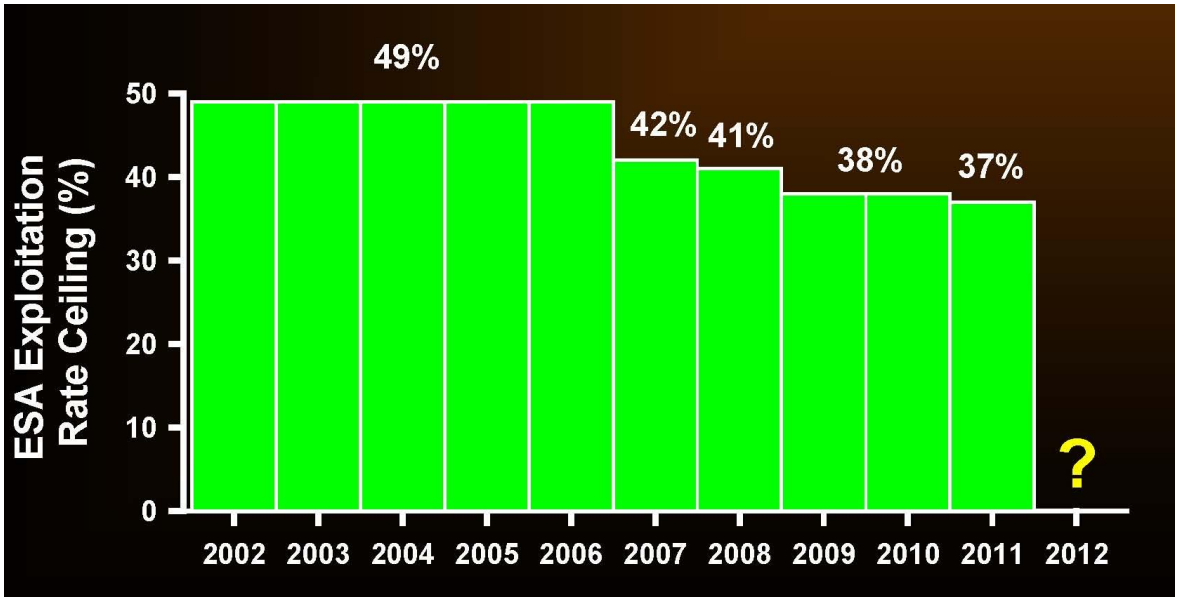
Recovery Plan call for "All-H" Solution

- **Habitat**
- **Hydropower**
- **Hatchery Reform**
- **Harvest**

Harvest Reductions from **80%** in mid-1980s

to 49% at 1999 Listing (-40%)

Recent ESA-Driven Exploitation Rate on Tule Chinook

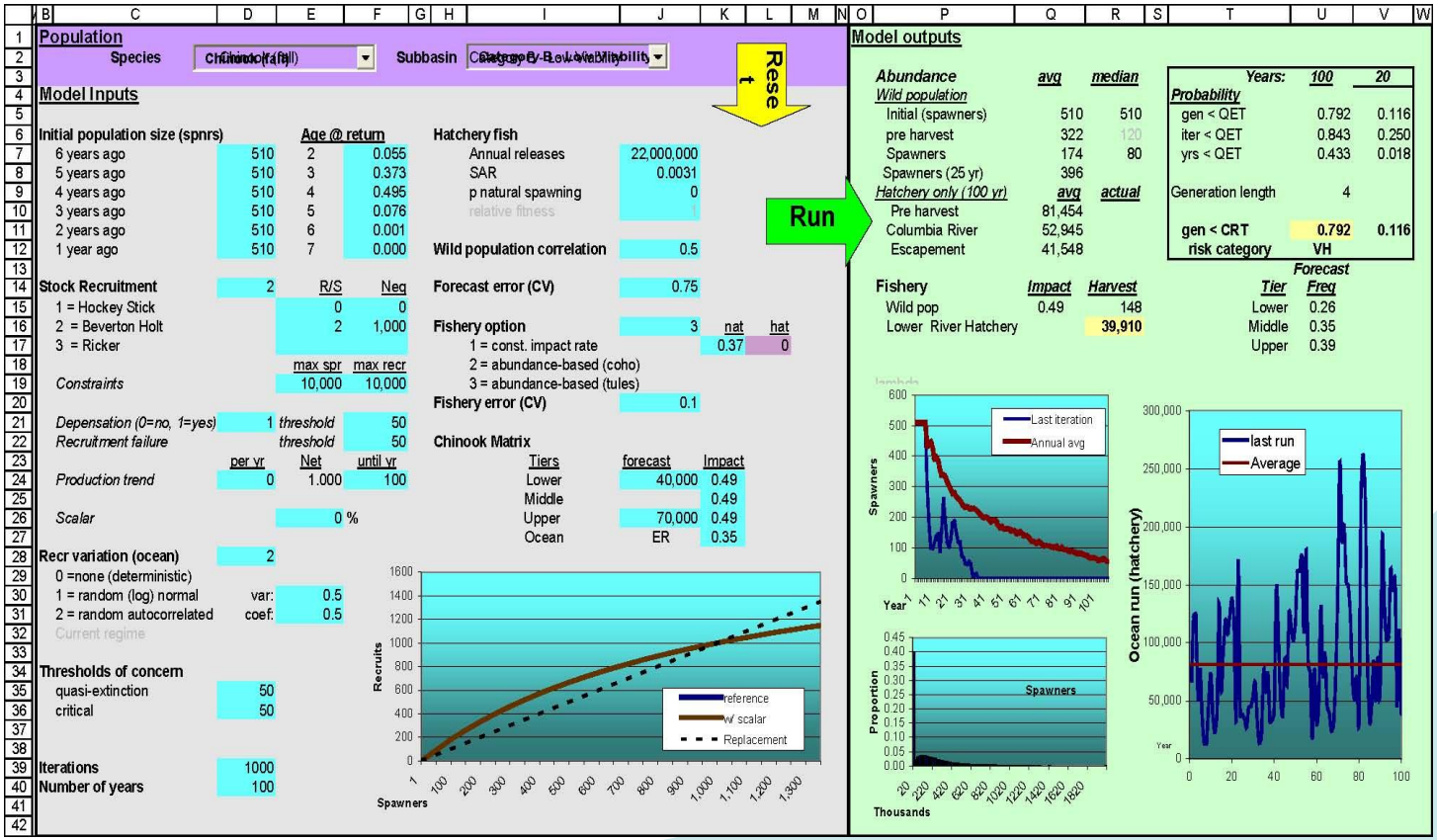


“Please – Look for a better way!!”

Determining "No Jeopardy"

Population Viability Analysis

YIKES! -- It may be a grey box, but its not black



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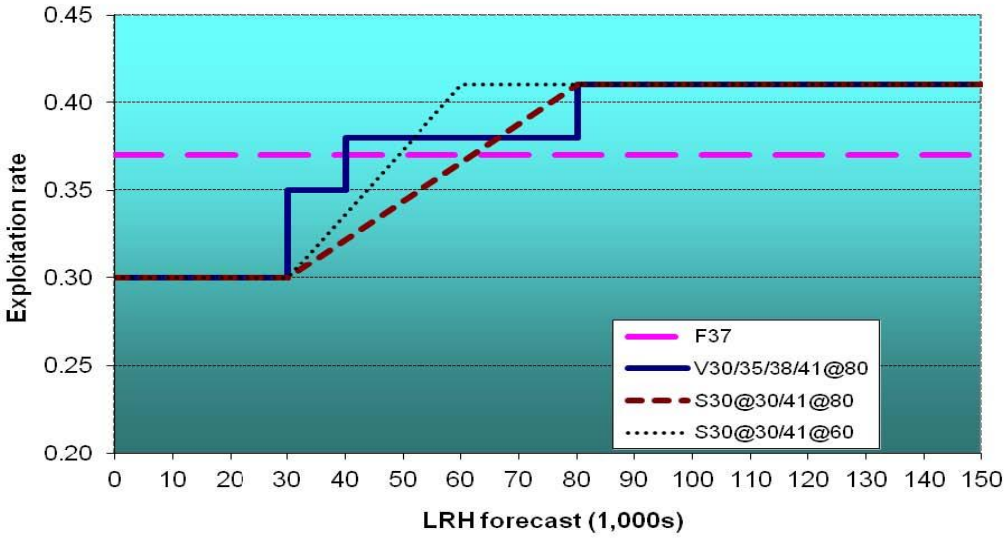
Increase in Sophistication of Salmon Harvest Management

- Fixed Escapement Number
- **Fixed Exploitation Rate**
- **Abundance Based Rates**



Process Checklist
The Formal Steps

2010 Tule Work Group: “Can it be done?”

Sept 2011 Council Update

SSC Review: “We agree. It can.”

Nov 2011 Council Agrees to Proceed

March 2012 SAS Harvest Scenarios and Council Consideration

Supplemental Analysis and Public Review

April 6, 2012 Council Action

May 1, 2012 Biological Opinion

May 1, 2012 Fishery Begins

A Consensus of the Council Family: Seek a Win/Win.

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Win/Win Scenarios

Risk = -3.5%

Harvest = +3.0%

Scenario Examples

	tiers				Rates (by tier)					Change		
#	1	2	3	4	1	2	3	4	Frequency	Risk	Harv	Category
68g	<30	30-40	40-80	>80	30%	36%	38%	41%	11/11/42/35	-3.1%	6.4%	Fishery ↑
68f	<30	30-40	40-80	>80	30%	36%	38%	40%	11/11/42/35	-3.2%	4.8%	Fishery ↑
68i	<30	30-50	50-100	>100	30%	36%	39%	41%	11/24/42/23	-3.5%	5.9%	Win/Win
68h1	<30	30-40	40-80	>80	30%	35%	38%	41%	11/11/42/35	-3.5%	6.2%	Win/Win
68j	<30	30-50	50-110	>110	30%	36%	39%	42%	11/24/47/19	-3.5%	6.6%	Win/Win
68h2	<30	30-40	40-85	>85	30%	35%	38%	41%	11/11/46/32	-3.7%	5.9%	Win/Win
68d	<30	30-40	40-80	>80	30%	35%	38%	40%	11/11/42/35	-3.8%	4.6%	Win/Win
68h3	<30	30-40	40-90	>90	30%	35%	38%	41%	11/11/49/29	-3.8%	5.6%	Win/Win
68c	<30	30-40	40-100	>100	30%	35%	38%	40%	11/11/55/23	-4.1%	3.9%	Win/Win

**Excerpts from Table 23, pg. 58*

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Part II

Why it Worked

PFMC's Ad Hoc Tule Chinook Work Group

NMFS Science Center

NMFS Region (2)

Columbia River Tribes

Oregon Fish and Wildlife (3)

Washington Fish and Wildlife (2)

Makah Tribe

PFMC Staff

Cramer Fish Sciences (Modeling)

PFMC's Ad Hoc Tule Chinook Work Group

User-Friendly Report October 2011

Scientific And Statistical Committee Review and Support as Best Available Science

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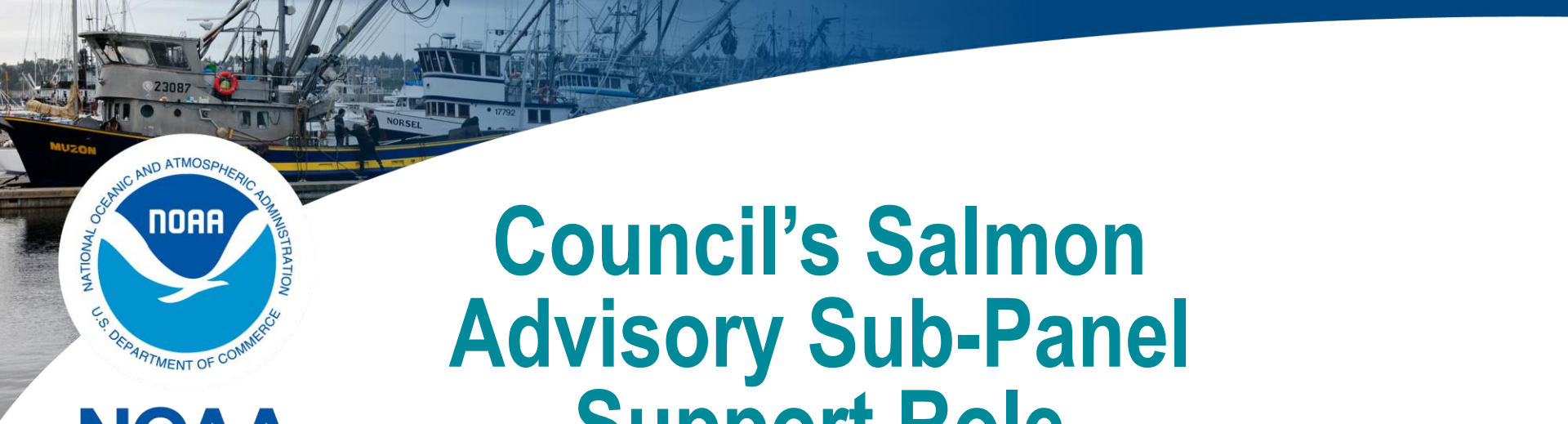
Council Financial Support for Developing Abundance-based Harvest Scenarios

- Convened several public Committee type meetings:
  - Many meetings of the Tule Workgroup
  - 2 reviews by the SSC
  - At least 6 meetings of the SAS
- Considered in the Council floor sessions 3 times, including updates, Public Comment.
- And the Council directly supported a good modeler.



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Council's Salmon Advisory Sub-Panel Support Role

- Salmon Advisory Sub-Panel took the Lead in Policy Alternatives and support of a "Win-Win" solution
- Excellent interactions with NMFS policy representatives at the Committee level
- Strong recommendations to the Council

Scenario Examples

	tiers				Rates (by tier)					Change		
#	1	2	3	4	1	2	3	4	Frequency	Risk	Harv	Category
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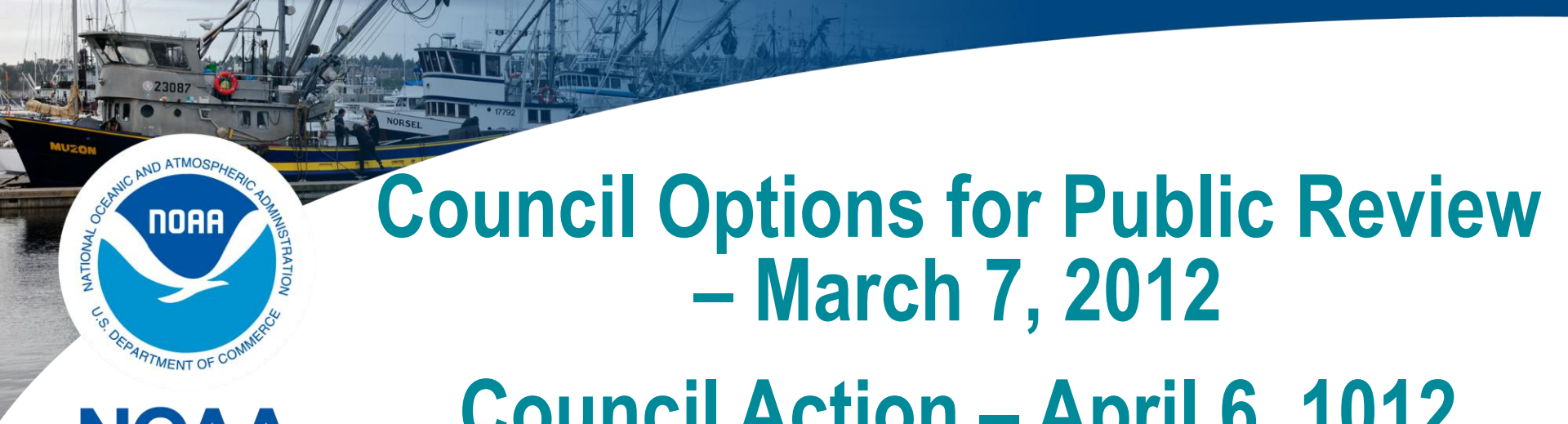
**Excerpts from Table 23, pg. 58*



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Council Options for Public Review – March 7, 2012

Council Action – April 6, 1012

BiOp issued – April 26, 2012

Covered Fisheries Begin – May 1, 2012

Everyone Recognizes – There's No Time.