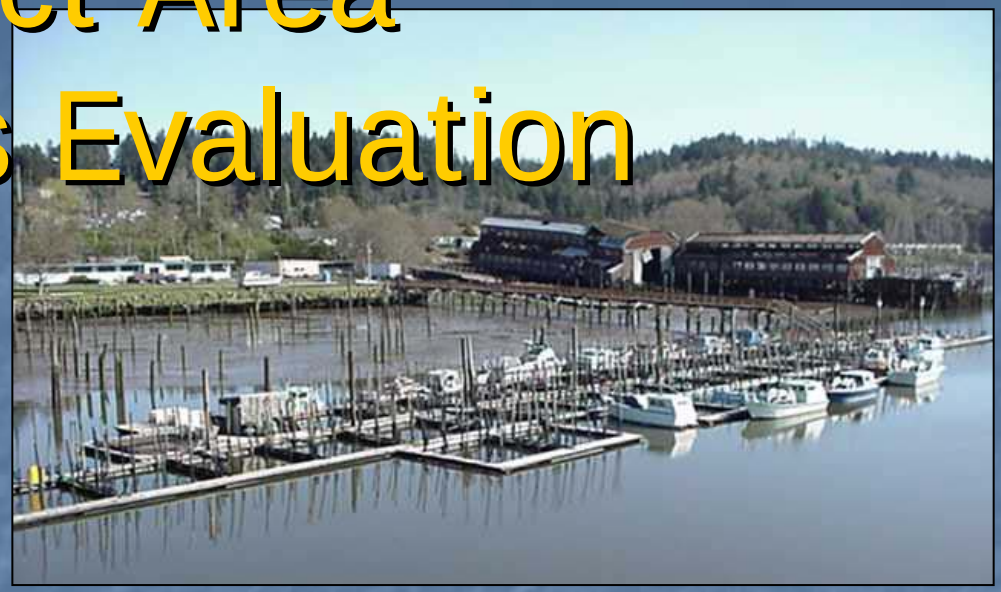
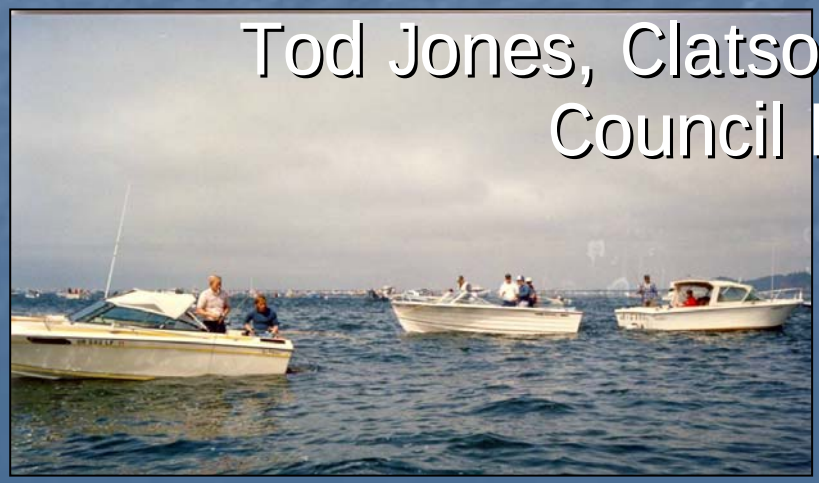
Select Area Fisheries Evaluation



Jeff Whisler, Oregon Department of Fish & Wildlife

Tod Jones, Clatsop Economic Development Council Fisheries Project



Project Goal

Develop and enhance known stock selective fisheries in the lower Columbia River

- Protect naturally-produced runs
- Provide stable and meaningful fisheries

Project History

Grassroots effort

- Youngs Bay net pen coho rearing/release - 1976

In 1993 Northwest Power and Conservation Council called on BPA to fund a study to evaluate potential terminal fishery sites and opportunities

- Columbia River Terminal Fisheries Project
- Project Sponsors: CEDC, ODFW, and WDFW

Renamed Select Area Fisheries Evaluation (SAFE) in 1997

Project History

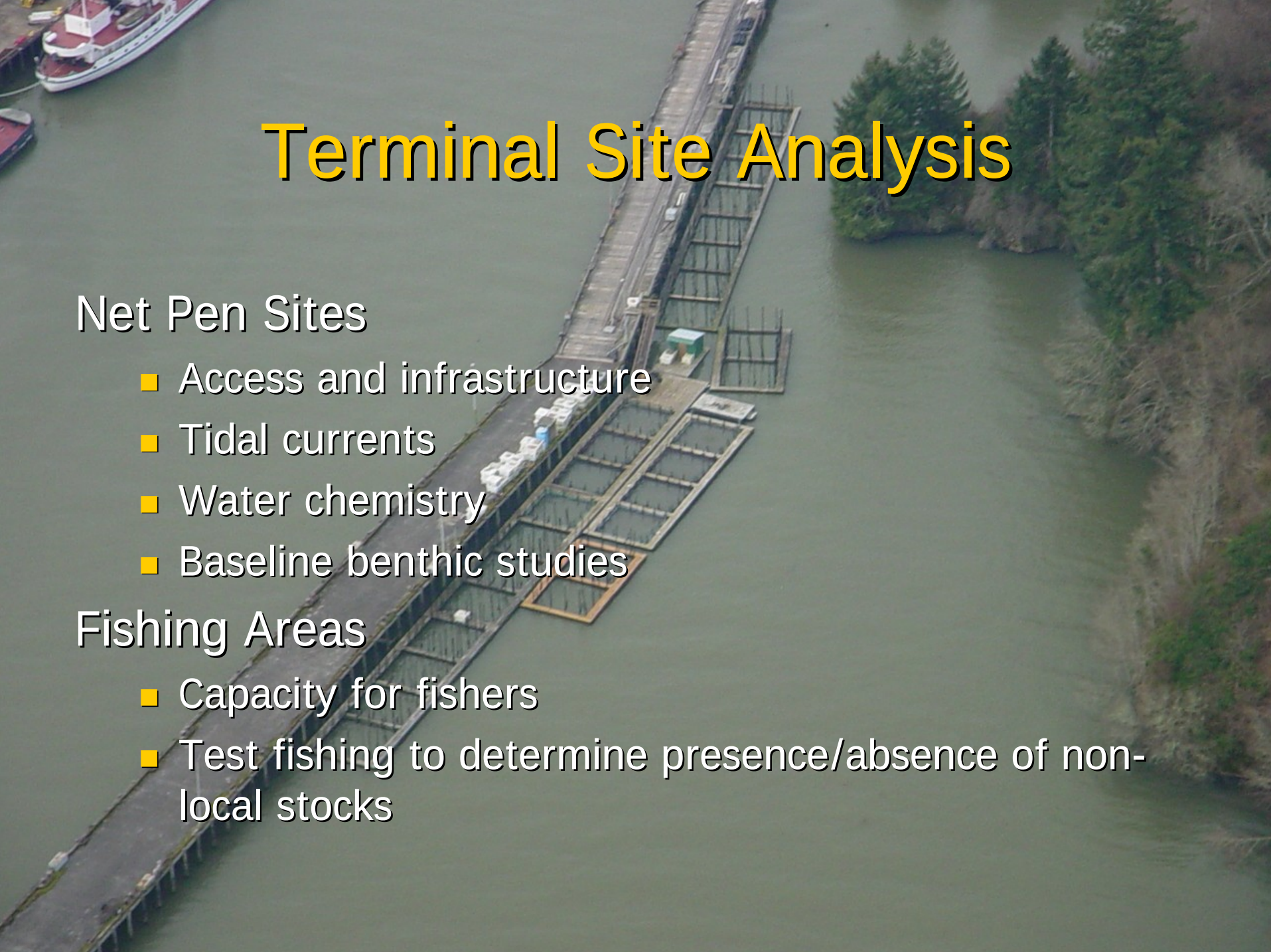
SAFE designed with three stages

1. Initial feasibility research
2. Introduction at appropriate sites and Youngs Bay expansion
3. Establish terminal fisheries at full capacity

Currently in interim period between phases 2 & 3

2007-09 BPA proposal will move project into phase 3 – Select Area Fisheries Enhancement

Terminal Site Analysis

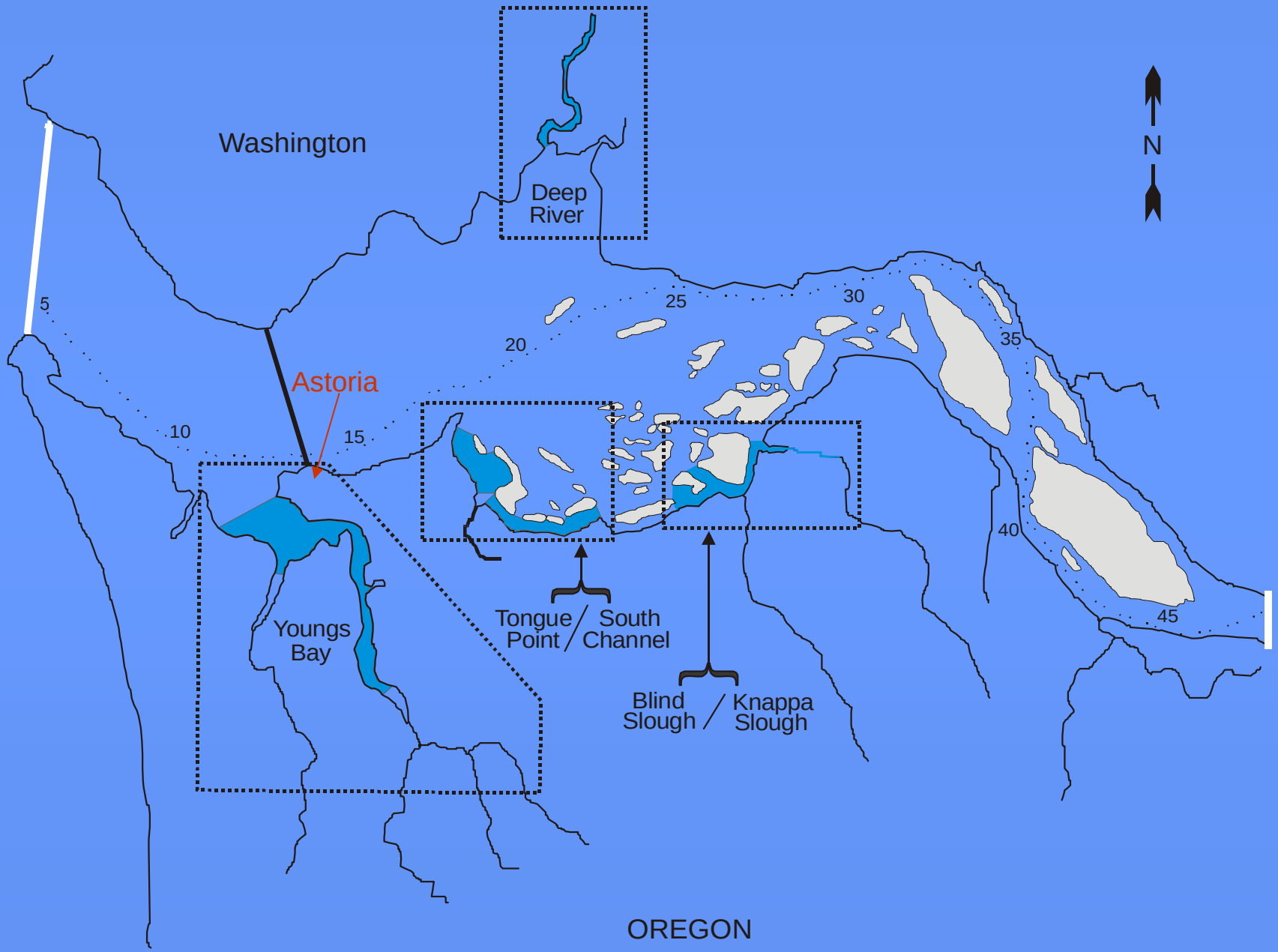


Net Pen Sites

- Access and infrastructure
- Tidal currents
- Water chemistry
- Baseline benthic studies

Fishing Areas

- Capacity for fishers
- Test fishing to determine presence/absence of non-local stocks


Washington
Deep River
N
5
10
15
20
25
30
35
40
45
Astoria
Youngs Bay
Tongue Point
South Channel
Blind Slough
Knappa Slough
OREGON

Rearing & Release Trials

- Subsurface feeding
- Towed releases
- Rearing density comparisons
- Release smolt size and timing
- Outmigration telemetry study

Smolt Releases

- Spring Chinook – 1.25 million
- Select Area Bright Fall Chinook – 1.30-1.50 million
- Coho – 2.10 million

Education & Outreach

- Astoria and Warrenton High School aquatic science classes
- Educational tours
- Volunteers

Funding Sources

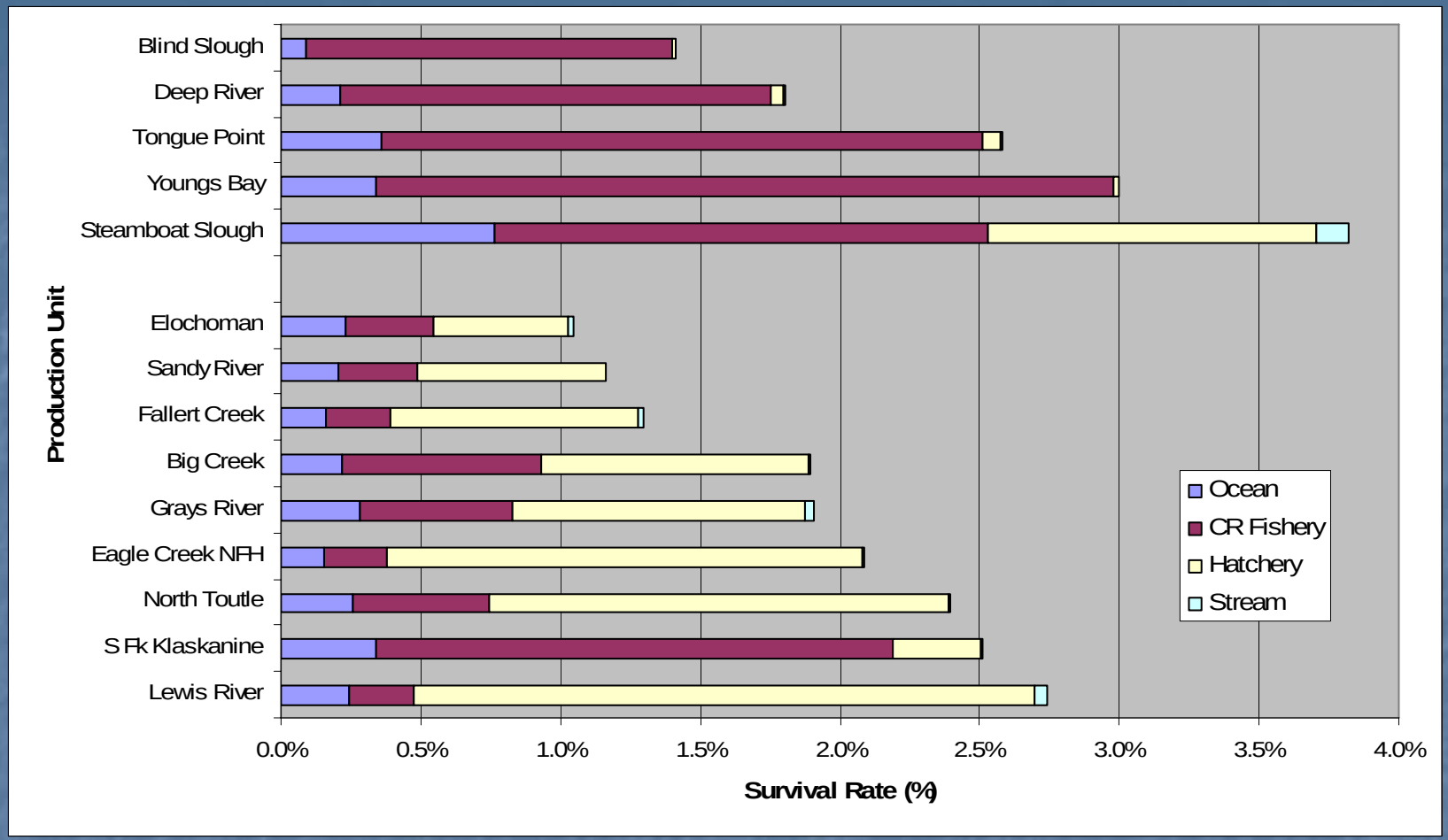
- Bonneville Power Administration
- State of Oregon
  - Restoration and Enhancement Program
  - Direct Appropriation to CEDC
- Voluntary Assessment
  - Fishermen and Processors
- In-kind contributions

Monitoring and Evaluation

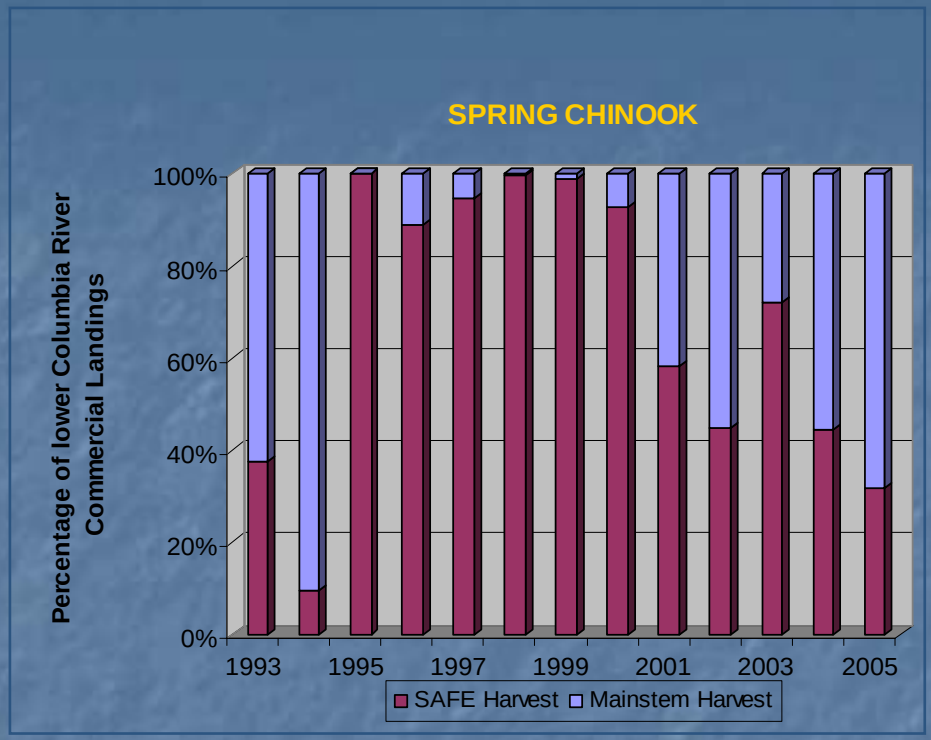
Project and Fisheries

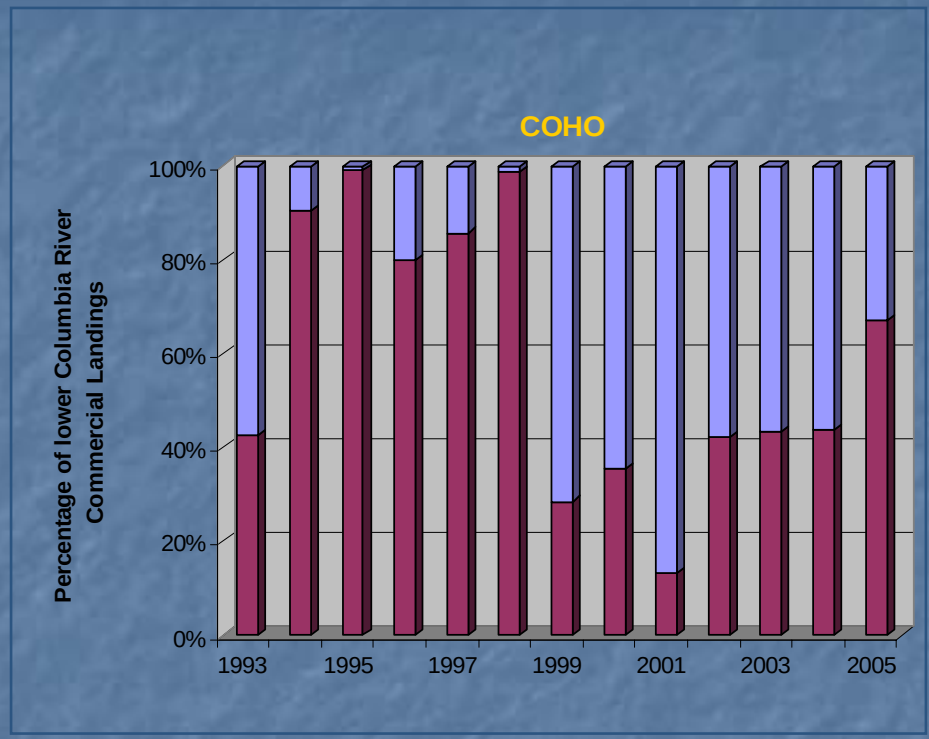
- Coded Wire Tagging of Release Groups
- Sampling of Ocean and River Fisheries
- Juvenile and Adult Stream Surveys
- Compilation of Tag Recovery Data
- Adaptive Management of Fisheries

- Water Quality monitored – no adverse effects
- Limited straying of SAFE produced returning adults
  - Spring chinook – 2.2%
  - SAB – 0.7% Klaskanine releases, 1.8% Youngs Bay net pen releases
  - Coho – 1.7%
- Fishery observation verified test fishing results

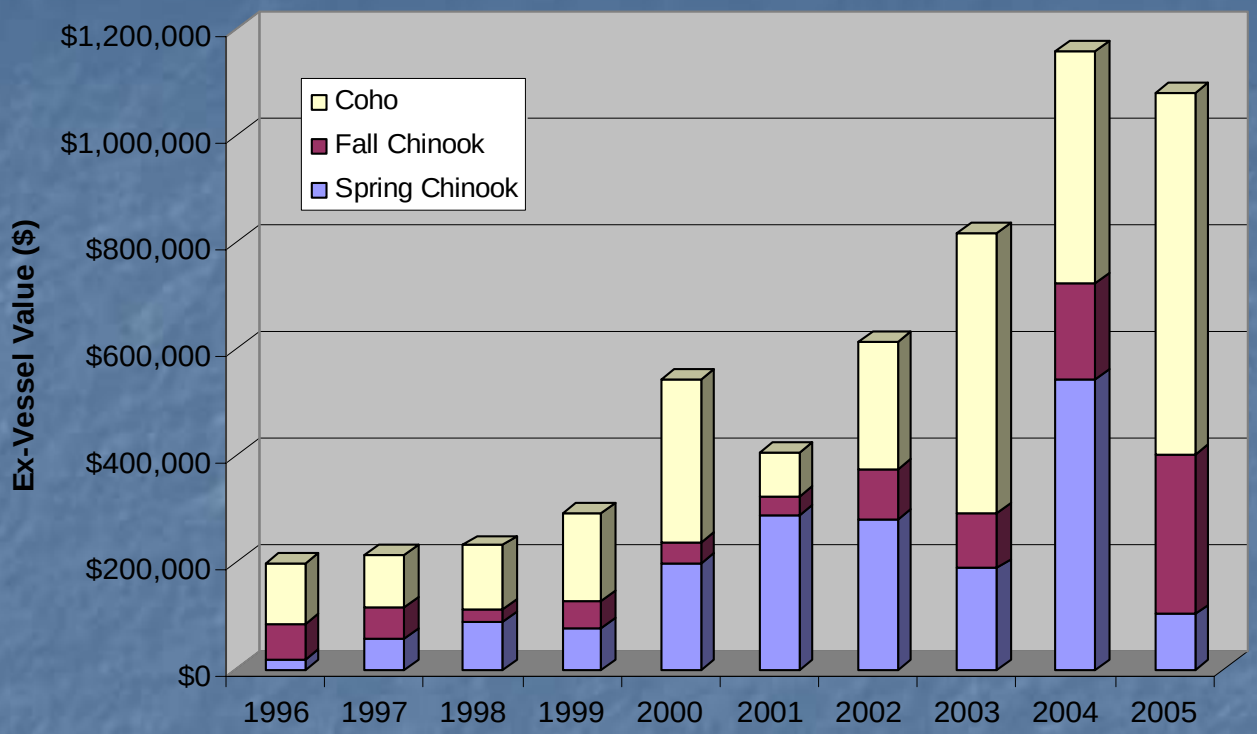


Comparison of mean survival rates and fishery contributions of early-run coho released from SAFE sites and representative Columbia River hatcheries, 1993-2000 brood years.

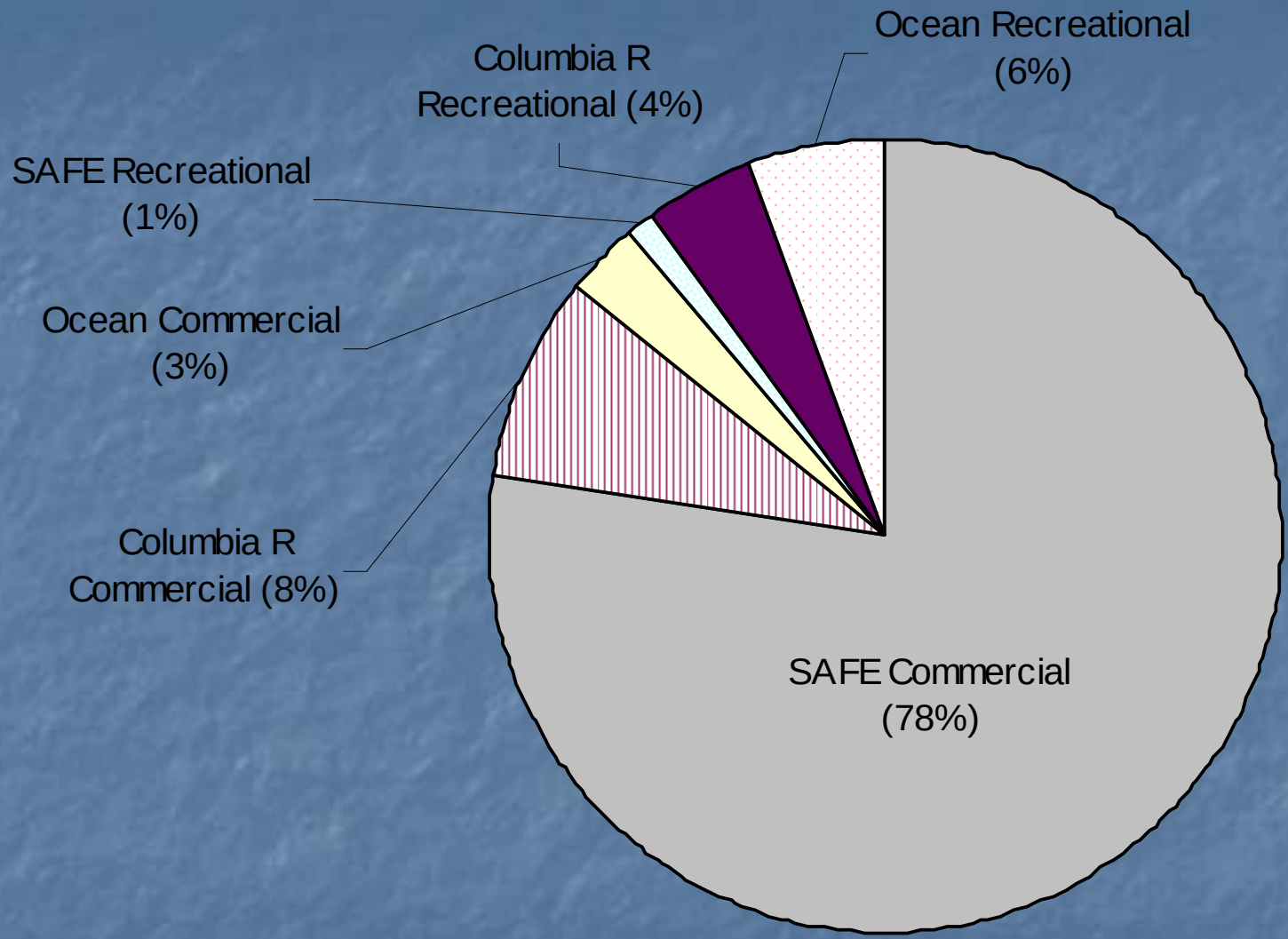




Proportion of SAFE landings in lower Columbia River commercial harvest, 1993-2005



Ex-vessel value of SAFE fisheries by species, 1996-2005



Average annual percent contribution (number of adults) of SAFE production to regional salmon fisheries, 1996-2002.

Bridge to the Future

- Obtain secure funding
- Maximize rearing/acclimation capacity
- Continue adaptive management strategies to refine fisheries