

Cedar River Sockeye Hatchery



Northwest Fish Culture Conference

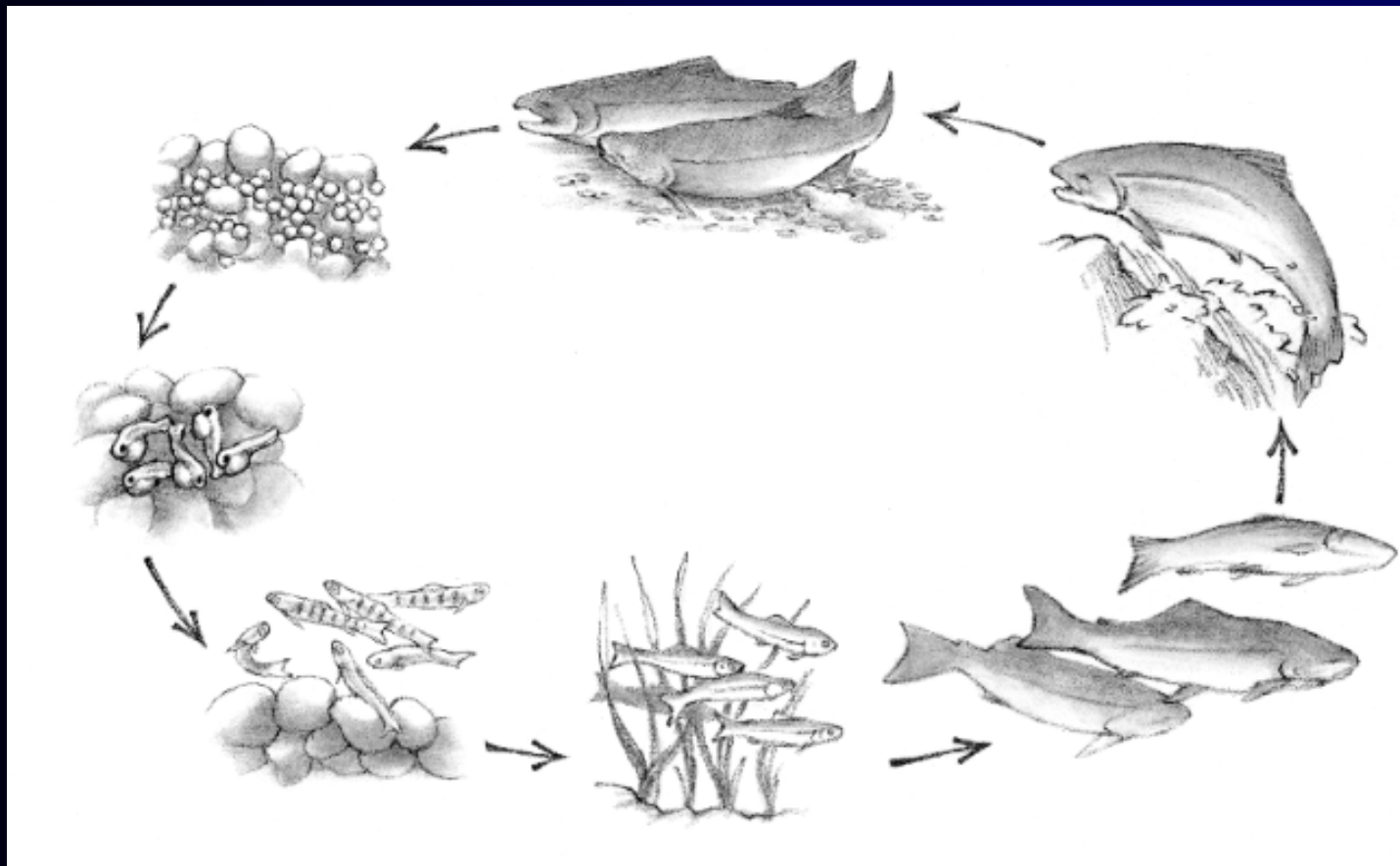
December 3, 2002

Seattle Public Utilities and WA Dept Fish and Wildlife

Changing Conditions from a Sockeye's Perspective

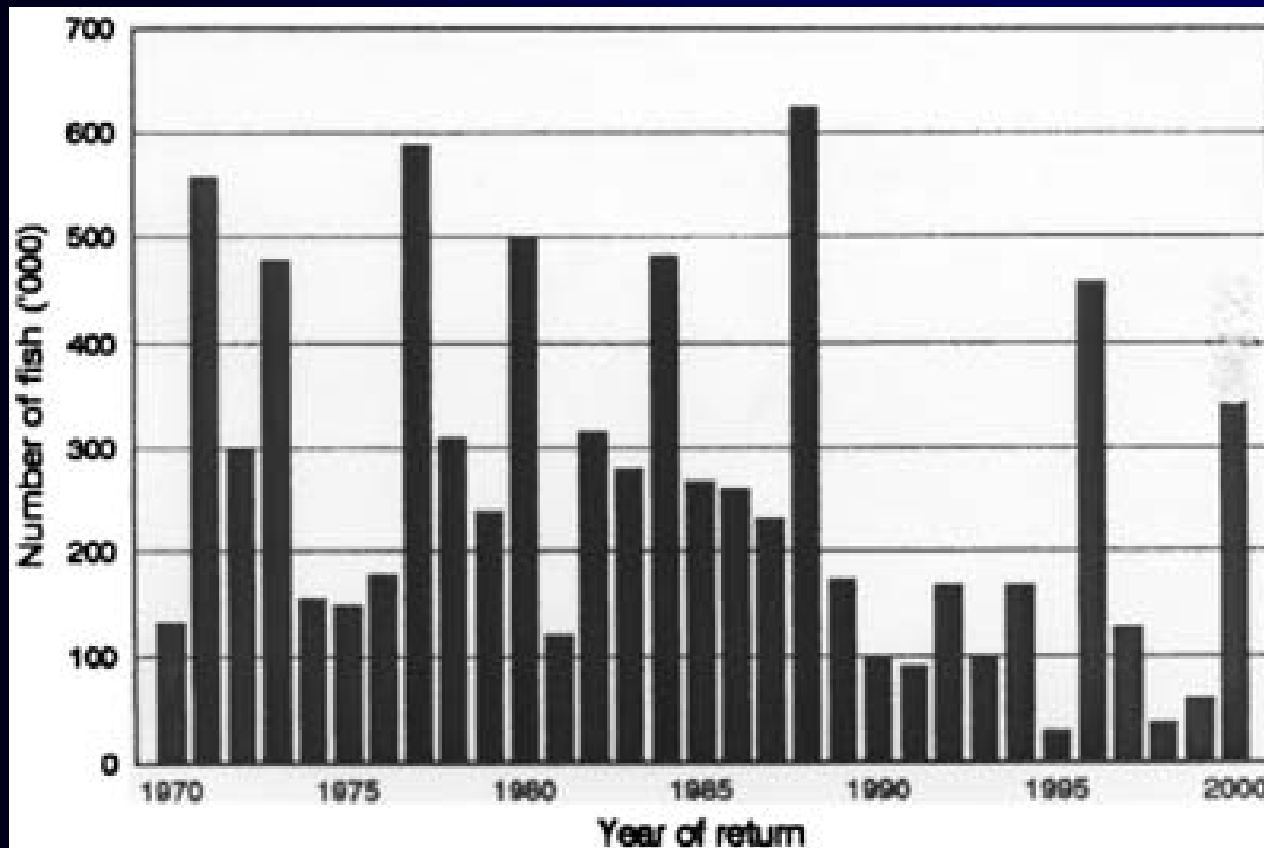
- Connection of the Cedar River to L. Washington
- Connecting L. Washington to Puget Sound
- Nutrient and food supply changes
- Sockeye planting in the 30s-40s
- Establishing a self-sustaining run
- Scour impacts

Salmon Life Cycle



Courtesy:Bellevue Utilities

Cedar River Sockeye Returns



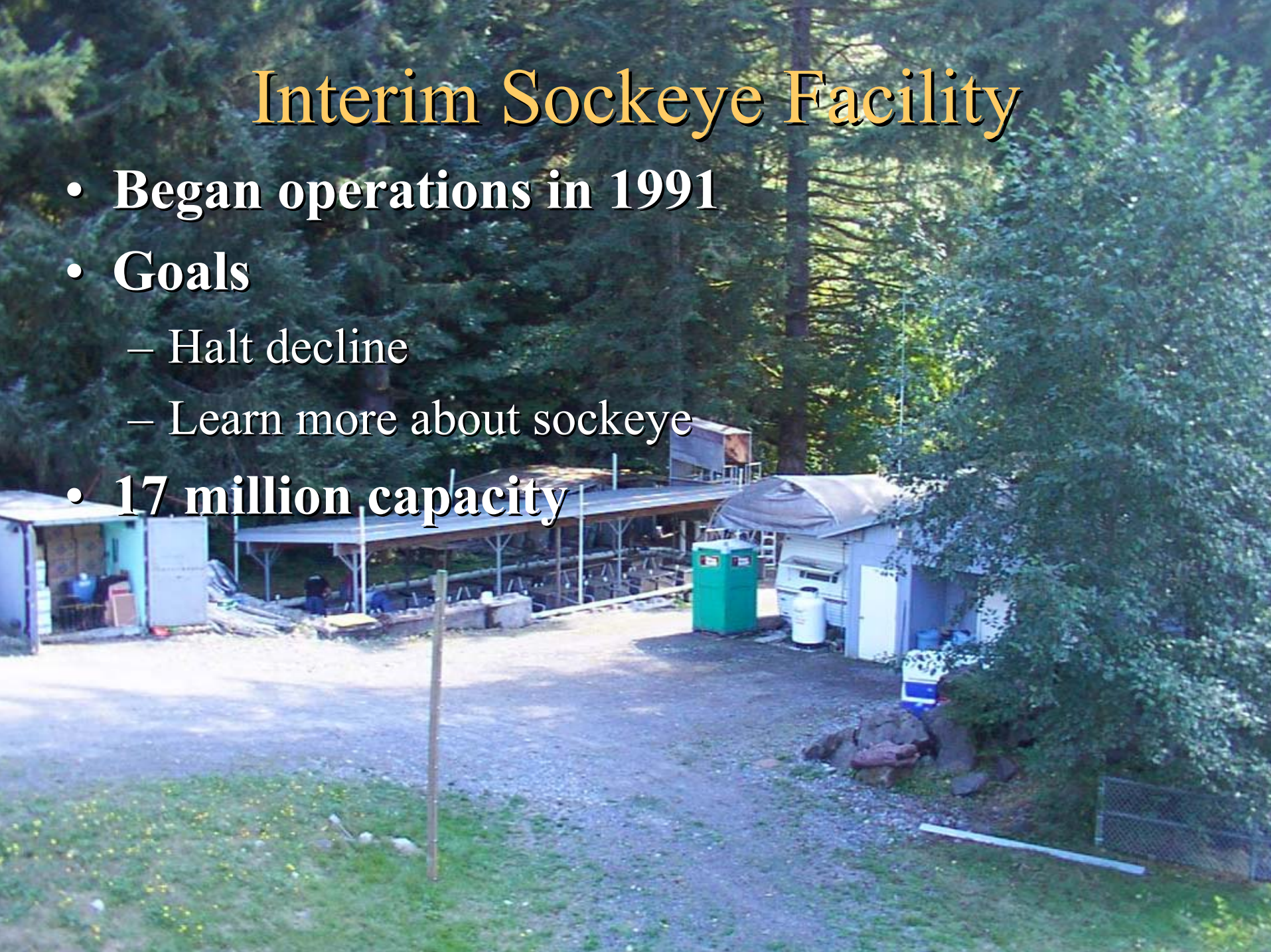
Sockeye Fishery

- Tribal and sport fisheries share harvest
- In 2002, a 3 day sport fishery resulted in a harvest of 36,000 sockeye from 30,000 angler trips

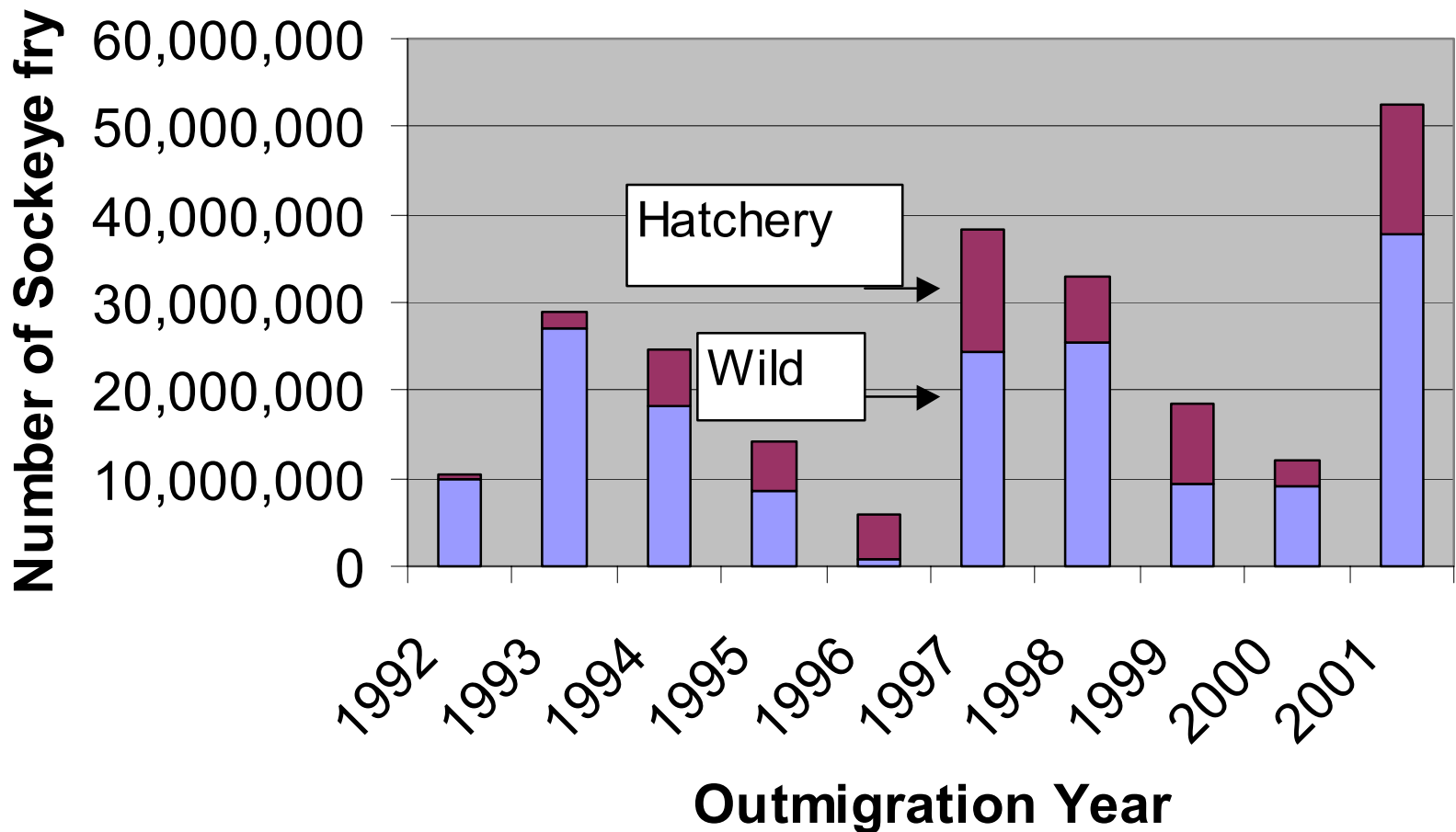


Interim Sockeye Facility

- **Began operations in 1991**
- **Goals**
 - Halt decline
 - Learn more about sockeye
- **17 million capacity**



Estimated Outmigrant Sockeye Fry, Cedar River, 1992-2001



What are we learning?

- Hatchery contribution to sport fishery
- Straying
- Growth and food supply
- Genetic relationships between sockeye populations

Habitat Conservation Plan Development

- State law requiring sockeye mitigation for blockage at Landsburg Dam -1989
- Potential impacts of ESA on regional water supply
- Need for regional salmon recovery efforts

Cedar River Habitat Conservation Plan

- Comprehensive actions to help protect and restore species living in the Cedar River watershed
 - Watershed protection
 - Instream flow guarantees
 - Fish passage facilities
 - Sockeye hatchery
 - Lower Cedar River habitat

Sockeye Mitigation

- Five alternatives for sockeye mitigation were considered during environmental review of the HCP
- The preferred alternative is a new hatchery and habitat acquisition

Replacement Hatchery

- New facilities that double existing fry production capacity – up to 34 million
- Greater control of development and fry release timing
- Improved water supply
- New broodstock collection facilities

Operational Challenges

Meet mitigation responsibility and increase fishing opportunity, while:

- Minimizing program effects on natural populations
- Maintaining reproductive potential of sockeye run
- Applying what is learned to improve program

Development of Program Guidelines

- Relied on independent scientists for development of program guidelines

Dr. Ernie Brannon

U. of Idaho

Dr. Dave Beauchamp

U. of Washington

Dr. Don Campton

USFWS

Dr. Conrad Mahnken

NMFS

Dr. Jim Winton

US Bio. Survey

Hatchery Program Requirements

- The Parties to Landsburg Mitigation Agreement must approve:
 - Plans for Design, operation and monitoring
- Project oversight from the Cedar River Anadromous Fish Committee and co-managers (WDFW and Muckleshoot Tribe)

Project Team

- Selection of qualified design team

John McGlenn: **Project Manager**

Technical advisors:

Jim Lichatowich **Consultant**

Dr. Rick Williams **Geneticist**

Dr. Tom Quinn **Professor, U. of Wash**

Dr. John Burke **Alaska sockeye expert**

Eric Prestegard **Alaska sockeye expert**



Approach

- Links hatchery production with natural production
- Emphasis on maintaining reproductive fitness
- Emphasis on limiting risks to naturally reproducing stocks
- Commitment to adaptive management

Implementation Challenges

- Secure a broodstock collection site as low in the river as possible
- Design a weir that allows us to reach our egg goal while being acceptable to the public and regulators.

What lies ahead?

- Public comment period ended November 6
- Final EIS – February/March 2003
- Decision to proceed - March/April 2003
- Construction scheduled mid-2004
- Operational - September 2005