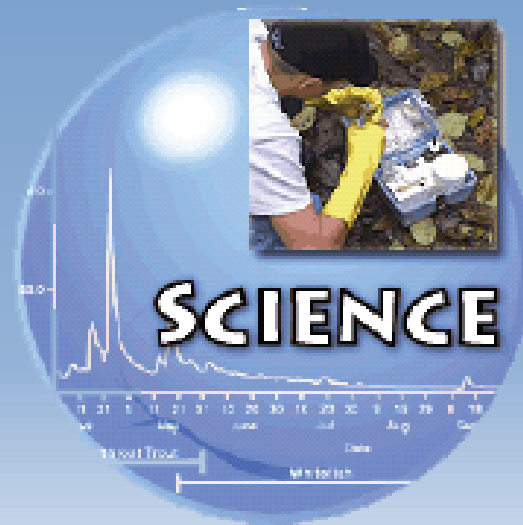


# The Restoration of the River

What Happens After the Dams Are Out?



## Natural Recolonization

- o The fish above the dams should not have any problems returning to anadromy.
- o These include;
- o Sockeye of Lake Sutherland
- o Coastal cutthroat trout
- o Bull trout
- o Dolly Varden



# Hatchery Assisted Recovery

Coho, Chum, and Steelhead natural recolonization is assisted by hatcheries.

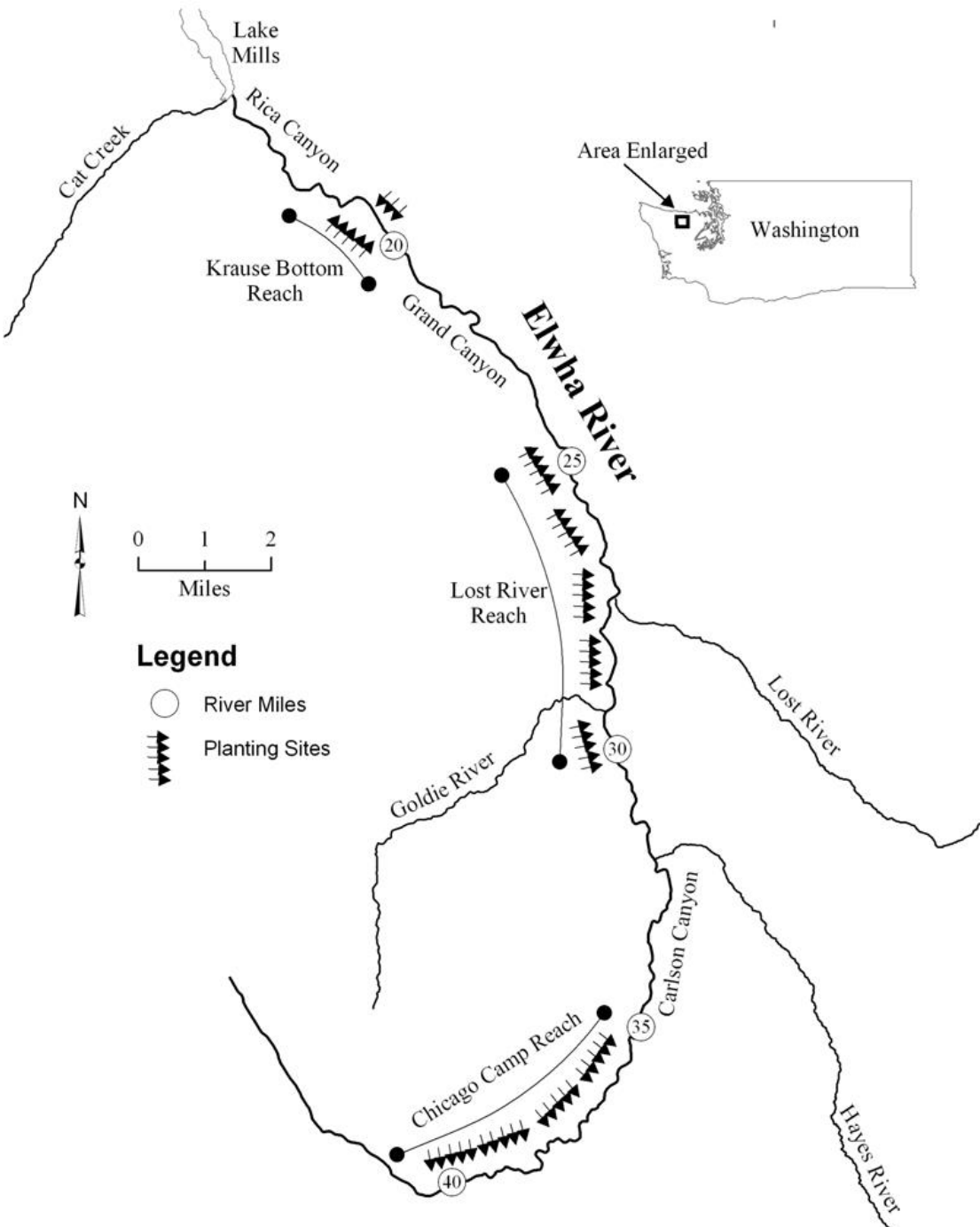


# Pink Salmon Recovery

Pink salmon were historically the most numerous fish in the river at up to **200,000 returns** in odd-years.

In 2010, they were the **rarest** of the salmon at only 50-200 adult returns!





FREEING THE ELWA

Species	Current Escapement of wild populations	Lower Escapement Estimate	Upper Escapement Estimate	Harvest Rate
Chinook <sup>e</sup>	~ 2,200	6,900	17,000	65%
Coho	~ 450 Supplemented with hatchery stock	12,100	34,500	65%
Chum	< 300	18,000	40,000	50%
Pink	< 200	96,000	250,000	65%
Sockeye	~ 0 But, population lives in Lake Sutherland	6,000	N/A	N/A
Steelhead <sup>e</sup>	~ 333 But, rainbow trout occur above the dams in significant numbers	5,750	10,100	43%
<b>Total Returns</b>	<b>~ 3,500</b> <b>wild anadromous returns</b>	<b>~ 144,750</b>	<b>~ 357,500</b>	

<sup>e</sup> = federally listed endangered species

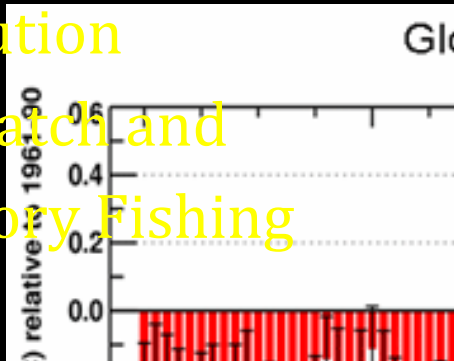
## Escapement Rate and Harvests

- o The biggest threat to recovery is open ocean harvest.
- o Nearly 70% of salmon harvested are in Canadian waters.
- o 10% are harvested in Alaskan waters, while only 8.5% are harvested commercially in Washington.

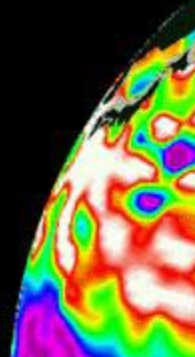


# Other Threats in the Ocean

- Global Warming
- El Nino Events
- Pollution
- By-catch and
- Factory Fishing



10 NO





# Once the Lakes are Drained



Revegetation projects will begin after dam removal to stabilize the newly exposed slopes and prevent erosion.

# Revegetating the Drained Reservoirs



The park collected seeds and cones and propagated them in the greenhouse for out-planting

# Testing Seedlings in Lake Silt



# Course Woody Debris

Revegetation of the river will give logs and debris a place to rest and traps to stabilize the banks.



# Engineered Log Jams



# The Future

Computer modeling of forest recovery after dam removal



This project was made possible in part by a grant from  
**Washington's National Park Fund.**

