

Cedar River Watershed Habitat Conservation Plan

Presentation to the Cedar River Council
April 2019

Outline

- Background
- Watershed Management
- Instream Flows
- Landsburg Mitigation
 - Downstream Habitat

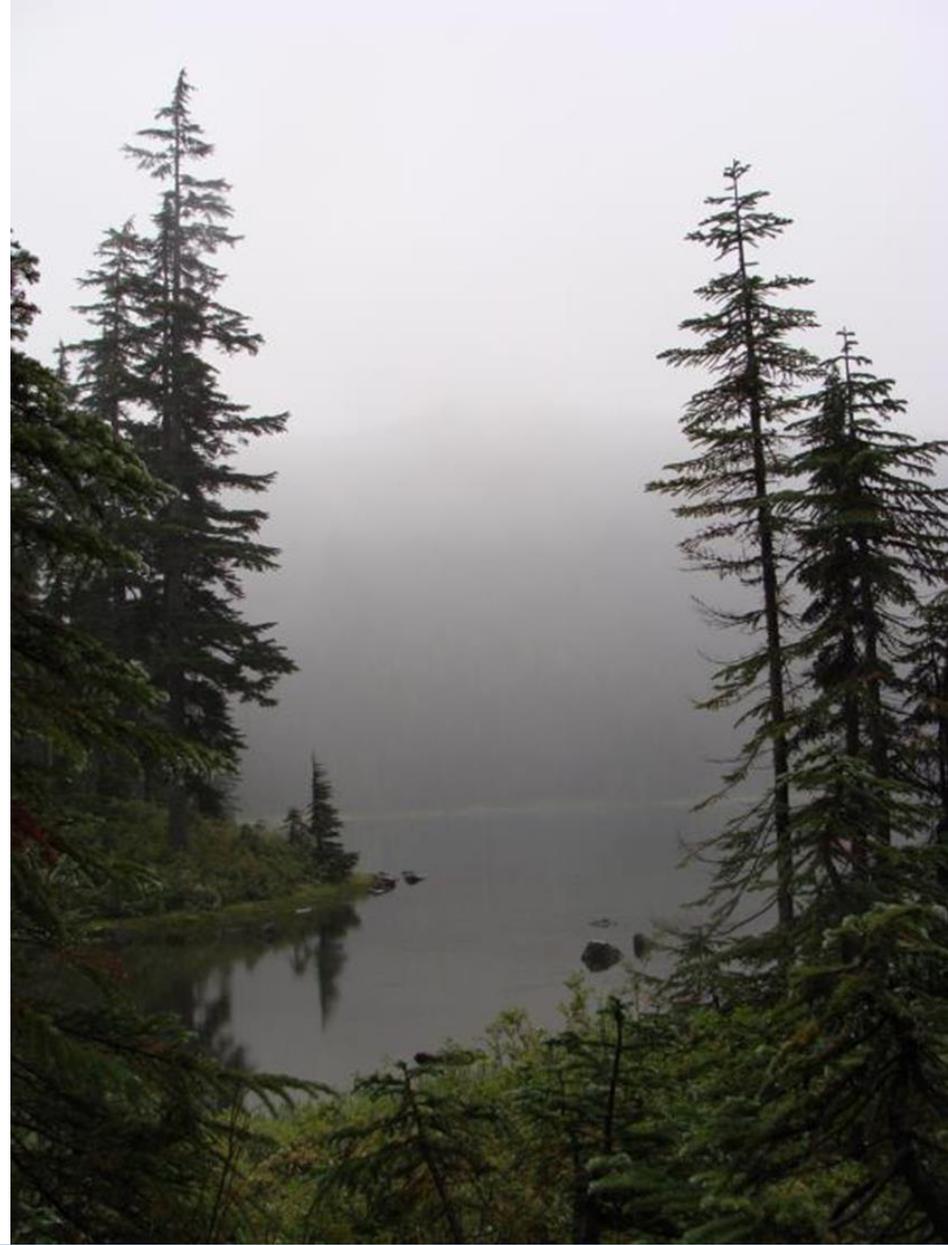


What is an HCP?

Habitat Conservation Plan

Section 10 of Endangered Species Act

Allows for the landowner to conduct activities that would otherwise result in the unlawful “take” of a listed species in exchange for fulfilling commitments in plan



Why did Seattle develop its HCP?

In anticipation of listing of Puget Sound Chinook under the Federal Endangered Species Act

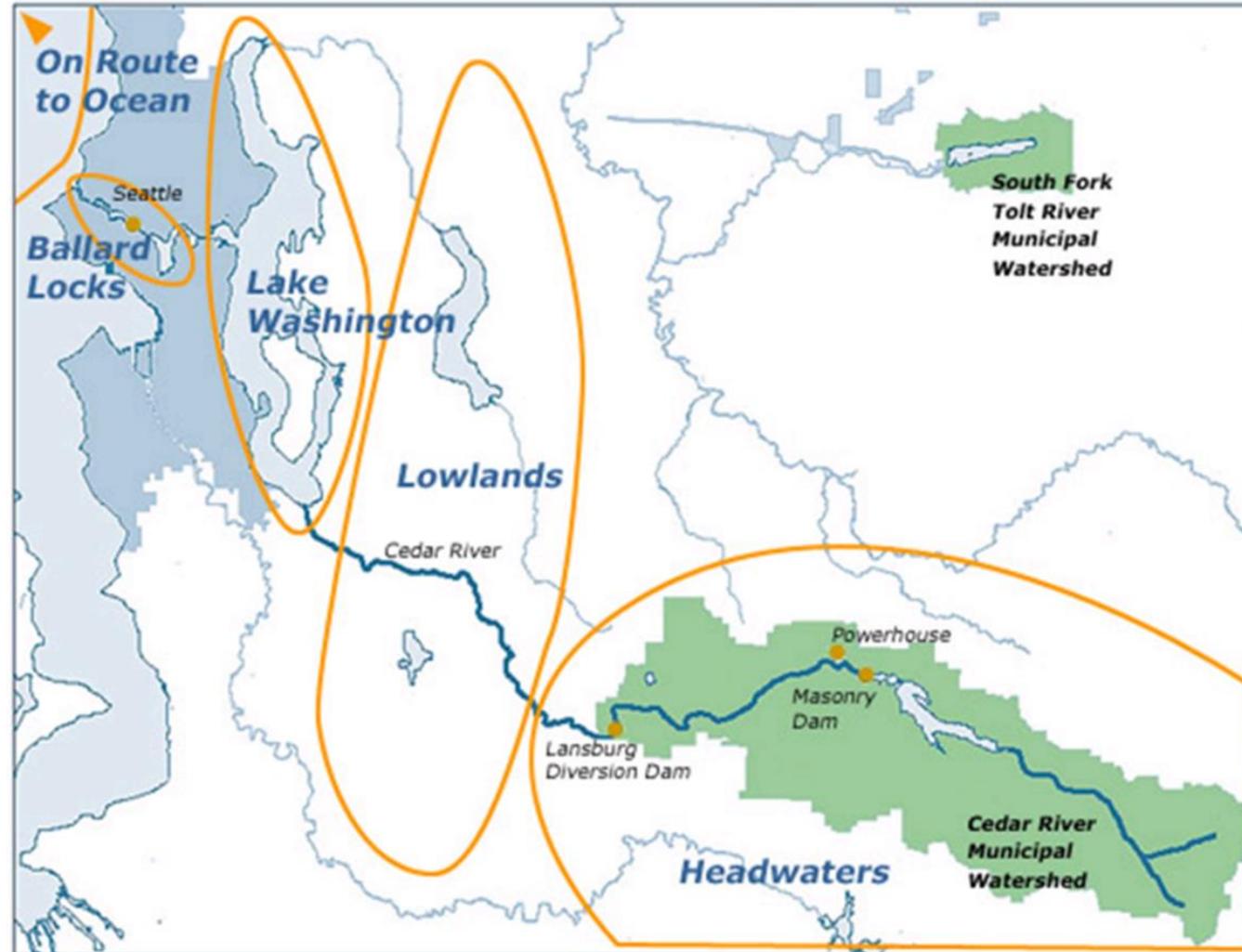


Comprehensive scope of HCP

- Habitat approach
- City's decision—no commercial timber harvest
- 83 species covered, focus on
 - All anadromous and resident fish
 - Old-growth dependent species



Ecosystem-based plan



Species of Concern: Fish

Reservoir:

- Bull trout (T)
- Pygmy whitefish

Downstream:

- Steelhead trout (T)
- Chinook salmon (T)
- Coho salmon
- Sockeye salmon



What is Seattle's HCP?

- 50-year agreement with federal and state agencies (thru 2050)
- \$108 million commitment (in 2018 \$s)
- Over 80 projects/programs in 3 areas (incl. monitoring & research)

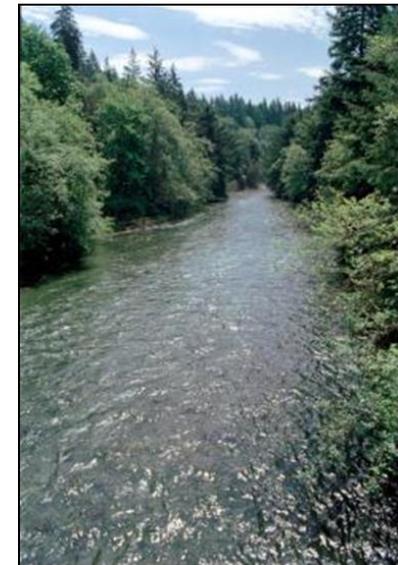
Watershed Management



Mitigation for Landsburg Dam



Instream Flow Management



Watershed Management

Roads

Forests

Streams

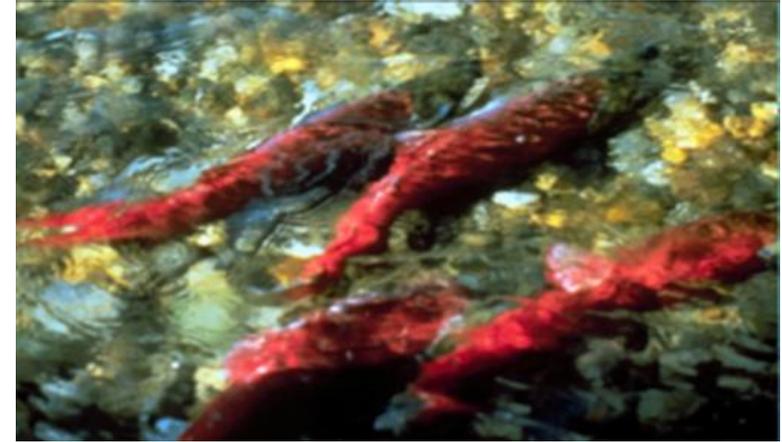


Instream Flows



Instream Flow Management

- Guaranteed flow regime with base and supplemental flows
- Limits on annual water diversions
- Flexibility in management of water dedicated to river
- Continued research and monitoring to guide management practices
- Funding for facility improvements and downstream habitat
- Collaborative implementation with interagency Cedar River Instream Flow Commission



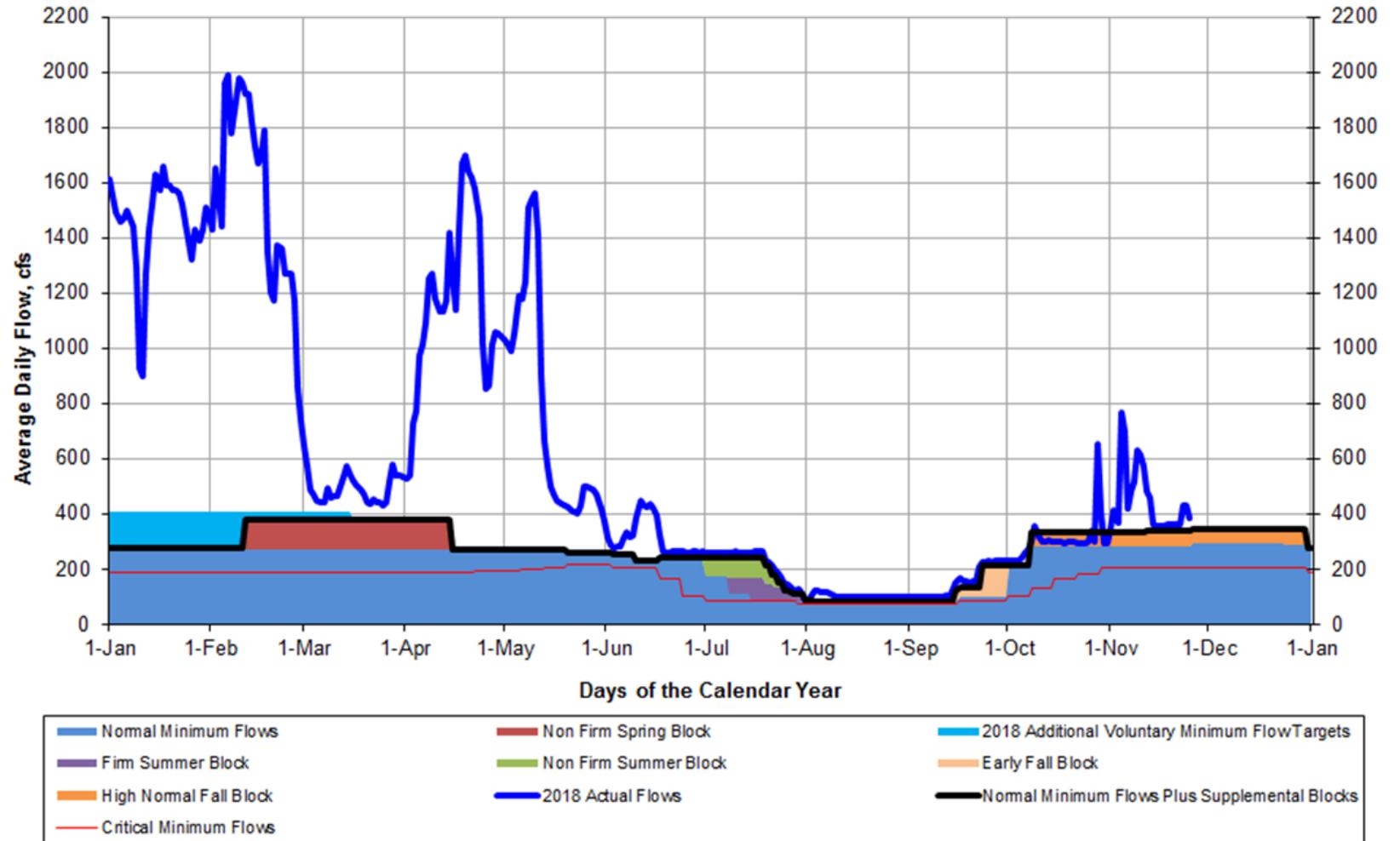
Cedar River Flow Compliance 2018

Last Update: 11/25/2018

Calendar Year 2018

Cedar River Instream Flows Measured at USGS Stream Gage No. 12117600

All Data is Provisional and Subject to Revision

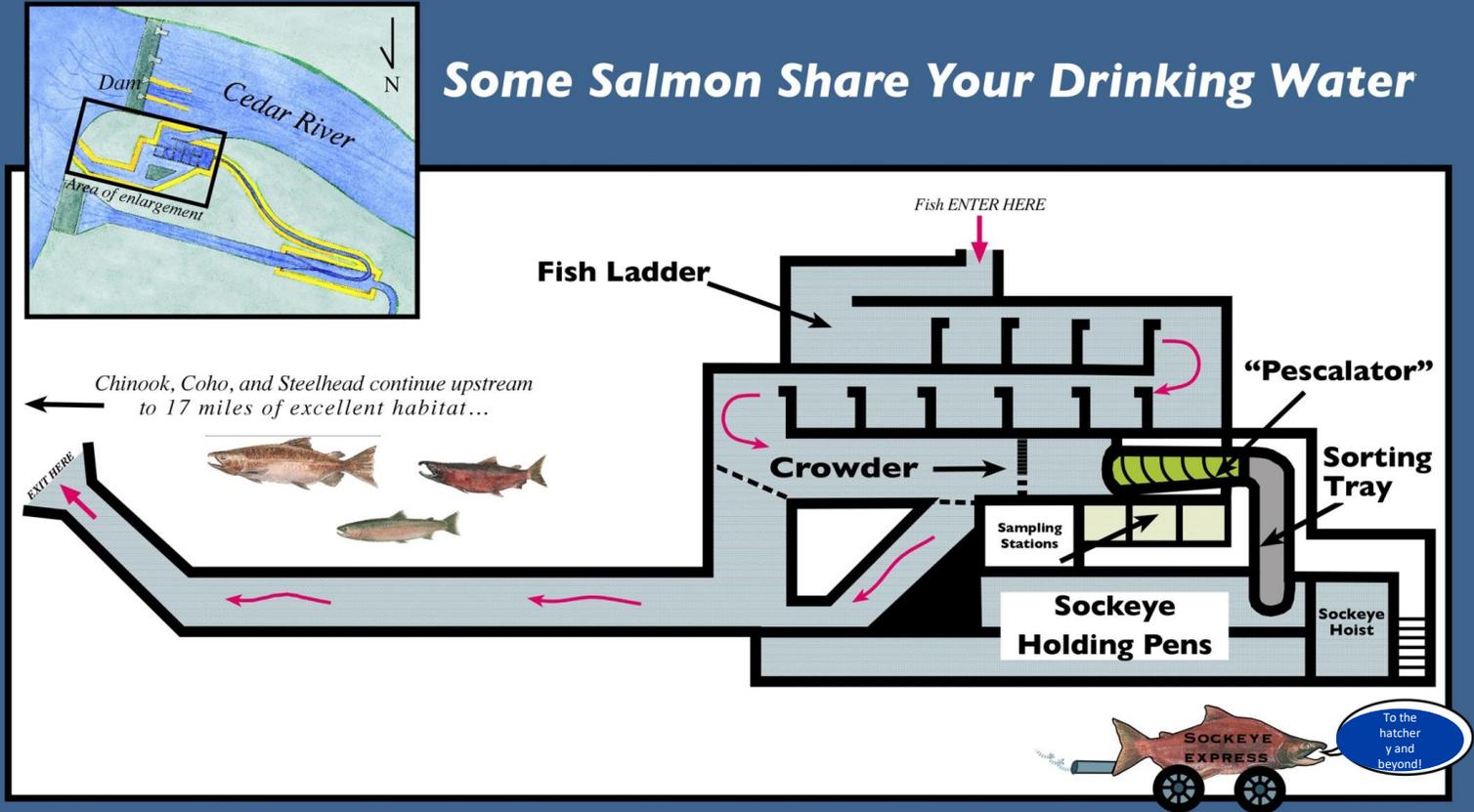


Landsburg Mitigation

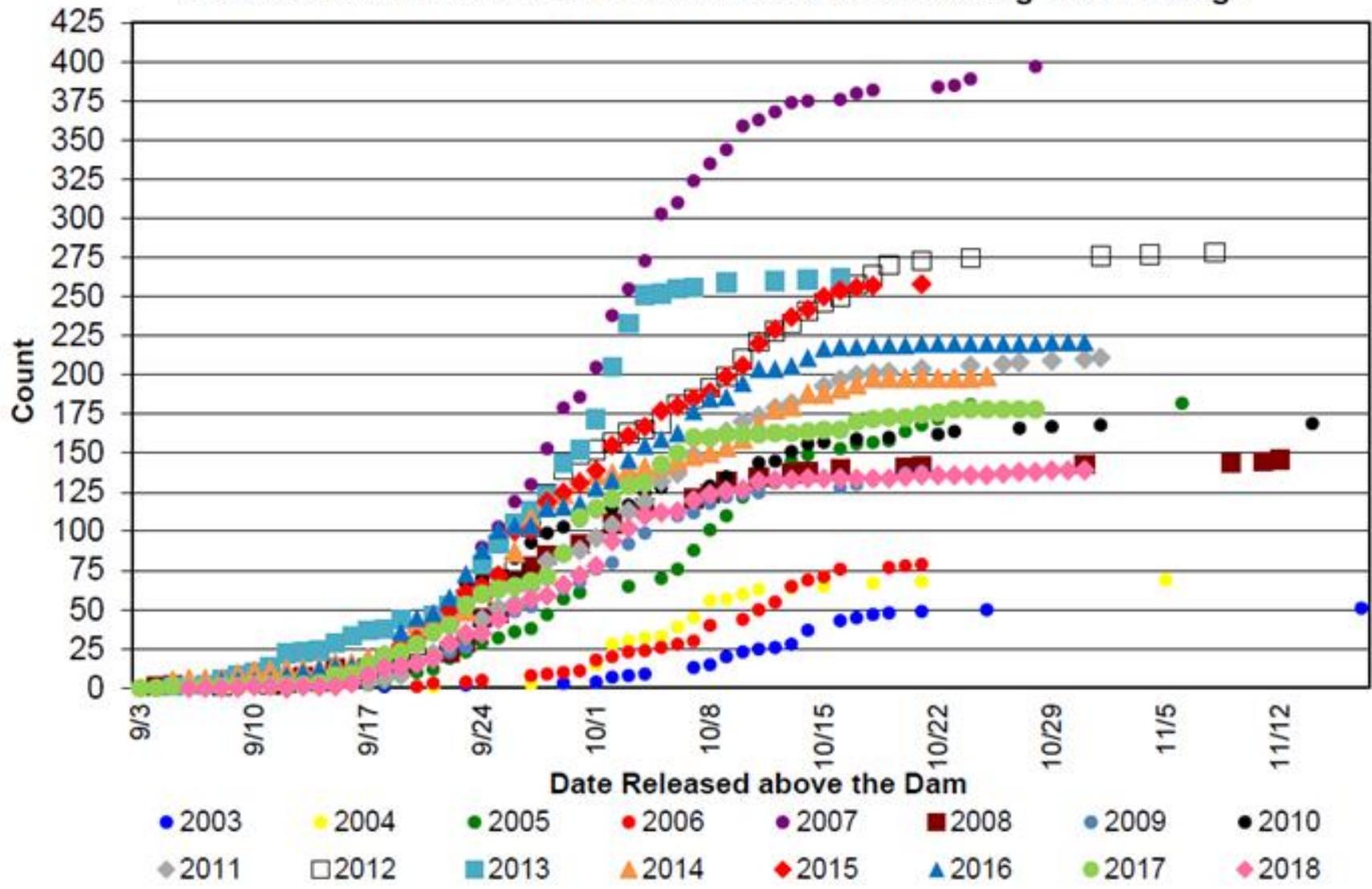


Fish Passage

Some Salmon Share Your Drinking Water



Chinook Salmon Total Cumulative Counts at Landsburg Fish Passage

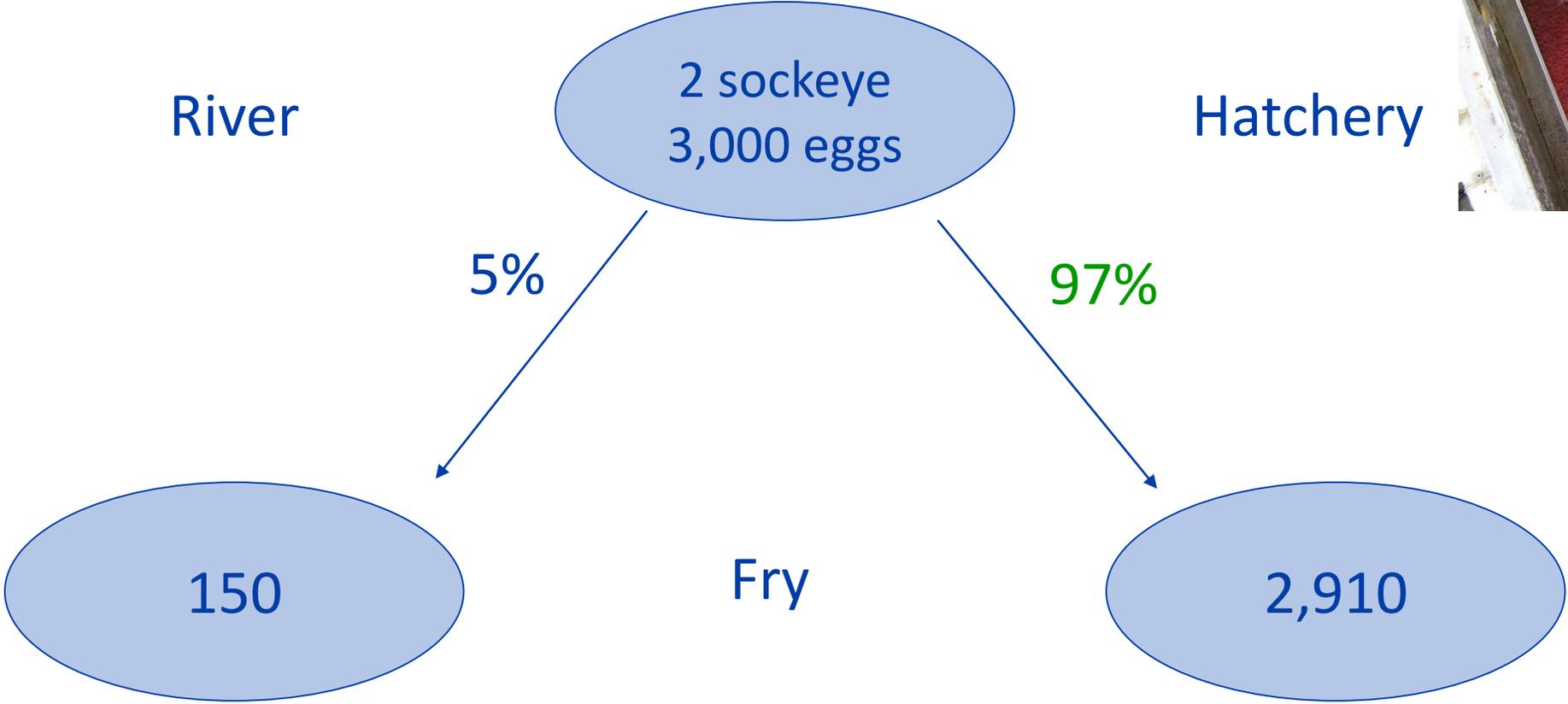


Mitigation Sockeye Hatchery





Hatchery survival is higher than what occurs naturally





Hatchery Controversies

- Competition
- Predation
- Domestication
- Reduced fitness
- Disease
- Natural selection
- Hatchery footprint and impacts



Integrating Science

- SEPA (EIS and FEIS)
- Controversy into Uncertainties
- Public, agency and independent scientific review
- Adaptive Management Program
- Operational, research and monitoring activities
- Long-term monitoring commitment



Adaptive Management

- Focus on limiting impacts of the hatchery
- Monitoring, research and operational guidelines
- Metrics for success
- Policy and technical advisory groups



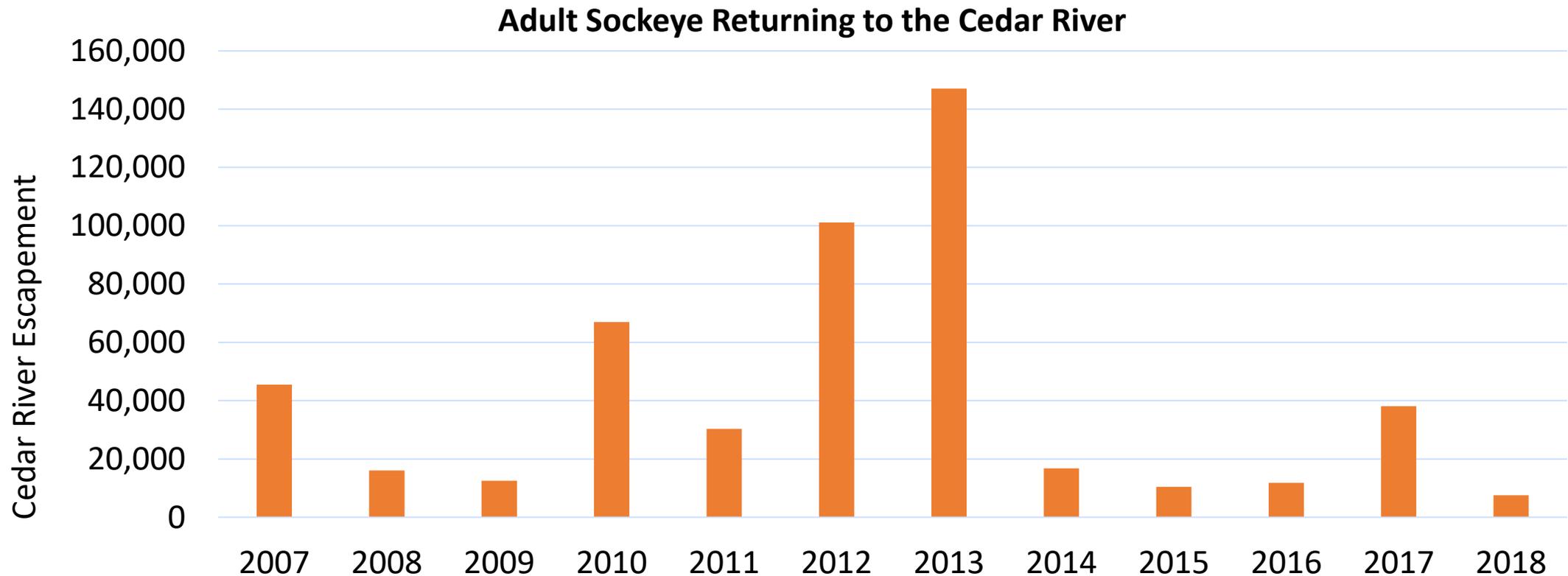
Seattle Public Utilities

Adaptive Management Plan
Cedar River Sockeye Hatchery

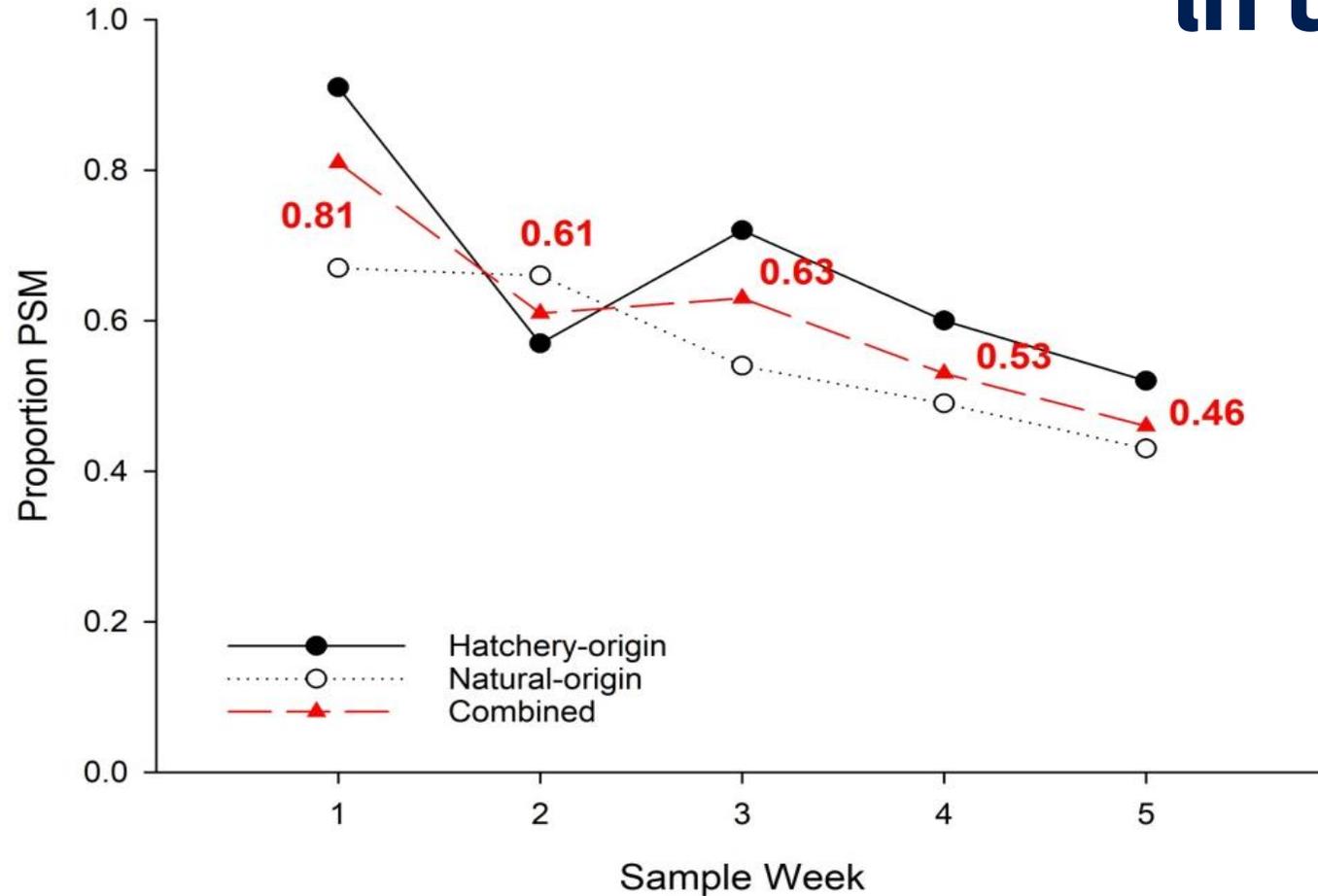
February 2006



Sockeye returns show major problems facing Lake Washington Sockeye



Sockeye prespawning mortality in the Cedar River, 2018

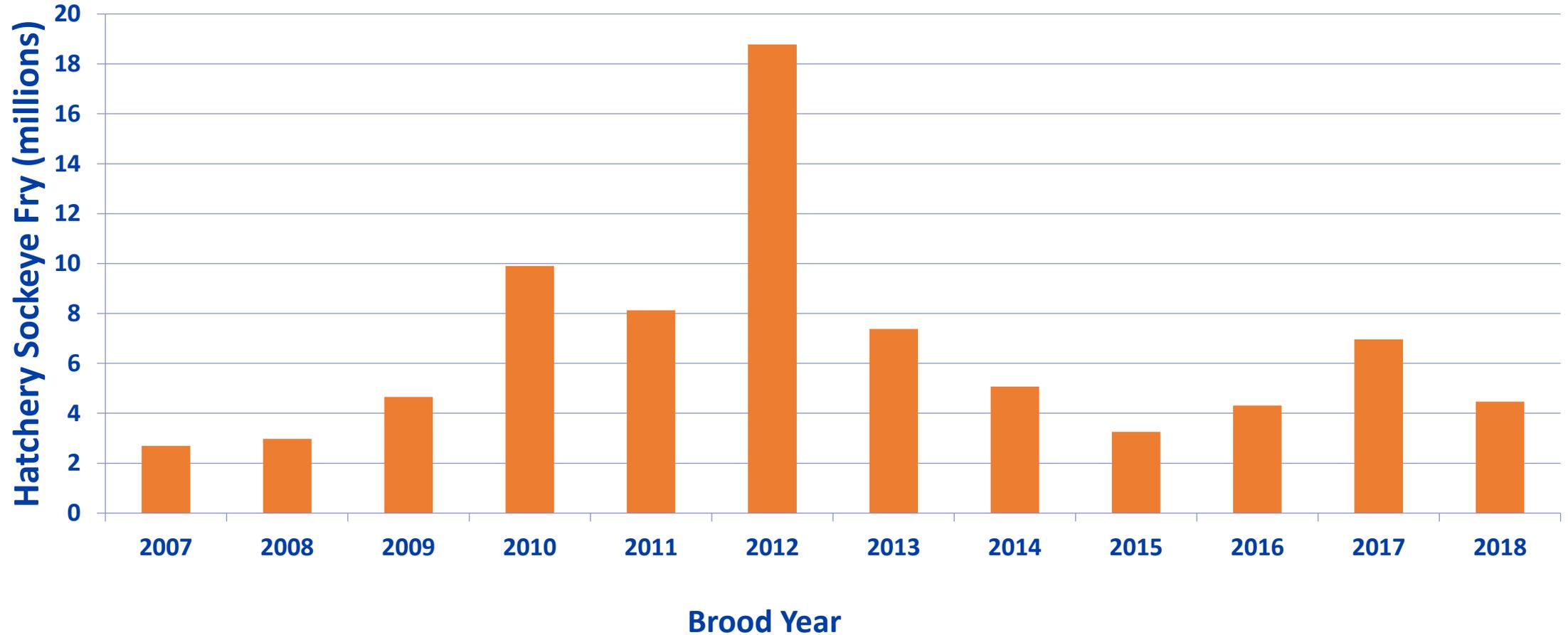


Preliminary data, West Fork Environmental and SPU



Hatchery releases

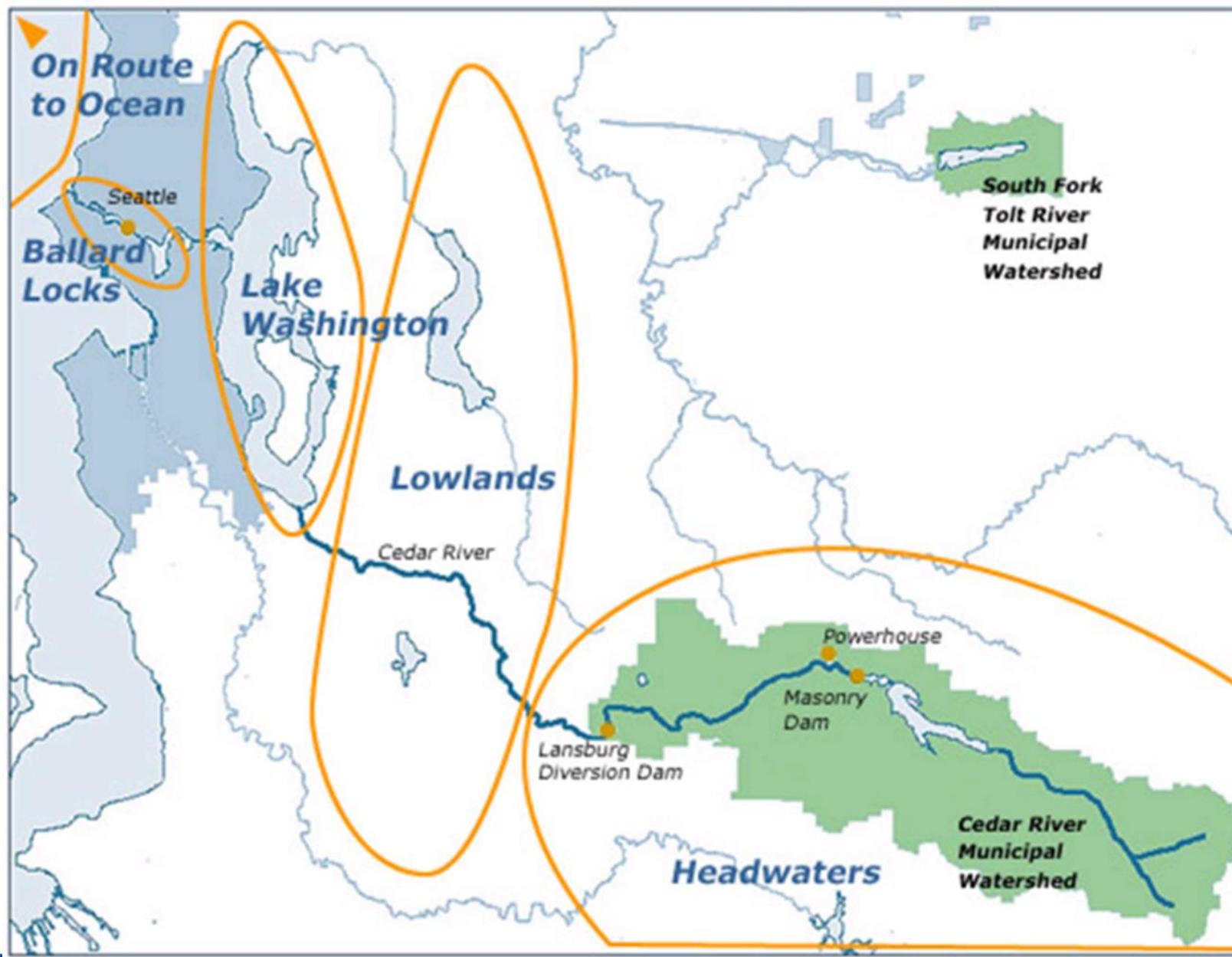
Millions of Sockeye Fry Released from the Cedar River Hatchery



Downstream Habitat Protection & Restoration

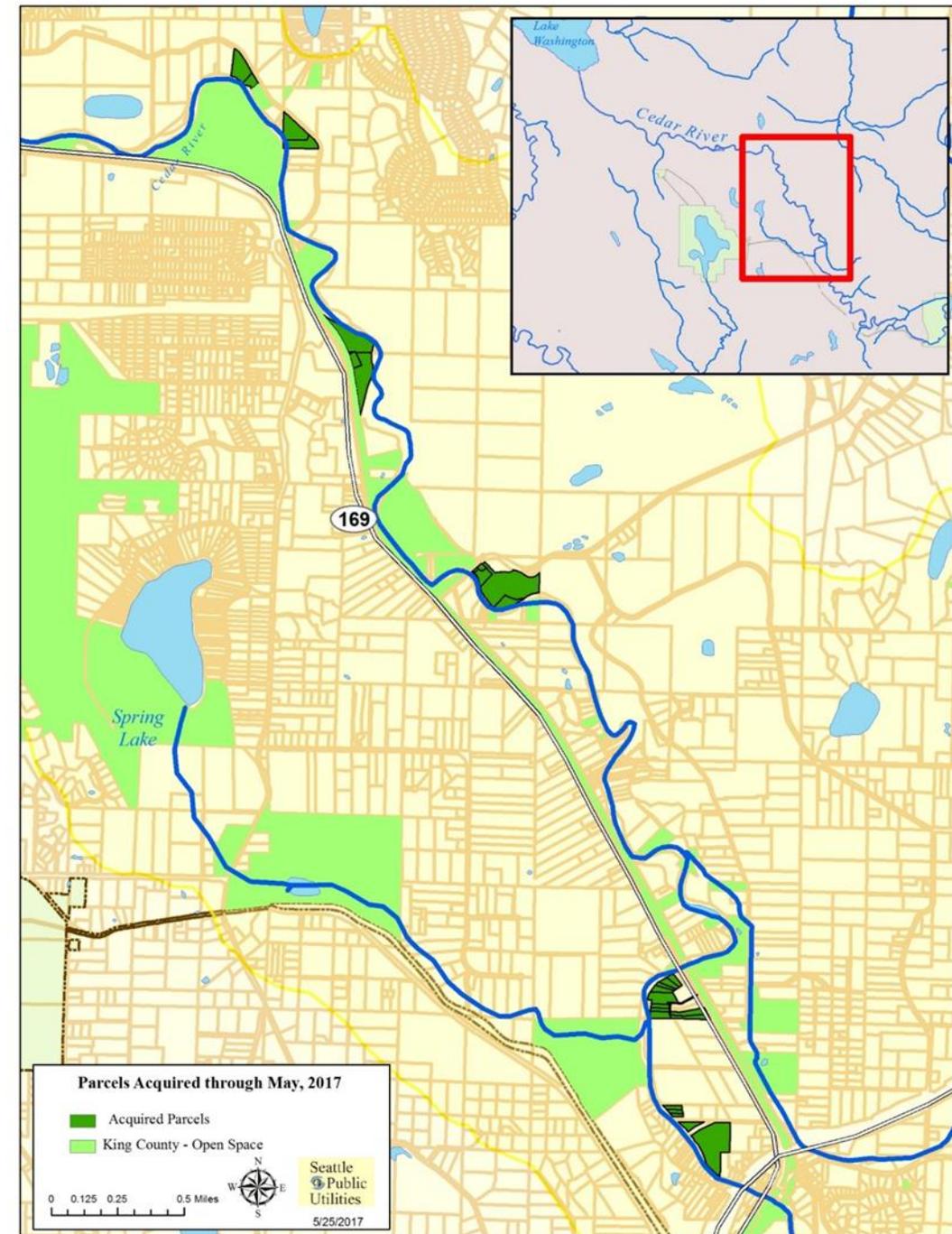
Protection/restoration
Floodplain reconnection
Stewardship



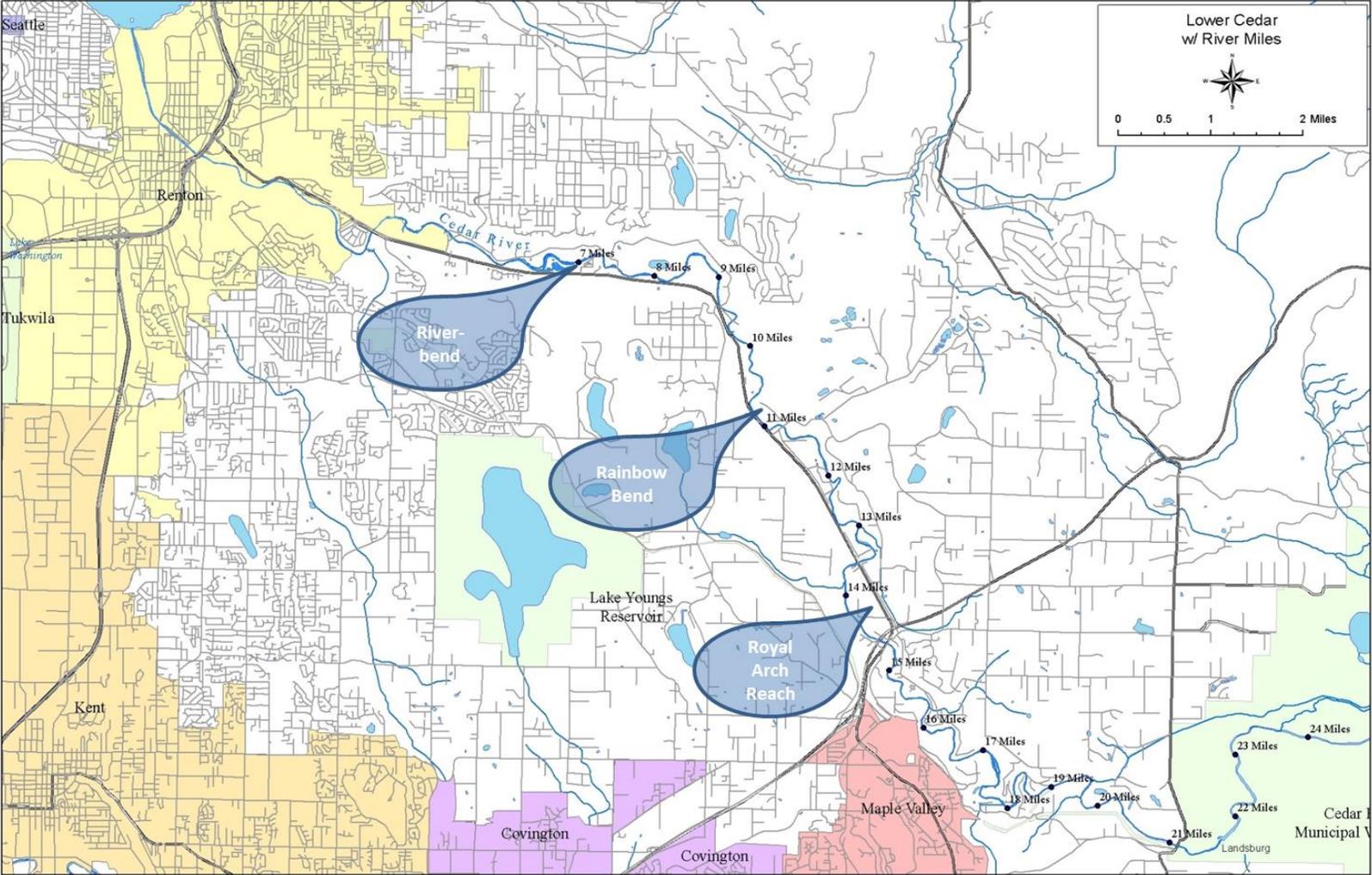


Protection

- 69 acres
- 19 acquisitions
- Contiguity within 3 reaches (RM 8.5-14)
 - Royal Arch
 - Lower Lions/Belmondo
 - Jones

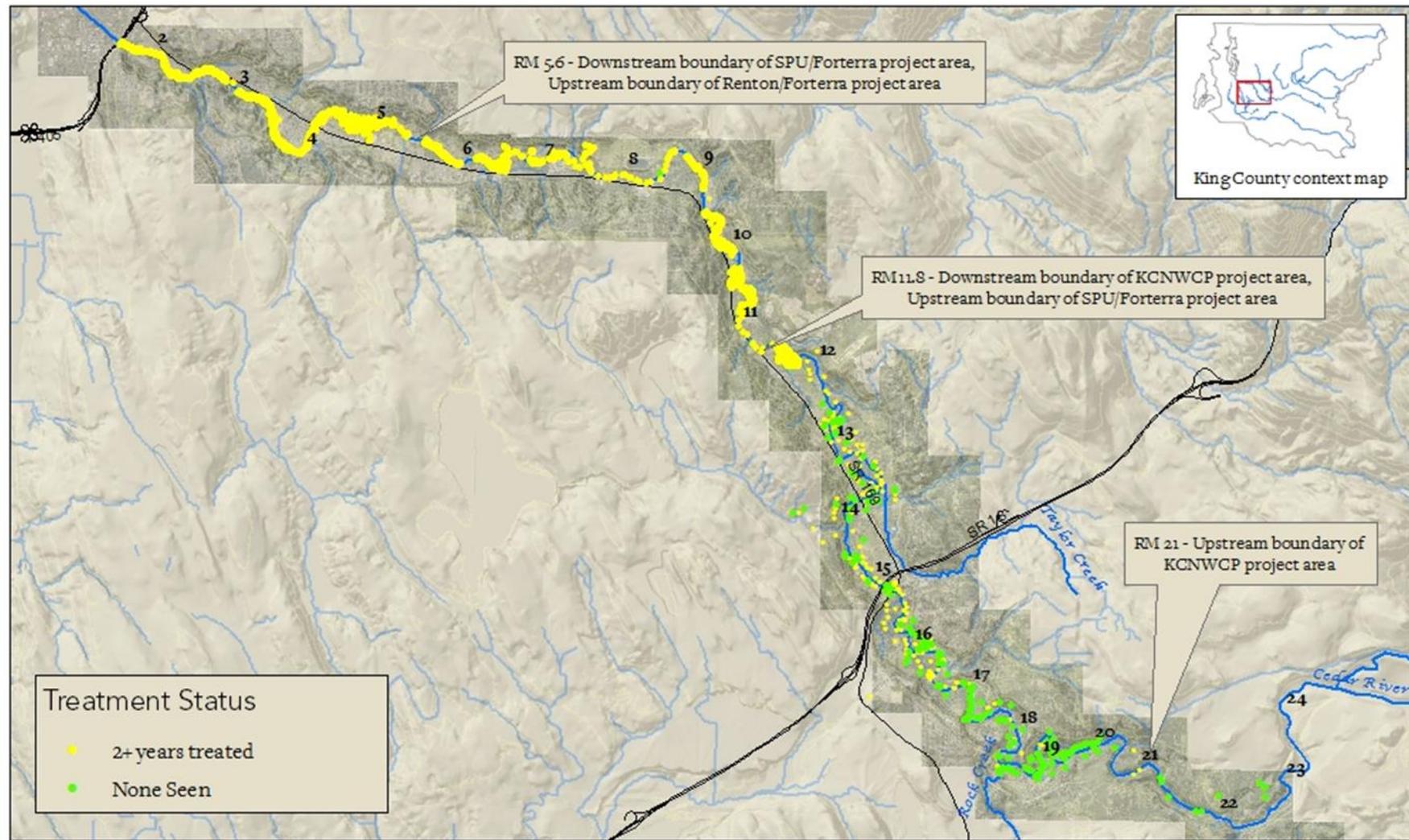


Floodplain Reconnection



KNOTWEED CONTROL ON THE CEDAR RIVER 2016

Project area extends from river mile 21 downstream to the I-405 overpass



Stewardship- in-Action Knotweed control

Future HCP activities

\$20m to be expended through 2050 for:

- Watershed Management
 - Road management, forest and stream protection/restoration
- Instream flow monitoring and management
- Landsburg mitigation
 - Fish passage operations
 - Sockeye hatchery operations
 - Downstream habitat acquisitions/restoration
- Ongoing monitoring and research

Questions?

