

Green/Duwamish & Central Puget Sound Watershed (WRIA 9)



Green River Gorge, Lisa Parsons

Matt Goehring, WRIA 9 Planning & Technical Coordinator



Agenda

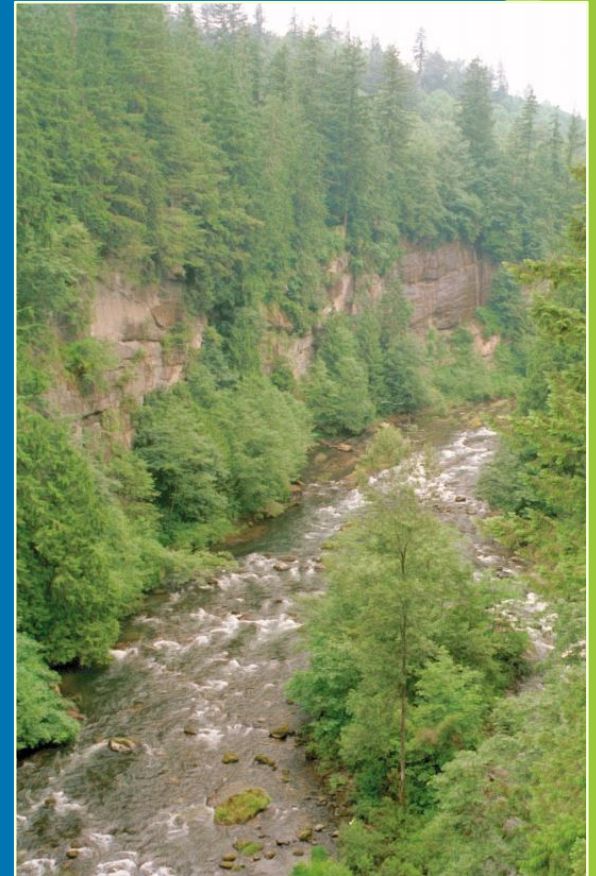
Lead Entity Structure

Salmon Habitat Plan

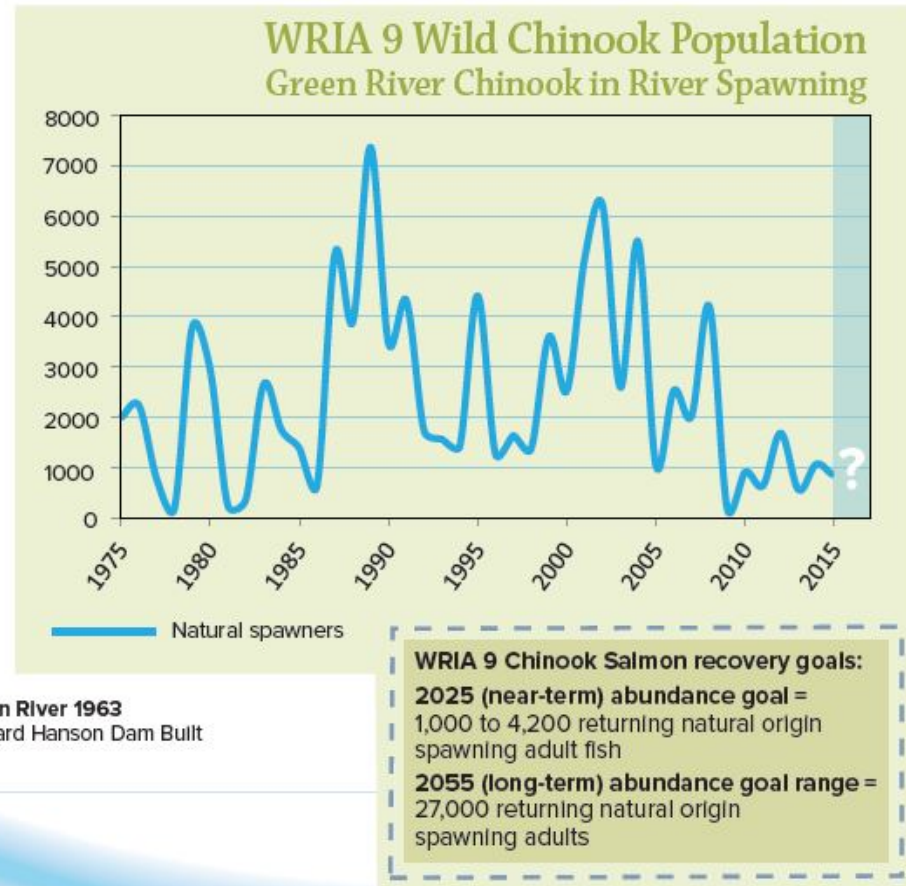
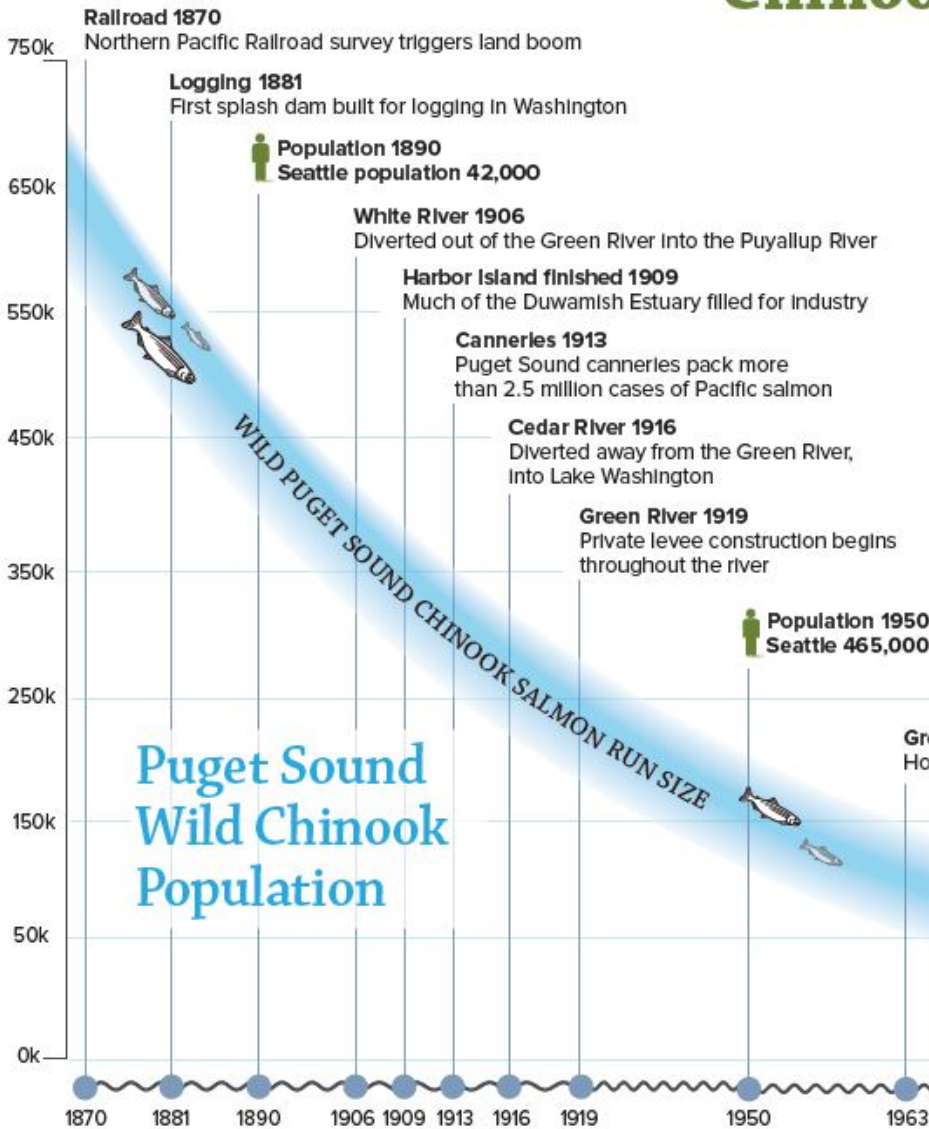
Subwatershed overviews

- *Stressors*
- *Priorities and example projects*

Climate Change



Chinook Salmon Recovery Timeline



Why does the data on salmon abundance begin to improve in 1975?

The quality of data on annual salmon population runs improves starting in 1975, when the Washington Department of Fisheries (predecessor to Department of Fish and Wildlife) initiated data collection in response to the federal court mandate to develop and share annual abundance of salmon returning to individual rivers in Puget Sound.

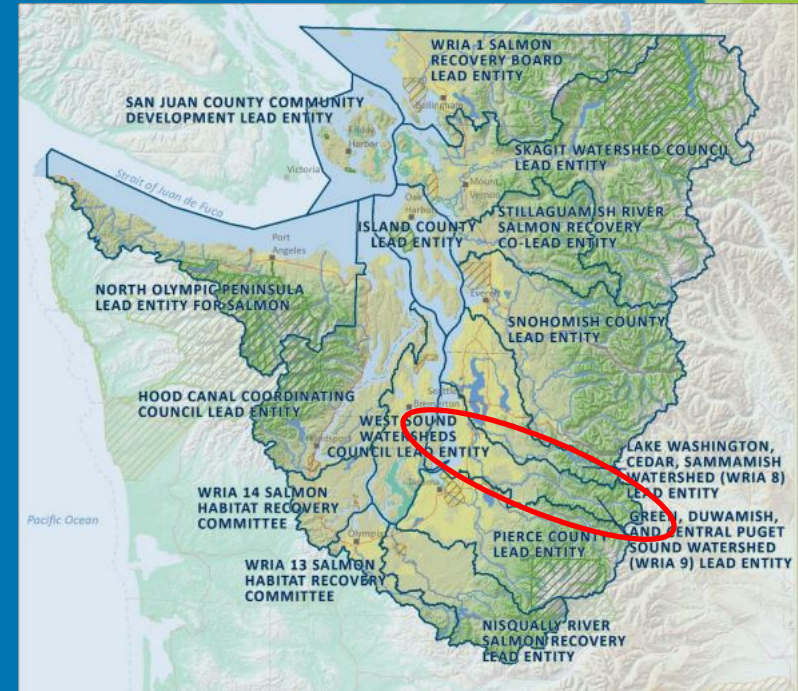
Puget Sound Chinook listed as threatened species

Lowest number of natural origin spawners (182 fish) recorded in the Green River

Population 2016
Seattle 689,000

Lead Entity Background

- Community-based approach to salmon recovery
 - *Technical committee*
 - *Citizen committee*
- Regional recovery strategies that prioritize restoration and protection needs
- Coordinate project development and funding with project sponsors
 - *Access SRFB, PSAR and EPA grant funding*



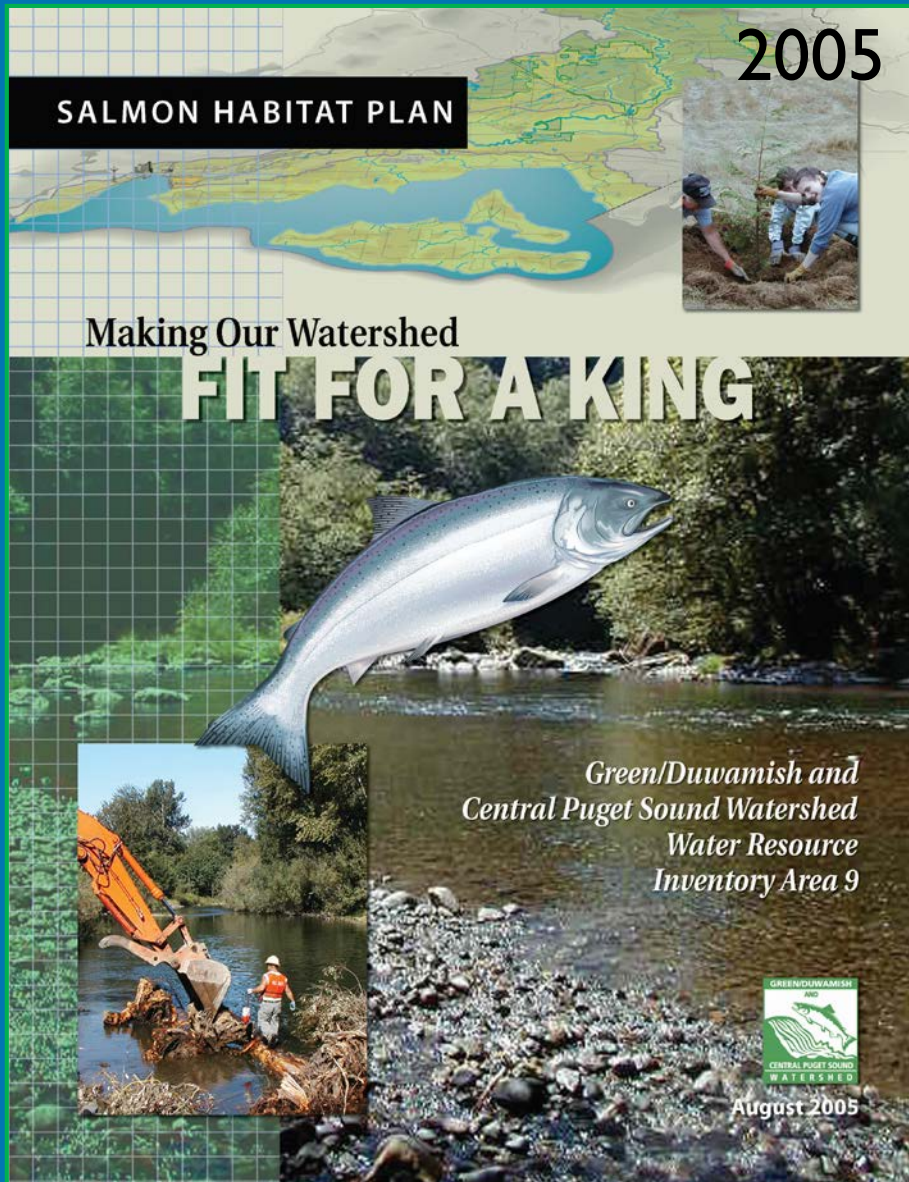
WRIA 9 Watershed Ecosystem Forum



- Strong regional collaboration and governance
- Leveraging individual jurisdiction dollars for watershed benefits

Salmon Habitat Plan

2014



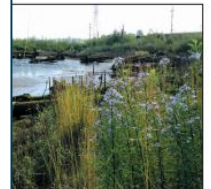
2016

Duwamish Blueprint

Salmon Habitat in the Duwamish Transition Zone

Duwamish Blueprint
Working Group

November 6, 2014



Green/Duwamish and
Central Puget Sound
Watershed, WRIA 9

**GREEN / DUWAMISH
AND**

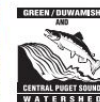


RE-GREEN THE GREEN:

Riparian Revegetation Strategy for the
Green/Duwamish and Central Puget Sound
Watershed (WRIA 9)



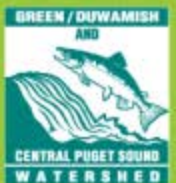
October 14, 2016



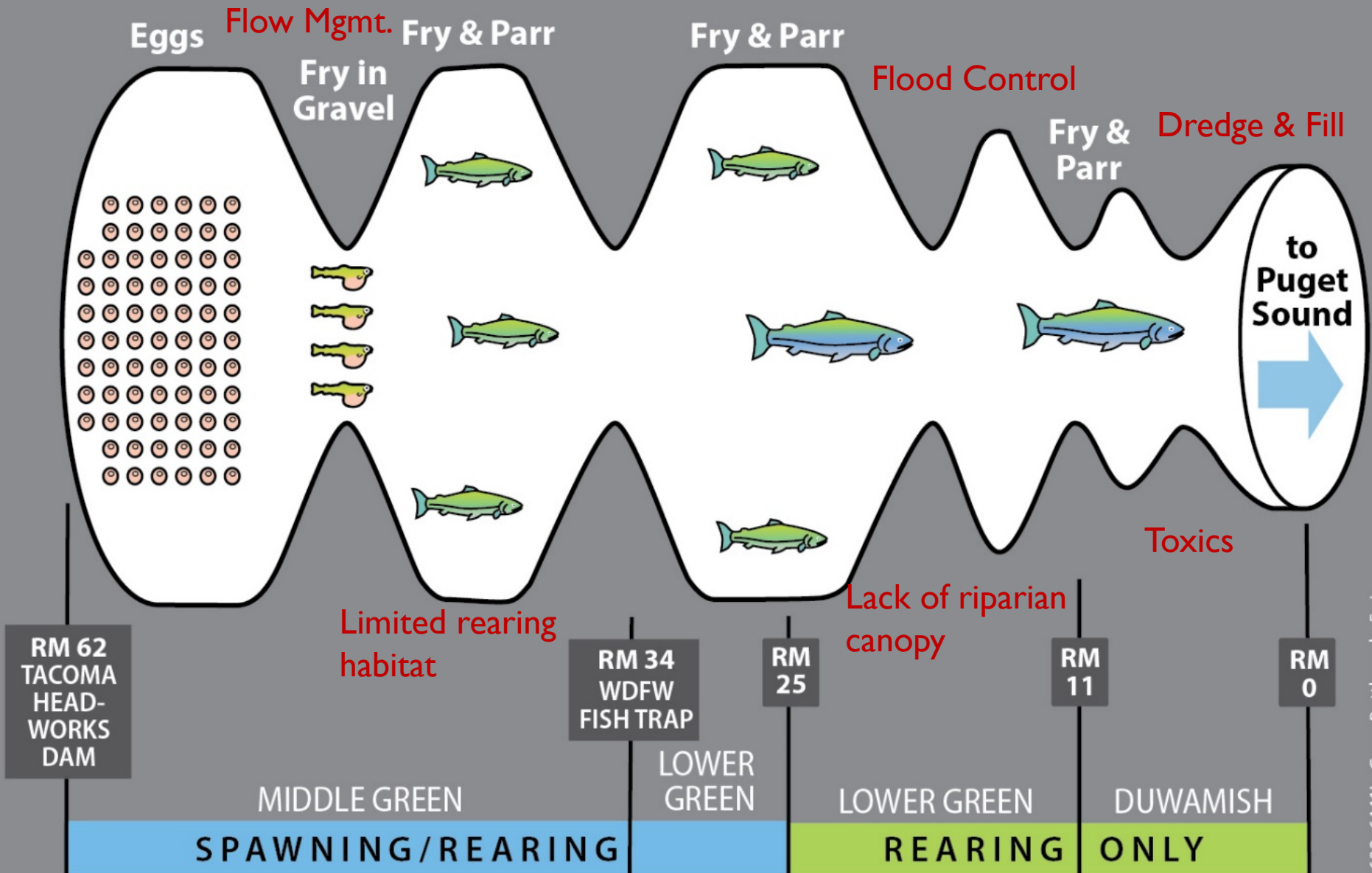
WRIA 9 Riparian Revegetation Work Group

Water Resources Inventory Area 9

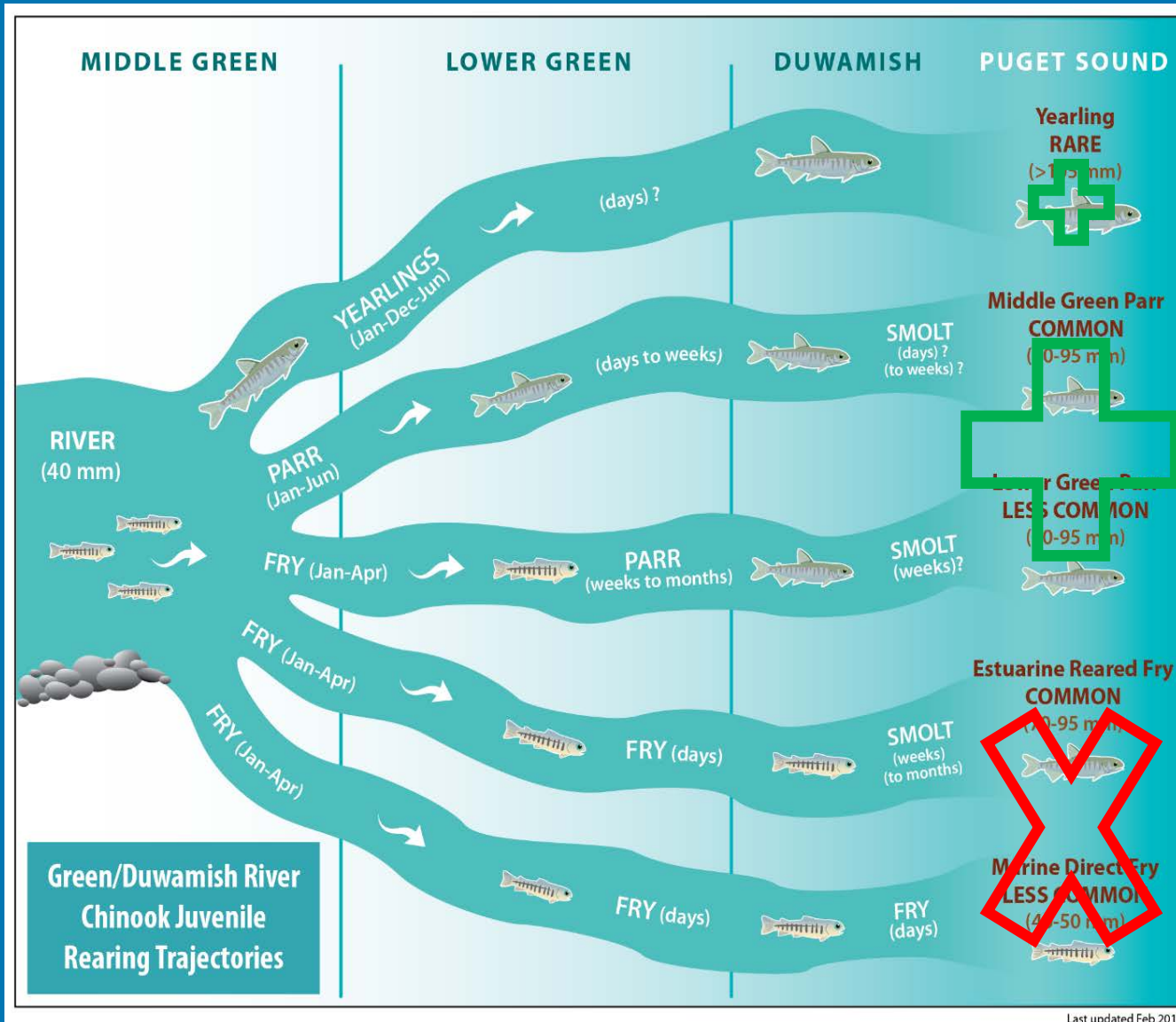




HABITAT BOTTLENECKS

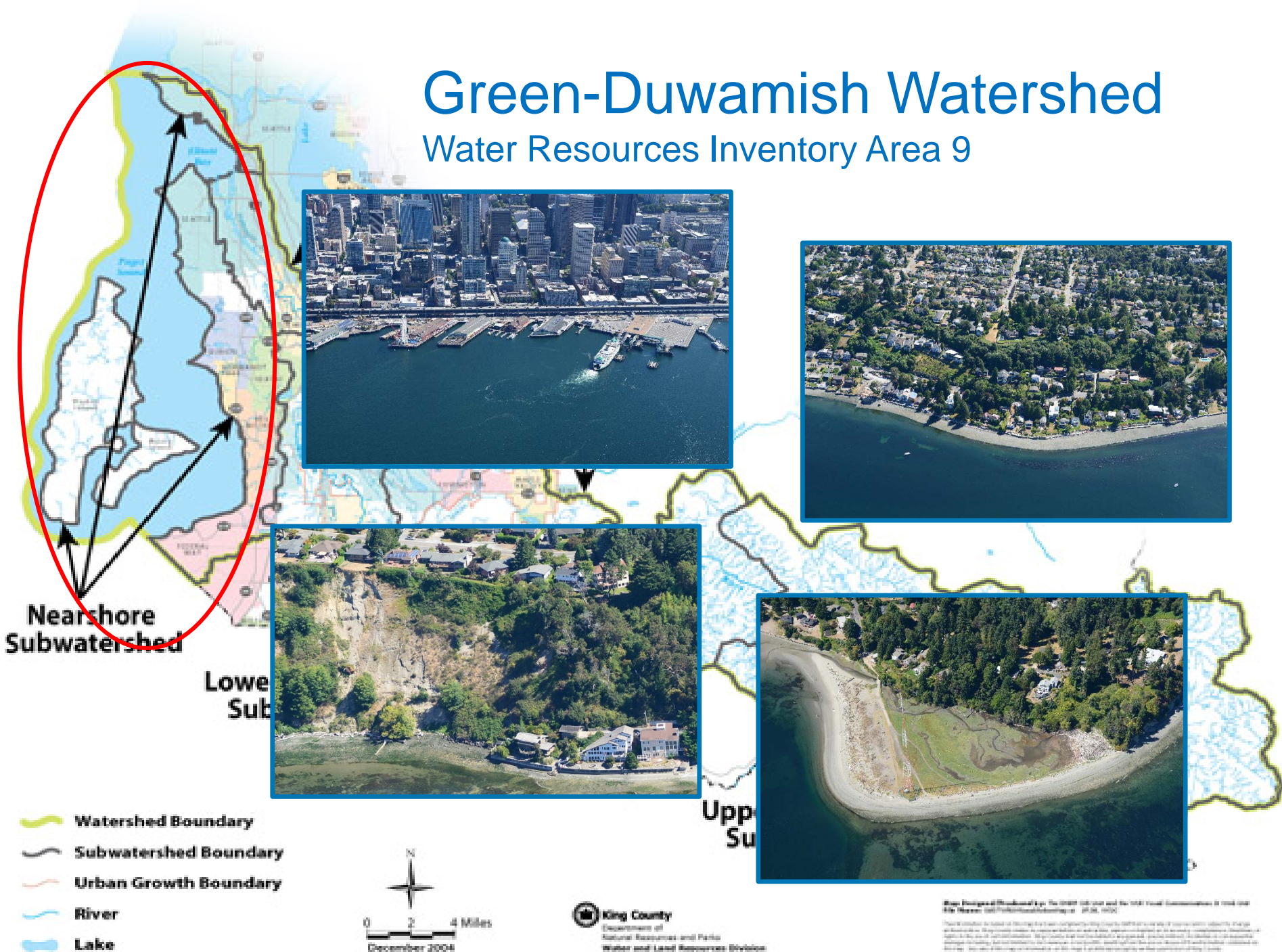


Emerging Science: Diversity & Productivity



Green-Duwamish Watershed

Water Resources Inventory Area 9



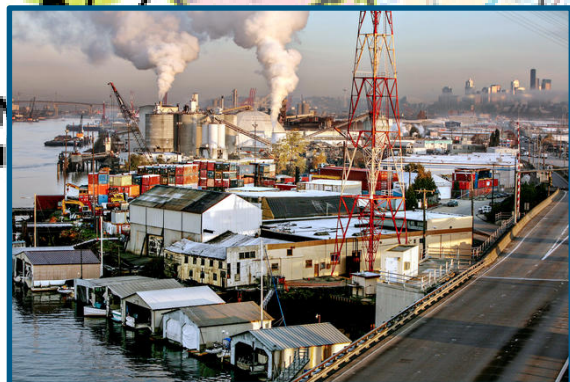
Nearshore: Piner Point, Vashon/Maury Island (\$2.7M)



Green-Duwamish Watershed

Water Resources Inventory Area 9

Duwamish Estuary
Subwatershed

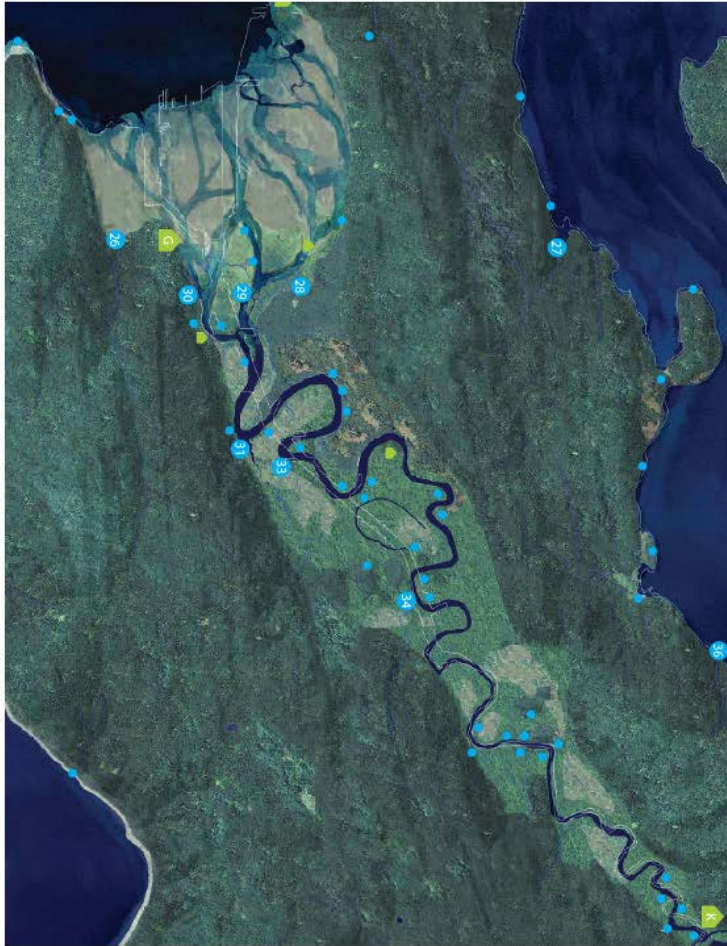


- Watershed Boundary
- Subwatershed Boundary
- Urban Growth Boundary
- River
- Lake

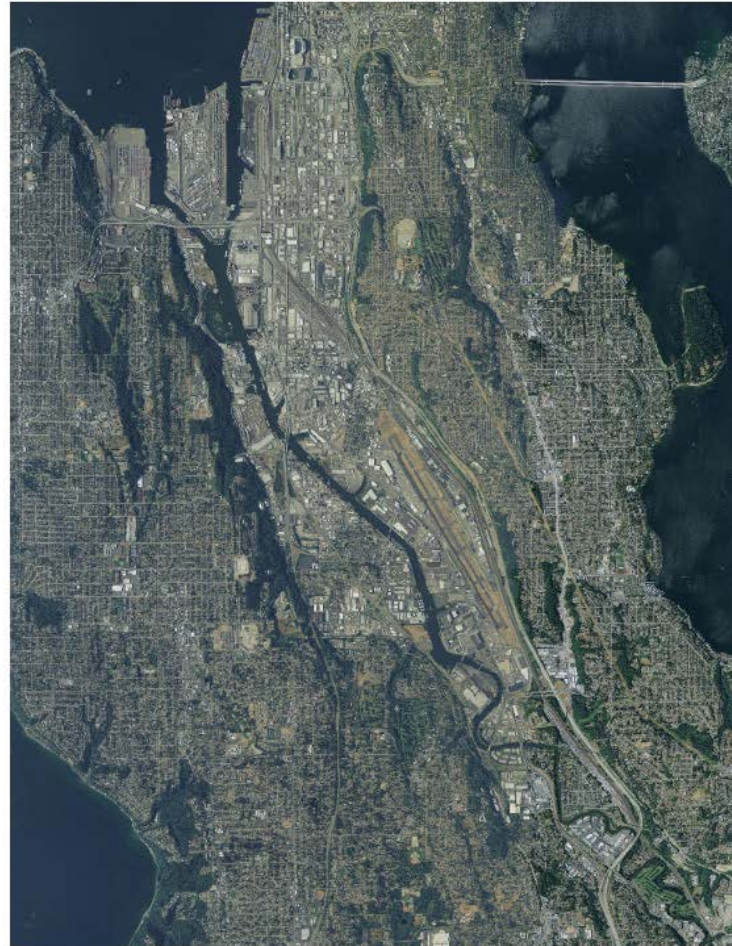


Green R
Subwatershed

Duwamish River Sub-Watershed



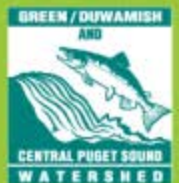
Mid-1800s



Today

Duwamish Valley | South Seattle

The Waterlines Project



Duwamish: Duwamish Gardens (\$4.25M)



Transition Zone:
1.3 acres of shallow water habitat



wami
bwat

© 2005 Blackwell Publishing Ltd, *Journal of Internal Medicine* 258: 103–110

These limitations are based on the fact that the sample is not representative of the population of interest, and that the sample is not representative of the population of interest. The sample is not representative of the population of interest because it is not a random sample. The sample is not representative of the population of interest because it is not a random sample. The sample is not representative of the population of interest because it is not a random sample.

Lower Green River Subwatershed

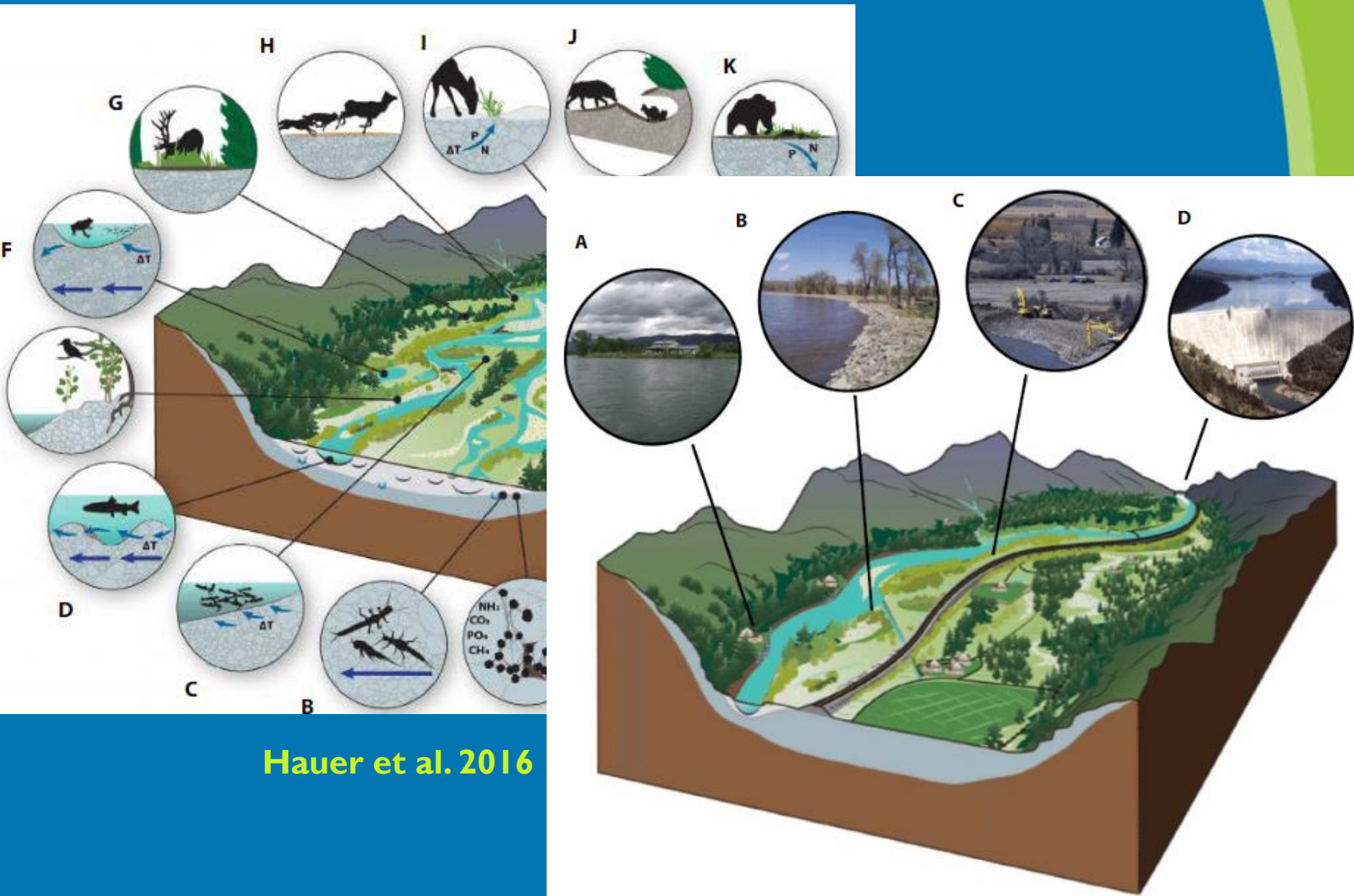
4. **Abstract**

King County

Statistical Resources and Tools

© 2004 Blackwell Publishing Ltd *Journal of Internal Medicine* 255: 105–112

Floodplain Connectivity



Hauer et al. 2016

Lower Green: Mill Creek/Leber (\$2.5M)

Before

Construction

1.6 acres of off-channel habitat
50 acre-feet of flood storage



Water Resources Inventory Area 9



Links



King County
Department of
Natural Resources and Parks
Water and Land Resources Division



Figure 1. A photograph of a dense, green, low-lying vegetation, likely a grassland or scrubland, with a small, dark, rectangular object visible in the foreground.

Middle Green: Porter Levee Removal (\$5.4M)



900 ft of levee removed
52 acre of floodplain
Backwater channel



Porter Concept Diagram

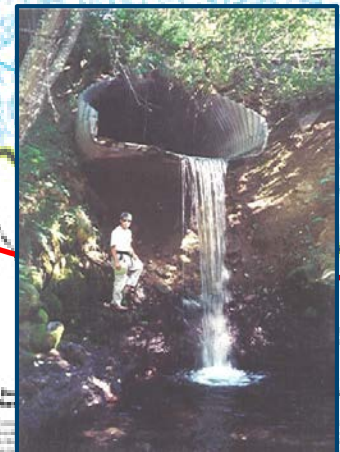
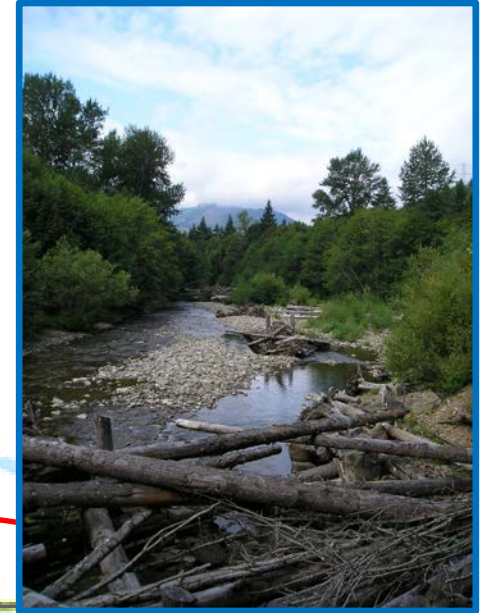


PLOTWATCHER PRO

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Green-Duwamish Watershed

Water Resources Inventory Area 9



Upper Green River
Subwatershed

- Watershed Boundary
- Subwatershed Boundary
- Urban Growth Boundary
- River
- Lake

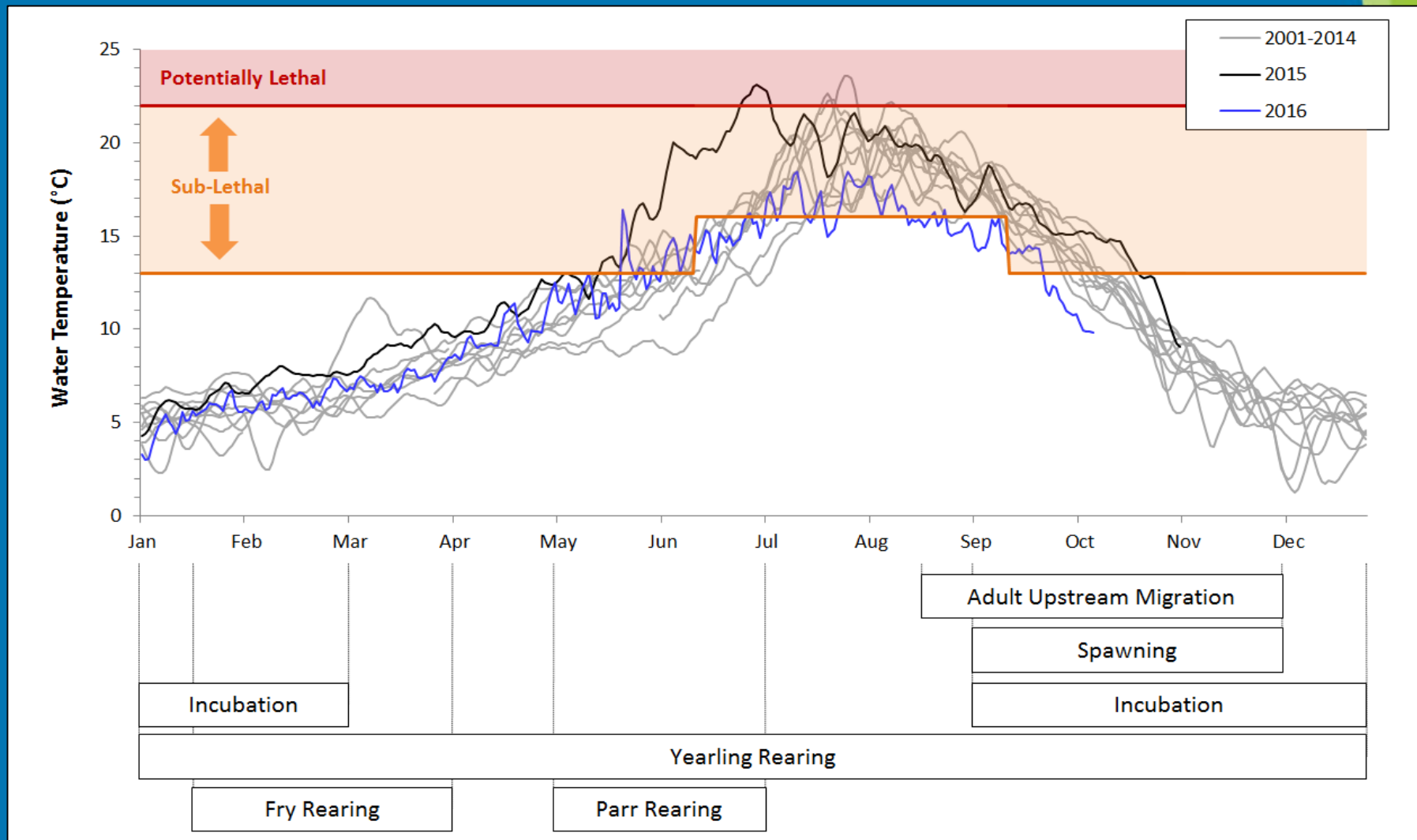
December 2004

Natural Resources and Parks
Water and Land Resources Division

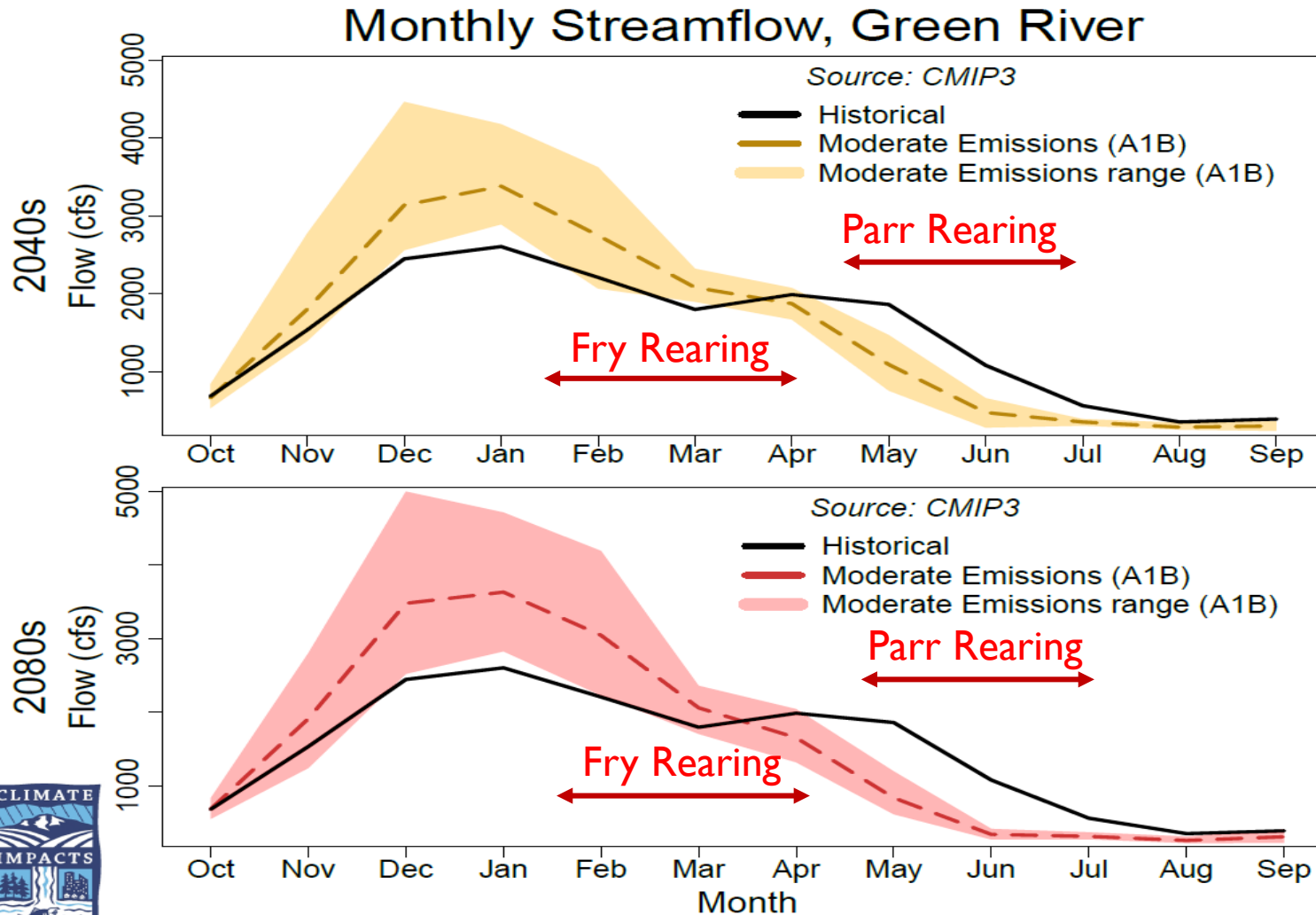
Upper Green: Howard Hanson Dam



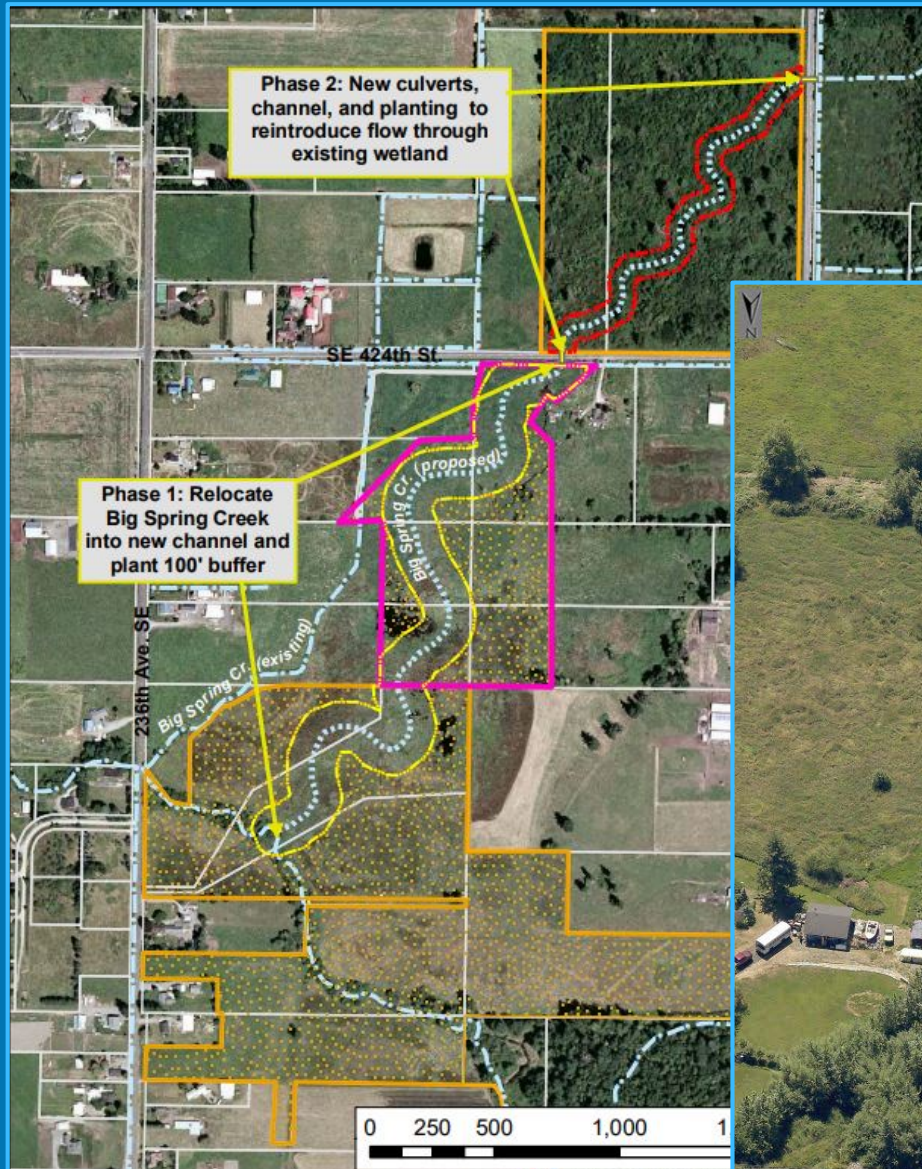
Climate Change Implications



Climate Change Implications



Big Spring Creek- Enumclaw Plateau



Questions & Discussion

Protect, restore & enhance

- Channel Complexity & Edge Habitat
- Estuarine Habitat
- Fish Passage
- Floodplain Connectivity
- Instream Flows & Cold Water Refugia
- Riparian Corridors
- Sediment & Water Quality
- Marine Shorelines

