Northwest **Power** and **Conservation** Council

September 30, 2014

MEMORANDUM

TO: Committee members

FROM: Mark Fritsch, project implementation manager

SUBJECT: Presentation on Environmental Improvements in the Tucannon Watershed

BACKGROUND:

Presenter: Steve Martin, Director Snake River Salmon Recovery Board

Summary: A presentation of results associated with Project #2010-077-00, *Tucannon River Programmatic Habitat Project*. This will include outcomes from project implementation, monitoring and CHaMP effectiveness monitoring data.

Relevance The purpose of the Tucannon River habitat project is to implement on-the-ground habitat restoration actions to meet population specific targets required under the 2008 BiOp. The restoration actions will specifically benefit threatened Snake River spring/summer Chinook in the Tucannon Subbasin where the Action Agencies are committed to improve habitat quality by 17 percent by 2018[1]. The actions will also benefit Snake River steelhead, bull trout, fall Chinook, freshwater mussels, and other species.

Workplan: There are no 2014 division workplan tasks linked directly to this presentation.

Background: On August 2, 2010, Bonneville and the Snake River Salmon Recovery Board (SRSRB) submitted a tributary habitat project intended to assist in

[1] Under RPA 35 Table 5 of the 2008 FCRPS BiOp.

satisfying commitments under the 2008 Federal Columbia River Power System Biological Opinion (BiOp) for ISRP review. On October 11, 2011 the Council supported this project for implementation.

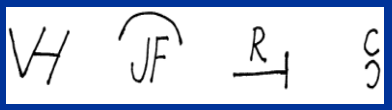
In addition, the project was reviewed and recommended as is part of Geographic Category Review in 2013 and was conditioned by Programmatic Issue B, *Evaluate and Improve Umbrella Projects.* As part of this programmatic issue project sponsors will be submitting a summary report in early 2015.

To date the implementing entities include the Washington Department of Fish and Wildlife, Columbia Conservation District, and Confederated Tribes of the Umatilla Indian Reservation but implementation is encouraged by other organizations including the Regional Fisheries Enhancement Group, Nez Perce Tribe, and/or other qualified groups, tribes, or agencies that submit proposals that are approved by the SRSRB.

More Info: Project #2010-077-00

Tucannon River Programmatic Habitat Project, ie., a 28 mile-long project

Umbrella Project (#2010-077-00)





Environmental Improvements in the Tucannon Watershed

Steve Martin, Director Snake River Salmon Recovery Board (SRSRB)

SRSRB is a coalition of county governments, CTUIR and at-large stakeholders informed by a regional technical team and staffed by 3.5 FTE that have been meeting monthly for 12 years; developed the NOAA approved recovery plan and are now coordinating implementation, monitoring, adaptive management and reporting progress.

Umbrella project (#2010-077-00)

Washington Approach

Umbrella project (#2010-077-00)

Tucannon Programmatic

Goal is to improve habitat conditions in the Tucannon River for the spring chinook domain by 17% as identified by the gap analysis in the 2008 FCRPS BiOp

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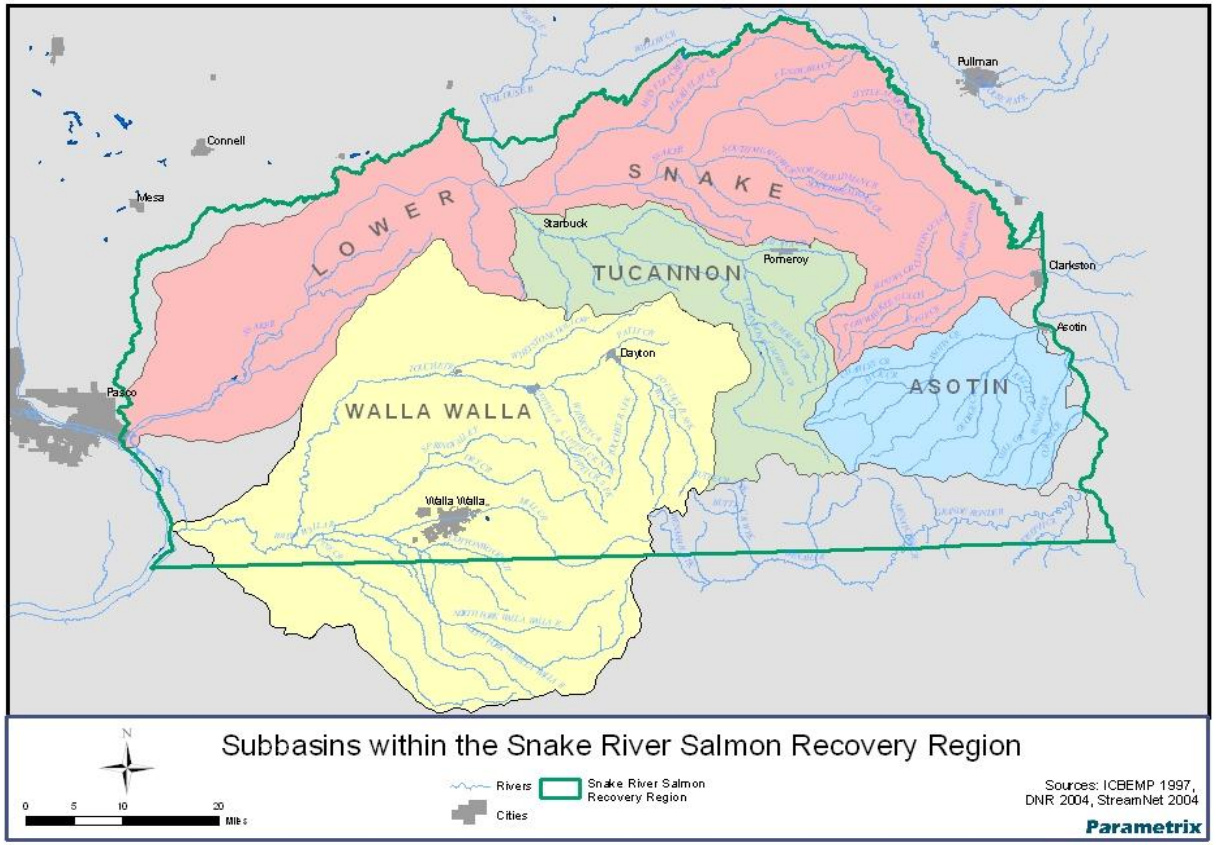
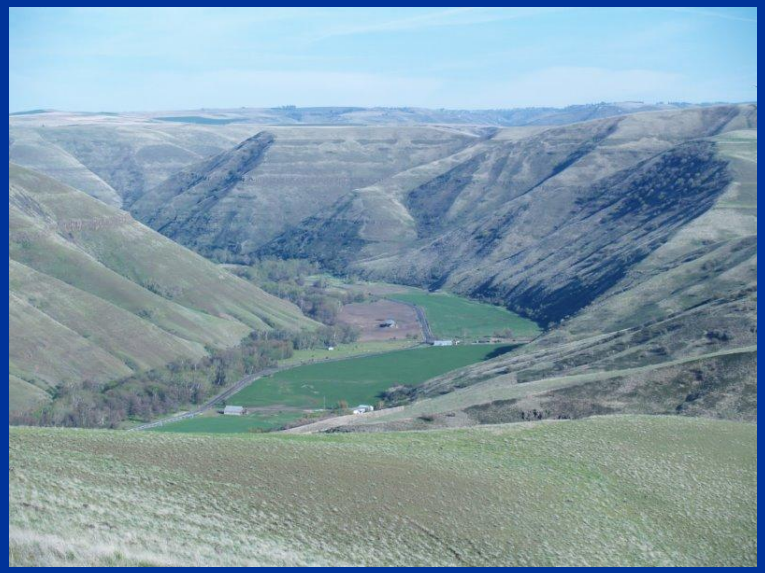
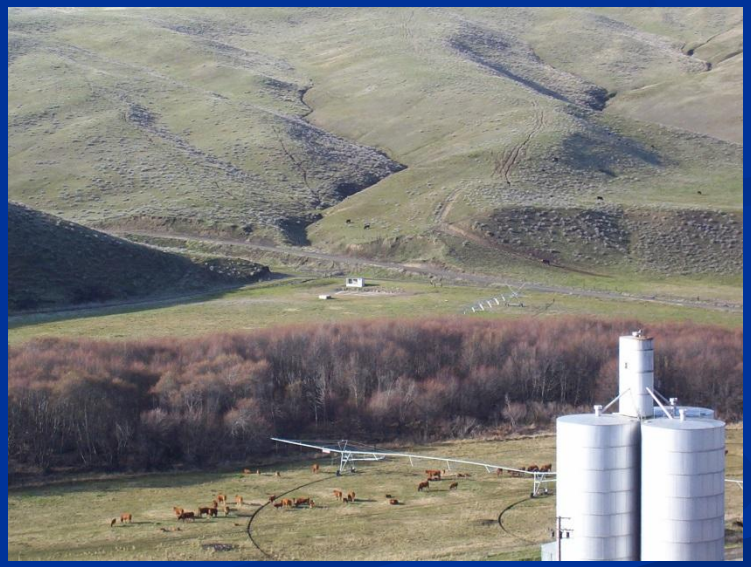
Umbrella project (#2010-077-00)



Subbasins within the Snake River Salmon Recovery Region

Umbrella project (#2010-077-00)





Umbrella project (#2010-077-00)

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Approach

Utilize a targeted approach where projects are pre-identified based on a basin-scale geomorphic study (Anchor QEA, April 2011) and LiDAR. That information led to a watershed restoration strategy (Roni et al, 2002) and project prioritization framework that were approved by Regional Technical Team and ISRP

Transparently and inclusively requested various entities to propose implementing the priority projects. SRSRB does not implement projects.

Umbrella project (#2010-077-00)

Outcome

28 projects, ranging in length from several thousand feet to more than a mile long were identified based on the geomorphic study; they were prioritized based on magnitude of benefit and were sequenced for implementation based on the restoration strategy. Six of the projects were "protection" because current habitat conditions are close to properly functioning so strategy is to protect those areas

Umbrella project (#2010-077-00)

Strategy

The watershed restoration framework (Roni, et al 2002) recommended that natural process (hydrology, sediment, temperature) be restored and isolated habitats be onnected – this took 15 years. Those are now being followed with:

1. Develop side channels/connect floodplains
2. Remove or set back infrastructure (dikes, roads, buildings)
3. Enhance instream complexity (large wood)
4. Enhance riparian

Umbrella project (#2010-077-00)

Partnerships

Agreement amongst partners to stick to the game plan and collaborate on approach, sequence, cost share, and technical assistance

Umatilla Tribe, Columbia Conservation District, WDFW are project implementers. USFS provides goods and services. SRSRB provides technical assistance, coordination and project funding approval

Umbrella project (#2010-077-00)

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Predictability pays off

Predictable funding ($1.3 million annually through 2018 from BPA to implement this project) leads to strategic implementation that is paying off; opportunistic approach has some value but nothing like a strategic game plan that everyone buys into. Our community, our landowners, our partners and we all know what is occurring and what is scheduled to come next.

Umbrella project (#2010-077-00)

Efficiency

Consolidating habitat restoration actions under an overarching project offers administrative efficiency and a landscape-based strategy that significantly benefits the Tucannon River in an equitable and transparent manner that has internal and external controls.

Umbrella project (#2010-077-00)

Monitor Outcomes

Adaptive management is critical and is best informed by good monitoring data – project effectiveness, status/trends to track larger scale progress, fish in-fish out to validate salmon response

Umbrella project (#2010-077-00)

RME

Status and Trends

fish in – fish out [a] WDFW

habitat (CHaMP) 20% of watershed monitored

ambient stations (temperature and flow)

Effectiveness – CHaMP and Tetra Tech fish assessments

[a] fish response is the ultimate goal but this is a habitat programmatic with habitat goals, not fish goals

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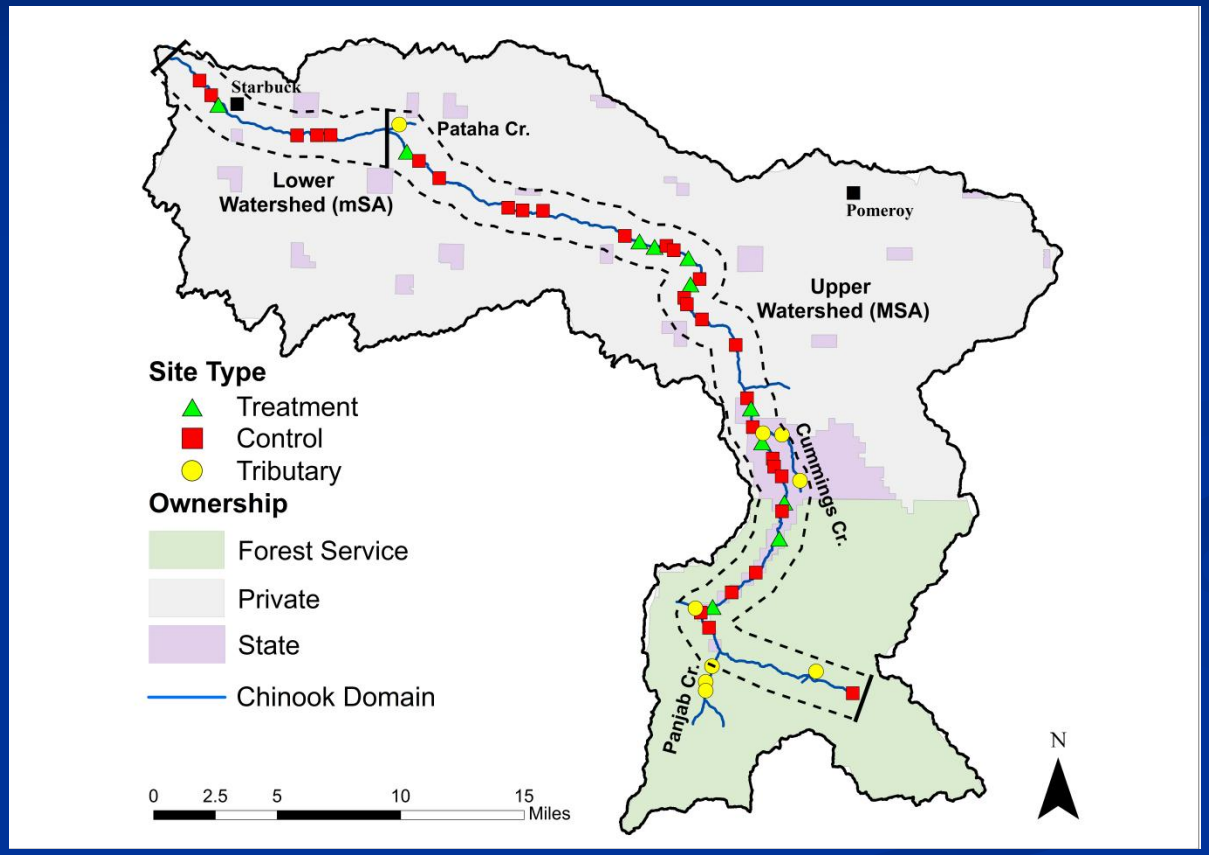
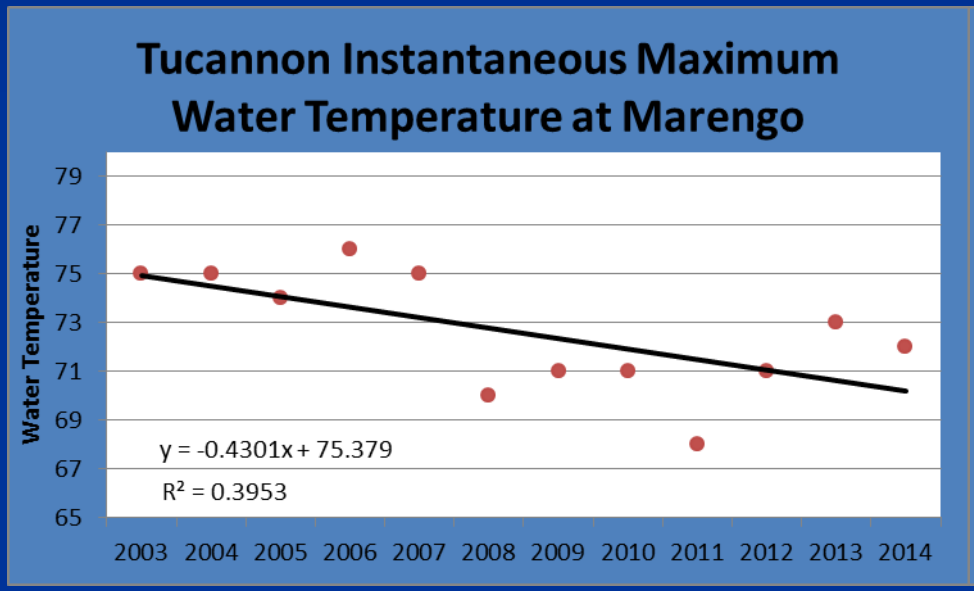
Umbrella project (#2010-077-00)

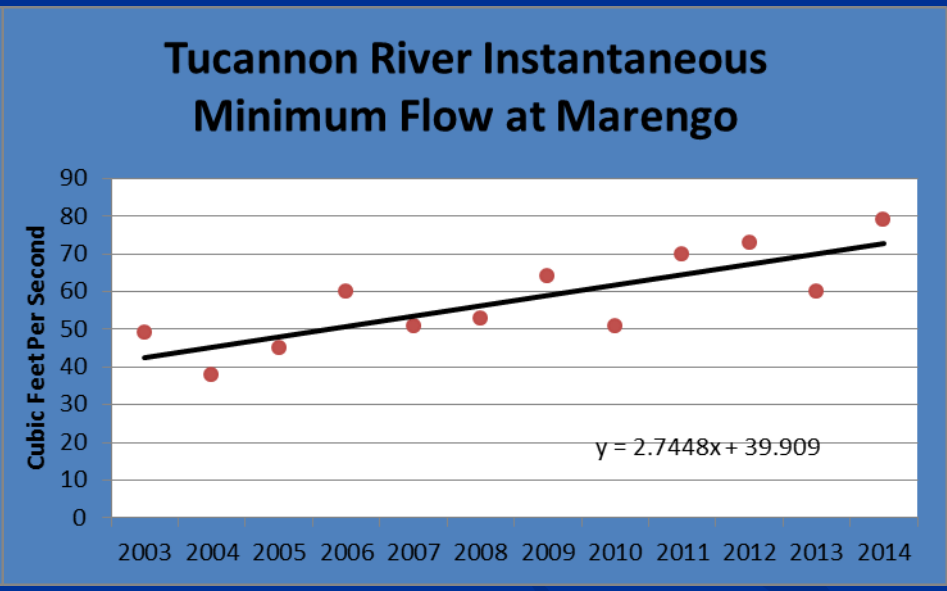
CHaMP (13 annual, 49 total)



Umbrella project (#2010-077-00)

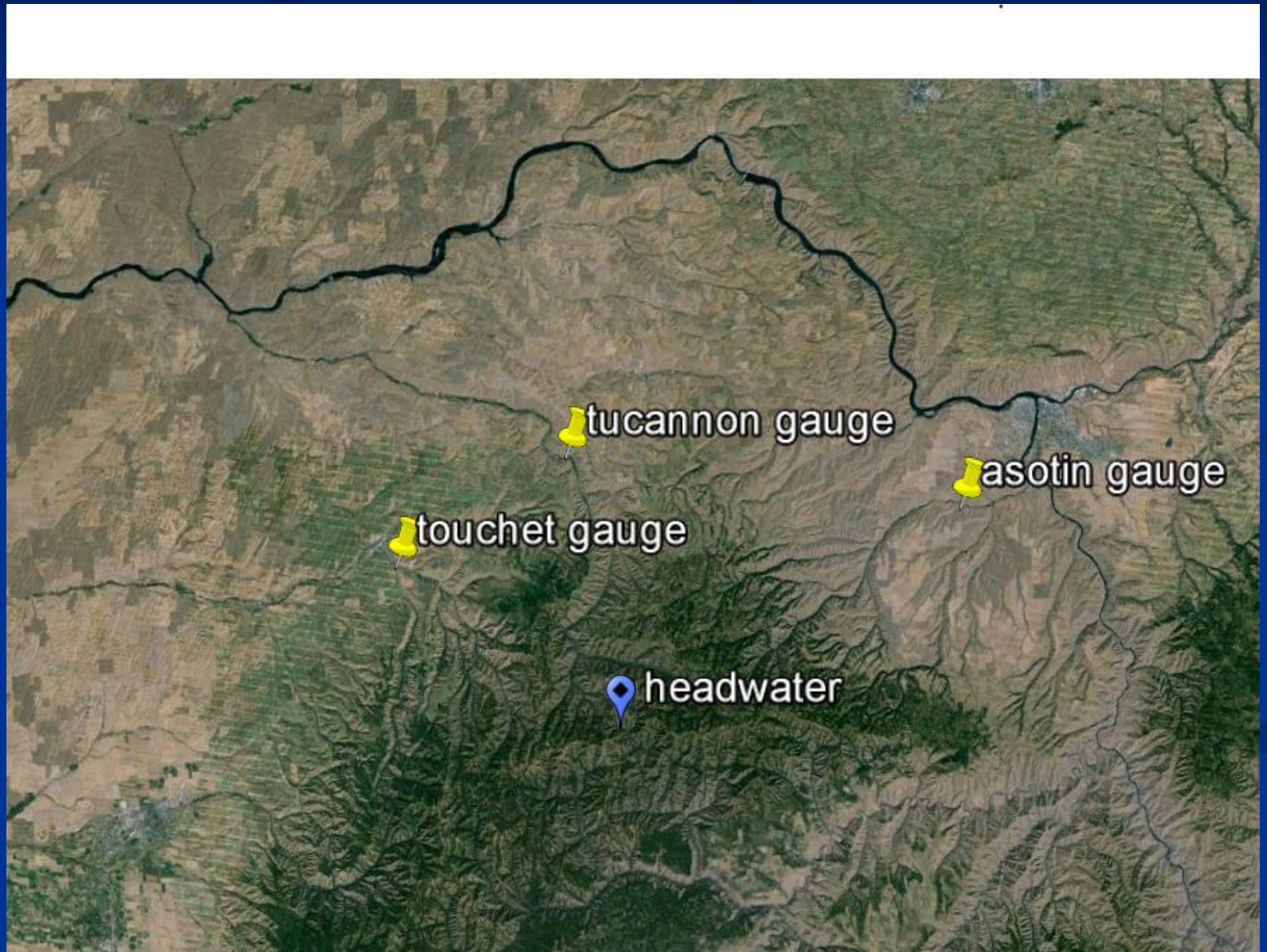
Results



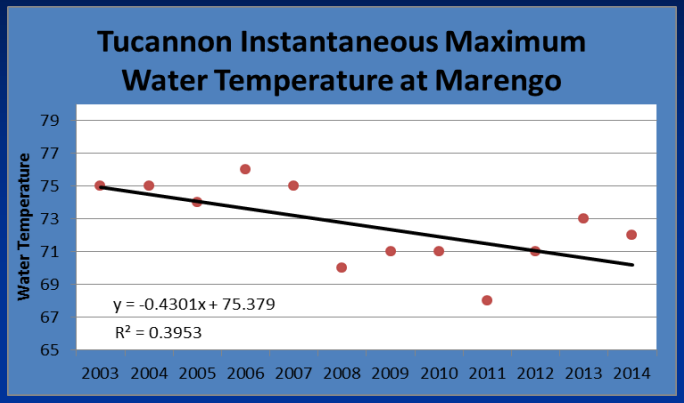


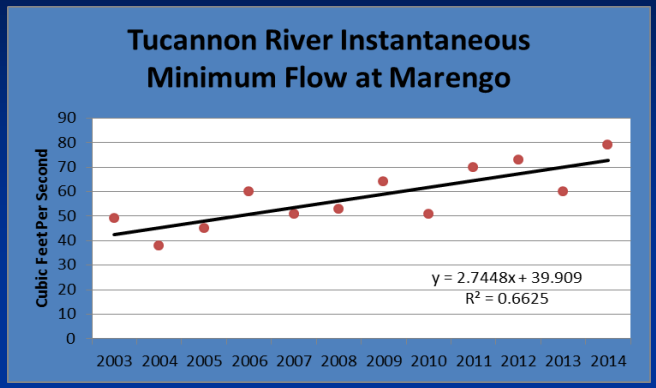
Umbrella project (#2010-077-00)

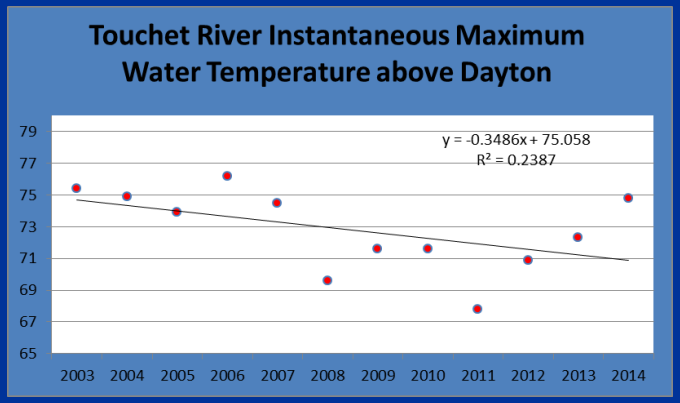
Regional Comparison

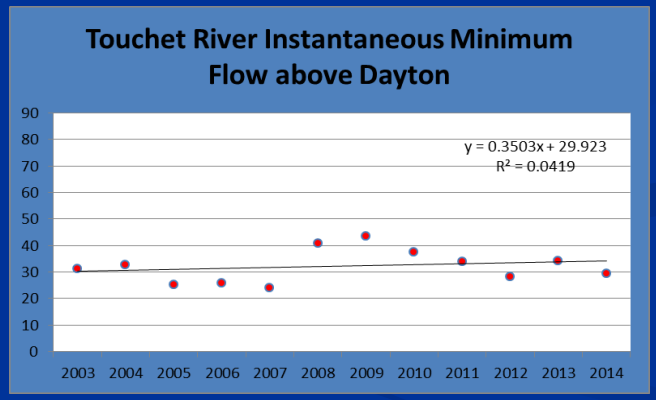


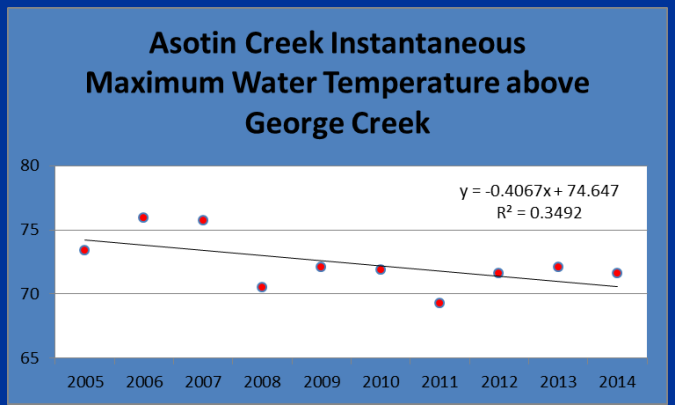
Regional Comparisons

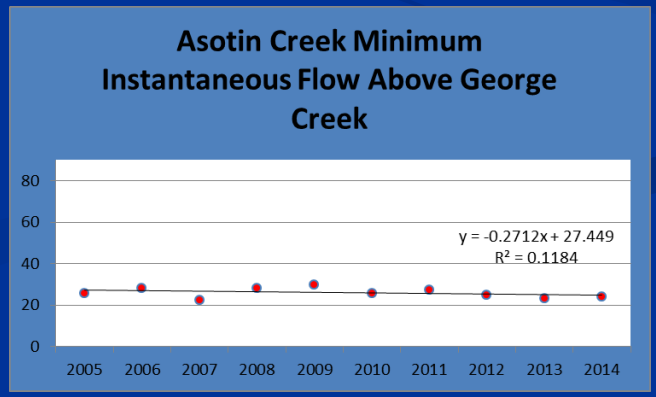




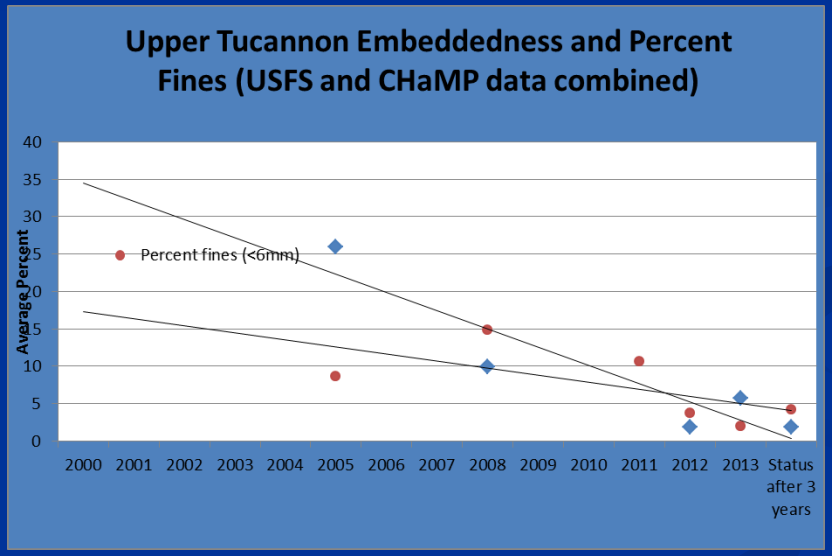








Physical Habitat



Umbrella project (#2010-077-00)

Adult Spring Chinook

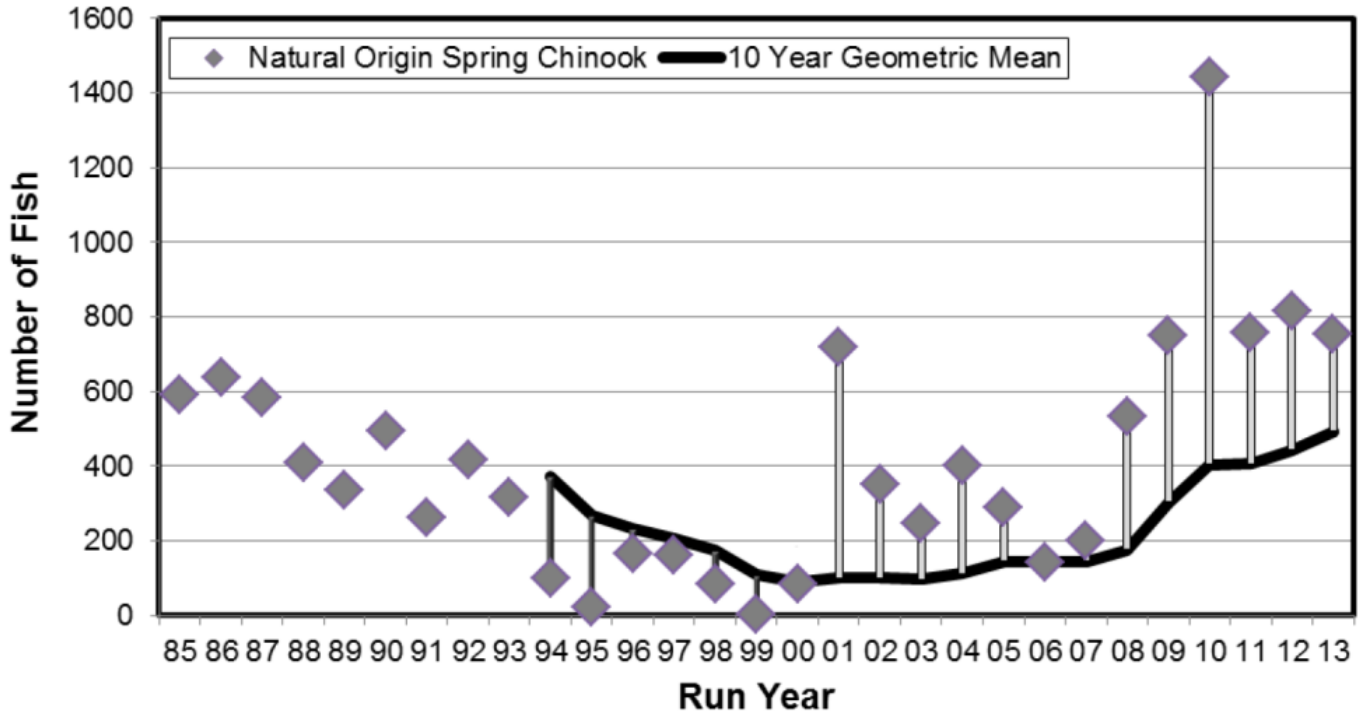


Figure 14. Tucannon River spring Chinook natural origin returns with the moving ten year geometric mean (black line) for the 1985-2013 run years.

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Connect River to Floodplain

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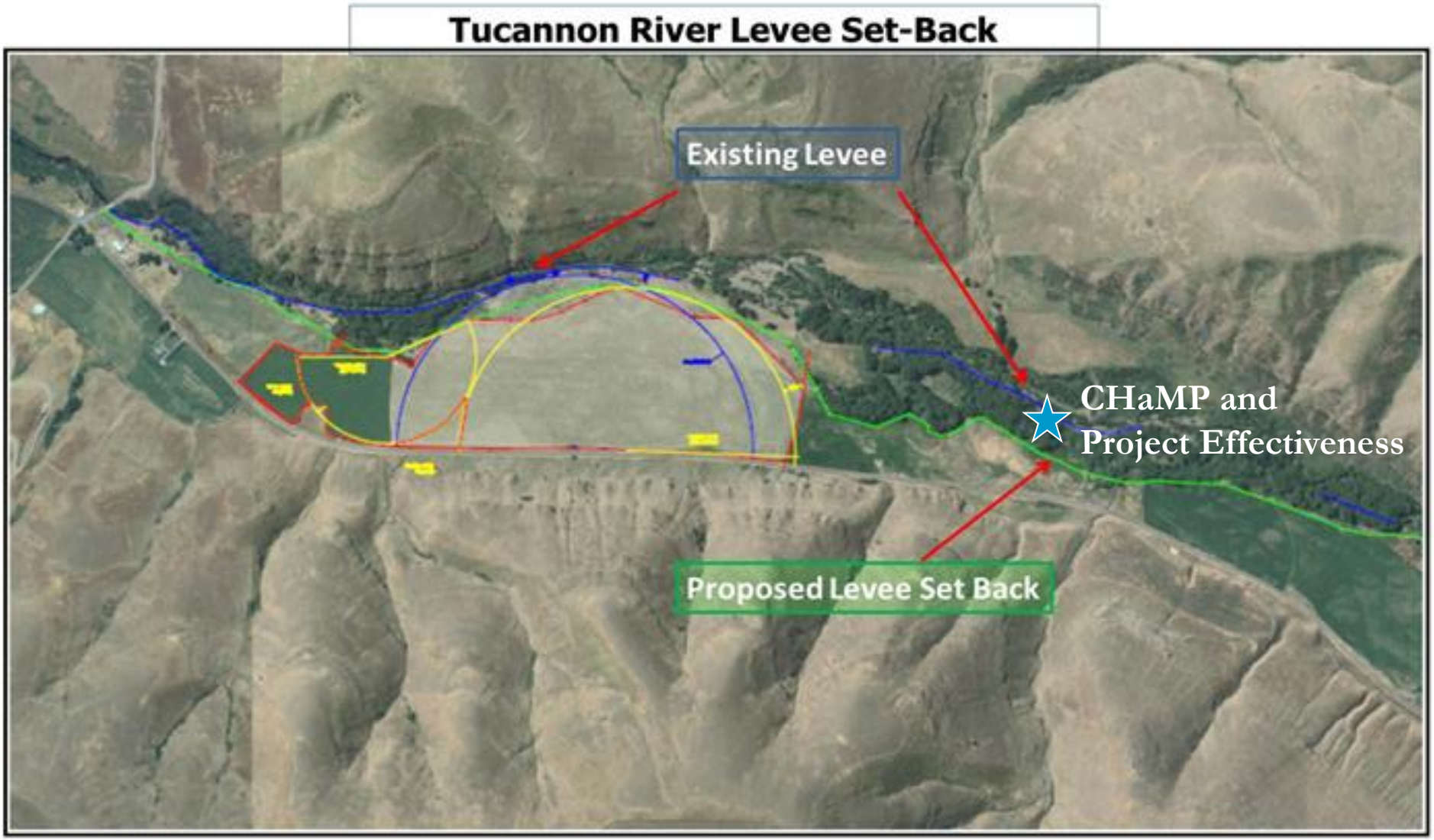

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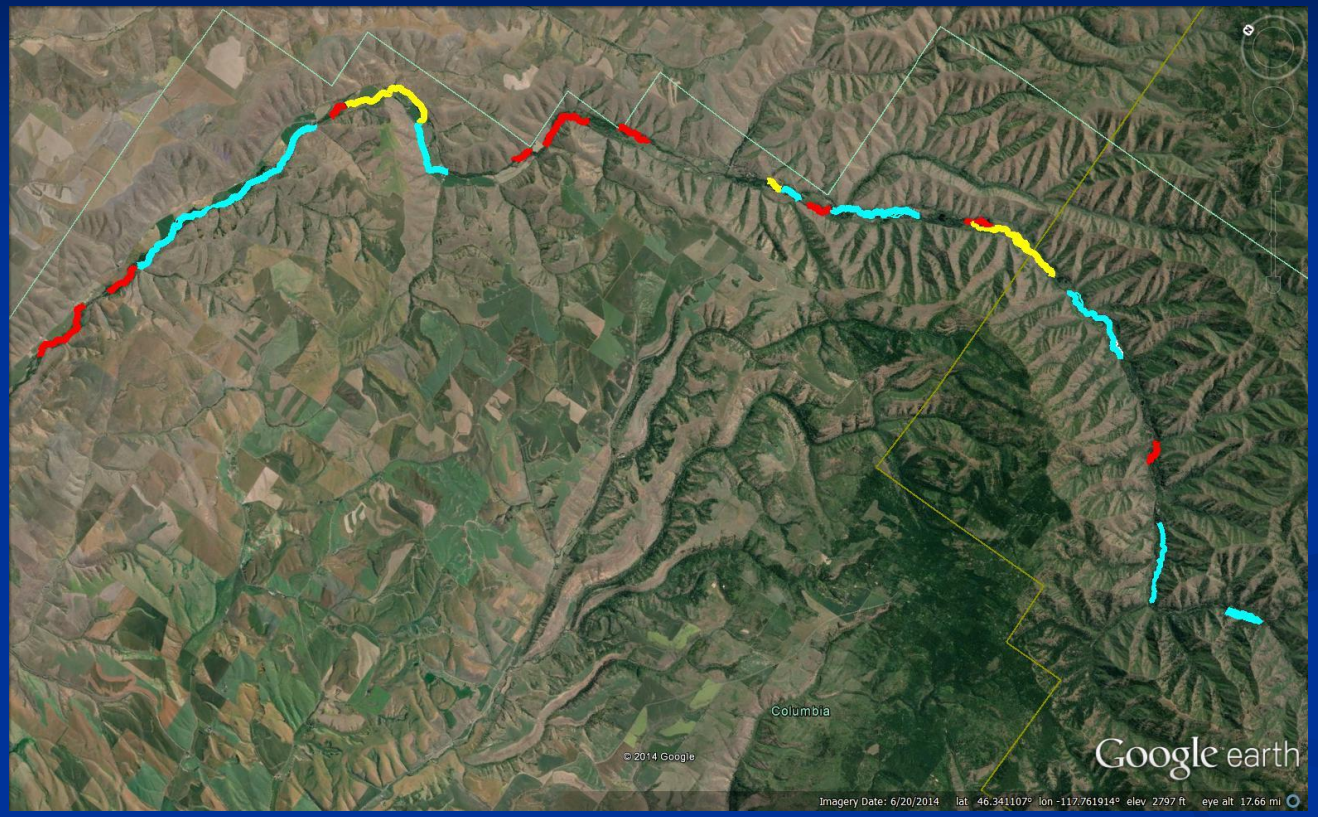
Magnitude of Implementation



Protection/Control Reach. Completed Reach. Scheduled for 2015.

Umbrella project (#2010-077-00)

Widgets circa 2010

Action/Projects	Units	
	Complete	Remain
Riparian Planting/Protection	1,100 acres	300 acres
Fish Screens	44 installed	Few
Passage Barrier	3 removed	1
Relocate dikes/connect floodplain	5 miles	25 miles
Large Wood	200	1,000's
Increase Flow	10 CFS trusted	5 CFS
Conservation Tillage	32,000 acres	8,000 acres

Umbrella project (#2010-077-00)

Outcomes

Accountability is key and while we maintain a list of widgets, our performance and that of others should be based on environmental and ultimately ecological outcomes of suites of actions at the watershed or population scale

No single project will recover salmon, it is the suite of actions properly sequenced and focused on improving the correct ecological concern/limiting factor

Umbrella project (#2010-077-00)

Thank You

Umbrella project (#2010-077-00)