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July 28, 2011

## MEMORANDUM

**TO:** Council Members

**FROM:** Stacy Horton

**SUBJECT:** Habitat Improvements in the Tucannon River

Steve Martin, Executive Director of the Snake River Salmon Recovery Board, will be presenting the Council with the results from habitat investments in the Tucannon River watershed.

Over the last 18 years, salmon habitat projects have been implemented in the Tucannon River, which is home to ESA-listed bull trout, steelhead trout, spring/summer Chinook and fall Chinook. Concurrently, salmon runs have been monitored and habitat conditions have been assessed. Habitat objectives have been established in a regional salmon recovery plan and the projects are intended to meet those objectives. For instance, the water temperature objective is to reduce water temperature so that it does not exceed 72 F more than 4 days per year. Due to extensive riparian restoration water has not even hit 72 F in the last four years; in the 1990's it exceeded 72F on average 28 days per year. This presentation will provide the Council an overview of the Tucannon watershed with a focus on the partnerships, progress, and pending BiOp habitat programmatic.

A PowerPoint presentation is attached.

# Snake River Salmon Recovery Board

Partnerships to Improve Habitat in  
southeast Washington

Tucannon River RESULTS!



This presentation is a follow up to  
poster display at April NWPPC  
meeting in Wenatchee



## Presentation Outline

- Washington's approach to salmon recovery
- Partnerships
- Tucannon watershed characteristics
- Milestones
- Accomplishments/Progress & monitoring plan
- Habitat Programmatic proposal

# Salmon Recovery Regions



The Snake River Salmon Recovery Board is a Policy Organization informed by a Regional Technical Team - each have met monthly since 2002

## Partnerships

### Funding Partners

- BPA
- SRFB
- USDA
- DOE

### Implementation Partners

- Conservation District
- WDFW
- CTUIR
- NGO's



Strategic Guidance and Community/Co-Manager Representation by SRSRB



Tucannon Subbasin Headwaters – Representative View of Upper Reaches



Bull Trout  
Steelhead Trout  
Spring Chinook



Tucannon Subbasin Headwaters – Representative View of Middle Reach



Steelhead Trout  
Spring Chinook





# Tucannon Subbasin – Representative View of Lower Reach



Steelhead Trout  
Fall Chinook



# Tucannon Subbasin – Location and Land Ownership

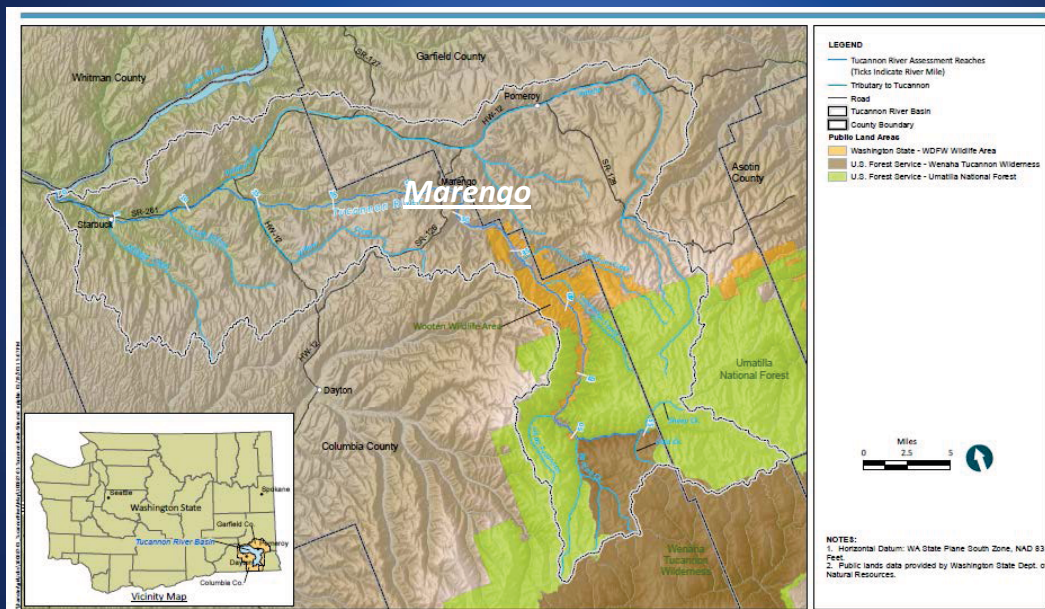
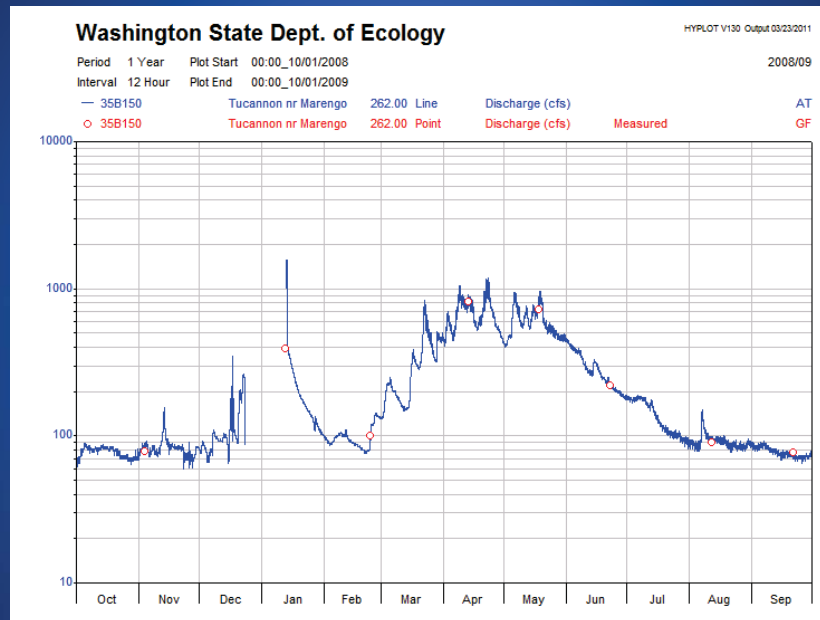


Figure 1  
Basin Vicinity and Site Map  
Tucannon River Geomorphic Assessment and Habitat Restoration Study  
Columbia Conservation District



## Tucannon Subbasin Hyrdology



At Marengo



## Milestones

- 1992 - Tucannon Spring Chinook ESA Listed; steelhead in 1998
- 1993 – BPA funds development of Model Watershed Plan and begins early investments
- 1998 – Farm Bill includes CREP investment
- 1999 – State Calls for Regional Salmon ESA Recovery Plans and begins early investments
- 2002 – Snake River Salmon Recovery Board self-Initiates to develop regional recovery plan

# Milestones (Continued)

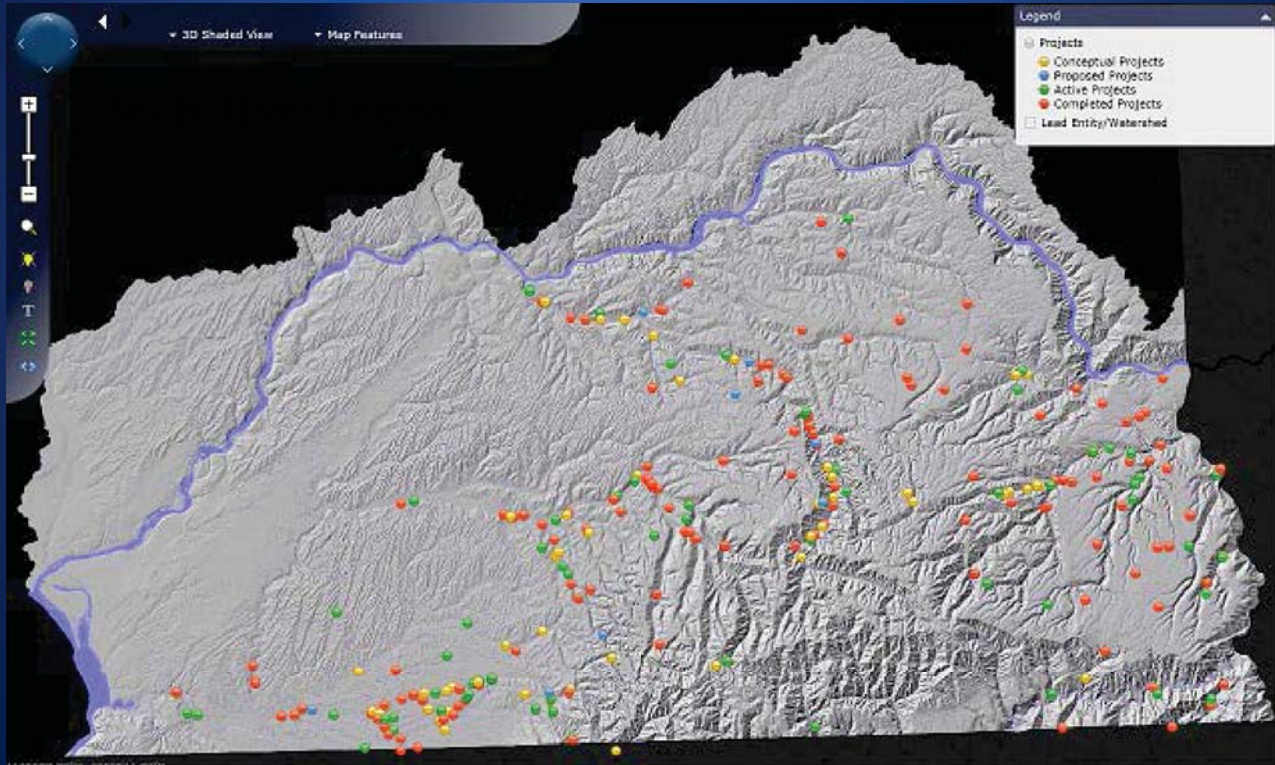
- 2004 – Tucannon Subbasin Plan Complete
- 2005 – Recovery Plan Approved by NMFS and PCSRF + state investments increase
- Today – Aggressive habitat restoration and intensive monitoring

## Tucannon River Accomplishments

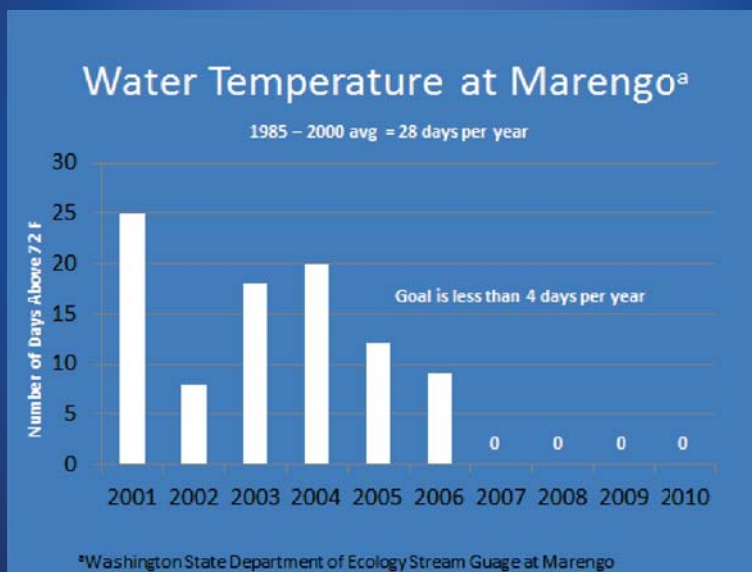
Action	Units	
	Complete	Remain
Riparian Planting/Protection	1,100 acres	300
Fish Screens	44 installed	Few
Passage Barrier	3 removed	1
Relocate dikes/connect floodplain	5 miles “planned”	25 = a lot!
Increase Flow	10 CFS trusted	5 to 10
Conservation Tillage	32,000 acres	8,000



# Track and Report Accomplishments



## Achieving the Goal - Expanding Spatial Distribution using Temperature as a Surrogate



Only 2 days last year when it even hit 70; it has not hit 68 this year

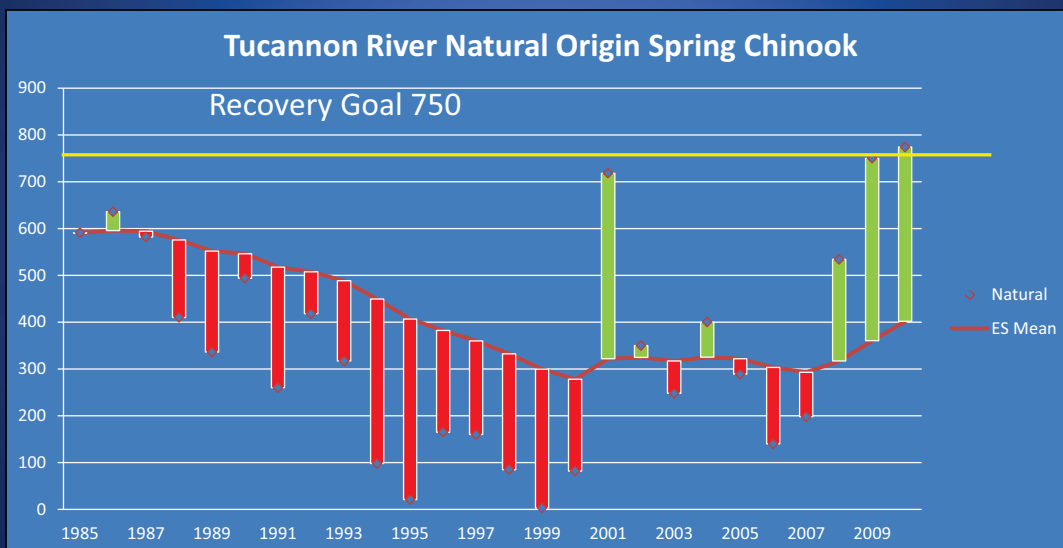


# Achieving the Goal – Improving Survival using Embeddedness as a Surrogate

Tucannon River Fine Sediment	
Time Period	Percent Fines
1990's	63%
2008	19%
Goal	Less than 20%



## Moving Towards the Abundance Goal



# Validating Habitat Improvements and Salmon Response

- I presented empirical data showing temperature and sediment improvements but we must validate more than temperature and sediment; habitat improvements need to be linked to increased fish numbers
- CHaMP (Tucannon pilot), project effectiveness, IMW (Asotin Creek), ambient monitoring sites, and fish in-fish out are in place to help validate habitat improvements and link those improvements to fish numbers



## Tucannon Spring Chinook “gap”

- 17% gap between current survival and FCRPS BiOp target
- BPA is committed to help reduce the gap
- SRSRB was approached to sponsor a habitat programmatic to help reduce the gap
- Proposal submitted to ISRP last year; currently in 3<sup>rd</sup> round of responses to ISRP



# Habitat Programmatic in a Nut Shell

- Secure stable funding from BPA for the life of the 2008 BiOP to implement complex, reach scale projects aimed at removing infrastructure (roads, dikes, lakes, etc) from the floodplain and adding significant quantities of large wood while maintaining existing/historic funding from other sources
- Actions recommended and tracked by regional technical team



## Summary

- Improvements have been validated by empirical data on a subset of factors
- Intensive monitoring is underway to track status and trend of habitat and fish
- Durable partnerships and landowner support are key to continued improvements and success of pending Habitat Programmatic

