



CHaMP

# **CHaMP Pilot Project 2012 Completion Report**

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BPA Project 2011-006-00

# Acknowledgments

Sponsors: Bonneville Power Administration  
NOAA Fisheries

Collaborators:

Columbia River Inter-Tribal Fish Commission  
Oregon Department of Fish and Wildlife  
Landowners across 9 watersheds

Special Thanks:

Northwest Power & Conservation Council  
Independent Scientific Review Panel




Sponsored By  
Bonneville Power Administration





# Highlights

**2012 Program Recap**  
**Status and Trend Highlights**  
**Data Analysis Highlights**  
**2013 Planning**

An aerial photograph of a river system, likely the Colorado River, with a color overlay. The river is blue, and the surrounding land is colored in shades of green, yellow, and orange, possibly representing different land use or elevation levels. The text is overlaid on the top left of this image.

# 2012 Recap: 2011 Lessons Learned Follow-Up

**CHaMP Provides Building Blocks for Management  
Coordinated Engagement With Managers  
Improve Data Performance and Flow**

# 2012 Recap: Building Blocks for Management

	CHaMP Sites	ISEMP Sites	Total Sites Surveyed With CHaMP Protocol and Tools
Methow	19	0	19
Entiat	18	42	60
Wenatchee	22	0	22
Tucannon	25	4	29
South Fork Salmon	25	0	25
Lemhi	25	26	51
John Day	50	50	100
Upper Grande Ronde	55	0	55
CHaMP/PIBO	12	0	12
<b>BPA-Funded Total Sites</b>	<b>251</b>	<b>122</b>	<b>373</b>

\* Total BPA-funded visits = 426

\*\* Non-BPA-funded sites = 53: 18 sites in the Asotin were funded/surveyed by Washington SRSRB, 29 sites were surveyed in California by CDFG-CMP, 3 sites surveyed for USBR in Methow, 3 sites in Meacham Creek, Oregon.



# 2012 Recap: Coordination With Managers

## **Data Analysis Strategy Development: September 2012**

- Continue to Develop Status and Trend Data Displays**
- Improve Fish/Habitat Modeling with Regional Collaborators as Basis for Interpretation of Habitat Data**
- Prepare for: Comprehensive evaluation; 2013 BiOp check-in; 2013 BiOp remand; Council MERS plan; 2015 Expert Panel process; 2018 BiOp**

An aerial photograph of a river delta, likely the Mississippi River, with a topographic overlay in shades of green, yellow, and blue. The text is overlaid on the top left portion of the image.

# 2012 Recap: Improve Data Performance and Flow

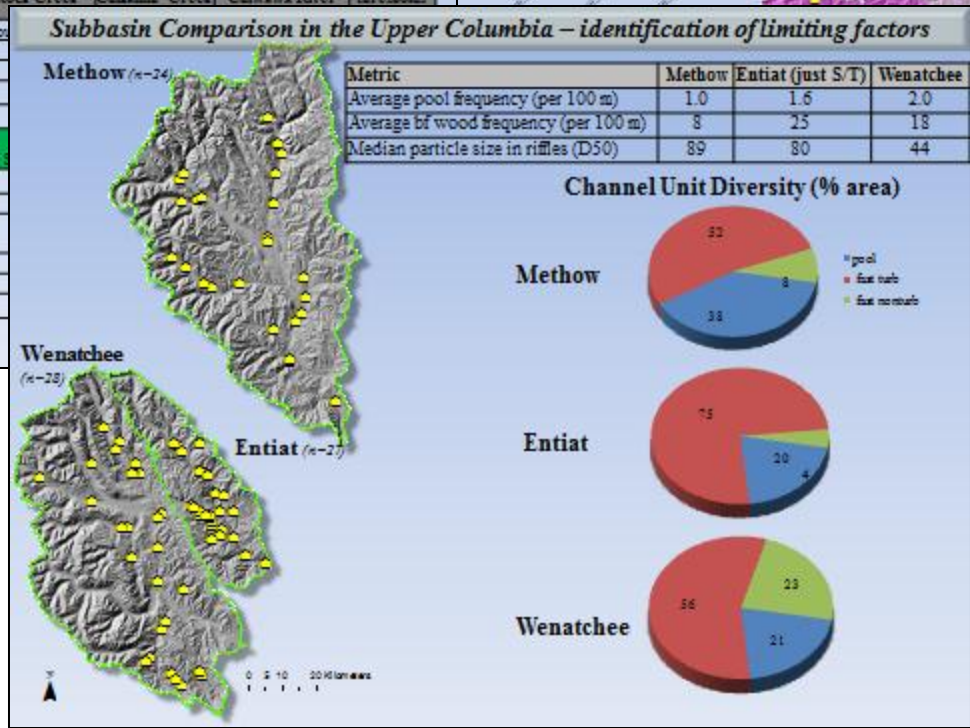
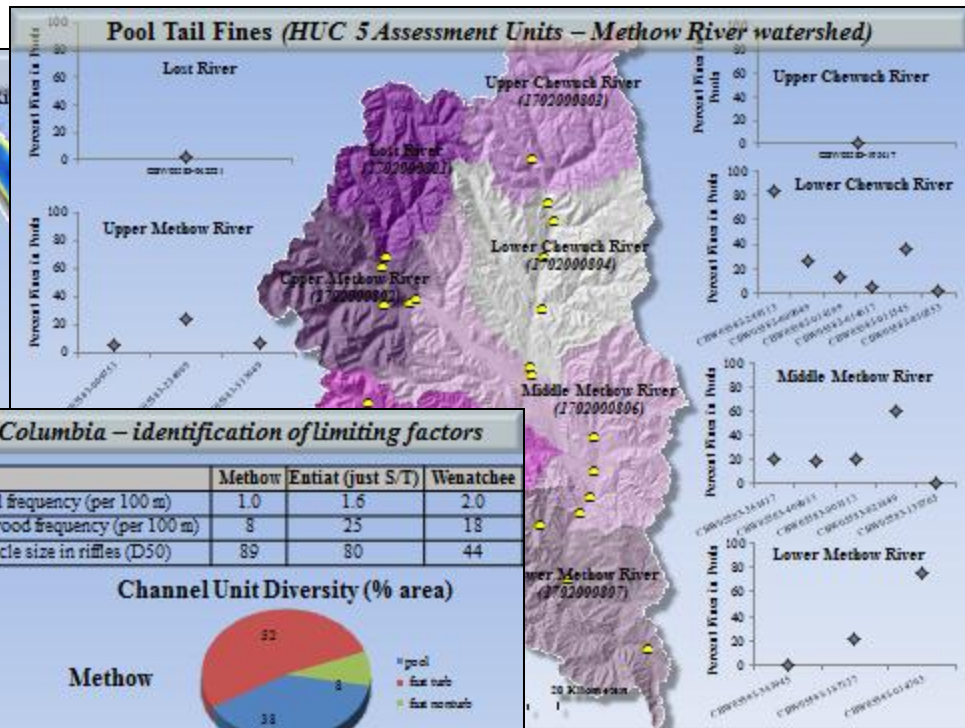
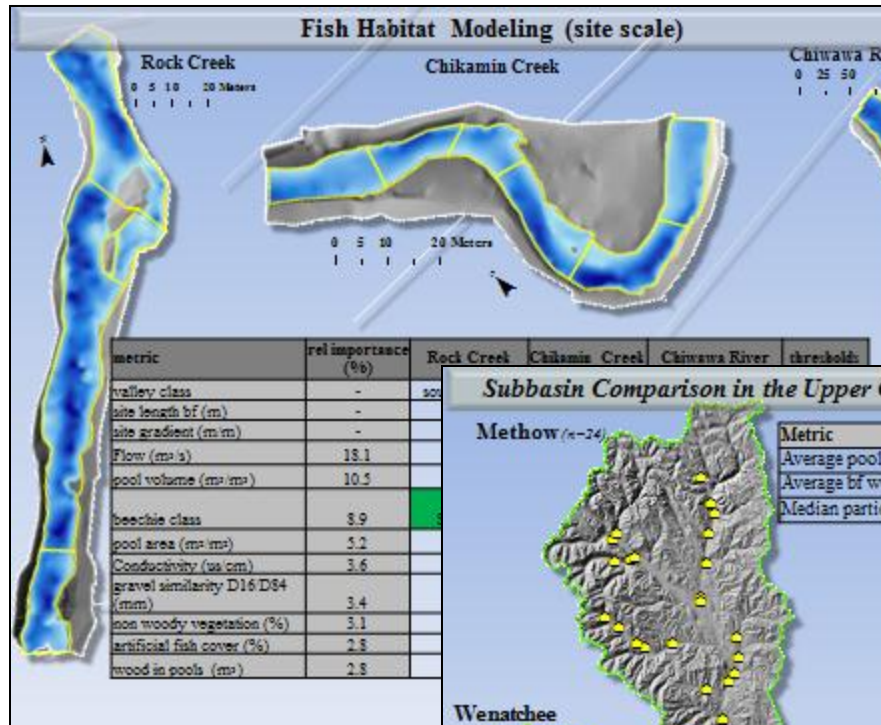
## **“Improved” Approach to Challenging Metrics**

- Better Protocol and Training Improved Efficiency**
- Improved Standardization**
- Increased Cost of Each Survey**

## **Improved Tools and Software**

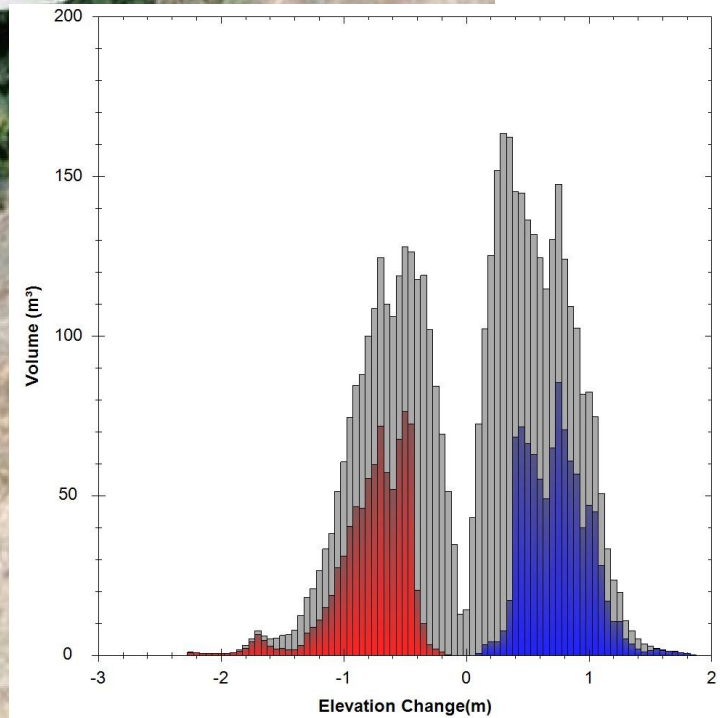
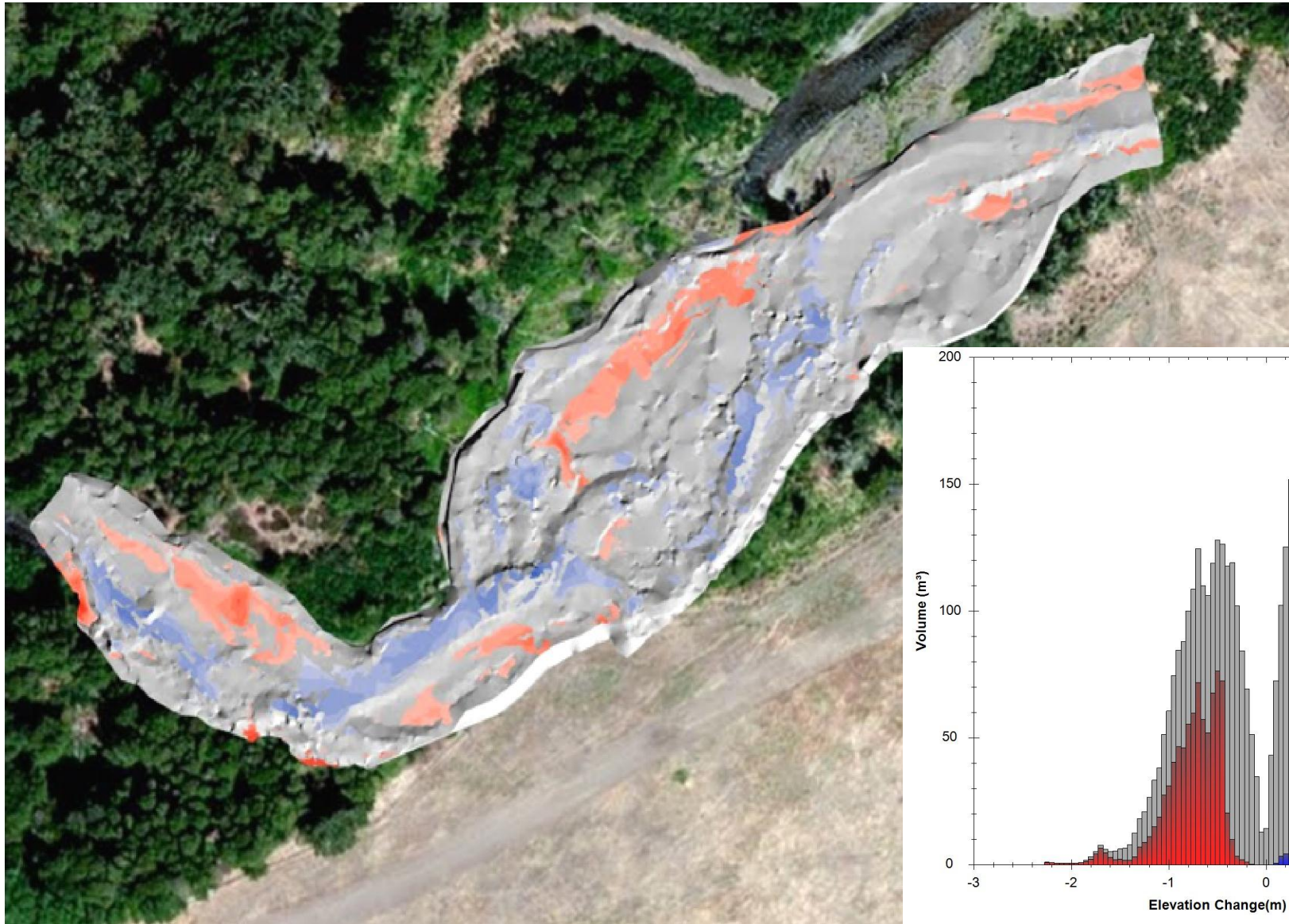
- Streamlined the data flow process**
- Improved standardization**
- Reduced overall effort; shifted work to crews**

# Status and Trend Highlights



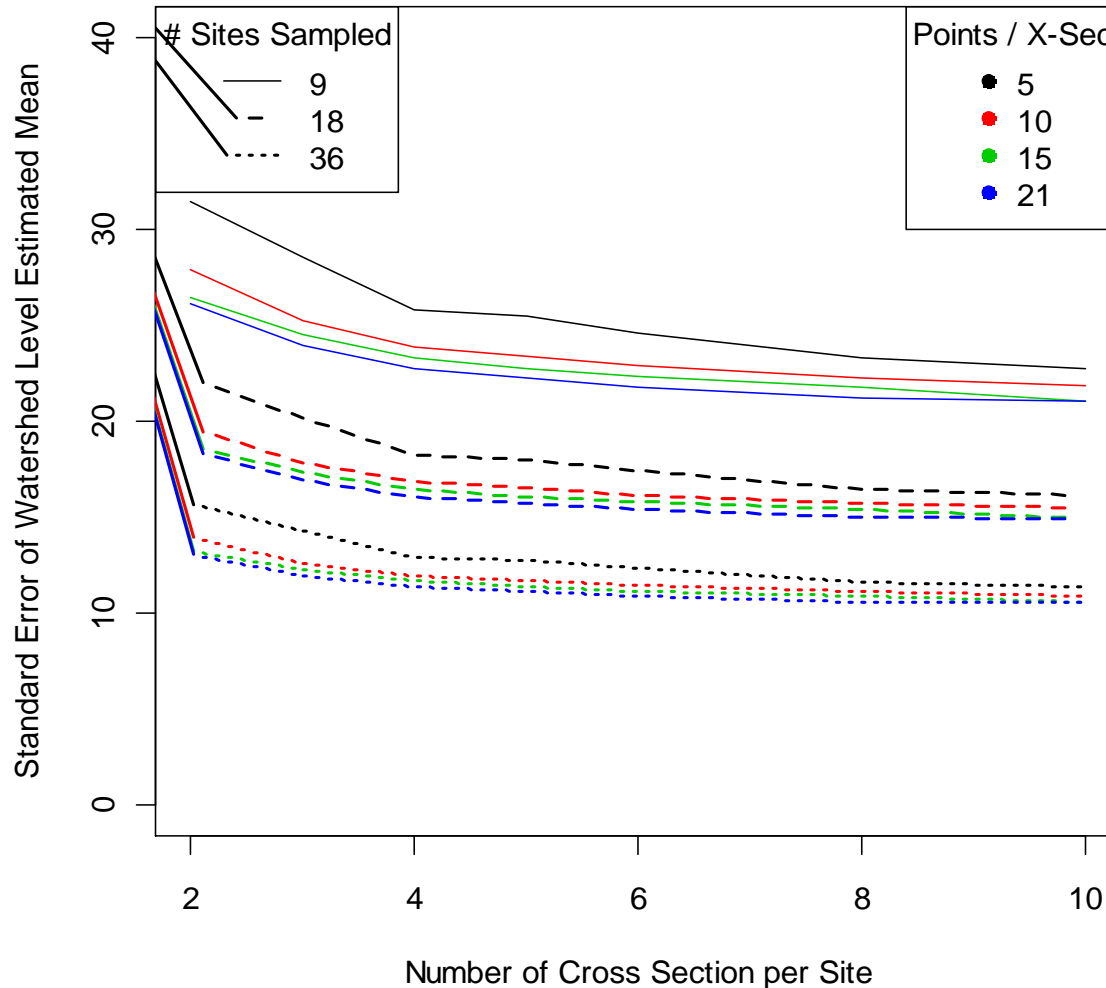


# Status and Trend Highlights: Geomorphic Change Detection



# Data Analysis Highlights: Optimizing Effort and Data Form

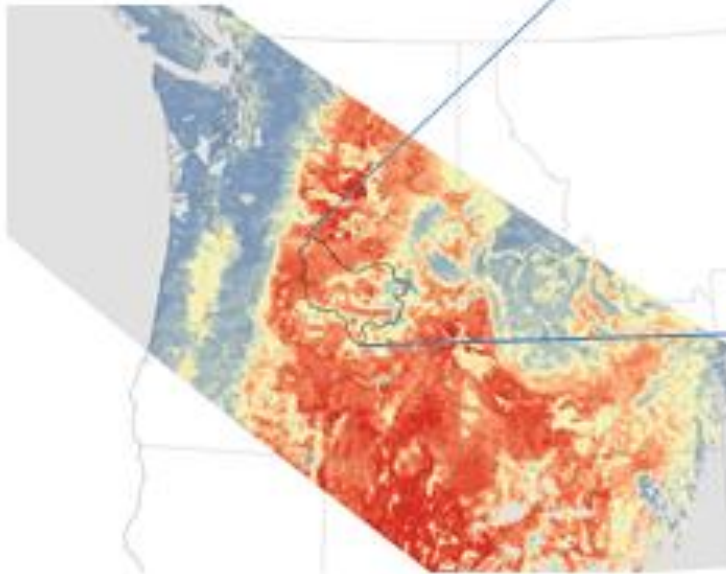
**Watershed Level D50 Estimate:  
Standard Error of Mean by at # Sites, Cross Sections per  
Site, and Points Measured per Cross Section**



# Data Analysis Highlights: Reducing Effort with Remote Sensing

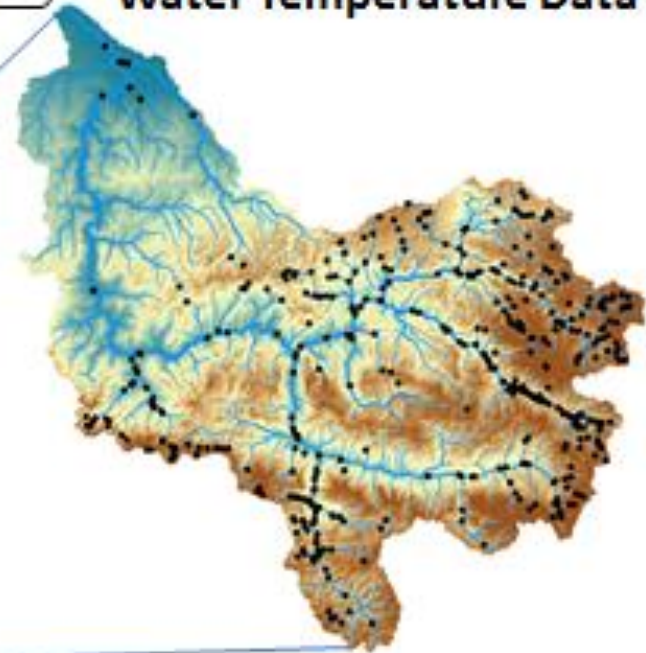
## Modeling Stream Temperature

- MODIS Satellite Data (NASA)
- 1km<sup>2</sup> spatial resolution, daily, 8-day
- Spatially and temporally continuous



**Land Surface Temperature (LST)**

## Water Temperature Data



- Stream temp logger dataset
- Spatially and temporally patchy