

Collaborative Monitoring Efforts in the Umatilla River Subbasin, Oregon

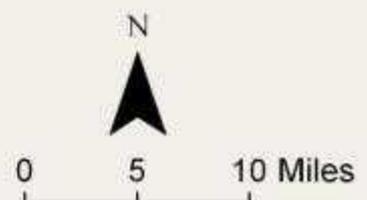
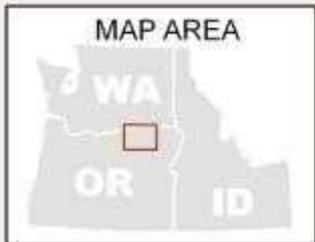
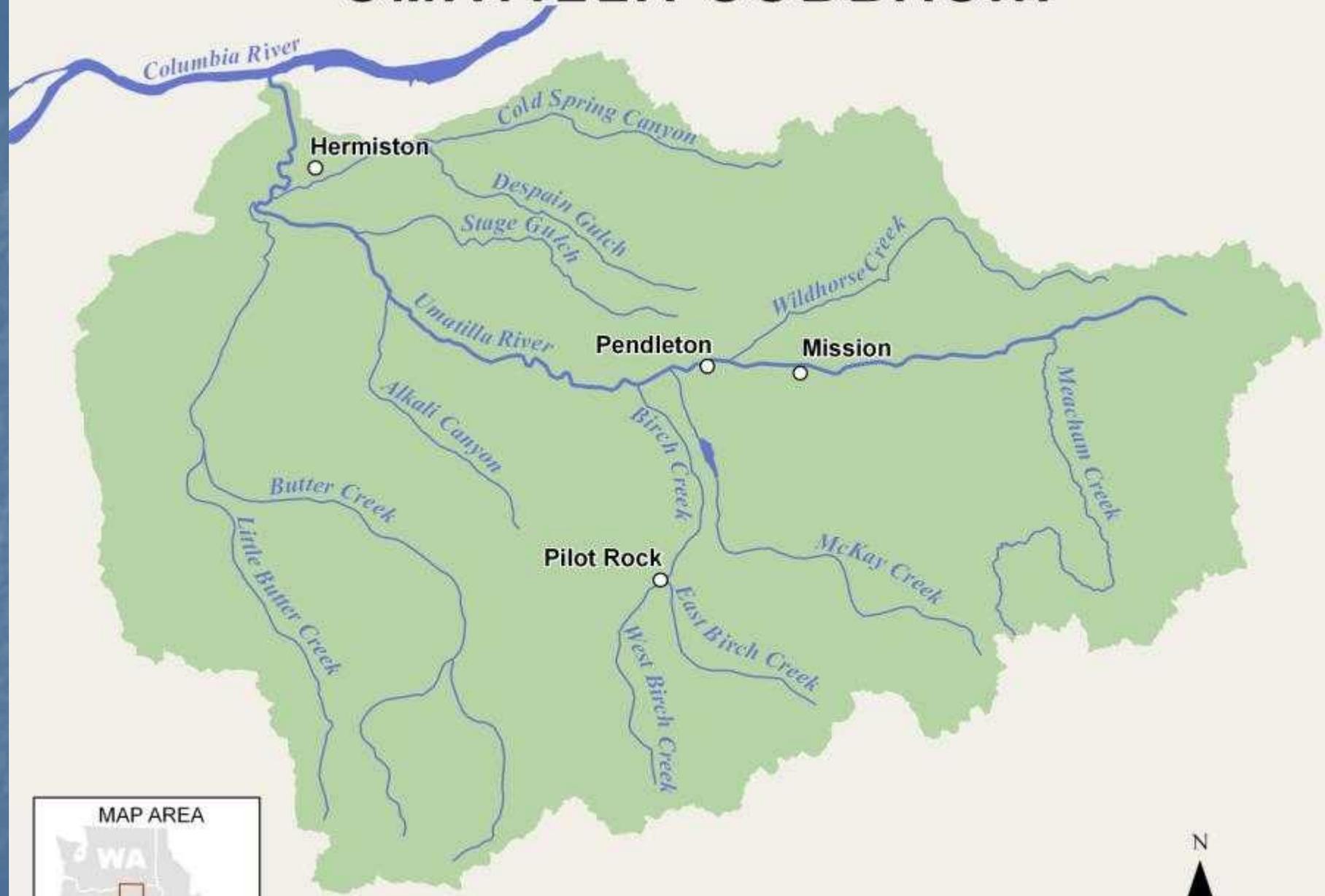
Bridge Day; National Water Quality Monitoring Conference, River Rally
May 4, 2012

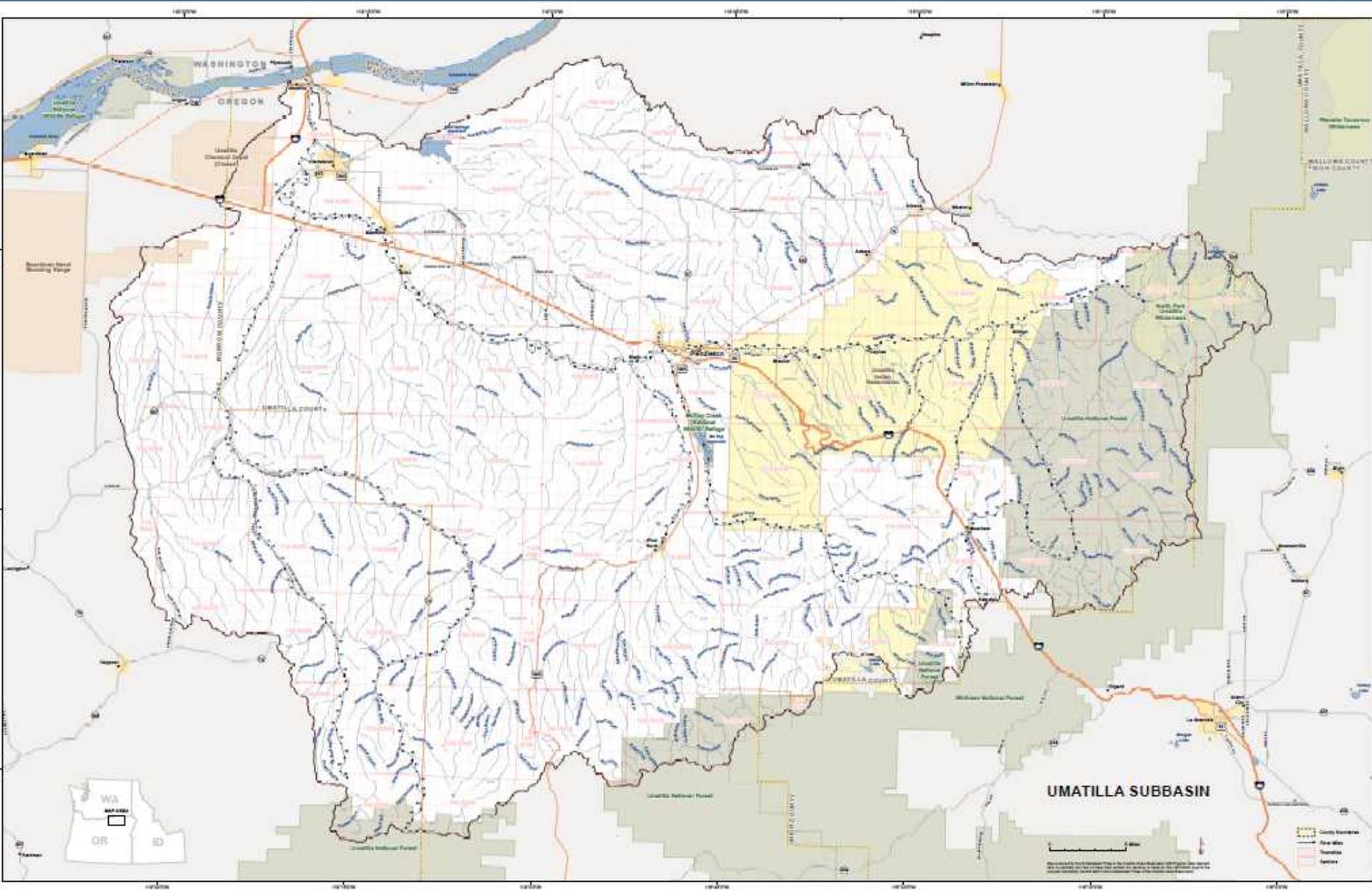


James Webster
Confederated Tribes of the Umatilla Indian Reservation



UMATILLA SUBBASIN



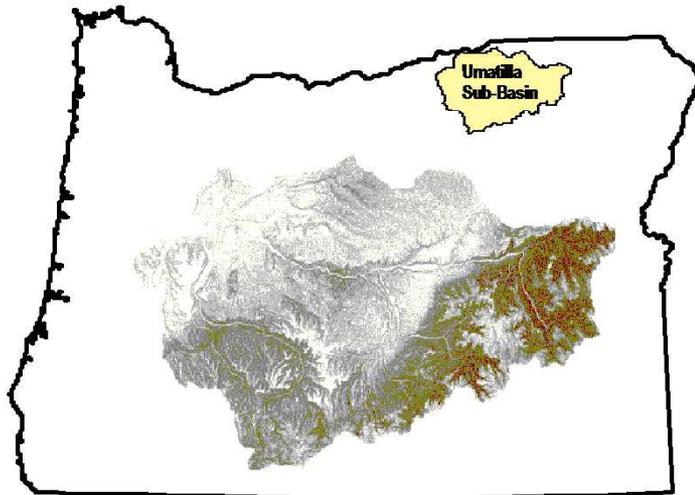


UMATILLA SUBBASIN

- County Boundaries
- River Miles
- Township
- Section



UMATILLA RIVER BASIN TOTAL MAXIMUM DAILY LOAD (TMDL) AND WATER QUALITY MANAGEMENT PLAN (WQMP)



Prepared by: Oregon Department of Environmental Quality in Partnership
with the Umatilla Basin Watershed Council and The
Confederated Tribes of the Umatilla Indian Reservation



State of Oregon
Department of
Environmental
Quality



- **Completed in 2001**
- **Defined TMDL's for:**
 - temperature
 - sediment
 - pH
 - nitrate
 - ammonia
 - bacteria
 - habitat
- **WQMP – land use based:**
 - Urban/industrial
 - Forestry
 - Transportation
 - Agriculture (SB 1010)
 - Water quantity (habitat and flow)

Who was involved?

Umatilla TMDL Stakeholder Group

Core Partnership of ODEQ, Umatilla Tribes, Umatilla Basin Watershed Council

- Landowners and land managers (farmers, ranchers)
- Cities and County government
- State government
- Umatilla Tribes
- Federal government
- NGO's and special interest

Technical Committee Formation

- “Ad hoc” collection of expertise from in and out of basin
 - multiple agencies
 - multiple disciplines (range, forestry, botanists, biologists, hydrologists)
 - professional interest without direct assignment
- Data collection and analysis for TMDL
 - gap analysis
 - temperature, sediment, and geomorphology data collection
 - developed focused measurement efforts
- Continued support to subbasin monitoring efforts and projects

Perceived/real barrier and perceptions

- Differing and competing land use and management goals
 - Stakeholder group made up of diverse individuals
 - Technical Committee members vary in knowledge and experience
- Funding for the effort was not dedicated.
- The end goal of producing a TMDL was understood, but no formal directive or path was clear.
- Disconnection between technical knowledge and decision making level.

Umatilla Tribe's Perspective on Water

Umatilla River Vision

Hydrology

Connectivity

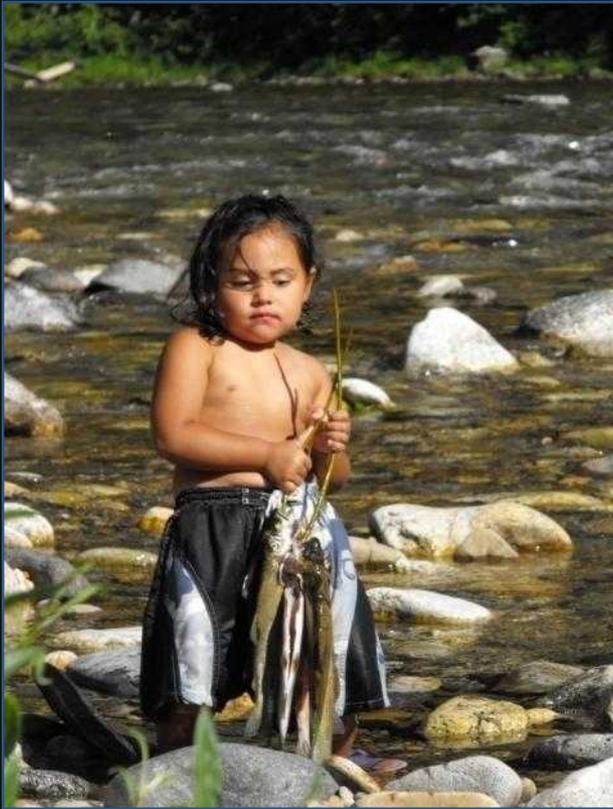
Geomorphology



Aquatic Biota

Riparian Vegetation

Vision Statement



“The Umatilla basin includes a healthy river capable of providing First Foods that sustain the continuity of the Tribe’s culture. This vision requires a river that is dynamic, and shaped not only by physical and biological processes, but the interactions and interconnections between those processes.”

Drivers for collaboration/change

- Protect personal interests and agendas
- Legal requirements
 - Meet common goals of the Clean Water Act.
- Unrealized common goals
 - Provide for functional ecology while protecting the local economy
 - Loss of soil = degraded farming conditions and degraded water quality

Strategies to overcome

- Egos and politics checked at the door
- Identify goals and focus on specific products.
- Recognize expertise and maximize effective use.
 - Delegate work tasks appropriately
- Transfer of information from local knowledge to measure to modeling and analysis.
 - Local Knowledge vs. measurement vs. model output

Geomorphic Surveys

- Measured physical channel parameters at 50 locations
- 2 teams of 4 – 6 people. Mobilized over 30 people.
- Developed sampling protocol based on model input needs
- Representative sites chosen for conditions across basin



Lessons learned

Mutual TMDL development with a local stakeholder group can leave a legacy of awareness, trust and technical know-how with continuous local presence to guide TMDL implementation, seek funding and track progress.

The public outreach and education resulting from developing the TMDL locally can jump-start the acceptance for management change that is a key to success.

Collaborative Success

- Community TMDL Development
 - **Trust** in the product
 - Educated community on river function and processes
- 15 years of high quality voluntary monitoring data.
- Model and data to be used for continued watershed planning and management by multiple organizations.
- Development and implementation of Long-term Monitoring Plan.
- Increased capacity by sharing resources and using information from others (e.g. USFS water quality lab, morphology surveys, application of HeatSource).
- Process helps leverage funding into the basin.