Enhancement and Standardization of Benthic Macroinvertebrate Monitoring and Analysis Tools for the Puget Sound Region

A Project Funded by US EPA Scientific Studies and Technical Investigation Assistance Program Grant
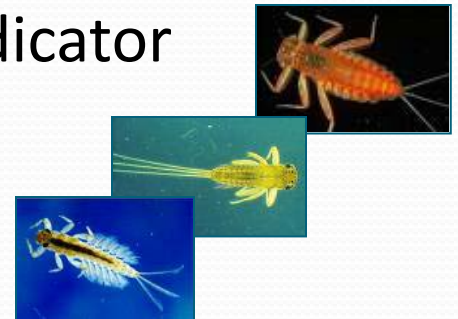
Deb Lester- King County Dept of Natural Resources

May 16th, 2011

Issues

- Inconsistent sampling and data analysis methods
  - 3 ft^2 vs. 8 ft^2, attribute lists, taxonomic resolution, etc.
- Taxa Attribute Lists used for B-IBI
  - Limited peer review and BPJ
- PL B-IBI – developed in early 1990's using limited data
  - Calibrated on a local scale within Puget Sound
- Data Management
  - PS Stream Benthos Database – great tool, but some limitations and participation
- Need for a regional biological freshwater indicator
  - Limited to WQI
- Need for regional coordination

Project Objectives

- Update taxa attribute lists
- Reconcile differences in sample collection methods
- Recalibrate metric scoring of the B-IBI
- Refine B-IBI as a freshwater indicator
- Expand the Puget Sound Stream Benthos Data management system
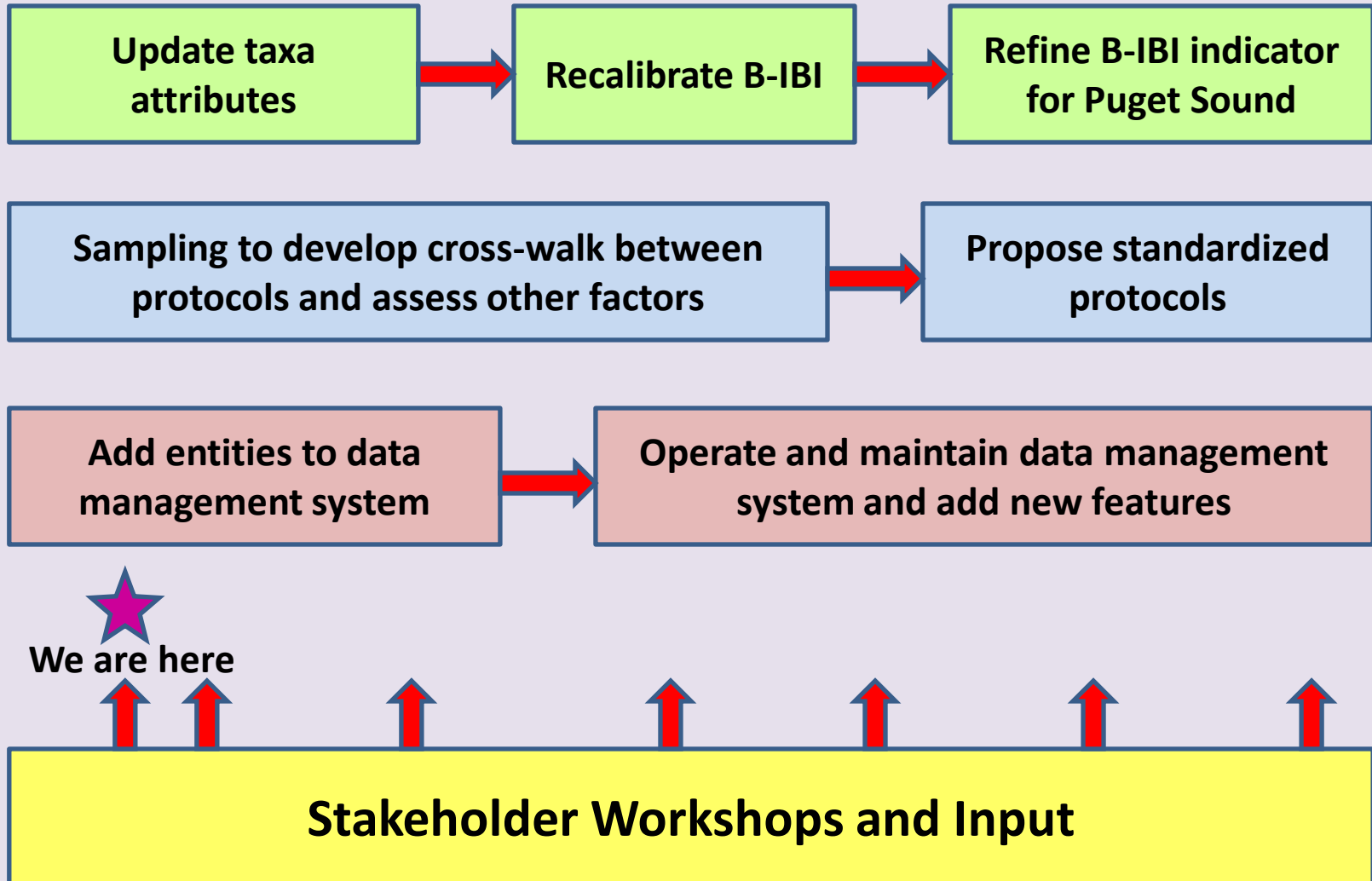- Enhance regional coordination

Project Flow Chart

2011   **2012**   **2013**

| Update taxa attributes | → | Recalibrate B-IBI | → | Refine B-IBI indicator for Puget Sound |

| Sampling to develop cross-walk between protocols and assess other factors | → | Propose standardized protocols |

| Add entities to data management system | → | Operate and maintain data management system and add new features |

We are here

Stakeholder Workshops and Input

Proposed Workshops

⭐ 1	May, 2011	• **Project kick-off** • **Input on year 1 study design**
2	July, 2011	• **Field methods training conducted by Ecology**
3	Oct /Nov, 2011	• **Input on draft taxa attributes report** • **Input on desirable data management features**
4	May, 2012	• **Input on B-IBI recalibration approach** • **Review year 1 results and input on year 2 study design**
5	Oct, 2012	• **Input on draft B-IBI recalibration report**
6	May, 2013	• **Input on draft report comparing sampling protocols** • **Input on setting indicator thresholds**
7	Oct, 2013	• **Input on draft standard protocol proposal** • **Input on draft analysis of B-IBI refinement report** • **Establish plan for on-going coordination**