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









Actions and Outcomes: Recalibrate B-IBI

- Updated long-lived, predator, and clinger taxa with best available science
- Used regionally specific data to update tolerant/intolerant metrics
- Improved metric and B-IBI correlation with human disturbance
- Tested for natural factors that may bias B-IBI; no consistent results
- Crosswalk B-IBI scores for 3 vs. 8 ft²; no significant difference
- Recalibration increased B-IBI precision by ~30%
- Evaluated relative risk; sediment is strongest "poor" B-IBI predictor
- Eliminate terrestrial and other inappropriate taxa
- Added 3 levels of taxonomic effort to minimize taxonomy related variability in PSSB; adjusted scoring to account for taxa resolution

Actions and Outcomes: Manage B-IBI data

- Added B-IBI data from other users to PSSB
- Added new metrics and B-IBI to PSSB
- Updated PSSB user interface
- Behind-the-scenes programming performance improvements
- Hosted PSSB user training (2nd training in March 2014)
- Implemented (and updated) an EIM compatible data download format to facilitate and encourage biological data submission for water quality impairment decisions [303(d) list]

Actions and Outcomes: Connect and Coordinate Regional Implementation of B-IBI

- **Hosted regional workshops for B-IBI users
- Hosted field day to compare methods across the region
- Encouraged standardization of methods across jurisdictions and provided matrix of methods utilized in the region
- Regular newsletters to support B-IBI community
- Regional targets in the Action Agenda for B-IBI
- ₩Use of B-IBI data for impairment decisions
- Presented and communicated results at various technical conferences including outreach to EPA and PSP
- Encouraged Puget Sound participation in larger regional groups/work so that our work has a voice (e.g., NBAW, PSEMP FW workgroup, PNAMP)

Actions and Outcomes: Supporting Data

- Delineated basin boundaries for all sampling sites in the PSSB as of Oct 2013
- Calculated various land use/land cover and other landscape scale metrics for all delineated basins at various spatial scales
- These data available on our website:

http://www.pugetsoundstreambenthos.org



Goals for Today's Workshop

- Updates from Ecology, EPA and PSP
- Overview of grant work to date
- **Technical updates and results
- "Regional Roundtable"
- Next steps and upcoming activities