

Prioritizing Stream Preservation & Restoration Based on B-IBI

Stakeholder's Workshop Wed, March 19, 1-3:30



Funded by EPA federal pass through funds via WA Dept. of Ecology as part of the PSP Action Agenda: Ecosystem Restoration and Protection Project



King County

Department of
Natural Resources and Parks
Water and Land Resources Division

B-IBI Advisory Group Meeting

February 27, 2014

B-IBI: PSP Vital Sign Indicator





- 🐛 Freshwater Quality B-IBI Targets by 2020:
- 🐛 PROTECTION - All stream drainage areas retain “excellent”
- 🐛 RESTORATION - 30 basins improve from “fair” to “good”

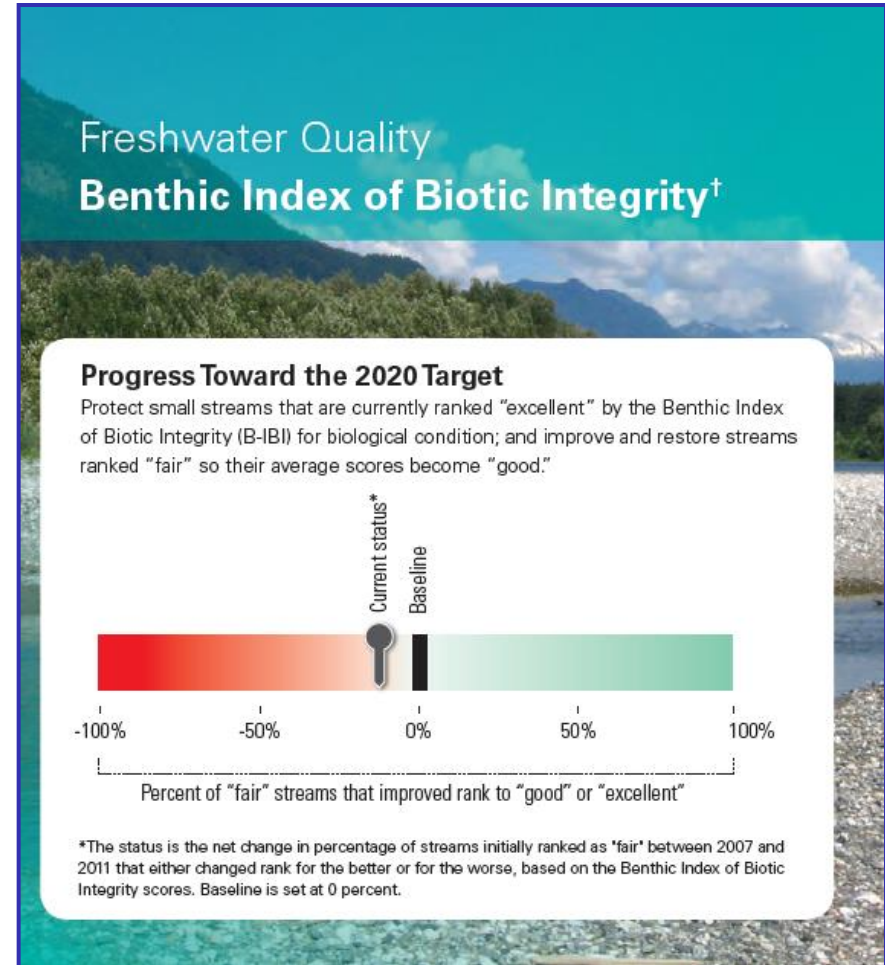


Target Progress

 No progress improving biological condition

 Funding for King Co. to prioritize basins & develop strategies

 No funding for restoration & protection implementation or effectiveness monitoring



Prioritization Framework

- Refine relationship between B-IBI and stressors
- What restoration has worked, where, and why?
 - What actions are possible?
- Incorporate existing tools as appropriate
- Feedback from regional experts, stakeholders
- Identify restoration strategies for high priority basins




“Excellent” Sites (≥ 42) = Protection

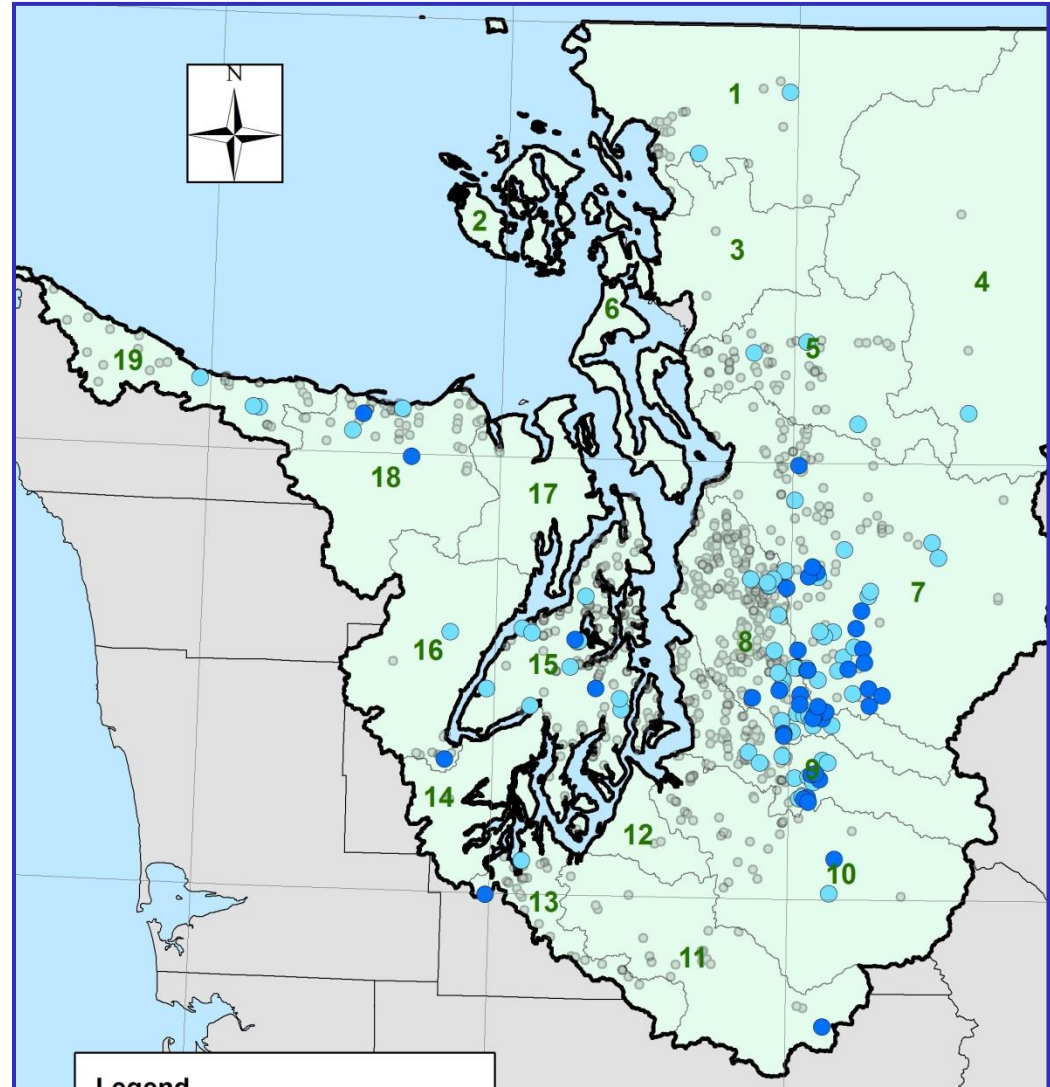
“Excellent” scores

● ≥ 46

● ≥ 42 and < 46

 **121** sites scored
“excellent” at least
once

 **33** sites averaged
“excellent”



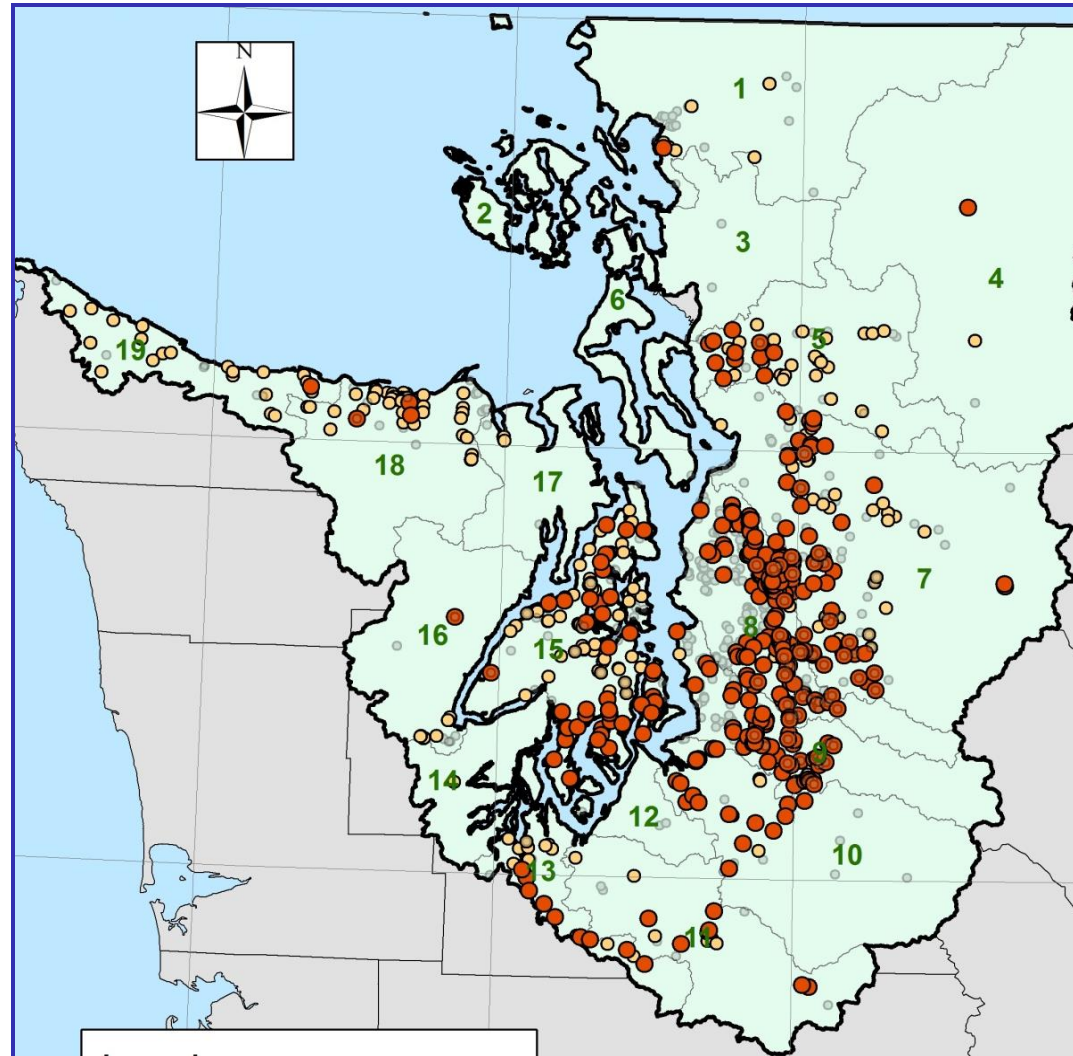
“Fair” Sites (28-36) = Restoration

● “Fair” + $n > 1$ +
since ‘08

● “Fair” at least once

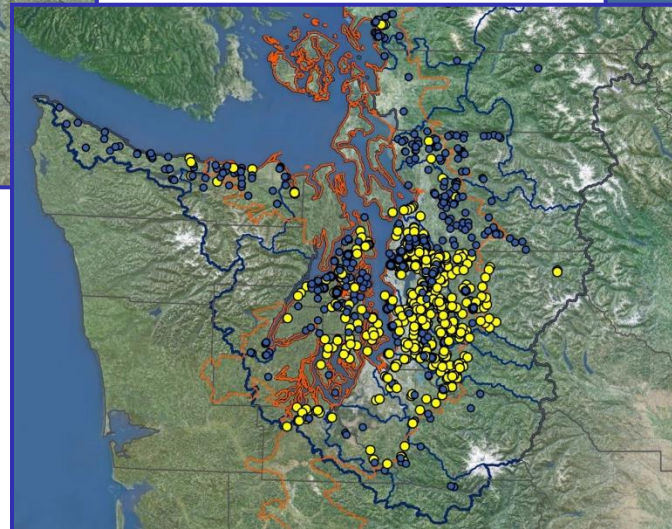
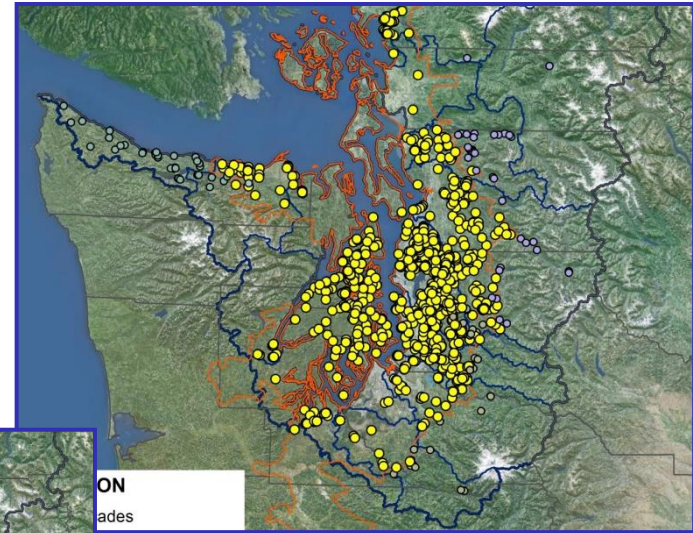
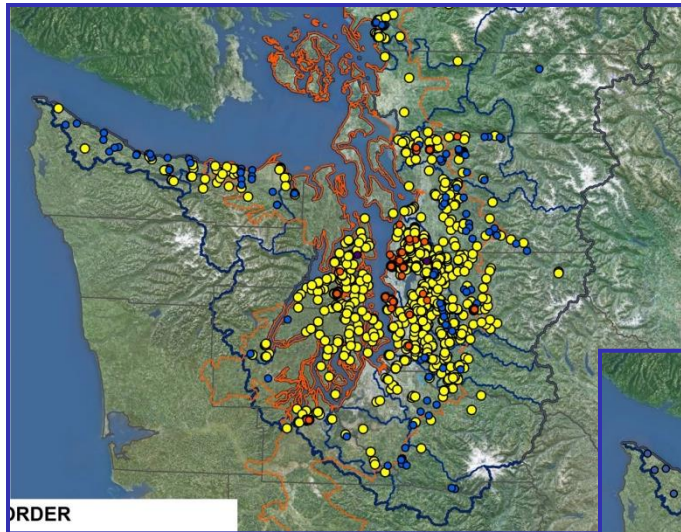
🐛 **648** sites scored “fair”
at least once

🐛 **348** sites scored
“filtered fair”



“Fair Sites”: Filters

Stream Order 1-4

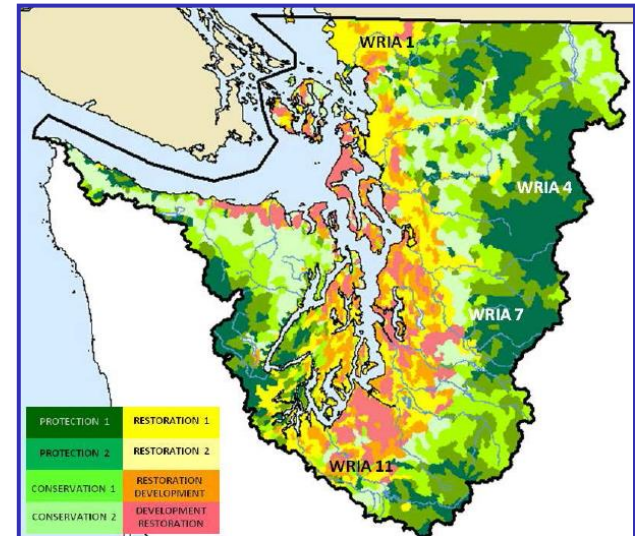
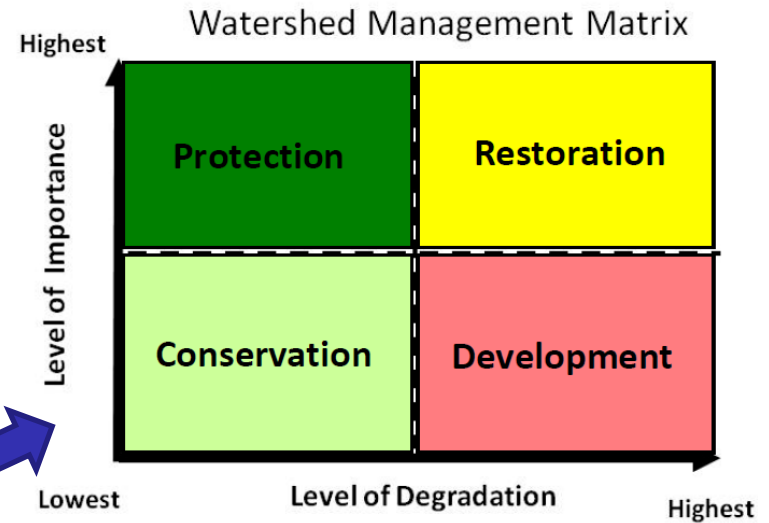
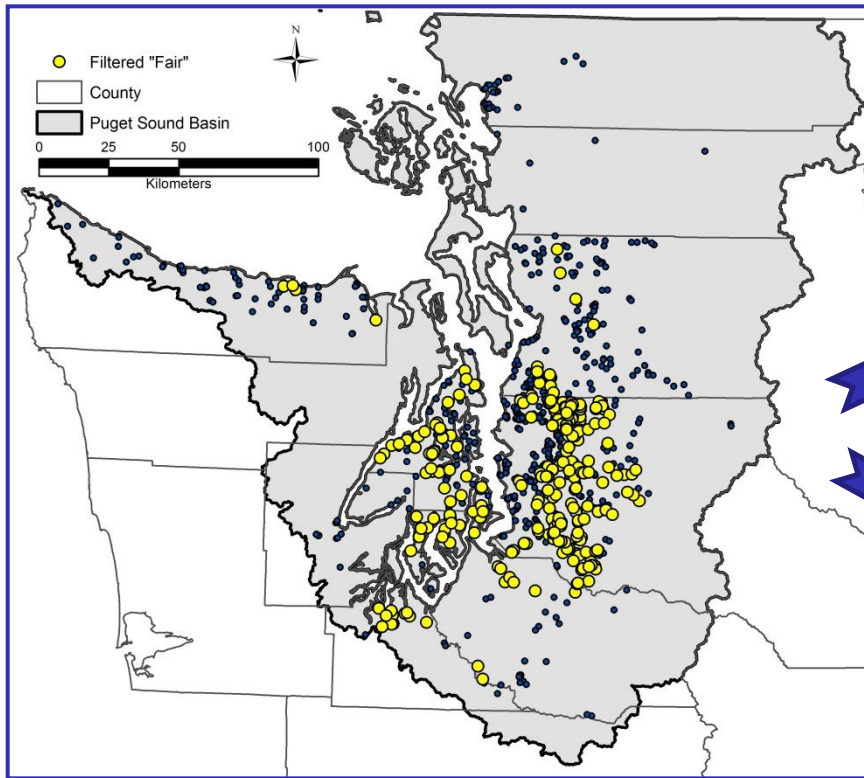


Puget Lowland
Ecoregion

Sampled > Twice

Prioritization Framework

 268 sites →



 → PS Watershed Characterization

Additional Criteria

- 🐛 Fish presence
- 🐛 Salmon recovery priorities
- 🐛 Ownership
- 🐛 Basin size
- 🐛 Impervious Area
- 🐛 Fragmentation
- 🐛 Watershed context
- 🐛 Riparian condition
- 🐛 Variability
- 🐛 Intrinsic potential...

Management Actions

Feasible? Effective?

- 🐛 Habitat improvements
- 🐛 Riparian plantings
- 🐛 SW retrofits
- 🐛 Ag BMPs
- 🐛 Education/outreach
- 🐛 Legislation
- 🐛 Incentives
- 🐛 Seeding inverts...

Acknowledgements



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Debra Bouchard, Chris Gregersen, Chris Knutson, Gino Lucchetti, Kate Macneale, Kate O’Laughlin, Jim Simmonds, Kerry Thrasher



PS Watershed Characterization:



Ecology: Susan Grigsby, Colin Hume, Stephen Stanley



WDFW: George Wilhere



Ecology Project Management:



Tom Gries, Kim Harper, **Doug Howie**, Kirsten Weinmeister

The background of the slide is a close-up photograph of a streambed. In the foreground, several dark, segmented aquatic insects, likely caddisfly larvae, are resting on a light-colored, textured rock surface. The background is filled with a variety of smooth, rounded river stones in shades of grey, brown, and tan, creating a natural, outdoor setting.

?'s / Suggestions / Success Stories

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