

B-IBI* on the local scene

(*Benthic Index of Biotic Integrity)

Ed Chadd, Streamkeepers of Clallam County
Presentation to Dungeness River Management Team
May 10, 2017

What do the data tell us?

How should B-IBI fit into
local stewardship efforts?



What do the data tell us?



Things to think about as you look at B-IBI scores:

- Land use: urban, suburban, ag, forestry
- Upstream vs. Downstream
- Restoration projects: what, where, when
- Have restored sites recovered?



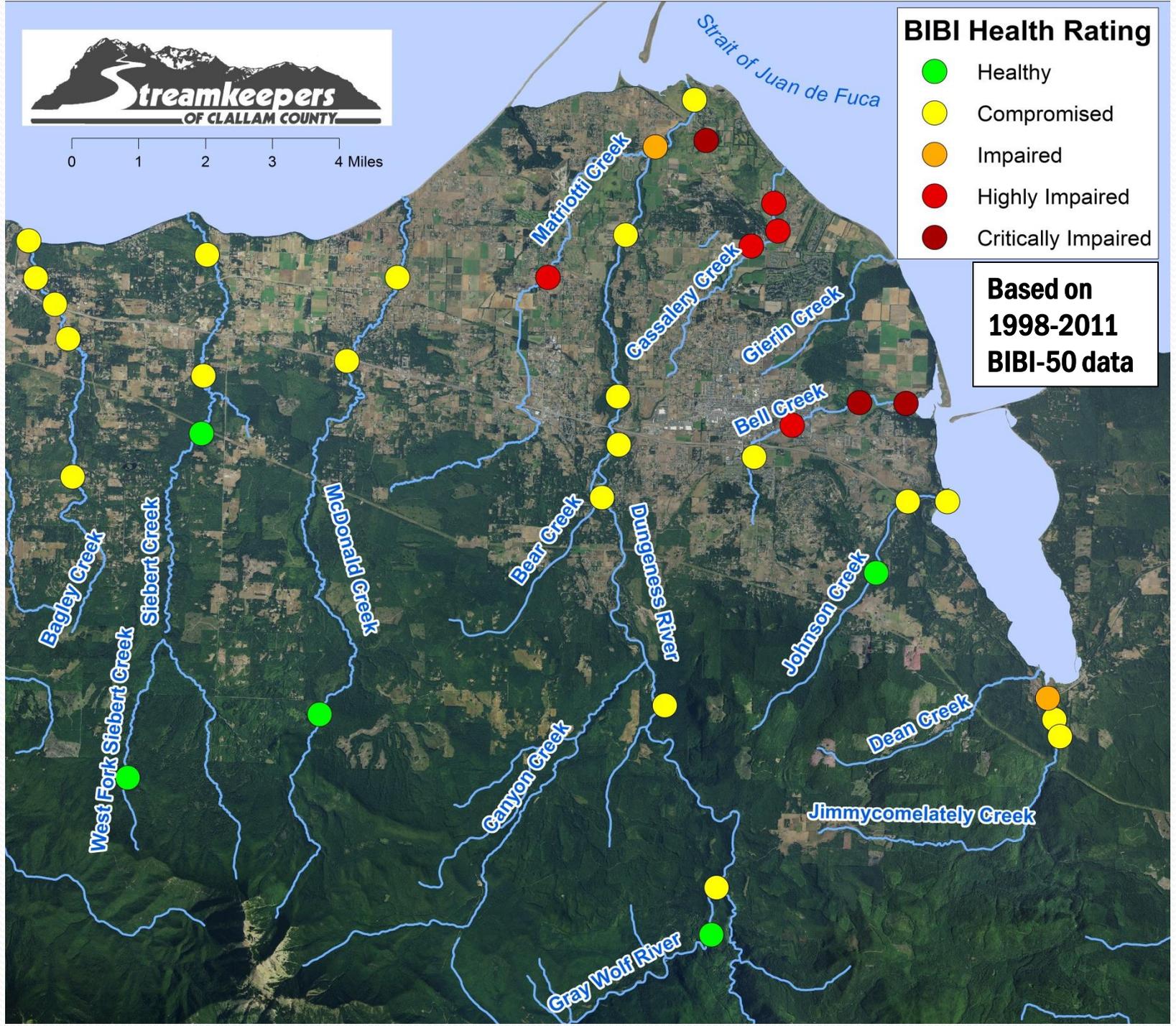


0 1 2 3 4 Miles

BIBI Health Rating

- Healthy
- Compromised
- Impaired
- Highly Impaired
- Critically Impaired

Based on
1998-2011
BIBI-50 data



How could B-IBI fit into local stewardship efforts?

Appropriate to use for:

- Clean Water Act & cleanup plans
- Puget Sound Partnership ecosystem recovery plans
- Local restoration projects
- Local planning instruments

Clean Water Act in WA State



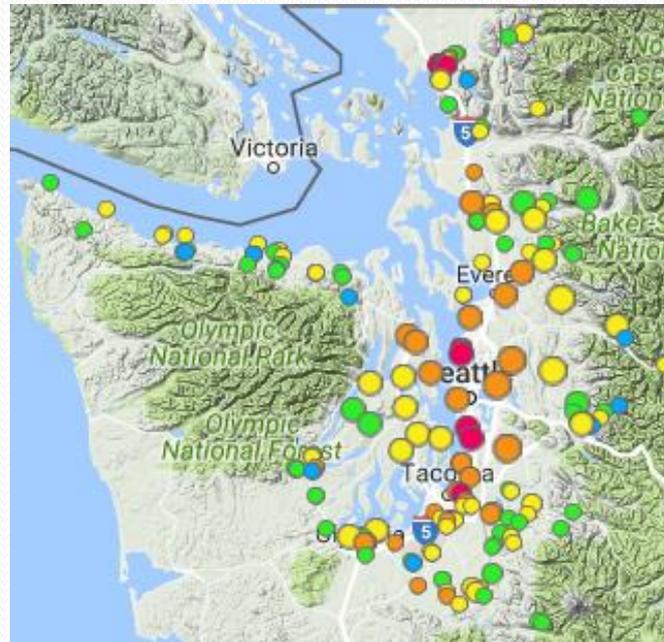
“The objective of this Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters.”

No biologically Impaired sites in WA have TMDL cleanup plans yet.

Recalibration of B-IBI

Puget Sound Stream Benthos

Adopt-A-Stream Foundation
City of Bainbridge Island
City of Bellevue
City of Bellingham
City of Bothell
City of Everett
City of Federal Way
City of Issaquah
City of Kirkland
City of Lake Forest Park
City of Redmond
City of Sammamish
City of Seattle
City of Shoreline
Clallam County



EPA
King County – DNRP
King County – Roads
Kitsap County
NOAA
Pierce County
Skokomish Tribal Nation
Snohomish County
Snoqualmie Tribe
Stillaguamish Tribe
Thurston County
University of Washington
Vashon Nature Center
WA Dept. of Ecology
Wild Fish Conservancy

Regional calibration project makes all B-IBI data in the Puget Sound basin comparable.

Puget Sound Partnership

B-IBI is one indicator of Freshwater Quality



VERSION 2.2 | PHOTO CREDITS: QUALITY OF LIFE - NWPC | WATER QUALITY - KAPRI HOUKALLED

Restoration project planning & eval.

Streams in DRMT area with restoration projects:

- Jimmycomelately →
- Bell
- Cassalery
- Meadowbrook
- Dungeness
- Matriotti
- McDonald
- Siebert



Have these projects recovered the biotic integrity of the streams?

Local planning instruments

- Critical Areas
- Shorelines

B-IBI could help assess the effectiveness of these planning instruments.



Thoughts re: B-IBI

- Data is more meaningful when collected over time: compare to land use, climate change.
- Value of data is high compared to cost, particularly when volunteers collect, sort, and subsample prior to sending to lab.
- Dept. of Ecology requires 2 samples within the prior 10 years to list a site as Impaired.
- The faster we recognize problems, the cheaper remediation will be.

Thoughts going forward

- Decide on a set of sites to sample long-term
- Figure out how to fund (~\$500 per site with SK volunteers to collect, sort, subsample)
- Aim for a 5-year rotating panel
- Collect at least two samples at key sites from 2010-2019 (next Ecology Call for Data)
- Also sample at sites about to undergo localized change: restoration project or land clearance/development