

Dave Croxton, Watershed Unit – Office Manager  
Environmental Protection Agency (EPA) – Region 10  
1200 6th Avenue  
Seattle, WA. 98101

Dear Mr. Croxton,

The Interagency Team (Team) thanks EPA and Ecology for coordinating the June 25<sup>th</sup> presentation and discussion about the use of bioassessment (B-IBI) data in Washington State’s proposed 2014 Water Quality Assessment (WQA). We appreciate the opportunity to provide additional feedback and clarify points raised during the meeting.

While the Team supports use of B-IBI as a tool to determine the health of aquatic systems, we feel that several legitimate and unresolved issues remain which complicate use of B-IBI for the WQA.

Ecology and EPA have updated Water Quality Policy 1-11 (WQP<sup>1</sup>) and utilized B-IBI during the WQA since 2004 without providing the public reasonable assurance that numeric criteria and assessments are based upon credible data and methods, or that the WQP<sup>1</sup> and WQA are consistent with controlling laws. These laws include, but are not limited to, the Federal Clean Water Act and Code of Federal Regulations (40CFR parts 25, 31, 35, 130 and 131), the Washington State Administrative Procedures (chapter 34.05 RCW) and Water Pollution Control Acts (chapter 90.48 RCW).

Water quality assessments resulting in Category 5 listings carry potential regulatory implications for stormwater permittees. Ecology proposes placement of 92 waterbody segments across Washington in Category 5 for B-IBI impairment. According to WQP<sup>1</sup>, placement in Category 5 triggers the State to perform stressor identification studies in order to develop Total Maximum Daily Loads (TMDLs) for the causal pollutants.

Programmatic actions in TMDLs have been included in stormwater permits, costing the regulated community across Washington millions of dollars annually to comply. The Team is concerned about potential regulatory requirements issued to stormwater permittees which are founded upon numeric B-IBI criteria, WQAs, TMDLs, and policy that lack transparency, credibility, and consistency with controlling laws.

For these reasons and those following, **the Team feels that using B-IBI during the WQA is premature and recommends refraining from making listing decisions until EPA and Ecology engage stakeholders in a transparent B-IBI program review process targeting the 2016 WQA cycle.**

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<sup>1</sup> Washington Department of Ecology. July 2012. Water Quality Program Policy 1-11, Chapters 1 and 2

The B-IBI program review should include, but is not limited to, gaining clarity on concerns and documenting the following:

1) Legal basis and rationale

- a. Clarify and document the legal basis and rationale for establishing and using numeric criteria for listing outside the rule-making process.
- b. Clarify and document the legal basis and rationale for invoking the narrative criteria and antidegradation policy to support listings in light of numeric criteria being used as the basis for every proposed 2014 Category 5 B-IBI listing.

2) Technical analysis for numeric criteria

- a. Improve the WQP<sup>1</sup> and Thresholds Rationale<sup>2</sup> necessary to meet the intent of one or more controlling laws.
  - i. Clarify how the assessment of B-IBI data is consistent with 40CFR part 25 and RCW 34.05 when the Thresholds Rationale<sup>2</sup> was distributed to stakeholders in June 2015, 11 years after the first B-IBI listings.
  - ii. Clarify how data used to support numeric criteria development are consistent with RCWs 90.48.570 - 585, when: 1) some of the data was gathered prior to Ecology's 2010 Quality Assurance Project Plan for Ambient Biological Monitoring<sup>3</sup>; and 2) Ecology's Environmental Information Management System shows that the Ambient and Sentinel B-IBI program data were not verified or assessed for use.
  - iii. Document the locations, numbers, eco-type distribution, and dates of samples collected, necessary to meet the intent of RCWs 90.48.570-585.
  - iv. Document the quality assurance and quality control methods and results used to verify credibility of B-IBI data, necessary to meet the intent of RCWs 90.48.570-585.
  - v. Document reference site conditions analysis showing minimal or no human disturbance to ensure credibility of numeric B-IBI criteria.
  - vi. Document details of correlative analysis between reference site River Invertebrate Prediction Classification System and B-IBI scores showing spatial distribution among eco-types, number of samples used, the test statistic, strength of relationships and probabilities of committing type 1 or 2 errors.

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<sup>2</sup> 2015. Braley S. Department of Ecology. E-mail communication including document attachment titled *Establishing Benthic Index of Biotic Integrity (B-IBI) Thresholds for Use in the Water Quality Assessment*. 6 pages. June 11, 2015

<sup>3</sup> Washington Department of Ecology. 2010. *Quality Assurance Monitoring Plan. Ambient Biological Monitoring in Rivers and Streams: Benthic Macroinvertebrates and Periphyton*. Publication Number 10-03-109.

- 3) WQP<sup>1</sup> assessment methods and Category 5 listings
  - a. Describe how the B-IBI methodology is applicable to differing spatial scales. B-IBI methodology is a landscape-scale measure of aquatic health<sup>4</sup>. Category 5 listings are specific hydrologic reach-based assessment units. Applying landscape-scale methods to make specific hydrologic reach-based assessment listings is inappropriate.
  - b. Describe how the WQPs<sup>1</sup> allowed use of B-IBI data regardless of collection methods or corresponding quality assurance project plans is consistent with RCW 90.48.570-585.
  - c. Address inconsistencies between WQP<sup>1</sup>, EPA guidance<sup>5</sup>, and Ecology's Stressor Identification Guidance<sup>6</sup>, relative to identifying a causal pollutant prior to or after a Category 5 listing.
  
- 4) Stormwater permit uncertainties
  - a. Stressor identification studies used to identify causal pollutants often identify numerous pollutants not clearly associated with stormwater runoff. EPA, Ecology and stormwater permittees need to understand the cause and effect relationships between Category 5 B-IBI listings, stressor identification studies, and TMDLs to ensure future stormwater permit requirements have the greatest potential to restore water quality.

**Our principal recommendations are:**

- 1) Document the policy rationale and relationships between the narrative criteria, anti-degradation policy, and use of numeric B-IBI criteria as the basis for listing decisions.
- 2) Perform and document a thorough technical data analysis to: 1) improve transparency, use of credible data, and methods to conduct assessments; and 2) establish numeric criteria supportive of rule-making and updates to WQP<sup>1</sup>.
- 3) Clarify and document regulatory linkages between stressor identification studies supportive of TMDL development and stormwater permitting.

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<sup>4</sup> 2009. DeGasperi C., et al. *Linking Hydrologic Alteration to Biological Impairment in Urbanizing Streams of the Puget Lowland, Washington, USA*. Journal of the American Water Resources Association. Vol. 45, No. 2. Pages 512-533.

<sup>5</sup> 2005, August. *EPA Guidance for 2006 Assessment, Listing, and Reporting Requirements Pursuant to Sections 303(d), 305(b), and 314 of the Clean Water Act*.

<sup>6</sup> Washington Department of Ecology. June 2010. *Guidance for Stressor Identification of Biologically Impaired Aquatic Resources in Washington State*. Publication Number 10-03-036.

Again, the Team appreciates the June 25<sup>th</sup> presentation and looks forward to working with EPA and Ecology to address these matters in order to build public assurance that numeric criteria and assessments are based upon credible data and methods, and that decisions are consistent with controlling laws.

Regards,

The Interagency Team: Clark County, King County, Kitsap County, Pierce County, Snohomish County, Thurston County, and the Washington State Department of Transportation

Cc:

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