



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 10

1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

MAR 19 2008

Reply To: OWW-134

David C. Peeler, Manager
Water Quality Program
Washington Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600DEPARTMENT OF ECOLOGY
MAR 19 2008
WATER QUALITY PROGRAMRE: U.S. Environmental Protection Agency (EPA) Comments on Washington's Draft
2008 Integrated Report

Dear Mr. Peeler:

Thank you for the opportunity to review Washington Department of Ecology's (Ecology's) Draft 2008 Integrated Report (IR). We appreciate the cooperation and work of Susan Braley, Mike Herold, Ken Koch and other Ecology staff during the development of the 2008 IR, especially the coordination prior to the public comment period and the sharing of a pre-public comment draft with EPA staff. We support this early involvement and believe it results in a better understanding of the approaches used to develop the IR and enables meaningful discussions to occur between Ecology and EPA staff that can later expedite EPA's review of the final document.

Please find EPA's comments attached. Our comments are broken out into broader concerns affecting the listing methodology and waterbody specific issues. We have already discussed many of these comments and questions with Ecology staff and requested additional information. As we receive this information from Ecology we will be following up should we have any concerns.

EPA hopes the following comments support Ecology's efforts to develop a sound report. If you have any questions or would like to discuss our comments, please feel free to contact me at (206) 553-6694, or Donna Walsh of my staff at (206) 364-2455.

Sincerely,

A handwritten signature in black ink that reads "David Croxton".
David Croxton

Manager, Watershed Unit

Enclosure

cc: Susan Braley, WDOE
Ken Koch, WDOE
Mike Herold, WDOE
Chance Asher, WDOE

Enclosure 1: EPA comments on WDOE's Draft 2008 Integrated Report

Analysis of Washington's Draft Submission

EPA has reviewed Washington's public review draft of the Integrated Report (IR) and has the following comments on broader listing issues with the State's submission. Comments on specific waters follow. Listing ID numbers are shown in parentheses after the name of the water.

Transparency of Query Tool:

The Water Quality Assessment Simple Query Tool is a very useful and efficient tool. It is very helpful to be able to look up sets of waters by parameter, medium, or category (both for the 2008 IR and the 2004 IR). We appreciate all of the work and thought that went into developing this tool.

However, we have noticed that the query tool is not as helpful as it could be once the user gets to the specific page for the individual water. There are a number of places where the information in the Basis and Remarks sections of the query tool is not very clear.

Because the query tool is the main source of information on specific water bodies in the Integrated Report, it is important that the information in the Basis and Remarks sections of the tool be presented as clearly as possible. Our comments below outline several instances where more specific information in the Basis and Remarks sections of the query tool would resolve our questions.

Bioassessment Listings:

EPA applauds Washington's development of a listing methodology for bioassessment in the 2008 Integrated Report and the inclusion of 13 waters in Category 5 with this parameter. Biological assessment provides a direct measure of the cumulative response of the biological community to all sources of stress and therefore represents a useful indicator of the use support status for aquatic life. EPA supports using biological assessments in determining impaired waters.

However, as we reviewed the draft list and discussed our findings with Ecology staff, we realized that the listing guidance found in the Water Quality Program Policy 1-11 was not followed with respect to the waters listed for bioassessment. Please explain how the listing policy changed and why these changes were necessary.

The policy changes occurred under both the River Invertebrate Prediction and Classification System (RIVPACS), the Ecology endorsed tool, and for waters listed through a second pathway using other bioassessment model information. EPA recognizes and appreciates Ecology's flexibility in using other systems of biological information to list waters under bioassessment. The Clallam County Streamkeepers organization has provided information under the Benthic Index of Biological Integrity (B-IBI). It is not clear from the Water Quality Program Policy 1-11 or the language in the remarks section of the query tool how the Clallam County Streamkeepers information was used. Please explain how the B-IBI information was used in this listing cycle and why the following waters were not listed in Category 5:

Hoko River (47010)
Jimmycomelately Creek (42823)

Enclosure 1: EPA comments on WDOE's Draft 2008 Integrated Report

Lake Creek (42843)
Lyre River (47021)
Pysht River (47025)

Also, it appears from the information provided in the query tool that a different section of Jimmycomelately Creek (40668) from that identified above is in Category 1 and should be included in Category 2.

Contaminated Sediment Listings:

We understand from conversations with your staff that a new segmentation system was used for waters listed for contaminated sediments this year which created more listings than previously identified for this parameter. We also understand that you will be submitting information on how the segments listed for contaminated sediments were changed and tracked from Category 5 of the 2004 Integrated Report to Category 5 of the 2008 Integrated Report.

A problem was identified in looking through the query tool for contaminated sediment listings. Identical language was used in the remarks section of the query tool to describe waters in Category 5 and waters in Category 2. In other words, it is not possible to determine from the information in the query tool which waters should be included in Category 5. This issue was discussed with Chance Asher of the Toxics Cleanup Program. Please describe how this issue will be resolved in the query tool and provide information on how the decisions are made for listing in Category 2 or Category 5 for contaminated sediments.

Listings IDs that Disappeared Between Listing Cycles:

79 listings IDs disappeared from Category 5 in the 2004 query tool to 2004 Category 5 listings in the 2008 query tool. Upon inquiry, Ecology sent EPA a spreadsheet of the listing IDs that disappeared with a brief statement of what had happened to them. Most of these listing IDs were duplicates of other listing IDs or contained information on the same segment as another listing ID. Some of these listing IDs were also put in Category 3. However, it was not clear from the information provided why some of these waters were put in Category 3. For example, it appeared from the information provided that some of these waters should be in Category 1. Please include the documentation for the listing IDs that disappeared from Category 5 with your final Integrated Report submittal and provide more information on the listings that were removed from Category 5 and put in Category 3.

Waterbody Specific Issues

Following are EPA comments on specific waters.

McAllister Creek:

Two segments of McAllister Creek are being delisted. The remarks statement in the 2008 query tool identifies the low DO as being a natural condition for the segment listing ID 7532. The basis and remarks sections of the query tool of the other segment (listing ID 7529) have not been updated and are the same as the basis and remarks statements used to list the water in 2004, though the segment is being put in Category 1 in 2008.

Enclosure 1: EPA comments on WDOE's Draft 2008 Integrated Report

However, Mike Herold, of Ecology staff, stated that this water is being delisted due to the low DO levels being natural.

In the future, we request that the documents supporting such a statement be specifically named and the relevant page numbers in those documents be identified

In this instance, the document was only referenced obliquely: "TMDL 5/2005". However, when the Nisqually Watershed Bacteria and Dissolved Oxygen Total Maximum Daily Load submittal report dated June 2005 was examined, it showed that there was reason to believe the low DO levels found in McAllister Creek, though low in part due to natural causes, are also influenced by anthropogenic sources. On page 46 of the TMDL submittal document the statement is made "While some nitrogen and phosphorus inputs are natural, some are clearly from anthropogenic sources." The second paragraph on page 42 of the document states that though the low DO is somewhat natural, excessive nutrients reduce the DO further than natural levels. Also, there are clearly many human sources of bacteria in the watershed and the increase in bacteria levels is likely to contribute to the higher nutrient levels causing lower DO levels. Finally, the TMDL submittal report does not state that the water segment should be delisted for DO due to natural causes. The statement made in the TMDL submittal report, fourth full paragraph page 46, is that "No load or wasteload allocations will be given in this report for DO or nutrients due to the difficulty in differentiating between natural and anthropogenic sources of nutrients." Though recommendations for nutrient controls are included in the TMDL report, it is not clear that the recommendations made in the report will reduce the nutrient levels to a natural level or fully address the anthropogenic sources of the low dissolved oxygen levels.

Based on the information provided in the Nisqually Watershed Bacteria and Dissolved Oxygen TMDL submittal report, both sections of McAllister Creek should remain listed for DO.

Upper Chehalis Waters:

Eight water segments are being taken out of Category 5 based on the low pH found in the waters being due to naturally acidic conditions. The query tool references the 2000 Upper Chehalis TMDL for DO. However, this TMDL does not discuss the low pH condition. In further discussions with Ecology staff it became clear that the information supporting these delistings would be coming to EPA at a later time. EPA will review the information on these waters when it is provided and will contact Ecology if questions or concerns arise.

The waters that are proposed to be delisted for pH due to naturally acidic conditions are:

Beaver Creek (9490, 41277)
Stearns Creek (12532, 12533)
Lake Creek (12534)
Lost Valley Creek (12535)
Chehalis River S.F. (12536, 12537)

Enclosure 1: EPA comments on WDOE's Draft 2008 Integrated Report

In the future, please provide references to the documents being used to justify the delisting in the query tool. It would be very helpful if the documents were identified by name (and publication number where applicable) and date and if the relevant page numbers were specified.

Lakes delisted for bacteria:

Eight lakes were delisted from Category 5 because the geometric mean criterion was incorrectly applied. A minimum of 5 samples is required to place the water in Category 5 on the basis of the geometric mean. However, waters with less than 5 samples can be listed in Category 5 if at least two samples exceed the percentile criterion. The remarks section of the query tool for each of these 8 waters states that the geometric mean was incorrectly applied and that these lakes had less than 5 samples. However, it does not state the number of samples that were taken or the number of samples that exceeded the percentile criterion. Though the Basis section of the query tool identified the percentage of samples that exceeded the percentile criterion, it is not possible to tell from a statement such as "100 % of the samples exceeded the percentile criterion." whether only one sample exceeded the percentile criterion or more than one sample exceeded the criterion. Please identify the number of samples that were taken and the number of samples that exceeded the percentile criterion for these waters:

Hicks (Garrett) Lake (7484)
Star Lake (10716)
Steel Lake (10717)
Killarney (North Arm) Lake (10724)
Trout Lake (10726)
Echo Lake (12156)

Two of the eight waters identified show percentile criterion percentage exceedances in the Basis section of the query tool that do not make sense for a water with less than 5 samples. For example, Fivemile Lake (10721) shows 55 % of the samples exceeding the percentile criterion and Pine Lake (12160) shows 43% and 41% and 22% of the samples exceeding the percentile criterion. Please clearly explain the reason these waters should be taken out of Category 5, if it is determined that they should be.

Water Segments Moved into Category 4a

The following water segments are being moved from Category 5 to Category 4a. It appears, however, that load allocations were not given for these waters in the TMDLs for these sub-basins. Please explain how the load allocations in the approved TMDLs will result in water quality standards being met in these waters, if it is determined that they should remain in Category 4a.

Clearbrook Creek (6606, 6634) – John Creek DO and fecal coliform TMDL (approved June 2000)
Cook Slough (9777), and Irvine Slough (43042) – Stillaguamish Bacterial TMDL (approved June 2005)
Mill Creek (35386, 35940), Stillman Creek (35393, 35394, 35395), and Unnamed Creek (35396) - - Upper Chehalis Temperature TMDL (approved April 2001)