

May 31, 2005

Ms. Christine Psyk
Manager, Standards and Planning Unit
U. S. EPA Region 10
1200 Sixth Avenue
Seattle, WA 98101

RE: Response to EPA Comments on Washington's 2004 Draft Integrated Report
(Section 303(d) List and 305(b) Report)

Dear Ms. Psyk:

Thank you for your public review comments on Washington's Water Quality Assessment received on December 17, 2004. We have worked closely with Lisa Jacobsen from your unit to adequately respond to the questions and clarifications that EPA needs in order to approve the candidate 303(d) list we are submitting as part of the Water Quality Assessment (hereafter referred to as Category 5). Because many of your comments have been addressed as part of the formal submittal (see the submittal package from Dave Peeler to Mike Gearheard dated June 2, 2005), we have referred to parts of our submittal package in response to your questions where appropriate. Responses to your comments are in the order received in your letter.

1. Insufficient Just Cause

EPA noted several waterbody segments Ecology is delisting that do not give all of the information needed to provide just cause for delisting. Please see Attachment 1 for the individual responses to specific listings of concern. Based on these examples, Ecology understands the need for providing adequate justification for waters moving off the 1998 303(d) list. We have worked to provide justification for all of the appropriate listings. Please see the formal submittal package for full details.

2. Natural Conditions

EPA requested that for all water bodies that are proposed to be delisted because of "natural conditions" for any parameter, Ecology must include the analysis and any documents that are part of the analysis with their Integrated Report submittal. Ecology has complied with this request in the formal submittal package to EPA. Waters that are delisted because of natural conditions will have remarks that provide justification and cite the appropriate documents as back-up.

3. Evidence of Impairment-Temperature and Dissolved Oxygen

EPA requested further explanation of assessment criteria for temperature and dissolved oxygen described in Water Quality Policy 1-11, as well as the use of the binomial distribution methodology. Ecology has provided further justification in the final submittal package.

Ms. Christine Psyk
Page 2
May 31, 2005

4. Evidence of Impairment-Sediments

EPA notes that many of the sediment listings that were moved from Category 5 to Category 2 have one or more samples that exceed the SQS and may have one or more samples that exceed the CSL. It would appear that this combination of sampling results indicates contamination is present and the water body is impaired. In response, Ecology has provided further clarification of sediment listings in the final submittal package to EPA, including a history of sediment 303(d) listings in Washington, and a clarification of the intent behind Policy 1-11, revised September 2002.

We believe this written justification, as well as numerous recent discussions with EPA on the issue of sediment listings, clarifies the confusion and misunderstandings that have occurred with sediment listings for the past few listing cycles. We are confident that the work Ecology has done for this current list to use SEDQUAL sediment data directly, as well as adhering to the Sediment Management Standards for identifying contaminated sediment sites for clean up, provides the most accurate accounting of contaminated sediment listings that we have ever had.

5. Category 4B: Has a Pollution Control Plan

Supporting information for water bodies listed in Category 4B has been provided in the final submittal package to EPA.

6. Category 4A: Has a TMDL

EPA pointed out several listing errors for Category 4A. Please see Attachment 2 for individual responses.

7. Additional EPA Comments

EPA had several miscellaneous comments on specific listings. Please see Attachment 3 for responses to these specific comments.

Thank you for taking the time to provide these detailed comments to Ecology. If you have questions regarding the above responses, or would like further clarification, please feel free to call Susan Braley at 360-407-6414.

Sincerely,


Melissa Gildersleeve, Manager
Watershed Management Section

Attachments

1. Just Cause for Removing from 1998 303(d) List
2. Category 4A (Has a TMDL) Corrections
3. EPA Additional Comments

Attachment 1: Just Cause for Removing from 1998 303(d) List

EPA Concern: EPA noted several waterbody segments in their letter of 12/17/05 that Ecology is delisting that do not give all of the information needed to provide just cause for delisting.

Comment: 6632 *Dakota (Rebel) Creek* *How much data was there? What is the span of time and data collected?*

Response: This listing was on the 1998 303(d) list based on 3 excursions in 1992. More recent data from 2002 calendar year NWIC data provided by S Hood (BFO/ECY) show both Geometric Mean and 90th percentile meet criteria. Original basis said: Dickes, 1992. Three excursions beyond the upper criterion at station D11 in 1992

Comment: 6633 *Dakota (Rebel) Creek:* *Same as above*

Response: This listing was on the 1998 303(d) list based on three excursions in 1992. More recent data from 2002 calendar year NWIC data provided by S Hood (BFO/ECY) show both Geometric Mean and 90th percentile meet criteria. Note that this listing was also a duplicate listing and has been rolled in to Listing ID 6395.

Comment: 8636 *Padilla Bay, Fidalgo Bay* *Same as above*

Response: Newer data in Johnson, 2000 show PCB concentrations in Padilla Bay shellfish tissue meet the NTR criterion. See Ecology Publication #02-03-039, available on Ecology's website.

Comment: 13713 *Bear-Evans Creeks* *Mercury. Too little data provided for just cause. How many samples were taken to determine that chronic criterion was met?*

Response: Recent verification sampling indicates that this water is now meeting standards for mercury. See Johnson, June 4, 2001 Memorandum to Water Quality Program. Subject: Recommendations to Delist or Verify Certain 303(d) Water Bodies for Metals Excursions in Water.

Comment: 7341 *May Creek* *Copper. – Too little data provided for just cause. How many samples were taken to determine that chronic criterion was met?*

Response: Verification Monitoring and samples indicate that this water is meeting standards for copper. See Ecology Publication #02-03-039 and Johnson, June 4, 2001 Memorandum to Water Quality Program. Subject: Recommendations to Delist or Verify Certain 303(d) Water Bodies for Metals Excursions in Water.

Comment: 13152 *Duwamish Water* *Fecal Coliform. – It describes the Monitoring station but does not give number of samples taken. More information is needed for just cause.*

Response: Recent monitoring for past five years shows that fecal coliform standards are being met. Previous listings were on 1984-1989 data. Basis says: King County unpublished data from station 309 (Green River RM 7.0) show standards were met in all samples collected between 1998 and 2002.

Comment: 13168 Newaukum Ck Fecal Coliform. – It describes the monitoring station but does not give number of samples taken. More information is needed for just cause.

Response: A reassessment of data used for previous listings indicate that bacteria standards were met. Basis says: King County unpublished data from station T322 (North Fork Newaukum Creek WDF# 09.122 at RM 2.1) show standards were met in all samples collected in 1998.

Comment: 8187 Springbrook CK Cadmium. – Too little data provided for just cause. How many samples were taken to determine that chronic criterion was met?

Response: Verification of monitoring data (Johnson, 2001) indicate that this water is meeting criteria for cadmium. See Johnson, June 4, 2001 Memorandum to Water Quality Program. Subject: Recommendations to Delist or Verify Certain 303(d) Water Bodies for Metals Excursions in Water.

Comment: 8647 Springbrook Ck Cadmium. – Too little data provided for just cause. How many samples were taken to determine that chronic criterion was met?

Response: Verification of monitoring data (Johnson, 2001) indicate that this water is meeting criteria for cadmium. See Johnson, June 4, 2001 Memorandum to Water Quality Program. Subject: Recommendations to Delist or Verify Certain 303(d) Water Bodies for Metals Excursions in Water.

Comment: 8186 Springbrook Ck Chromium. – Too little data provided for just cause. How many samples were taken to determine that chronic criterion was met?

Response: Verification of monitoring data (Johnson, 2001) indicate that this water is meeting criteria for chromium. See Johnson, June 4, 2001 Memorandum to Water Quality Program. Subject: Recommendations to Delist or Verify Certain 303(d) Water Bodies for Metals Excursions in Water.

Comment: 8644 Springbrook Ck Chromium. – Too little data provided for just cause. How many samples were taken to determine that chronic criterion was met?

Response: Verification of monitoring data (Johnson, 2001) indicate that this water is meeting criteria for chromium. See Johnson, June 4, 2001 Memorandum to Water Quality Program. Subject: Recommendations to Delist or Verify Certain 303(d) Water Bodies for Metals Excursions in Water.

Comment: 8648 Springbrook Ck Copper. – Too little data provided for just cause. How many samples were taken to determine that chronic criterion was met?

Response: Changed from Category 5. Johnson, 2001, studied the validity of metal listings for certain waters and determined all samples were within standards. See Johnson, June 4, 2001 Memorandum to Water Quality Program. Subject: Recommendations to Delist or Verify Certain 303(d) Water Bodies for Metals Excursions in Water.

Comment: 8189 Springbrook Ck Zinc. – Too little data provided for just cause. How many samples were taken to determine that chronic criterion was met?

Response: Verification of monitoring data (Johnson and Golding, 2002) indicate that this water is meeting criteria for zinc. Previous listings were based on data from 1984. See Johnson, June 4, 2001 Memorandum to Water Quality Program. Subject: Recommendations to Delist or Verify Certain 303(d) Water Bodies for Metals Excursions in Water.

Comment: 40091 Case Inlet and Dana Fecal coliform. – Too little data provided for just cause. How many samples were taken to determine that chronic criterion was met?

Response: This listing was based on 1991 data submitted by Mason County. The water body was moved to Category 1 based on “Department of Health unpublished data collected from station NORTH BAY-553 show a geometric mean of 2 cfu/100mL and 0% of samples exceed the percentile criterion with the last sample collected on 10-Dec-2001.”

Comment: 8694 Dyes Inlet and Port Information should be provided when a study is cited. Excerpts from the study need to be part of the IR submission. This is needed to be able to define the term “suspect” data and why it should not be used.

Response: Verification sampling study by Johnson, 2001, provides information that the EA Engineering Science and Technology, 1995 data are suspect and indicates that more recent samples collected by Ecology did not detect DCB in clam tissue or sediment. Reference is not in the Administrative Record. See Johnson, June 4, 2001 Memorandum to Water Quality Program. Subject: Recommendations to Delist or Verify Certain 303(d) Tissue Listings for WRIA 15 – Kitsap Watershed.

Comment: 8698 Dyes Inlet and Port Pentachlorophenol – Too little data provided for just cause. How many samples were taken to determine that chronic criterion was met?

Response: Verification sampling study by Johnson, 2001, provides information that the EA Engineering Science and Technology, 1995 data are in error and indicates that more recent samples collected by Ecology did not detect PCP in clam tissue. Reference for EA Engineering, 1995 is not in the Administrative Record. See Johnson, June 4, 2001 Memorandum to Water Quality Program. Subject: Recommendations to Delist or Verify Certain 303(d) Tissue Listings for WRIA 15 – Kitsap Watershed.

Comment: 39971 Nisqually Reach Fecal coliform. – Too little data provided for just cause. How many samples were taken to determine that chronic criterion was met?

Response: This listing was based on Department of Health Conditionally Approved Commercial Shellfish Area at Filucy Bay based partially on data sampled station 1 that exceed the criterion (from the Annual Growing Area Review ending December 1996). More recent continuous monitoring data shows that fecal coliform standards are being met.

Comment: 7061 Boulder Creek Temperature. – How much data was there? More info is needed for just cause.

Response: More recent monitoring data from 1995 – 1997 shows that temperature standards are being met. Listing will be placed in waters of concern category until further study and monitoring indicates the status of the water. Listing basis states:

Nooksack Indian Tribe unpublished data from station Nooksack-20 (Boulder Creek at Mount Baker Highway) submitted by Sue Blake of Whatcom County on 17 December 2002 shows no excursions beyond the criterion from measurements collected in 1995- 1997

Attachment 2: Category 4A (Has a TMDL) Corrections

EPA Concern: *The water bodies listed in Category 4a need be addressed in an approved TMDL. The following specific comments resulted from our review of category 4a and were, for the most part, contained within our March 15, 2004 comments to Ecology on the integrated report. In addition to the water body specific comments below, EPA's March 2004 comments to Ecology gave examples of numerous water bodies covered by approved TMDLs, but which are not listed in category 4a (or anywhere else in your report). Inclusion of these water bodies on category 4a is recommended in order to maintain an accurate record of waters that are covered by TMDLs in Washington. Those comments are not repeated here.*

Comment: WRIA 39

Numerous Listing IDs

As explained in the 1997 Lower Yakima TMDL, the pesticide targets developed in this TMDL are derived from the chronic aquatic life criteria, and not the more stringent human health criteria. EPA's approval letter (11/25/98) specifically approves the Lower Yakima TMDL for chronic aquatic life (not human health). Because the TMDL was not written to meet the more stringent human health criterion, those waters for which data exists showing that human health standards are not being met, need to remain in Category 5 until a TMDL is developed to meet a human health target. This comment applies to DDT, DDE and DDE listings on the Yakima River, Snipes Creek, Spring Creek, Granger Creek, Sulphur Creek, Side Hollow Creek and Moxee Drain.

Response: Ecology agrees and has made changes to move noted Category 4A listings back to Category 5.

Comment: 6323 Wapato Lake

The Wapato Lake TMDL (WRIA 12), which was approved by EPA on 4/9/1993, was for TP and did not cover fecal coliform and should therefore not be listed in category 4a for fecal coliform.

Response: Ecology agrees and has made changes to move noted Category 4A listings back to Category 5.

Comment: 8919 Wilson Creek

The turbidity / suspended sediment impairments in Wilson Creek (WA-39-1020) have been addressed by an approved TMDL; the dieldrin impairment, however, has not been addressed by an approved TMDL and should therefore not be listed in Category 4a for dieldrin.

Response: Ecology agrees. The Wilson Creek listing was assessed and moved to Category 2 (Listing ID #8919)

Comment: 16696, 3756, 7406 Snohomish River

The Snohomish River (WRIA 7) is not addressed by the Snohomish River Tributaries fecal coliform TMDL approved by EPA on August 8, 2002, and should therefore not be listed in category 4a for fecal coliform

Response: Ecology agrees and has made changes to move noted Category 4A listings back to Category 5.

Comment: 40938 Teanaway

A turbidity TMDL has not been completed for the Teanaway River (WRIA 39); this water body should therefore not be listed in category 4a for turbidity.

Response: Ecology agrees and has made changes to move these back to Category 5.

Comment: 13774, 13732 Duwamish Waterways

The Duwamish Waterway and River TMDL (WRIA 9) addressed these two water bodies for ammonia-nitrogen impairments, and was approved on January 14, 1993. The TMDL approval date is incorrect for one water body (13732); the TMDL is not referenced for the other water body (13774).

Response: Ecology agrees. Corrections were made to the TMDL approval date and Listing ID 13774 was added to Category 4A.

Comment: 7742, 7740, 7741, 7743 Wildcat Creek

The TMDL approval date is incorrect for the Wildcat Creek dissolved oxygen listings (WRIA 12). This TMDL was approved on February 12, 1993 - not July 17, 2000. The Simpson TMDL (approved on July 17, 2000) addressed temperature impairments in Wildcat Creek (not DO).

Response: Ecology reviewed and agrees; changes were made to correct these errors.

Comment: 7659, 7660, 16734, 7663, 7662, 7661 Skokomish River & Purdy Creek

The approval date for the Skokomish fecal coliform TMDL should be corrected to read October 16, 2001 (not 2002) for the Skokomish River and Purdy Creek water bodies listed in category 4a.

Response: Ecology made corrections to the date the TMDL was approved on the appropriate 4A listings. Ecology moved listing ID 7663 back to Category 5 because it was not included in the TMDL/

Comment: WRIs 14, 26, 22

None of the 28 TMDLs covered by the Simpson temperature TMDL (approved by EPA on July 17, 2000) is listed on category 4a. This TMDL included in the following water bodies Rabbit Creek (WRIA 22), Wildcat Creek (22), Glenn Creek (22), Overlook Creek (22), Frigid Creek (22), Beaver Creek (22), Dry Bed Creek, (22), Outlet Creek (22), Bingham Creek (22), Sandstone (22), Cook Creek (22), Bell Creek (22), Replinger Creek (22), Stouder Creek (22), Kennedy Creek (14), Gosnell Creek (14), Rock Creek (14), Decker Creek (22), Stillwater River (22), N.F. Skokomish (16), Wynoochee River (22), N. Mountain Creek (22), Vance Creek (16), E.F. Satsop River (22), W.F. Satsop River (22), Canyon River (22), Little River (22), M.F. Satsop River (22).

Response: Ecology reviewed water bodies in WRIs 14, 16, and 22 for inclusion in the Simpson temperature TMDL, and changes were made as noted.

Attachment 3: EPA Additional Comments

Comment: *Columbia River. There is a 1998 dissolved oxygen listing in WRIA 53 for Lake Franklin D. Roosevelt that has completely disappeared from the list. (Township 28N, Range 33E section 8) What happened to this listing?*

Response: This is listing ID 43029. It goes by the name of Franklin D. Roosevelt Lake. It was on the 1998 list and remains on Category 5 of the 2004 list.

Comment: *Columbia River (8578). This Lake Roosevelt dissolved oxygen listing (WRIA 61) has moved from category 5 to category 2, and no explanation has been provided.*

Response: This listing is in error and should remain on Category 5, with two excursions identified in two years of data. The listing has been corrected to remain in Category 5.

Comment: *Walla Walla (WRIA 32). Water column data published in Ecology's "A Total Maximum Daily Load Evaluation for Chlorinated Pesticides and PCBs in the Walla Walla River" October 2004, Ecology Publication No. 04-03-032 supports additional listings in this WRIA. Did Ecology consider these data?*

Response: Ecology provided two opportunities for data to be assessed for purposes of the Water Quality Assessment and 303(d) list: 1) A call for data was held October through December 2002, and a followup call for data was held January – March 2004. The citation above is October 2004, which is after the public announcements for data to consider. It is possible that some of this data was considered if it had been submitted to the Environmental Information Management (EIM) system and met quality assurance. However, given the date of the final study, we anticipate that the full study results would be part of the 2006 listing process.

Comment: *Walla Walla (WRIA 32). There is a 1998 listing for heptachlor in the Walla Walla River that is not in the proposed 305B list in any category. What happened to this listing?*

Response: Ecology researched this listing and the study (Davis & Johnson, 1994, publication 94-194, and could not find the reference to heptachlor. Rather, there was a reference to heptachlor expoxide that exceeded the screening level. It appears that newer data was available for this same site for heptachlor expoxide, as there is a 303(d) listing for heptachlor expoxide (see ID # 8808) at the same location, from a 1995 study. This is considered a duplicate listing, so the earlier listing was replaced.

Comment: *Walla Walla (6589). There is a temperature listing on the proposed 305B list Category 5 for the Walla Walla River; the listing indicates that it was not on the 1998 list, but our records show that it was.*

Response: Ecology agrees that this was on the 1998 303(d) List and appreciates EPA noting the error. The "on 98 list?" flag was changed from N to Y on 12/21/04.

Comment: *Lower Yakima (8854). The basis for listing segment 8854 indicates that the data was collected from Granger Drain. Should this be a Granger Drain rather than a Yakima River listing?*

Response: This has been reviewed and clarified that it is in fact the Yakima River at the Granger Drain. The waterbody name changed from Granger Drain to Yakima River. Page 5 of the cited reference clearly states the readings were taken on the left bank of the Yakima River (facing downstream) at Granger Drain. Ecology appreciates this clarification, and notes that we have received many that are similar in nature during the 2002/2004 listing process. We are confident that these types of changes continue to improve the overall accuracy and credibility of the Water Quality Assessment results.

Comment: *Pollutant Identification for Bioassay. For Category 5 listings, some of the impairments are listed because of sediment bioassay. Bioassays do not define which parameters are the cause of the listings. Further investigation under the TMDL will define the listing. It would be clearer for the pollutant parameter to be identified as “unknown”. If identifying bioassays involvement is important information for Ecology, perhaps a combination of “unknown-bioassays” would work. This situation is similar to the listings in Idaho where bioassessments show impairment but chemical analysis and source control studies have not been completed.*

Response: We appreciate this comment and will make the change in the table of sediment listings were appropriate.

Comment: *Water Classifications. Water classifications or criteria are not identified for water bodies in the Integrated Report. Yet this information is necessary for the public to determine if sample values are above or below the criteria for the specific water body that is being delisted. It is onerous for the public to determine the relevant criteria in order to determine if waters are impaired or not based on their classification. We encourage Ecology to include this information or make it easily accessible.*

Response: Ecology appreciates efforts to make information more accessible to the public. We have this information available within our database and will look at the feasibility of adding it to the query tool. We should note, however, that at this time, Ecology has submitted new water quality standards to EPA that will move from a classification system to a use-based system. Given this change, it may not make practical sense to spend substantial additional staff time translating the classification system to the public. We are always happy to assist the public on an individual needs basis in finding out information that they may find onerous.

We will agree it would be beneficial to list the criteria in the basis for listing a water body, and hope to provide that information as we have resources and time available. It has taken a tremendous amount of resources to meet EPA’s goals to identify the five categories of waters (as described in the 2002 and 2004 Integrated Report Guidance) so establishment of a database has been our highest priority. We look forward to taking some time after the 2004 list is submitted to EPA to work on the basis statements to make them more substantive and consistent.

Comment: *At the meeting between EPA and Ecology held at EPA Region 10 Seattle Office on 1/19/05, questions were asked of assessment criteria for bacteria. It appears there was a misunderstanding that fecal coliform listings could only be made with a geometric mean of five or more samples. Ecology agreed to clarify assessment criteria for bacteria listings.*

Response: Assessment criteria for bacteria are as follows:

Category 5: A water body may be listed in Category 5 for exceeding either the Percentile criterion or the Geometric Mean criterion or both. If two to-four samples are available, at least two samples must exceed the percentile criterion and ten percent of the samples exceed the percentile criterion to be listed in Category 5. If five or more samples are available, the water will be placed in Category 5 if the geometric mean of samples collected in one year exceeds the Geometric Mean criterion. If fewer than two samples, impairment cannot be determined.

Category 2: A water body will be placed in Category 2 if at least one sample exceeds the criterion and no Category 5 listings resulted from the dataset (Category 2 does not apply to the Geometric Mean criteria).

Category 1: For one to four samples, a water body will be placed in Category 1 if none of the samples exceeded the percentile criterion. For five or more samples, a water body will be placed in Category 1 if none of the samples exceeded the percentile criterion and no category 5 listings resulted from the Geometric Mean Analysis.