

May 31, 2005

Ms. Heather Trim
People for Puget Sound
911 Western Avenue, Suite 580
Seattle, WA 98104

Dear Ms. Trim:

Thank you for your public comment letter received on December 20, 2004, regarding Washington State's Water Quality Assessment for 2002/2004. The department received over 45 comment letters during this last review process and is appreciative of the time you took to review and comment on this assessment. We realize that there is an extensive amount of information in the Water Quality Assessment. The scrutiny given by you and other public reviewers has resulted in many changes and corrections that improved the accurateness of the final submittal to the Environmental Protection Agency (EPA).

The Water Quality Assessment is being submitted to EPA as an "integrated report" to meet the Clean Water Act requirements of sections 305(b) and 303(d). EPA will only take approval action on Category 5 of the assessment, which represents the state's 303(d) list. The Water Quality Assessment can be viewed at <http://www.ecy.wa.gov/programs/wq/303d/index.html>.

Responses to your specific comments, noted below, correspond in the order provided in your letter.

1. Public Review

You expressed concerns that it was difficult for you to determine what changes were made between the 2002 and 2004 draft category lists, particularly for sediment listings. We agree that changes between the two drafts for sediment listings were very challenging, especially since we discovered (as a result of the first review) that the translation of sediment data from the SEDQUAL database (Toxic Cleanup Program's sediment database) resulted in locational mistakes, which appeared to occur from trying to merge the SEDQUAL database into the water quality (WATS) database. After confirming numerous errors and inaccuracies in trying to merge the SEDQUAL information into the WATS database, it was determined that sediment listings would be most accurately reflected using the SEDQUAL database information directly in a separate table. Therefore, listings for the categories for sediment were listed separately from the water column listings (sediment listings no longer show up in the water quality database, WATS, of information). Because the errors and inaccuracies were numerous, Ecology did not list changes individually, but instead provided an overall explanation on why the sediment listings appeared different in the second review. During the public review period we tried to make ourselves available to address individual or specific questions on the listings, either through phone or email, and hoped that you considered calling us for assistance if you weren't able to find what you needed.

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Based on your suggestion, we are making the draft assessment information for both the January 2004 and November 2004 versions available on the website, so that viewers can compare between the draft listings.

2. Unclear language in the “call for data” for the 2004 list

Ecology believes that information provided on the public review made it clear that new data was being accepted. In the meeting notice provided to the public, it was stated that “during this review, Ecology will also accept new data that were not submitted during the 2002 call for data.” It was also stated clearly during presentations in the public workshops. Finally, there were separate webpages devoted to submitting new data versus making comments on the draft 2002 list. We received over 30 data sets as a result of the call for data, and assessed a significant amount of new data.. However, given your expressed concerns, we will strive to improve our public announcements in future listing cycles.

3. Difficult to track data

We apologize for your difficulty in tracking down data. Often, if people are looking for a specific data set, they contact us directly and we can pull the actual file or study. You are correct that the published studies on the website were only updated as of January 2002. We have fully updated the list of published studies for submittal to EPA, and I am including a copy of that with this letter. Also, please note that the list of data submitters for both the 2002 and 2004 reviews were in the same document on the webpage. The second call for data can be found on page 1, the first call for data submitters are on pages 2 and 3. I have also enclosed a copy of both the published studies and the list of data submitters (Attachments 1 & 2) for your information.

4. Lack of federal data

The department believes we made a reasonable effort to obtain sources of water quality data and information through the “call for data” process. The public announcement (as well as a very comprehensive mailing list) was used to solicit data from state, federal and local agencies, tribal governments, and other members of the public. There are thousands of governmental studies and we do not have staff resources to sort through every study looking for those that have water quality data in them. Instead, we have relied on accessing monitoring data through the National Watershed Information System (NWIS), sponsored by the U.S. Geologic Service, which is the system that several federal resource agencies use to store data they collect. We also rely on agencies and others to submit studies and data directly to our attention, including the verification that proper quality assurance methods were used in accordance with Policy 1-11. At the same time, Ecology itself has both published and unpublished data that we assess as part of this process. The results have produced thousands of records of data.

5. Few assessments based on narrative standards

Category 4C listings are based largely on narrative standards. Category 4C lists over 450 waterbody segments impaired by *pollution*, which includes impairments to fish habitat, instream flow, bioassessments, and invasive exotic species. Impairment listings in 4C are driven by narrative standards, since water quality numeric criteria largely do not exist for *pollution* impairments, as defined by EPA.

We did review the information you cited in the NOAA Ecotoxicology and Environmental Fish Health Program in relation to listing Longfellow Creek as impaired for fish habitat . The study you cited appears to be a study of PaHs that affect the embryonic cycle of zebra fish, and while it appears some sites in Alaska and laboratory tests were used as part of the study, we could find no

reference to Longfellow Creek and silver salmon. Therefore, we were unable to use this information as justification that Longfellow Creek is impaired for salmon habitat.

6. Water bodies delisted with inadequate justification

For water column listings, we have provided justification in the remarks section for waterbody segments that moved off the 1998 303(d) list. In addition, all of this information is listed separately on the Water Quality Assessment webpage.

For sediment listings, we are not able to directly correlate the 1998 303(d) listings with the current Category 5 list because of data screening criteria differences (e.g., age, depth and geographic coordinates, size of grid), and therefore, do not have justifications for each parameter listed in 1998. Instead, we have provided overall justification to EPA on the 2004 list and the steps that went into developing the list in accordance with Policy 1-11. A copy of the justification is enclosed with this letter (Attachment 3)

The 1996 and 1998 lists were based solely on the contents of the Toxics Cleanup Program's *Contaminated Sediment Site List* which only included Puget Sound chemical and biological data with cleanup screening level (CSL) exceedances and did not include sediment quality standard (SQS) exceedances. The current listing process identifies SQS exceedances as well. In accordance with Policy 1-11 (WAC 173-204-510), grid sites identified as sediment station clusters of potential concern (showing three exceedances of the CSL) are placed on Category 5. Grid sites with less than three CSL hits, or with one to three SQS hits, are placed on Category 2, Waters of Concern.

We did find errors in the draft Water Quality Assessment that went out in both the January 2004 and November 2004 public reviews for sediment listings, where grid sites with SQS hits were inadvertently listed on Category 5. These listings have been moved to Category 2, since they did not meet the intent of Policy 1-11.

There were some Duwamish listings affected by this listing error, which I wanted to bring to your attention. The Duwamish listings that moved to Category 2 are:

T24N-R04E-S18: Hexachlorobenzene, 1,2,4-Trichlorobenzene
T24N-R04E-S19: Bis(2-ethylhexyl)phthalate; Arsenic; Zinc, Copper, Mercury
T24N-R04N-S30: Hexachlorobenzene; Sediment bioassay; 1,2,4-Trichlorobenzene
T24N-R04N-S32: 1,2,4-Trichlorobenzene, Hexachlorobenzene
T24N-R04N-S33: 1,2,4-Trichlorobenzene, Hexachlorobenzene

We want to emphasize that whether sediment listings are on Category 5 or Category 2 does not affect the contaminated site investigations and remedial work that are occurring with the Toxics Cleanup Program efforts, so we do not expect the change in categories to impact priority work being done in the Duwamish River.

Responses to your specific questions on the Duwamish River are as follows:

a. Category 5 sediment listing from 2002 draft not found in the 2004 draft:

The Duwamish River listing in the November 4, 2004 draft that cites a township-range-section (TRS) of "23N-04E-02" was incorrectly entered and should have read "23N-04E-04". The "2002 draft" did not have any Duwamish River listings for 23N-04E-02. This location has been corrected in the final submittal to EPA.

b. Water bodies listed for sediment bioassay not found in 2004 draft:

Duwamish River 23N-04E-18. Bioassay listings were rechecked by the Toxics Cleanup Program and this listing was determined to be in Category 2.

Duwamish River 23N-04E-04. The TRS correction that was noted above corrects the sediment bioassay listing for this TRS. The final submittal to EPA includes sediment bioassay at TRS 23N-04E-04.

7. Delisted from 1998 Category 5 with inadequate justification

- a.** #13152-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.”
- b.** #6632-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. Original basis said: Dickes, 1992. Three excursions beyond the upper criterion at station D11 in 1992
- c.** #7148-This listing was reviewed by Department of Ecology Coastal and Estuarine Assessment Unit staff, who concluded that these exceedances are a natural condition and there are insufficient human influences in this area to produce significant temperature increases. This listing is from a small and/or shallow enclosed or semi-enclosed water body which is subject to substantial increases in natural thermal warming.
- d.** #7973-The original listing was not based on actual data, and therefore was listed in error. This listing basis stated “Glenn, 1996.: The nickel criterion has a reasonable potential of exceedance at the chronic mixing zone boundary of the Stanwood Discharge.” A review of the documentation indicates that the listing was not based on exceedance of actual data. Because no data was available on which to base the listing, this listing was inactivated.

8. Unexplained 4A listings

Ecology worked closely with EPA during this last public review to accurately identify all water bodies now covered by an approved TMDL to be placed in Category 4A. The listings for #13774 and 13732 are part of the Duwamish Waterway and Green River Ammonia-N TMDL approved by EPA 1/14/93. This has been added to the remarks.

9. Category 2 assessment should be included on the 303(d) list

Policy 1-11 describes assessment criteria for sediment on pages 22-23. This criterion was used for sediment listings. The Sediment Management Standards include sediment cleanup standards that were used as a basis for determining waterbody segments that should be included on the 303(d) list for sediment. Category 2 listings include those that are defined in the sediment cleanup standards as a “station cluster of low concern.” The department does not agree that station clusters of low concern are threatened.

10. Category 4 assessments should be included on 303(d) list

Ecology followed EPA Guidance for the Integrated Report. To quote page 5 of the 2004 Guidance, "Waters belong in Category 4 if one or more designated uses are impaired or threatened but establishment of a TMDL is not required." Therefore, it is appropriate that these waterbody segments remain in Category 4.

11. Invasive Species

We appreciate the reference cover page that People for Puget Sound forwarded to Ecology on the eradication of *Spartina* in Puget Sound by the Department of Agriculture. The reference focuses on eradication efforts and did not include actual data locations or quality assurance protocols for identification of specific *Spartina* listings. Because listing information was not provided, we did not consider using the information for specific location listings in Category 4C during this listing cycle. We could not find any tabular data that shows locations.

We have however, been in contact with Department of Agriculture staff to see if we can obtain information on location data that could be used to geo-locate the infestations, which we will then include in the 2006 listing process. If we are able to obtain location information, such as through GIS shapefiles, we will be able to assess locations in terms of Grid Cells for the open water areas of infestation.

We support the work that WSDA is doing, in cooperation with People for Puget Sound and others, and have included this report as part of the Water Quality Assessment submittal to EPA

12. Forest Practices rules

The department appreciates the comment.

13. Previous comments

a. Puget Sound listed separately

We understand your frustration, but are unable to change the way Puget Sound is captured in our assessment database. Ecology uses the Water Resource Inventory Areas (WRIAs) as a basis for locational information and we have remained consistent with the Water Quality Assessment. One argument for using WRIAs is that Puget Sound is so large. For purposes of assessing and improving water quality, trying to describe it as one area would make it difficult to track what fresh waters are flowing into what parts of the Sound. The WRIA allows these fresh waters to be tracked to the part of the Sound they affect.

However, to assist you and others in being able to view a list of Puget Sound waters, I asked staff to go through a process for identifying all waters in Puget Sound based on other locational data. We have provided this list on the website for the 2004 Water Quality Assessment.

b. Problems in the Guidance Policy

i. Listing water bodies by township/range.

The township/range/section was used in the 1998 303(d) list. And, although the department considered changing the segmentation system for the 2002/2004 list, we decided not to change after considering the many changes being requested by EPA, especially adding the five categories of waters. Ecology has been working closely with the other state resource agencies to eventually move to a new segmentation system, based on the Lat Long Identification (LLID). This segmentation system will use the lower route address for location purposes, which is more in keeping with a hydrologic basis for dividing the water body. The map system will also be at a

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smaller scale (1:24,000). It may not be ready for the 2006 listing cycle, since the project is behind schedule and not expected to be available until some time in 2006.

ii. Exotic species should be listed as a pollutant

Ecology used Policy 1-11 as a basis for listing in Category 4C, which includes a description of listing for Category 4C based on "loss of habitat due to invasive exotic species." Ecology believes that invasive exotic species are a habitat impairment and would not be cleaned up through TMDL load allocations or loading capacities. The control and prevention of invasive exotic species are more appropriately dealt with by agencies that have control of ballast water, shipping, and other avenues for introducing them into the environment. As with other Category 4C listings, Ecology will include descriptions of other agency programs responsible for dealing with these habitat-related concerns when it submits its final water quality assessment to EPA.

iii. Habitat impairments should be listed as Category 5

Ecology followed EPA guidance which recommended that waters be placed in Category 5 when the impairment is caused by pollutants, thus requiring a TMDL. Habitat impairments without a link to a pollutant are placed in Category 4C. If a pollutant is linked to the impairment, the pollutant is identified and the water is placed in Category 5. This is described in page 8 of the EPA Integrated Report Guidance for 2004.

iv. Inclusion on Health Warnings in the Assessment

This comment on Policy 1-11 will be considered during revisions to the Policy for the 2006 listing process.

14. TMDL Prioritization

Comment noted. The prioritization of TMDLs is described in Section 11 (page 31) of Policy 1-11. I have also included a document describing the Prioritization of TMDLs for the 2002/2004 list (Attachment 4).

Thank you again for taking the time to provide comments to Ecology. We realize that you may not be fully satisfied with this written response, given the extent of your comments and your interest in the Duwamish River listings. We would be happy to meet with you to discuss your comments more fully, and could invite EPA and Toxics Cleanup Program staff as well. Please feel free to call me at 360-407-6414 if you would like to meet or need further clarification.

Sincerely,



Susan Braley
Unit Supervisor

Watershed Management Section

Enclosures

1. Published Studies from 2002 and 2004 data submittals
2. List of data submitters for both 2002 and 2004
3. Justification for Sediment Listings moving off of the 1998 303(d) List
4. Prioritization of Category 5 for the 2002/2004 Washington Water Quality Assessment