

## STATUTORY AND REGULATORY BACKGROUND

### **I. Identification of WQLSs for Inclusion on Section 303(d) List**

Section 303(d)(1) of the Clean Water Act (CWA or the Act) directs States to identify those waters within its jurisdiction for which effluent limitations required by Section 301(b)(1)(A) and (B) are not stringent enough to achieve any applicable water quality standard, and to establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters. The Section 303(d) listing requirement applies to waters impaired by point and/or nonpoint sources, pursuant to the EPA's long-standing interpretation of Section 303(d).

The EPA regulations provide that States do not need to list waters where the following controls are adequate to implement applicable water quality standards: (1) technology-based effluent limitations required by the Act, (2) more stringent effluent limitations required by State or local authority, and (3) other pollution control requirements required by State, local, or federal authority. See 40 CFR 130.7(b)(1).

### **II. Consideration of Existing and Readily Available Water Quality-Related Data and Information**

In developing Section 303(d) lists, States are required to assemble and evaluate all existing and readily available water quality-related data and information, including, at a minimum, consideration of existing and readily available data and information about the following categories of waters: (1) waters identified as partially meeting or not meeting designated uses, or as threatened, in the State's most recent Section 305(b) report; (2) waters for which dilution calculations or predictive modeling indicate nonattainment of applicable standards; (3) waters for which water quality problems have been reported by governmental agencies, members of the public, or academic institutions; and (4) waters identified as impaired or threatened in any Section 319 nonpoint assessment submitted to the EPA. See 40 CFR 130.7(b)(5). In addition to these minimum categories, States are required to consider any other data and information that is existing and readily available. The EPA's 1991 Guidance for Water Quality-Based Decisions describes categories of water quality-related data and information that may be existing and readily available. (EPA, 1991) While States are required to evaluate all existing and readily available water quality-related data and information, States may decide to rely or not rely on particular data or information in determining whether to list particular waters.

In addition to requiring States to assemble and evaluate all existing and readily available water quality-related data and information, the EPA regulations at 40 CFR 130.7(b)(6) require States to include as part of their submissions to the EPA documentation to support decisions to rely or not rely on particular data and information and decisions to list or not list waters. Such documentation needs to include, at a minimum, the following information: (1) a description of the methodology used to develop the list; (2) a description of the data and information used to identify waters; and (3) any other reasonable information requested by the Region.

### **III. Priority Ranking**

The EPA regulations also codify and interpret the requirement in Section 303(d)(1)(A) of the Act that States establish a priority ranking for listed waters. The regulations at 40 CFR 130.7(b)(4) require States to prioritize waters on their Section 303(d) lists for total maximum daily load (TMDL) development, and also to identify those WQLS targeted for TMDL development in the next two years. In prioritizing and targeting waters, States must, at a minimum, take into account the severity of the pollution and the uses to be made of such waters. As long as these factors are taken into account, the Act provides that States establish priorities. States may consider other factors relevant to prioritizing waters for TMDL development, including immediate programmatic needs, vulnerability of particular waters as aquatic habitats, recreational, economic, and aesthetic importance of particular waters, degree of public interest and support, and State or national policies and priorities. (EPA, 1991)

## ANALYSIS OF WASHINGTON'S SUBMISSION

### **I. Identification of Waters and Consideration of Existing and Readily Available Water Quality-Related Data and Information.**

The EPA has reviewed Washington's submission, and has concluded that the State developed its Section 303(d) list in compliance with Section 303(d) of the Act and 40 CFR 130.7. The EPA's review is based on its analysis of whether the State reasonably considered existing and readily available water quality-related data and information and reasonably identified waters required to be listed.

#### **A. Washington's List Development Process**

Washington's 2008 303(d) list was used as the starting point for developing the 2010 303(d) list and followed the protocols laid out in Water Quality Policy 1-11, March 2011. (Ecology, 2011) Washington actively sought data collected by other federal agencies, state agencies, tribes, local governments, watershed councils and private and public organizations and individuals. A call for data was published in the State Register on August 5, 2009 announcing the dates for submittal of information from August 5, 2009 to October 15, 2009. Postcards were sent to over 300 names on the State's mailing list including federal, state, and local government agencies and other people expressing an interest in being on Ecology's mailing list. Ecology also uses an electronic mailing list. New data is required to be submitted to Ecology through the Environmental Information Management (EIM) System. Ecology held four training sessions (two in Lacey, one in Seattle and one in Moses Lake) between August 13 and September 3, 2009 to provide information on the assessment and data submission process and the use of the EIM system.

After the call for data, Ecology evaluated the data and prepared a statewide assessment. Approximately 2 million sample data values were reviewed. Ecology's 2010 Water Quality Assessment database contains over 25,000 water quality records.

## Enclosure 1: EPA Review of Washington 2010 303(d) Integrated Report

Ecology prepared a draft list of impaired waters using data they collected and data received during the public processes that met QA/QC criteria and were consistent with Washington's listing methodology. Ecology communicated its preferred data collection methods and QA/QC requirements to the public in its Water Quality Policy 1-11, which can be found on Ecology's website.

The draft 2010 IR and list of water quality limited waters were presented for public comment from June 16 to August 16, 2011. An announcement was published in the State Register on June 15, 2011. Workshops on the 2010 Integrated Report and list of water quality limited waters were held in Lacey on July 11, 2011, and in Seattle on July 19. Letters were also sent to the Tribal Chairperson and Natural Resource Director for each of the Washington Tribes, inviting them to participate in a pre-public review and comment period.

Ecology mailed its initial documentation for the 2010 IR to the EPA on December 28, 2011. It was received by the EPA on January 3, 2012. On January 12, 2012, Michael Bussell, Director of the EPA Region 10's Office of Water and Watersheds, sent a letter to Kelly Susewind, Program Manager of the Water Quality Program at Ecology, stating that the submission was incomplete and that further documentation would be required before any EPA action could be taken. On March 20, 2012, some of the documentation was provided to the EPA and on June 8, 2012, Ecology mailed the final required documentation to the EPA. It was received on June 13, 2012.

### **B. Public Participation**

For the 2010 303(d) list, Washington solicited data from August 5 to October 15, 2009, seeking technical information and data on the conditions of Washington's surface waters. Data received during this call for data period and data collected by Ecology were used to develop the draft Integrated Report and 303(d) list. The draft 2010 Integrated Report and 303(d) list were released for public review from June 16 to August 16, 2011. The public comment periods provided the public an opportunity to look at and comment on the Integrated Report, including the draft 303(d) list. Ecology provided a Response to Comments on Washington's 2010 Integrated Report and 303(d) list, with their submission. In their Response to Comments, Washington responded to general comments, waterbody specific comments and comments on ocean acidification.

### **C. The EPA's Review Process**

Because Ecology is in the process of changing their water segmentation method, which will impact freshwater listings, it chose to utilize a rotating basin approach and focus the 2010 303(d) list on marine waters. The new segmentation will be in effect before the submittal of the 2012 303(d) list, which will therefore focus on freshwater.

The EPA reviewed all of the documentation that Washington submitted on December 28, 2011, March 20, 2012 and June 8, 2012. The EPA also reviewed an on-line version of Washington's database, which is available via Internet at: <http://www.ecy.wa.gov/programs/wq/303d/2010/index.html>. Using the on-line database called the Water Quality Assessment Simple Query Tool, the EPA reviewed the waters in Category 5 in 2008 and the category in which they were found in 2010. The EPA also identified waters found

in Categories 1, 2, 4a and 4b in 2008 that had moved to Category 5 in 2010. The Simple Query Tool can also be used to identify waters by parameter or location. Ecology also provided the EPA with spreadsheets which summarized changes to Categories 5, 4a and 4b, as well as “inactivated” listings which were the result of errors or duplications. The basis and rationale each of these changes was based on were reviewed by the EPA.

The EPA reviewed both the waters that were removed from the 303(d) list and the waters that were added to the 303(d) list. The on-line database allowed greater accessibility to supporting data and records for individual water bodies. The EPA extensively reviewed Washington’s drafts and final 2010 303(d) lists, listing methodology and priority ranking, as well as the data solicitation and public participation processes. Ecology has provided descriptions of the data and information considered.

The EPA concludes that the State properly assembled and reasonably evaluated all existing and readily available data and information, including data and information relating to the categories of waters specified in 40 CFR 130.7(b)(5). The State provided to the EPA its rationale for not relying on particular existing and readily available water quality-related data and information as a basis for listing waters.

## **II. Waters not listed for Water, Tissue, Sediments and Other Mediums**

There are 4009 active water body segment/pollutant records on Washington’s 2010 303(d) list. Of these, 3260 waterbody segment/pollutant pairs are listed for parameters associated with water, biological tissue, or habitat mediums and 749 water body segment/pollutant pairs are listed for contaminated sediments. Of these, 849 new waterbody segment/pollutant records were added during the 2010 303(d) list cycle, including 538 new sediment listings. During the 2010 cycle, Washington removed 313 previously listed water body segment/pollutant pairs from Category 5, including 6 sediment listings. The EPA’s review of these exclusions from Category 5 is detailed below. Enclosure 2 documents the EPA’s additional review of Ecology’s analysis of data and information regarding ocean acidification and its justification for excluding waters from Category 5 for impairments of water quality standards that could be related to due to ocean acidification (e.g., marine pH and narrative criteria related to aquatic life designated uses). An additional 812 inactivated records were removed. The EPA’s review of those records is also included below.

### **A. Waters not required to be listed**

1. Waters Not Listed Due to Water Quality Standards Attainment. Ecology removed 41 water body segment/pollutant pairs (including one sediment listing) from the 303(d) list because information shows they were meeting standards. The EPA believes Ecology removed these water body segments/pollutant pairs from Washington’s Section 303(d) list in compliance with Section 303(d) of the Act and 40 CFR 130.7 and in a manner consistent with Ecology’s listing methodology. The EPA concludes Ecology reasonably considered existing and readily available water quality-related data and information and reasonably identified water body segments to be removed from the list because data showed water quality standards were being met. The EPA has determined the removal of these water segments is consistent with 40 CFR 130.7(b)(6).

2. Waters Not Listed Due to TMDLs Approved. Ecology removed 255 water bodies paired with a pollutant from the 303(d) list based on the EPA approval of TMDLs for these waterbodies. These 255 water bodies were placed in Category 4A, TMDL Approved, of the 2010 Integrated Report. Under the EPA regulations at 40 CFR 130.7, the 303(d) list is an inventory of waterbodies impaired by a pollutant and requiring a TMDL. The EPA has determined that Ecology's removal from the 303(d) list of 255 water segments with an EPA approved TMDL is consistent with the requirements of 40 CFR 130.7.

3. Waters Not Listed Because Other Pollution Control Requirements Will Result in Attainment of Water Quality Standards Within a Reasonable Time. Ecology placed 846 new WQLS in Category 4b during the 2010 303(d) List cycle because other pollution control requirements are in place. All were sediment listings, and included nine waterbodies. States are not required to list WQLSs still requiring TMDLs where effluent limitations required by the CWA, more stringent effluent limitations required by State or local authority, or other pollution control requirements required by State, local, or federal authority, are stringent enough to implement applicable water quality standards. The regulation does not specify the time frame in which these various requirements must implement applicable water quality standards to support a State's decision not to list particular waters. Waterbodies with other appropriate pollution control requirements in place may be placed in Category 4b.

The 2010 Integrated Report identifies waterbodies in ten total locations (see Table 1) that exceed the sediment cleanup screening level for one or more pollutants and that have a cleanup plan under the state's Model Toxics Control Act (MTCA) regulations or the federal Comprehensive Environmental Response Compensation and Liability Act (CERCLA) regulations. The State's decision not to include 1504 total sediment waterbody/pollutant pairs from these ten locations on its 2010 Section 303(d) list, and to place those waters in Category 4b is consistent with the EPA regulations at 40 CFR 130.7(b)(1) for the following reasons.

Under 40 CFR 130.7(b)(1), States are not required to list WQLS still requiring TMDLs where effluent limitations required by the CWA, more stringent effluent limitations required by State or local authority, or other pollution control requirements required by State, local, or federal authority, are stringent enough to implement applicable water quality standards. For the waterbodies placed in Category 4b, Ecology has determined that the state and federal cleanup programs, MTCA and CERCLA, respectively, are "other pollution controls" which are stringent enough to implement water quality standards.

In the "Listing Basis" for each of the 1504 sediment WQLS placed in Category 4b, Ecology has specified the segment (or grid) description; whether the cleanup has an approved Record of Decision (for the EPA lead CERCLA sites) or a Cleanup Action Plan (for state led MTCA sites); and the current status of the project. The enforcement authorities and requirements for each waterbody are either from the State's *Model Toxics Control Act (MTCA) WAC 173-340*, or from the federal *Comprehensive Environmental Response Compensation and Liability Act (CERCLA) Title 42 CFR 103* cleanup programs. During the 2008 listing cycle, Ecology documented that the RODs and Cleanup Action Plans developed for each of the contaminated sediment sites listed in

Category 4b address the remaining elements required by the EPA for a Category 4b designation, including:

- Description of the remedy/cleanup goals and how they will achieve the Sediment Management Standards.
- A projected timeframe when the Sediment Management Standards will be met.
- Schedule for implementing the remedy based on the Sediment Management Standards requirements.
- Operation and Maintenance plan that includes monitoring to determine effectiveness of the remedy.
- Adaptive management plan to revise the remedy if necessary.

In order to be included in Category 4b in future listings, the EPA requests that Ecology analyze recent monitoring data for each of the waterbodies included in Category 4b (e.g. Table 1) and provide that analysis with the Integrated Report. This analysis should consider the most recent monitoring data for the waterbodies / pollutants present at the MTCA and CERLCA sites that have been placed in Category 4b. If these data indicate an increase in pollutant concentrations, the 4b analysis must include a discussion of ongoing sources; an explanation of the way in which the adaptive management process will address recontamination; and an assessment of whether or not water quality standards will be obtained within the timeframe given in the Clean-up Plan or ROD.

**Table 1**  
**Waters Excluded from Category 5 and Placed in Category 4b for Sediment**

Budd Inlet (Inner)  
Commencement Bay (Inner)  
Dalco Passage & East Passage  
Duwamish Waterway  
Eagle Harbor  
Elliott Bay  
Hood Canal (North)  
Liberty Bay  
Sinclair Inlet  
Thea Foss Waterway

The EPA also requests that Ecology analyze recent monitoring data for each of the additional 84 WQLS for water, tissue and other mediums listings that have been placed in Category 4b during previous listing cycles. If these data indicate an increase in pollutant concentrations, the 4b analysis must include a discussion of ongoing sources; an explanation of the way in which the adaptive management process will address recontamination; and an assessment of whether or not water quality standards will be obtained in a reasonable amount of time, as well as a timeline for such achievement.

Where standards will not be attained through implementation of the requirements listed in 40 CFR 130.7(b)(1) in a reasonable time, it is appropriate for the water to be placed on the Section 303(d) list to ensure that implementation of the required controls and progress towards compliance with applicable standards is tracked. If it is determined that the water is, in fact, meeting applicable standards when the next Integrated Report and 303(d) list are developed, it would be appropriate for the State to remove the water from Category 4b and place the waterbody in Category 1 at that time.

4. Waters removed from the list or not listed because they comply with the natural conditions water quality standard. The term natural condition describes the quality of water that exists in the absence of human-caused pollution or disturbance. Two WQLS were removed from the Category 5 and placed in Category 2 due to natural conditions for dissolved oxygen. Washington water quality standards regarding DO due to natural conditions read as follows: “When a water body's D.O. is lower than the criteria in Table 200 (1)(d) (or within 0.2 mg/L of the criteria) and that condition is due to natural conditions, then human actions considered cumulatively may not cause the D.O. of that water body to decrease more than 0.2 mg/L.” WAC 173-201A-200 (1)(d)(i). Ecology’s listing policy 1-11 states that, “For waterbodies that appear to have natural conditions sufficient to override human influences, but the information is not conclusive, the waterbody segment will be placed in Category 2” (Ecology, 2011). The natural conditions are sufficient to account for the slight water quality excursions in these waters. Though it is difficult to completely rule out anthropogenic activities as sources, it is reasonable to believe that these slight excursions are due to natural not anthropogenic causes in these two instances.

Ecology has demonstrated for these waters it is reasonable to conclude that natural conditions are the basis of the exceedance. Therefore, the EPA has determined that removal of these two waters from the 303(d) list based on the operation of the natural condition water quality standards is consistent with section 303(d) of the CWA because waters whose criteria becomes the natural condition are meeting standards.

#### **B. An Analysis of Waters Removed from Washington’s 2008 303(d) list**

The State has demonstrated good cause for not including 803 previously listed water body segment/pollutant pairs on its 2010 303(d) list. These listings, as well as eight WQLS previously in Category 4a, and one WQLS previously in Category 4b were inactivated with just cause. As provided in 40 CFR 130.7(b)(6)(iv), the EPA requested that the State demonstrate good cause for not including these waters. Of the total 812 inactivated records, 801 of them were rolled into

other listings, as documented in a crosswalk in Ecology's database, and provided on disk to the EPA. Six additional records were inactivated because the waters have been documented to be Tribal Waters, which are not assessed or listed by the State. One WQLS was determined to be an effluent source from a waste water treatment plant, not a receiving water and one was determined to be a Publically Owned Treatment Works (POTW) outfall. Three additional records were inactivated, as they were inadvertently listed in the first place. While data indicated, "do not list," they had been added. Ecology has provided sufficient justification and documentation for each of these inactivated records in their submission to the EPA.

#### IV. **Priority Ranking and Targeting**

The EPA also reviewed the State's priority ranking of listed waters for TMDL development as per 40 CFR 130.7(b)(4), which says the State, "shall include a priority ranking for all listed water quality limited segments still requiring TMDL," and concludes that the State properly took into account the severity of pollution and the uses to be made of such waters. The EPA reviewed the State's identification of WQLS targeted for TMDL development in the next two years, and concludes that the targeted waters are appropriate for TMDL development in this period.

Ecology fully details its schedule for completion of TMDLs in a document submitted to the EPA with its 2010 WQA packet. Washington established a prioritization process which was used to set TMDL priorities and schedules in 1997. The Memorandum of Agreement signed by Ecology and the EPA on October 29, 1997, describes the criteria used in setting priorities and the rotating basin scoping process used by the state to establish the schedule for completion of TMDLs (EPA, 1997). The 2010 prioritization schedule follows that process.

#### References

Ecology. Water Quality Policy 1-11, March, 2011.

<http://www.ecy.wa.gov/programs/wq/303d/policy1-11.html>

EPA. Guidance for Water Quality-Based Decisions: The TMDL Process, The EPA Office of Water, 1991, Appendix C.

[http://water.epa.gov/scitech/datait/models/upload/1999\\_11\\_05\\_models\\_SASD0109.pdf](http://water.epa.gov/scitech/datait/models/upload/1999_11_05_models_SASD0109.pdf)

EPA. Memorandum of Agreement between The United States Environmental Protection Agency and the Washington State Department of Ecology Regarding the Implementation of Section 303(d) of the Federal Clean Water Act, October 29, 1997.

<http://www.ecy.wa.gov/programs/wq/tmdl/303moa12.pdf>