Report to the Legislature

The Water Quality Data Act Report, December 2006

The Water Quality Data Act (WQDA) is a 2004 state law that relates to collecting and using water quality data. The state uses the data to promote water quality. The data help to designate protected uses, help establish water quality improvement plans (total maximum daily loads or TMDLs), and help the state develop its list of impaired water bodies known as the "303(d) list."

This report includes a brief summary of how the Department of Ecology (Ecology) developed policies required by the act. This report complies with the WQDA requirement (under SSSB 5957, the 2004 law) that Ecology describes how it is implementing the act. Ecology may also develop additional rules or policies as needed to implement the act.

Under the federal Clean Water Act, each state must prepare a list of impaired water bodies known as the "303(d) list." In addition, states must also prepare the "305(b) list," which is a more general report on water quality in the state. Ecology combines these two reporting requirements into the Water Quality Assessment (WQA). To create these lists, the Clean Water Act and implementing regulations require states to evaluate all existing and available water quality-related data and information. The WQDA outlines how Ecology may use certain data or information to characterize the quality of a particular water body. Credible data legislation was adopted, in part, to improve quality control of the information used by agencies to establish the 303(d) list, and to promote documentation of water quality sampling and analysis procedures. If a water body is included on the 303(d) list, the state must prepare a TMDL. A TMDL is a water cleanup plan that regulates how much pollution may enter the water body and allocates individual pollution "loads" or amounts for each source.

When Ecology develops the list of impaired water bodies for the U.S. Environmental Protection Agency (EPA), it accepts new data only if they meet the requirements of the WQDA. Because of the importance of the water body listings and the regulations that govern them, it is critical that the state uses only credible, scientifically valid data.

Activities already taken to implement the WQDA

Ecology adopted the WQDA policy entitled *Ensuring Credible Data for Water Quality Management*. It is available at http://www.ecy.wa.gov/programs/wq/qa/wqp01-11-ch2_final090506.pdf.

Ecology developed the policy assisted by a stakeholders' advisory group. The main purpose of this external advisory group was to consider:

- The different methods organizations use to ensure the quality of their environmental data.

- How to limit the amount of information in the policy by including references to other documents that contain the details.

- The need for training to promote the use of credible data.

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The first step in developing the 2006 Water Quality Assessment (WQA) for Washington State was to revise the policy. The WQA policy describes how to use credible data to determine which water bodies will be scheduled for TMDLs. While a policy team revised this companion policy to credible data, Ecology provided drafts of the credible data policy to the external advisory group. The public participation process for the WQA policy development ran concurrently with the public process for the whole WQDA policy.

The structure of the WQDA policy reflects the opinions of the external advisory workgroup. The policy provides the framework for the tools and policies, many already in place, that promote the generation and use of credible data in water quality actions.

The tools in place now include:

- Guidelines for preparing Quality Assurance Project Plans (QAPPs).
- Examples of QAPPs.
- Guidance for sediment sampling and analyses.
- Various monitoring protocols.

The following policies augment the WQDA policy:

- The *Assessment of Water Quality for the Clean Water Act Sections 303(d) and 305(b) Integrated Report* (WQA) policy, which provides more detail for the 303(d) and 305(b) listing report. It is available at http://www.ecy.wa.gov/programs/wq/303d/2006/wqp01-11-ch1_final2006.pdf
- The executive policy: *Establishing Quality Assurance*, which ensures consistent application of quality assurance principles. This initiated the quality assurance (QA) requirements at Ecology.
- The *Requiring Use of Accredited Environmental Laboratories* policy for environmental analyses established the program of lab accreditation.

The effect of the policy changes

Significant changes to the process of preparing the water quality assessment include requirements for providers to enter data into Ecology's environmental information management (EIM) database and reporting requirements to ensure that quality assurance principles were followed. EIM includes required fields that document quality control measures.

Data must be properly formatted for entry into EIM. Some types of information do not fit well into EIM, so providers are not required to input them for the assessment. The quality assurance principles, (such as following a QAPP or the equivalent, verifying and validating data, and assessing data for usability) must be documented.

The process of preparing TMDLs did not significantly change. Ecology reinforced the requirement that environmental data used in all projects follow the provisions of a QAPP. Declarations of water segment impairment (made during a TMDL) are subject to the same restrictions found in the WQA policy.

The timeline of WQDA and WQA policy development

- Developed the early WQDA draft, substantially revised based on external comments and suggestions. Summer 2005
- Communicated WQDA requirements internally prior to the effective date. Summer 2005
- Presented issues from draft policies to external groups and tribes. Spring 2006
- Requested public comments and held workshops. Spring 2006
- Issued final policies and responses to comments. Summer 2006

- Conducted hands-on EIM training throughout the state. Summer 2006
- Conducted quality assurance training (credible data, EIM data entry, agency QA principles) throughout the state. Fall 2006

Additional rule making or policy development to implement the WQDA

Ecology is awaiting further public feedback to the new WQA policy requirements to use EIM and provide QAPP documentation for new data used in the development of the current WQA. Once we receive and analyze the public comments, Ecology will determine if we need to revise the WQA policy. New policy is needed to fully implement a quality assurance program that increases confidence that only credible data are used in water quality decisions. The areas that need further improvement are data auditing and training.

During development of and discussions about the WQDA and WQA, Ecology recognized that there is no routine process to confirm that parties submitting data adhered to QA principles. The WQDA policy recommends an audit program that would fulfill this need. Ecology will explore funding opportunities to implement such a program in the future.

Ecology identified and partially corrected another shortcoming, lack of Ecology-sponsored training opportunities in quality assurance practices. Ecology provided training in QA principles, EIM data entry, and credible data in the fall of 2006. It is suggested that Ecology make the training available, at some frequency, to internal and external audiences. Each training module would cover a different process of generating and using credible water quality data (e.g., field sampling protocols and strategy, chain of custody, data assessment and statistics, EIM input and reports, sampling design and QAPP development, and use of models). Ongoing strategies and funding for this will be examined in the future.

Changes to listings

Ecology has not completed the 2006 Water Quality Assessment, so we do not know if the 303(d) listings will change because of using credible data. Ecology plans to submit the new candidate list to EPA in spring, 2007.

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