

# Financial Assistance and Water Quality Monitoring

Water quality monitoring measures the physical, chemical, and biological characteristics of surface waters such as lakes, streams, groundwater from wells, and stormwater. When considering monitoring as an activity in the financial assistance application for your project, have a clear idea of the questions you want to answer and how the monitoring will support the funded project work.

### **Q: Why is water quality monitoring important?**

**A:** Monitoring water quality can help your project in several ways. It can indicate the current water quality in local water bodies, identify the best area(s) to focus your project work to help improve water quality, and encourage community involvement to find solutions to water quality problems. Monitoring data can also support your education and outreach to local residents. By connecting monitoring results to specific water quality problems and everyday practices, local citizens can be part of the solution. In some cases, you can directly measure the improvement your project has made on local waters.

### **Q: Is monitoring appropriate for my project?**

**A:** Not all projects will benefit from adding water quality monitoring. It can take up a lot of the project's time and budget. If it is not directly providing information needed to support the project or to document results, it may be best to consider other types of project measurement. Ecology strongly recommends that you work with our regional Department of Ecology (Ecology) Water Quality Program staff when adding a monitoring component to the application.

### **Q: What types of monitoring should I consider?**

**A:** See the types of monitoring in the right-side column. The type of monitoring you should consider depends on the problem

### **MORE INFORMATION**

#### **Types of Water Quality Monitoring**

There are many ways to categorize water quality monitoring strategies. A good starting point is to break it into four main types:

**Characterization monitoring** is designed to tell you how clean water is when you have little or no data available. Always check for data on Ecology's [Water Quality Assessment](#) or [Environmental Information Management \(EIM\)](#) system websites first.

**Source identification monitoring** is designed to help you pinpoint problem areas when you know the water is already polluted. It can involve looking at both surface water and water entering via pipes or overland flow.

**Effectiveness monitoring** shows whether or not your project made a measurable difference in water quality. You will need data on the quality of the water before you start and after you finish. Because a large amount of data is needed, effectiveness monitoring strategies and budget should be carefully considered before addition to your application.

**Special study monitoring** is designed to answer complex environmental questions. The data typically involves the use of environmental models. If you are considering a special study you should consult regional Ecology Water Quality Program staff early in the application

you are trying to solve. Are you trying to figure out if the water is polluted because there are no data available to show it may be clean? Are you trying to pinpoint a problem somewhere upstream of a known area of polluted water? Are you trying to show that your project has improved local water quality? As you decide what question you want to answer, consider the different monitoring types.

**Q: Where can I get detailed monitoring guidance?**

**A:** Ecology's *Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies* ([www.ecy.wa.gov/biblio/0403030.html](http://www.ecy.wa.gov/biblio/0403030.html)), and *Technical Guidance for Assessing the Quality of Aquatic Environments* ([www.ecy.wa.gov/biblio/9178.html](http://www.ecy.wa.gov/biblio/9178.html)) provide detailed information and instruction on designing a monitoring program. You may also wish to ask your regional Ecology Water Quality staff if they can provide you with a copy of a completed Quality Assurance Project Plan (QAPP) similar to your project to get you started. You can find additional information on Ecology's quality assurance program and standard operating procedures at [www.ecy.wa.gov/programs/eap/quality.html](http://www.ecy.wa.gov/programs/eap/quality.html).

**Q: What is a QAPP?**

**A:** QAPP stands for Quality Assurance Project Plan. Ecology ensures that the data we use (and the data used by our grant and loan recipients) are reliable by requiring that a QAPP be prepared for all Ecology-funded water quality monitoring. Preparing a QAPP can be time consuming, especially if you have a very complicated study or you are preparing one for the first time. Be sure to budget plenty of time.

**Q: How do I know if my monitoring plan is OK?**

**A:** Ecology will review and approve your QAPP before monitoring can proceed. It is our goal to return your reviewed QAPP within four weeks. We may request changes before granting approval so it is best to submit your QAPP to Ecology six-eight weeks before you plan to begin monitoring. Ecology's review and approval of your QAPP can be expedited by including in your plan the 14 required elements specified in the QAPP guidelines ([www.ecy.wa.gov/biblio/0403030.html](http://www.ecy.wa.gov/biblio/0403030.html)).

**Q: What happens to the monitoring data that are collected?**

**A:** First and foremost, you and your organization are the primary users of the data. As you prepare your QAPP, you need to describe how you will analyze your data to achieve your project objectives. You will also be required to enter your water quality monitoring data into Ecology's [Environmental Information Management \(EIM\)](#) system. Once your data have been reviewed for quality, it will be stored online for all Washington State residents to access. The data will also be evaluated by Ecology during our periodic statewide [Water Quality Assessment](#).

**Q: Who can I talk to about water quality monitoring in my project proposal?**

**A:** The best contact for you will depend on the type of project you are proposing. Your regional Ecology Water Quality grant specialist is an excellent resource to help answer your initial monitoring questions. For a list of regional Water Quality staff, please check our website.

[www.ecy.wa.gov/programs/wq/funding/cycles/2011/FY2011ContactList.pdf](http://www.ecy.wa.gov/programs/wq/funding/cycles/2011/FY2011ContactList.pdf)

**Q: How should I anticipate the cost of my monitoring project?**

**A:** The best way to estimate costs is to research comparable projects that have been done elsewhere. Ecology publishes all of its QAPPs on the web ([www.ecy.wa.gov/biblio/qapp.html](http://www.ecy.wa.gov/biblio/qapp.html)), and each QAPP includes project cost estimates. You should also contact peers in your organization or in organizations similar to yours, to see if they have QAPPs and cost estimates for projects that are comparable in scope to your own. Your regional Ecology Water Quality staff may also be able to direct you to QAPPs and cost estimates prepared by other recipients who were funded to do monitoring similar to your project.

**Q: If I decide that water quality monitoring isn't the best measurement for my project, what other measurements should I consider?**

**A:** Photo documentation, plant survivability, or pre/post evaluation surveys are three other ways of measuring and documenting project success without conducting water quality monitoring. Documenting the implementation or maintenance of best management practices (BMPs), (for example, feet of fence installed, number of livestock excluded from riparian zone, or number of failing septic systems replaced), also shows measurable results of the project work.

**Contact information**

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**Special accommodations**

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