



# Focus on **Workload Analysis to Attain Clean Water**

from Ecology's Water Quality Program

Ecology completed a 2006 workload analysis to estimate staff resources needed and the time it will take to address the water bodies on the 2004 303(d) list of impaired waters. This analysis made it clear Ecology lacks the resources needed to meet federal production goals. It also pointed out that without dedicated staff to make sure actions for clean water actually occur, we will not be able to report that the state's water bodies are getting cleaner.

## **Background**

Every two years, the Department of Ecology compiles and assesses statewide water quality data to gain an up-to-date picture of the overall status of water quality in Washington's waters. One of the results of the assessment is the state's list of impaired waters - the 303(d) list.

The Clean Water Act requires that we prepare a TMDL (or water quality improvement report) for each of the water bodies on the 303(d) list. States may also use alternative approaches to attain clean water. Therefore, for each new Water Quality Assessment, Ecology must decide how and when to address the impaired water listings. Ecology has entered into a settlement agreement with the Environmental Protection Agency to address a certain number of water bodies by 2013.

## **Resource needs to produce water quality improvement reports (TMDLs)**

These are our best estimates for the resources needed to address the 2004 listings up to, but not including, implementation. However, every time we develop a new list of impaired water bodies, the amount of work we have to do will change.

### **Water Quality Program**

The analysis resulted in an estimated need of approximately 211 FTEs (full time employees) over 10 years, or 21 FTEs per year. The Water Quality Program presently has 15 full-time FTEs working on TMDL production, which means we have a shortfall of 6. To make sure that we did not underestimate the amount of time it takes to develop a TMDL, we also reviewed all completed TMDLs since 1998 and determined the average time it took to complete them. The average time was three years and three months, which gave us confidence that our estimates were correct.

### **Environmental Assessment Program**

The Environmental Assessment Program estimated a resource need of 20 FTEs and \$795,000 for laboratory analyses. The Environmental Assessment Program currently has 18 staff working on

TMDL production, so there is a shortfall of 2 FTEs. The program has \$300,000 per year for lab costs, which makes a shortfall of about \$500,000 per year.

## **Resource needs to implement TMDLs, improve water quality, and assess whether water is getting cleaner**

Estimating what we need to implement TMDLs proved to be far more difficult than estimating what we need to produce them. Partly, this is because we don't have much experience with completely implementing a TMDL and we rely upon local efforts.

At this point, it is difficult to furnish a firm number of staff needed to implement TMDLs. The four requested by the Water Quality Program in the current budget proposal are likely not enough. To meet the minimum number recommended by program staff, we would need eight more. This number may still not meet the long term need, but rather than refining long term estimates, we should consider creating proactive nonpoint and enforcement programs that could be used to help implement TMDLs.

We also assessed the workload to conduct effectiveness monitoring for all of the TMDL projects on the 2004 list of impaired water bodies plus all of the TMDLs that have already been completed. We estimated that it would take ten staff people and \$230,000 in lab funds per year to accomplish the work. The agency currently has two staff people and \$80,000 per year for effectiveness monitoring. This translates into a shortfall for effectiveness monitoring of eight FTEs and \$150,000 in lab funding per year.

### **We will not meet our TMDL goals given current funding levels**

Prior to starting a new water quality improvement report or TMDL, we should evaluate the situation and determine the best tool to achieve clean water. In many cases, this will be our usual TMDL approach. In other cases, we may be more successful doing a less rigorous technical study—a streamlined TMDL. We may also be able to go straight to implementation or to use some other strategy.

The Water Quality and Environmental Assessment Programs should request the FTEs and funds needed to fully implement the TMDL program. This could happen over time, but we need to be clear that we will be unable to meet our goals if we continue to be understaffed and underfunded. The budget request that we made this year will help, but it will still only be a portion of the need.

At the same time, both programs must be strategic about using the resources we already have in the most efficient and effective way. We should try to coordinate our TMDL work with other program activities to ensure that we are all working together to meet our clean water objective. This could mean working more closely with permit writers to make sure load and wasteload allocations from TMDLs are accurately expressed in permits. It could mean using nonpoint staff to help implement TMDLs. Whatever we do, our overall strategy should be to attain clean water as quickly and as inexpensively as possible.

### **Need more information?**

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