

# Massachusetts Estuaries Project

## Restoring the Estuaries of Southeastern Massachusetts



### IMPLEMENTING TMDLS (Total Maximum Daily Loads)

## Comprehensive Wastewater Management Plans (CWMP)

#### What is a CWMP?

Comprehensive wastewater management planning is a locally managed, community-wide process that evaluates current and future wastewater needs, compares alternate solutions, and chooses a final plan based on cost effectiveness and environmental impact. The resulting document is called a Comprehensive Wastewater Management Plan, or CWMP.

A CWMP is a key step toward implementation of Total Maximum Daily Loads (TMDLs) for nitrogen in southeastern Massachusetts estuaries. Meeting the TMDLs will reduce the nitrogen pollution that is causing poor water quality. See DEP's earlier fact sheet on TMDLs for more background on the harmful effects of nitrogen in MEP communities and the importance of protecting and restoring our estuaries.

#### Is a CWMP required to implement a TMDL? Does a CWMP have to indicate that the nitrogen TMDL will be met?

With the exception of enforcement cases, a CWMP is not a formal requirement for implementation of a TMDL. However, DEP strongly encourages communities to develop sound plans that include public participation in order to implement a TMDL, and the CWMP is an excellent community-wide process for this purpose. TMDLs limited to a part of a town could use a less comprehensive process, provided that the essential planning and public participation steps are included.

Projects based on a CWMP or equivalent plan are significantly more likely to get financial support from the State Revolving Fund (SRF) Program.

The CWMP or other plan must indicate what steps will be taken to meet the TMDL.

#### For watersheds that cross municipal boundaries, will each community prepare its own CWMP or should there be a watershed-wide CWMP?

DEP encourages communities to work together to solve common environmental problems through a watershed-wide CWMP. At the very least, communities should jointly develop a process that evaluates alternatives and chooses the most cost-effective ones on a watershed-wide basis.

#### What if the nitrogen TMDL targets change over time? How does this get reflected in the CWMP?

If a major change occurs, the CWMP can be revised. However, the TMDLs are based on long-term environmental trends, and it is unlikely that they will change significantly. Even with a small change in a TMDL, the implementation steps will likely remain the same.

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### **Who is involved in developing a CWMP?**

Typically, a municipality will convene a committee of local officials, stakeholder groups, and citizens that works with an engineering consultant to develop the CWMP. It is DEP's experience that citizens should be brought into the CWMP process through a combination of public outreach and advisory groups.

### **Does the state have to approve a CWMP?**

To be eligible for SRF funding for implementation projects, a CWMP must be reviewed and approved by DEP. DEP's review ensures that nitrogen targets in the TMDL will be met and also that the plan addresses other issues in DEP's Guide to Comprehensive Wastewater Management Planning. If an Environmental Impact Review (EIR) is required by the MEPA office (Massachusetts Environmental Policy Act), MEPA must approve the EIR before DEP can approve the CWMP.

## **Implementation**

### **What is DEP's role in TMDL implementation?**

Communities will have the lead in the implementation process. However, DEP has an obligation to ensure that Massachusetts's waters are protected so that all citizens can enjoy a clean and healthy environment. DEP's role will include:

#### **ⓐ Support for Community Efforts**

- Meet with communities before beginning a CWMP, to help develop a timeframe, discuss regulatory issues, and determine potential financial support.
- Work with other regional, state, and federal agencies to ensure coordinated input on the CWMP.

#### **ⓑ Financing: Provide SRF funding**

#### **ⓒ Regulatory Review and Policy Guidance**

- Issue state permits as needed for wastewater facilities.
- Review DEP regulations to ensure that they support estuary restoration, and support changes in state regulations and laws if needed.
- Support watershed permitting and wastewater management districts when communities feel they are appropriate.
- Periodically monitor progress toward restoring estuaries.

### **How many years do communities have to implement a TMDL? How long will implementation take?**

There are no specific timelines for completing the implementation process, but DEP does expect the CWMP to include specific steps and estimated dates for their completion. Ten to fifteen years is a reasonable timeframe for full implementation of all proposed measures, but this will vary widely depending on the amount and source of nitrogen, the complexity and cost of implementation steps, and the mix of solutions proposed.

DEP and EPA recognize that restoring polluted waters is a long-term process, particularly when groundwater is polluted by nonpoint sources. For this reason, DEP supports an adaptive management approach to implementing a TMDL: taking the most cost-effective measures first, measuring their impact, and making adjustments where necessary. Giving priority to projects with more immediate impacts on water quality will help communities adjust implementation steps if needed.



Smaller community-based or cluster wastewater treatment systems generally take less time to implement than town-wide sewerage and treatment plant construction. Smaller projects may require only several years to design and install; large projects can take longer. Several projects often can be underway at once, especially if they are independent of one another.

The severity of nitrogen pollution in MEP estuaries means that nearly all practical implementation steps will be required.

**To whom will DEP issue the permits needed to implement a TMDL?**

This will vary depending on the estuary. Nitrogen pollution affects entire watersheds, which usually do not follow municipal boundaries. Among the available options, DEP is considering issuing watershed-wide permits based on watershed boundaries (e.g., issuing a permit to a district composed of several municipalities or portions of them). Public and private entities controlling or operating treatment facilities will require permits.

In any case, the permittee will have a number of responsibilities:

- ⓐ Construction of wastewater treatment facilities.
- ⓑ Ensuring proper operation and maintenance of on-site (septic) systems.
- ⓒ Funding improvements through fees, betterments, and bonding.
- ⓓ Monitoring progress toward restoring the estuary.

Depending on the findings of the CWMP, other major sources of nitrogen will also be responsible for reducing their nitrogen loads. These sources may also be issued state permits, or be subject to local controls.

**What are market approaches and nutrient trading, and will they help in implementing nitrogen TMDLs?**

Market approaches (nutrient trading is one example) are tools that allow different nitrogen sources to reallocate responsibilities for pollution reduction and fund those that meet environmental goals in the most cost-effective manner. For example, sewerage will be an important implementation tool, but a combination of nitrogen-reducing on-site systems and conventional septic tanks may be able to meet the TMDL targets in some locations at a lower cost. The CWMP process will ensure that communities evaluate the financial and environmental tradeoffs among all possible nitrogen reduction methods.

## Financing

**How much will it cost to implement a TMDL?**

Costs will depend on the extent of nitrogen pollution and the implementation steps identified in the CWMP. However, we do know that restoring and protecting our estuaries will be expensive.

**What financial support does the state have to implement TMDLs?**

The Massachusetts State Revolving Fund Program (SRF) provides low-interest loans to communities working on water and wastewater improvements, including the development of a CWMP. SRF funds are distributed annually on a competitive basis, based on environmental and public health priorities. SRF funds are the primary source of state support to municipalities for TMDL implementation.

**Will MEP community projects that implement a TMDL receive extra SRF points?**

Yes. Projects to implement an approved TMDL or to address regional or watershed-wide needs can receive additional points under the existing priority criteria set by DEP's Division of Municipal Services. In the future, DEP may identify high priority projects such as the MEP to be funded if they meet applicable SRF program requirements.



**Can SRF money be used to fund a CWMP and plan TMDL implementation?**

Yes. The SRF program currently provides up to 10% of the Clean Water SRF capacity for planning activities. In general, planning funds have been available to all communities that have requested them. Keep in mind, however, that project design is not an eligible expense.

**Can SRF money be used to purchase privately owned wastewater treatment facilities?**

Yes, provided that the project provides additional capacity to mitigate documented problems and does not promote sprawl. Eligible costs include planning studies, land purchases, and purchase of treatment facilities.

## Resources and Contacts

**To learn more about how your community is involved in the MEP and what you can do to help, contact your local Town Hall.**

- Ⓔ *Department of Environmental Protection (DEP):*  
Massachusetts Estuaries Project: <http://www.mass.gov/dep/smerp/smerp.htm>. Includes fact sheet on TMDLs, DEP's *Guidance for Implementation Strategies*, MEP Technical Reports, and TMDL documents.  
Contact: Brian Dudley (508) 946-2753 [brian.dudley@state.ma.us](mailto:brian.dudley@state.ma.us).  
  
Clean Water State Revolving Fund (SRF):  
<http://intradev:8351/dep/brp/mf/cwsrf.htm>. Includes Final Facilities Planning Guidance for CWMP development.  
Contact: Steven McCurdy (617) 292-5779 [steven.mccurdy@state.ma.us](mailto:steven.mccurdy@state.ma.us).  
  
TMDLs: <http://www.mass.gov/dep/brp/wm/tmdls.htm>. General information on Total Maximum Daily Loads.  
Contact: Russell Isaac (508) 767-2876 [russell.isaac@state.ma.us](mailto:russell.isaac@state.ma.us).
- Ⓔ *Environmental Protection Agency (EPA):*  
Estuaries: <http://www.epa.gov/owow/estuaries/>  
  
TMDLs: <http://www.epa.gov/OWOW/tmdl/>
- Ⓔ *Cape Cod Commission:* [www.capecodcommission.org](http://www.capecodcommission.org)
- Ⓔ *Buzzard's Bay Project National Estuaries Program:* [www.buzzardsbay.org](http://www.buzzardsbay.org)
- Ⓔ *Coalition for Buzzards Bay:* [www.savebuzzardsbay.org](http://www.savebuzzardsbay.org)

