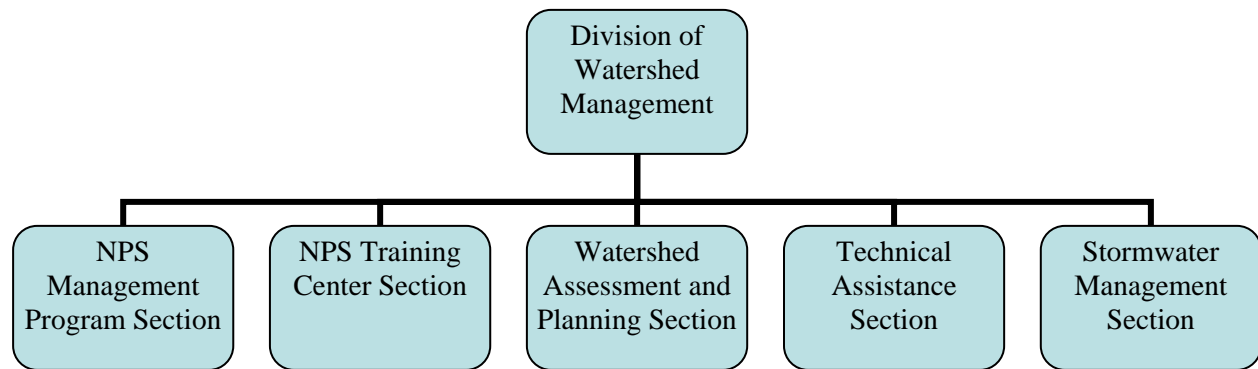


## F. DEP NPS Program & Project Activities in 2006

### 1. Overview

DEP's Division of Watershed Management administers NPS program services and watershed management. The division is organized into five sections. The Nonpoint Source Management Program section administers the 319 grant program. The Nonpoint Source Training Center provides training to contractors, consultants and others and provides education and outreach. The Watershed Assessment and Planning section provides stormwater technical assistance and watershed management planning and assistance, and manages the Stream Team Program. The Technical Assistance section provides technical review of permit applications and maintains or develops Best Management Practices guidelines. The Stormwater Management section provides coordination for implementation of the federally delegated Maine Pollutant Discharge Elimination System (MEPDES) program.



### 2. Summaries

In addition to the competitive grants program, DEP directly funds several programs and projects using 319 funding. Some of these programs are carried out by DEP staff and others are implemented by partner organizations. The following pages include descriptions of each of the following programs and accomplishments in 2006. Table shows 319 amounts used to help fund these projects. Amounts do not include DEP personnel services costs associated with conducting the work.

#### DEP NPS Program and Project Activities & 319 Funding in 2006

Maine Lakes Biomanipulation	\$26,202
Maine Lakes TMDL Assessments	\$78,000
Maine Nonpoint Education for Municipal Officials "NEMO"	\$100,000
Maine Nonpoint Source Training and Resource Center	\$ 80,000
Maine Stream Team Program	\$ 5,000
Maine Volunteer Lake Monitoring Program	\$ 50,000
Statewide NPS Outreach	\$ 69,000
Stream Algae (Periphyton) Assessment Tool	NA

## Maine Lakes Biomanipulation

Phase I of this post-TMDL bio-remedial project was completed in two of the Belgrade Lakes. The purpose of the project was to assess relationships between existing and historical water quality conditions and fish assemblages in East and North Ponds. Plans were made to move into Phase II of the project. This will involve removing perch and crappie and enhancing zooplankton populations - resulting in higher water transparencies due to increased consumption of blue-green algae by the zooplankton.

### Accomplishments in 2006

- Completed bi-weekly water quality sampling (May to October) for total phosphorus, chlorophyll-a, water transparency, dissolved oxygen, phytoplankton and zooplankton.
- Assessed the East and North Pond fish assemblages, including population estimates during springtime trap-netting and juvenile fish capture, with assistance from Dept. Inland Fisheries and Wildlife (IF&W).
- Developed the East Pond fish removal and disposal plan (acceptable to IF&W) in support of Phase II - project implementation. Held an informational Public Meeting in late summer.



UMO grad student takes zooplankton sample.

### For More Information:

David Halliwell, DEP, david.halliwell@maine.gov, (207) 287-7649  
<http://www.state.me.us/dep/blwq/doclake/biomaniplulation/index.htm>

## Maine Nonpoint Education for Municipal Officials (NEMO) Program

Maine NEMO provides outreach to municipal officials on how land use decisions are linked to water quality in their towns. NEMO is based at the office of the Partnership for Environmental Technology Education (PETE) in South Portland. The Maine State Planning Office Coastal Program and the Department of Health and Human Services Drinking Water Program also provide program funding.

### Accomplishments in 2006:

- Conducted 30 NEMO presentations to 651 people from 55 towns.
- Survey results from the two latest trainings for new partners indicate a 77% increase in knowledge of NPS issues, 93% increase in knowledge of LID techniques, and 100% report they would heartily recommend NEMO to towns. A recent workshop attendee says, *“I appreciate the trainings NEMO offers...they’re always good quality with cutting edge ideas. Please keep them coming”*
- After six months, 90% of participants reported working regularly with their planning boards; 100% have incorporated NEMO ideas into conversations; 82% have spoken to land use decision makers about NEMO; and 100% have assisted a town or group working on NPS or resource protection. “Nemoids” also report that within six months, 73% have helped a town with outreach and education and 64% assisted with water resources assessment.
- As a result of NEMO presentations and training, municipalities have undertaken a variety of actions including open space planning efforts, new collaboration with NGOs, and creation of new ordinances for cluster housing, Conservation Land Funds, Open Space



Access Fees, new illicit discharge detection & elimination ordinances and new BMPs for disposal of catch basin cleanings.

**For More Information:**

LaMarr Cannon, PETE - (207) 771-9020, lcannon@maine.rr.com  
Don Witherill, DEP - (207) 287-7725, donald.t.witherill@maine.gov  
<http://www.mainenemo.org>

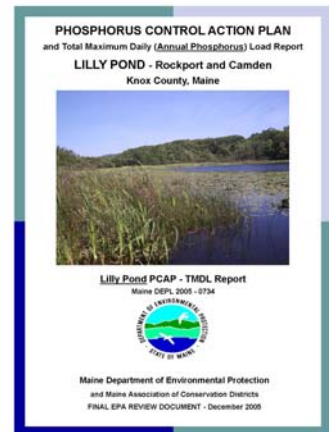
**Maine Lakes TMDL Assessment**

This is an ongoing project since 1999 to assess current and historical water quality conditions in Maine’s impaired 303(d)-listed lakes and to develop specific watershed plans for controlling nonpoint sources of pollution and improving lake water quality. To date, 28 lakes and three associated streams have been assessed - a total of 31 waterbodies. Remaining waters include Echo and Arnold Brook Lakes (Presque Isle) and Christina Reservoir (Ft. Fairfield), and two new waterbodies (Wilson Pond in Wayne-Winthrop and Long Pond in Rome-Belgrade) were added to the 303(d) list.

**Accomplishments in 2006**

Completed and received EPA approval of eight Phosphorus Control Action Plans (PCAPs) and Total Maximum Daily (Annual Phosphorus) Loading (TMDL) reports for the following waterbodies:

- Lovejoy Pond (Albion), Lilly Pond (Rockport) and Sewall Pond (Arrowsic), with assistance of Maine Association of Conservation Districts (MACD).
- Daigle Pond and Daigle Brook (New Canada) and Cross Lake and Dickey Brook (T17 R05 WELS) in Aroostook County, with assistance from MACD in cooperation with St. John Valley NRCS/SWCD.
- Trafton Lake (Limestone) and Monson Pond (Fort Fairfield) in Aroostook County, with assistance of MACD in cooperation with Central Aroostook NRCS/SWCD.



**For More Information:**

David Halliwell, DEP, david.halliwell@maine.gov, (207) 287-7649  
<http://www.state.me.us/dep/blwq/docmonitoring/tmdl2.htm>

**Maine Nonpoint Source Training and Resource Center**

The Maine Nonpoint Source Training and Resource Center’s primary focus is to provide training to various groups throughout the state to help them prevent nonpoint source pollution. In addition, the Center maintains a publications and videotape library and acts as a clearinghouse for information on nonpoint source pollution and best management practices.

**Accomplishments in 2006:**

- Provided training in erosion control practices for contractors and municipal officials: **371** participants
- Held trainings on new stormwater best management practices and vegetated buffers: **387** participants

- Coordinated training on inspection and installation of septic systems, site evaluation and new products: **765** participants
- Sponsored training in LakeSmart Principles for landowners: **47** participants
- Held workshop on maintenance of unpaved roads: **97** participants
- Coordinated Better Roads workshop: **130** participants
- Certified **68** new individuals in Volunteer Contractor Certification Program and issued **50** LakeSmart awards
- Distributed over **470** copies of publications and **20** videotapes.



Bill Laflamme presents LakeSmart award to Rick & Cyndie Smart.

**For More Information:**

Bill Laflamme, DEP- (207) 287-7726, [william.n.laflamme@maine.gov](mailto:william.n.laflamme@maine.gov)  
<http://www.maine.gov/dep/blwq/training/index.htm>

## Maine Stream Team Program

The Maine Stream Team Program (MSTP) is an evolving project dedicated to assisting local citizens and grassroots organizations interested in being stewards of their local stream resources. The program serves as a clearinghouse of stream-related information, acts as a catalyst for networking and partnering amongst local stream and river groups, and provides reference materials and training opportunities to advance stream protection efforts throughout the state. A “stream team” is a group of individuals that have banded together to learn about and protect their local stream or river.

**Accomplishments in 2006:**

- Distributed three issues of the MSTP newsletter in both hardcopy and electronic form (see website).
- Helped coordinate and run five rapid stream habitat/geomorphology survey trainings.
- Continued to work with municipalities, local SWCDs, and other partners to develop watershed management and restoration strategies in the following streams and rivers: Penjajawoc Stream, Long Creek, Bond Brook and Sunday River.
- Assisted groups with volunteer water quality monitoring efforts primarily in the Bangor, Ellsworth, Downeast, Augusta, and Portland regions.
- Continued pursuing the development of a statewide volunteer water quality monitoring program.
- Provided technical and educational assistance to a variety of stream teams and watershed councils and coalitions around the state.
- Continued work on the development of an official stream survey guidance document for activities such as stream watershed surveys and rapid stream habitat/ geomorphology assessments.



Local citizens conduct a stream habitat survey.

**For More Information:**

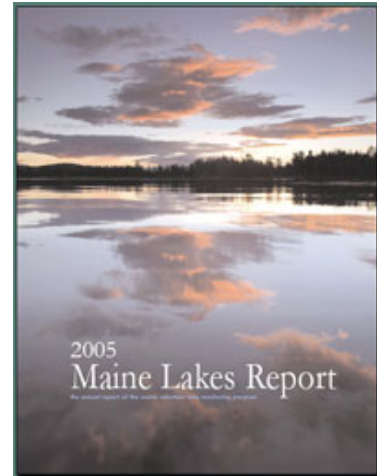
Jeff Varricchione, DEP, (207) 822-6317, [jeffrey.t.varricchione@maine.gov](mailto:jeffrey.t.varricchione@maine.gov)  
<http://www.maine.gov/dep/blwq/docstream/team/streamteam.htm>

## Maine Volunteer Lake Monitoring Program (VLMP)

Grants awarded under the 319 program primarily support the educational aspects of the VLMP including training volunteer monitors to collect quality data, producing three newsletters and one Annual Report per year and holding an annual meeting to share information about lake water quality issues. The total match generated by the volunteers associated with the program is in excess of twice the 319 funding level. Volunteers monitor assigned lakes twice a month for 5-6 months of each year. Volunteer match is also generated as participants attend monitoring workshops and the annual meeting, enter data into electronic format and assist in the local coordination of VLMP activities.

### Accomplishments in 2006:

- Produced *2005 Maine VLMP Annual Report* (April 2006), which reported that during 2005 volunteers obtained 3,679 Secchi transparency readings, 14,008 dissolved oxygen readings, 1,093 total phosphorus samples, 508 chlorophyll-a samples, and 1,091 chemical samples.
- Produced three newsletters and convened the 2006 Annual Meeting in collaboration with the Maine Congress of Lake Associations and the New England Chapter of the North American Lake Management Society.
- Trained more than 37 new volunteers to measure Secchi disk transparency and 20 to monitor dissolved oxygen and recertified more than 100 transparency and 65 dissolved oxygen volunteers. Encouraged volunteers to collect transparency readings on days that the Landsat satellite passed Maine.
- Reached a level of 514 certified volunteer water quality monitors in the program monitoring 575 lake basins in Maine at the end of 2006.
- Conducted workshops on dissolved oxygen monitoring and baseline water quality monitoring.
- Pursued the development of a statewide training center for volunteer lake monitors through the expansion of facilities at the VLMP headquarters in Auburn. This included the purchase and use of a 24 foot pontoon boat designed to be used for training volunteer monitors.



### For More Information:

Linda Bacon, DEP Project Manager - (207) 287-7749, [Linda.C.Bacon@Maine.gov](mailto:Linda.C.Bacon@Maine.gov)  
 Scott Williams, VLMP - (207) 783-7733, [Scott.Williams@MaineVLMP.org](mailto:Scott.Williams@MaineVLMP.org)  
<http://www.mainevolunteerlakemonitors.org/>

## Statewide NPS Outreach

Much of NPS pollution is the result of individual actions/behaviors. To reduce NPS pollution, there is a need to encourage new more environmentally friendly behaviors. To do this, the program has been tapping into and using social marketing techniques for planning and implementation. The program has partnered with stormwater communities that have a shared target audience to create the ThinkBlueMaine Partnership. These communities are helping to bring the statewide message down to the local level. In addition, DEP is using the NPS Times Newsletter to share NPS and stormwater efforts with partners throughout the state.

**Accomplishments in 2006:**

- The ThinkBlueMaine Partnership received a Merit Award from EPA Region 1 in the spring of 2006.
- Supported the Northern and Southern Children's Water Festivals for approximately 1,500 students and teachers.
- Radio and TV ads were run statewide addressing stormwater pollution issues, with the radio ads focusing on erosion. The media buy was a partnership between stormwater communities and DEP.
- Phone survey data indicated that ads were highly successful with 63% of respondents having “top of the mind” recall and 73% aided recall.
- Contracted with market research firm to hold four focus groups on lawn care issues to help craft an effective outreach effort to change behaviors regarding lawn care practices that can cause water pollution.
- Worked with New England-wide Cooperative Extension effort funded by CSREES to develop regional lawn care messages.
- Distributed four issues of the NPS Times both electronically and in hard copy (see website below).



2006 Southern Maine Children's Water Festival

**For More Information:**

Kathy Hoppe, DEP - (207) 760-3134, kathy.m.hoppe@maine.gov  
<http://www.maine.gov/dep/blwq/doceducation/nps/>

**Stream Algae (Periphyton) Assessment Tool**

The Biological Monitoring Program collected algal samples for the purpose of developing a tool to evaluate the health of Maine's rivers and streams. Each year, sampling is focused on one of five geographic areas. In 2006, the Biological Monitoring Program focused sampling on streams and rivers in the Penobscot River Basin and Downeast Maine. Samples are collected from fast flowing sections of wadeable streams and rivers in areas with little shading from trees. Staff collected 18 rocks distributed across each sample location and scraped algae off of the rocks. The samples were shipped to the Academy of Natural Sciences in Philadelphia, PA for species identification and enumeration.

**Accomplishments in 2006:**

- Coordinated sampling with the Passamaquoddy Tribe, Penobscot Indian Nation, Downeast Salmon Federation and Union River Watershed Coalition.
- Collected samples from the following streams in the Penobscot River Basin: Kenduskeag Stream, French Stream, Crooked Brook, Piscataquis River, Sebec River, Schoodic Brook, Seboeis Stream, Penjajawoc Stream, Birch Stream, Shaw Brook, Souadabscook Stream, Middle Branch Pleasant River, West Branch Pleasant River, Wassataquoik Stream and East Branch Penobscot River.
- Collected samples from the following Downeast streams: Card Brook, Pleasant River, Little River, Western Little River, Narraguagus River, Machias River, Chase Mills Stream, and Boyden Stream.



Periphyton in Penjajawoc Stream

**For More Information:**

Tom Danielson, DEP – (207) 287-7728, thomas.j.danielson@maine.gov





Maine Department of Environmental Protection  
Bureau of Land & Water Quality  
#17 State House Station  
Augusta, Maine 04333

Agency Contact: Don Witherill, Director - Watershed Management Division  
Donald.T.Witherill@maine.gov, (207) 287-7725  
Website: <http://www.maine.gov/dep/blwq/docgrant/319.htm>