

# MAINE STATE LEGISLATURE

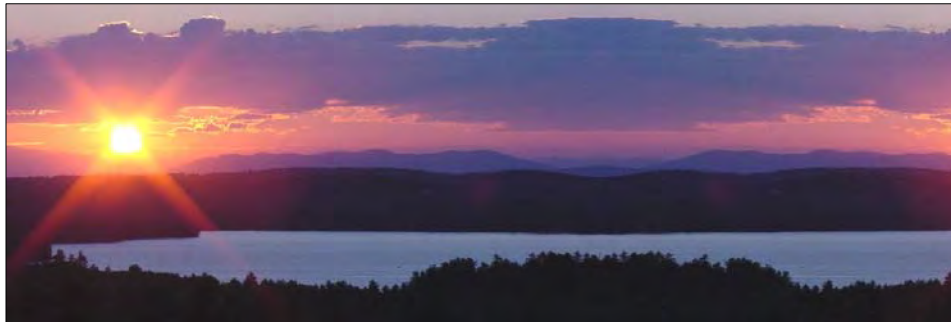
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**An Evaluation of Ways to Protect or Improve  
Lake Water Quality by Addressing Development  
Impacts**

**Maine Department of Environmental Protection Report  
to the Maine Legislature**



**January 31, 2008**

## Contents

<b><u>Executive Summary</u></b>	<b>3</b>
<b><u>Introduction</u></b>	<b>6</b>
<b><u>Part I – General Evaluation of Ways to Improve Water Quality</u></b>	
A. Existing Non-Regulatory Efforts to Protect Lake Water Quality	<b>8</b>
1. Nonpoint Source Grant Program (Section 319 of the Clean Water Act)	
2. Volunteer Lake Monitoring Program	
3. Voluntary Contractor Certification Program	
4. LakeSmart Program	
5. Nonpoint Education for Municipal Officials (NEMO)	
B. Existing Regulatory Programs that Protect Lake Water Quality	<b>10</b>
1. Shoreland Zoning	
2. Natural Resources Protection Act (NRPA)	
3. Erosion and Sedimentation Control Law	
4. Stormwater Law	
C. Ongoing Threats to Maine Lakes	<b>13</b>
1. Soil Erosion	
2. Nutrient and Toxics	
D. Analysis of Lake Protection Issues	<b>18</b>
1. Residential Areas	
2. Camp Roads	
3. Construction Site Erosion	
E. Recommendations	<b>23</b>
<b><u>Part II – Evaluation of the Stormwater Law Compensation Fee</u></b>	
A. Background – Why the Fee was Established	<b>26</b>
B. Problems with Existing Fee Structure and Possible Solutions	<b>27</b>
C. Recommendations	<b>29</b>
<b><u>Appendix A - Lake Watershed Survey Analysis</u></b>	<b>30</b>
<b><u>Appendix B - Proposed Legislation</u></b>	<b>31</b>
<b><u>Appendix C - Participating Stakeholder Organizations</u></b>	<b>33</b>

## Executive Summary

Maine has nearly 6,000 lakes, many of outstanding quality. Maine's lakes are important to the State economy, as well as for the health and well-being of those who live and recreate near them. But while the quality of many lakes is high, a growing number of lakes, particularly in southern and central Maine, are facing the threat of declining water quality.

This is a two-part report. The first part addresses ways to improve lake water quality, focusing on impacts from development; agricultural practices are not addressed. The second part looks at the Stormwater Law's compensation fee program for projects in lake watersheds.

### Part I - General Evaluation of Ways to Improve Water Quality

Based on substantial input from a group of stakeholders that were convened to discuss draft proposals in October and December of 2007, the Department has developed the following recommendations to improve and protect lake water quality:

#### Recommendations:

1. Increase outreach to property owners on ways to minimize lake impacts due to runoff from their property. This should include an evaluation and refinement of the Department's current LakeSmart Program. The evaluation should include input from lake partners around the state and from other related state programs, including the Yardscaping program administered by the Board of Pesticides Control.
2. Develop a set of standards that unpaved roads should meet to ensure that they are not significant sources of nonpoint source pollution to lakes.
3. Identify lake watersheds where the Department should increase its effort to get problem sites fixed using a combination of incentives, including 319 grant funding; technical assistance; education and outreach; and compliance and enforcement action.
4. Develop guidance for municipalities on how to implement a road impact fee program. Enabling legislation should be enacted to give municipalities clear authority to assess the road impact fee and to use a portion of it to conduct periodic road inspections.
5. The Shoreland Zoning Program should adopt a set of optional standards for increasing protection, or promoting restoration of, lake water quality. Optional standards should include, but not be limited to:

- Adopt a phosphorus control ordinance, similar to state stormwater law requirements, that would apply to smaller projects that do not need state approval;
  - Require that the code enforcement officer inspect a site to ensure compliance with local code requirements at least three times: before construction; during construction and after construction is completed;
  - Adopt a buffer restoration ordinance that applies to structural improvements on a property, and to sites requiring restoration due to land use violations;
  - Adopt road standards that address runoff /drainage concerns;
  - Require a road impact fee for private roads that extend into lake shoreland zones that do not meet the Department's standards (see #4 above). Enabling legislation should be adopted to allow towns to assess this impact fee and establish an account to cover inspection and evaluation costs, as well as to create a fund to cover road improvement work.
  - Require contractor certification for all excavation work done in town (whether or not #6 below is adopted);
  - Require delineation of set-back requirements prior to construction activity to ensure that existing vegetated buffers are not encroached upon or damaged and that erosion controls are installed at proper locations.
  - Municipalities should be recognized for going above and beyond the minimum standards with designated levels established based on the number of optional standards adopted; e.g., bronze, silver and gold levels.
6. Over a period of five years, for all the state's excavation contractors, change the Contractor Certification Program from voluntary to mandatory for property subject to mandatory Shoreland Zoning.
7. Collect data on town resources expended on compliance and enforcement and, in partnership with the Maine Nonpoint Education for Municipal Officials (NEMO) program, seek to provide training in areas with identified needs.
8. Encourage municipalities to document shoreland zone conditions to provide a baseline to be used for comparison purposes during municipal review of applications, and for determining if construction projects are in compliance with their permits. Such documentation can be done inexpensively with photographs taken from a boat to document of shoreline conditions. A periodic survey of this nature would be a very effective way to document changing conditions, both natural and human in origin.

Part II Evaluation of the Stormwater Law Compensation Fee Under Maine's Stormwater Rules, development projects in lake watersheds that propose between one

acre and three acres of new impervious area, must meet one of two standards. Because on some project sites, it may be technically infeasible or financially prohibitive to meet the phosphorus standard, the Stormwater Law allows an applicant to pay a compensation fee in lieu of a portion of the required phosphorus export reduction. Fees are to be used to address chronic sources of phosphorus in the same lake watershed as the development.

Over the years, the Department has identified several problems with the compensation fee option. First, it tends to be utilized on sites even where there are other Best Management Practice (BMP) options available – options that could provide better treatment for phosphorus than can be found elsewhere in the watershed. Second, the fee rate set in statute of \$10,000 per pound of phosphorus that would be exported from a project site is insufficient to fund equivalent mitigation projects. Based on evaluation of mitigation project proposals, the cost is frequently at least \$25,000 per pound of phosphorus attenuated. Third, there are a number of lake watersheds that lack good mitigation opportunities. And fourth, some towns have adopted their own mitigation requirements, which could put a developer in a position of needing to both pay a state compensation fee and providing off-site mitigation to meet the local ordinance.

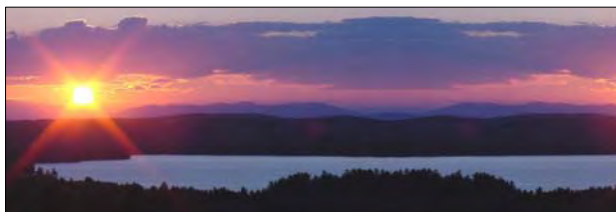
Recommendations:

1. Require that BMPs for residential projects be installed that provide at least a 60% reduction in overall project phosphorus export before allowing an applicant to use the phosphorus compensation fee option. This is an increase from the 50% required in current law.
2. Increase the per pound fee rate from \$10,000 to \$25,000 to reflect actual costs of phosphorus reduction through use of BMPs.
3. Amend the Stormwater Management Law (38MRSASection 420-D) to eliminate duplicate fees where a municipality has an ordinance equivalent to state law.

## Introduction

Maine's lakes are the envy of much of the country. The state is blessed with nearly 6,000 lakes, many with outstanding water quality. A clear lake is a resource that is important economically for attracting tourists and sportsmen and for supporting higher property values. It is also important for the health and well-being of those who recreate on and near the lake.

But while the water quality of many lakes is still high and some impaired lakes have even showed signs of recovery, there are a growing number of lakes, particularly in the more populated areas of southern and central Maine, that are facing the threat of declining water quality. The Maine Department of Environmental Protection (Department), which is responsible for assessing the quality of Maine's lakes, reported in 2006 that 32 lakes are not meeting water quality standards. While some of these are due largely to agricultural activity, many are impacted by development. In addition, under the Maine Stormwater Management Law, 239 lakes are listed as "most at risk" from new development.



When considering how to protect the quality of Maine lakes, the biggest challenge is how to keep phosphorus out of the water. Phosphorus is a nutrient needed to support healthy vegetation. But when it gets into our water, phosphorus is considered a pollutant. It contributes to excess growth of algae, resulting in lower clarity in the lake. The growth of algae also leads to oxygen depletion, which is detrimental to cold water fish species like salmon and trout. In many of the lakes listed as impaired, as well as other lakes of concern, excess phosphorus creates algal blooms that cover the surface of the lake with a scum layer that is unappealing for would-be swimmers and boaters.

While phosphorus can reach a lake in different ways, soil erosion is the leading source. Phosphorus attaches readily to fine soil particles where it can then be taken up by plant roots. However, human activities, including development and agriculture, often leave the soil exposed. Rainfall and snowmelt can create runoff, which erodes the soil and washes the particles into feeder streams or directly into a lake. For this reason, people working on protecting lake water quality have focused much of their efforts on preventing or stopping soil erosion.



In addition to erosion control, lake protection efforts have also centered on the protection and restoration of vegetated buffers (broad strips of trees, shrubs and ground

cover that buffer/protect adjacent waterways by acting as a sponge for stormwater runoff). When performing as intended, vegetated buffer strips trap sediments, excess nutrients, and other pollutants, prevent erosion, and help stabilize sloped areas and the shoreline.

A recent addition to both of these efforts includes a state requirement that retailers selling lawn fertilizer containing phosphorus must post a sign to make consumers aware that they should, in most cases, use phosphorus-free fertilizer. To broaden awareness of the problem, the sign also states the reasons that phosphorus is harmful to waterways.

### **About this Report**

This report was required by the Legislature when it enacted 2007 Public Law Chapter 65, "An Act to Protect and Improve Lake Water Quality by Reducing Phosphorus in Lawn Care Fertilizer." In addition to addressing the use of fertilizer, the law requires the Department to develop recommendations on ways to protect or improve lake water quality by restoring naturally vegetated buffers on lake shorelines, by evaluating compensation fee amounts that have been established to offset phosphorus inputs and by examining other issues identified in the development of the report.

There are a number of programs either run by the Department, by municipalities, or by other partnering organizations, that have been put in place to protect or restore lake water quality. Some of these programs are regulatory; many are not. This report looks at the impacts on lake water quality from development, and explores why, despite current efforts, there are still many lakes with impaired or threatened water quality due in large part to development. We then examine some options that we believe are worth considering if we are to be successful in our lake protection efforts and provide the Department's recommendations for changes to Maine's lake protection strategy.

The reach of this report does not include lake impacts from agriculture. Though there are existing programs aimed at addressing agricultural activity, future efforts to address lake water quality in those watersheds where runoff from agriculture is a significant factor will need to focus on further steps to reduce impacts from agricultural runoff.

The findings and recommendations in this report were developed by Department staff with substantial input from a stakeholder group that met in October and December of 2007. The group included representation from state agencies, the Maine Municipal Association, the Maine Association of Conservation Districts, business interest groups, and lake protection interest groups. A list of participants is included in Appendix C. Comments submitted by participants during the process, along with meeting notes are available on the Department's web site at:

[http://www.maine.gov/dep/blwq/docwatershed/lake\\_water\\_quality\\_report.htm](http://www.maine.gov/dep/blwq/docwatershed/lake_water_quality_report.htm).



## Part I. Ways to Improve Water Quality

### A. Existing Non-Regulatory Efforts to Protect Lake Water Quality

The primary lake protection programs the Department manages or funds include the Nonpoint Source (NPS) Grant Program, Volunteer Lake Monitoring Program (VLMP), Voluntary Contractor Certification Program, LakeSmart and Nonpoint Education for Municipal Officials (NEMO). In addition, Department staff is involved in a number of education and outreach activities, including recent campaigns to educate the public about the problems caused by soil erosion and polluted stormwater runoff.

#### 1. Nonpoint Source Grant Program (Section 319 of the Federal Clean Water Act)

To help protect Maine's threatened waters and restore NPS impaired waters, the Department administers Maine's NPS Management Program. This program is funded primarily through federal grant money under Section 319 of the Clean Water Act. The Department uses this 319 funding for numerous programs designed to identify, prevent or reduce NPS water pollution problems. More information about the Nonpoint Source Management Program can also be found in the Department's 2006 annual report: [http://www.maine.gov/dep/blwq/docgrant/319\\_files/reports/index.htm](http://www.maine.gov/dep/blwq/docgrant/319_files/reports/index.htm).

Staff provides technical assistance to local watershed groups and runs education and outreach programs for a variety of audiences, including developers, building contractors, municipal officials, school children and the general public. Funds support assessment work through the VLMP and through stream sampling for benthic macro-invertebrates (i.e., bugs that live on stream bottoms). Funds are also used to develop Total Maximum Daily Load (TMDL) assessment reports for waters impaired primarily by NPS pollution, as required by federal law. Since 2000, the Department has completed TMDL reports for 31 NPS impaired lakes or streams as a first step toward restoration of water quality.

Through the NPS Grant Program, the Department awards grants to help watershed groups assess water quality problems and take action to reduce or remove nonpoint sources of water pollution. As of October 2007, there were 44 active projects funded, in part, by this program with at least 40% match from local partners. Total federal dollars for these projects comes to \$2,373,452, with additional local match of \$1,561,404.



#### 2. Volunteer Lake Monitoring Program

The VLMP is one of the largest and oldest citizen-based monitoring programs in the country. The VLMP is a private, non-profit organization



based in Auburn, Maine, that receives some funding support through the 319 grant program. Through the VLMP, citizen volunteers are trained to collect scientific data on Maine's lakes and ponds. Over 500 volunteer monitors are certified and for five to six months each year, collect data on their assigned lakes. By the end of 2006, data was being collected on 575 lakes. The Department, municipalities and other organizations have come to rely on this information to keep track of lake water quality trends.

### **3. Voluntary Contractor Certification Program**

Due to the high rate of erosion that occurs at areas disturbed by construction, the use of effective erosion control practices is critical to protecting the quality of Maine waters. Since 1996, the Department's Nonpoint Source Training and Resource Center has coordinated a Voluntary Contractor Certification Program that has trained hundreds of contractors in using erosion and sediment controls. Contractors receive certification after attending an 8-hour training course and successfully completing a construction site evaluation. As of January 1, 2008, 561 contractors were certified. To maintain certification, contractors need to attend at least one 4-hour continuing education course every three years.



#### **4. LakeSmart Program**

The LakeSmart program was established in 2002 to promote lake water quality through proper landscaping and management of property in lake watersheds. The program's goals are to establish a new norm for shoreline and watershed development by rewarding property owners who stop erosion, manage stormwater, maintain their septic system, leave native vegetation or plant vegetation along shorelines, minimize lawns and open recreation areas, and reduce fertilizer and pesticide use. The program is designed to recognize landowners who make an effort to prevent polluted stormwater from entering Maine's lakes. Over 140 properties have received LakeSmart Awards.

To assist in educating and promoting LakeSmart, a training program has been developed that instructs property owners on landscape and management practices. A training program has also been developed to help landscape professionals and their clients make improvements to achieve LakeSmart status. In addition, an evaluation program for properties seeking LakeSmart recognition has been underway on a small number of lakes for four seasons.

#### **5. Nonpoint Education for Municipal Officials (NEMO)**

The Maine NEMO Program provides outreach to municipal officials on how local land use decisions are linked to water quality in their towns. The program is funded by federal grant money provided by the Department's 319 grant program as well as grants from the Department of Health and Human Services Drinking Water Program and the Maine State Planning Office. Any town official can request that NEMO staff come to give a presentation to the community; one presentation is geared specifically for communities with lake watersheds. Where the program has been most effective, representatives from different boards (select board, planning board, conservation commission, comprehensive planning committee) attend the training together and use it as a stepping off point for discussions about their land use ordinances and/or comprehensive plan.

### **B. Existing Regulatory Programs that Protect Lake Water Quality**

#### **1. Shoreland Zoning**

The Mandatory Shoreland Zoning Law focuses on areas near great ponds, rivers and larger streams, coastal areas, and wetlands. The shoreland zoning law helps to protect water quality, wildlife habitat, scenic character and other uses in these areas.

The Shoreland Zoning law requires that municipalities protect shoreland areas by adopting *shoreland zoning maps and ordinances* that prescribe the types of activities that can occur in certain areas. Shoreland Zoning addresses building size and setbacks, clearing of vegetation and soil disturbance activities. In lake watersheds, shoreland areas include areas within 250 of the normal high-water line of any great pond and upland edge of freshwater wetlands and areas within 75 feet of the high-water line of streams.

Over the years, the law has changed with respect to lakeshore buffers. Prior to 1989, cleared openings were allowed to the water (30 feet wide per 100 feet of frontage). That allowance was eliminated in 1989 and in 1990, the depth of the buffer for new development was increased from 75 feet to 100 feet. Existing cleared areas were grandfathered however, as long as the area consists of non-woody vegetation. Those areas can continue to be mowed to maintain their grandfathered status.

The law is primarily administered through each municipality. Some municipalities adopt the minimum state guidelines, while others have chosen to exceed the guidelines in various ways.. The local code enforcement officer is usually the first point of contact on shoreland zoning issues. The Department also has a Shoreland Zoning Unit, consisting of three full-time and one part time staff, that provides administrative oversight for the program. Despite state oversight, enforcement of shoreland zoning standards varies appreciably from town to town across the state.

The Land Use Regulation Commission (LURC) administers zones and land use standards that provide a comparable level of protection to shoreland areas in unorganized areas. Permitting and enforcement of these provisions are handled by permitting staff in LURC's Augusta and regional offices.

## **2. Natural Resources Protection Act (NRPA)**

The NRPA is focused on "protected natural resources," which include rivers and streams, great ponds, fragile mountain areas, freshwater wetlands, significant wildlife habitat, coastal wetlands and coastal sand dunes. A permit is required when an activity will be:

- Located in, on or over any protected natural resource, or
- Located adjacent to a coastal wetland, great pond, river, stream or brook or significant wildlife habitat contained within a freshwater wetland, or certain freshwater wetlands. Activities within 75 feet of the resource are considered to be adjacent.

Regulated activities in lake watersheds include dredging, bulldozing, removing or displacing soil, sand, vegetation or other materials; draining or otherwise dewatering; and any construction, repair or alteration of any permanent structure. For adjacent activities, the Department has adopted Permit by Rule standards, which require a minimum set-back of 25 feet. Otherwise, an individual permit is required.

LURC administers NRPA in its jurisdiction. LURC's wetland program, which includes wetland protection zones, is consistent with NRPA and reflects the fact that its function includes planning in addition to permitting.

### **3. Erosion & Sedimentation Control Law**

The Erosion & Sedimentation Control Law, enacted in 1997, has a very brief and basic standard requiring that a person who conducts an activity involving filling, displacing or exposing earthen materials take measures to prevent unreasonable erosion of soil or sediment beyond the project site or into a protected natural resource.

Erosion control measures must be in place before an activity begins, and remain in place and functional until the site is permanently stabilized. No permit is required. Agricultural fields are exempt, and forest management activities conducted in accordance with Maine Land Use Regulation Commission standards are deemed to comply.

The Erosion and Sediment Control Law is supported by Department's education efforts promoting erosion control and the use of best management practices next to and beyond shoreland areas. The law is enforceable by both the Department and municipal code enforcement officers. The Department did not add any field staff when this law became effective and has been criticized by environmental groups for having insufficient resources to adequately enforce the law.

### **4. Stormwater Law**

Activities that disturb an acre or more of land require a permit under both the federal Clean Water Act (Stormwater Construction General Permit) and the Maine Stormwater Management Law. The Department administers both of these programs and has adopted a common set of rules (Department Rule Chapters 500 and 502). The rules include requirements for erosion control during construction, the use of "best management practices" (BMPs) to treat stormwater runoff after construction, and on-going inspections and maintenance of all treatment measures.

The Stormwater Management Law does not apply to unorganized areas, but LURC administers standards for erosion control which include best management practices for erosion and sedimentation control developed by the Department.

With respect to compliance and enforcement of all the state administered land use laws, the Department has in recent years had high turn-over of staff in its licensing and enforcement program. Vacancies have resulted in a reduced capacity, while a high rate of applications has resulted in an increased workload. In response to this problem, the Legislature approved four new positions: two in the licensing section and two in the enforcement & field services section. The positions are funded through application fees. The positions have all been filled over the last several months and will improve the Department's field presence to ensure compliance with the State's land use laws.

## C. Ongoing Threats to Maine Lakes

The Department's existing regulatory and non-regulatory programs have helped protect and restore Maine lakes. In 2006, the Department removed six lakes from its impaired list because water quality standards are now being met. Improvements in these lakes can be attributed, at least in part, to sustained watershed restoration work by the Department and partner organizations in preceding years. Despite these success stories, findings from Department watershed surveys and a recent construction site inspection survey point to several land uses that continue to be significant problems in lake watersheds across the state.

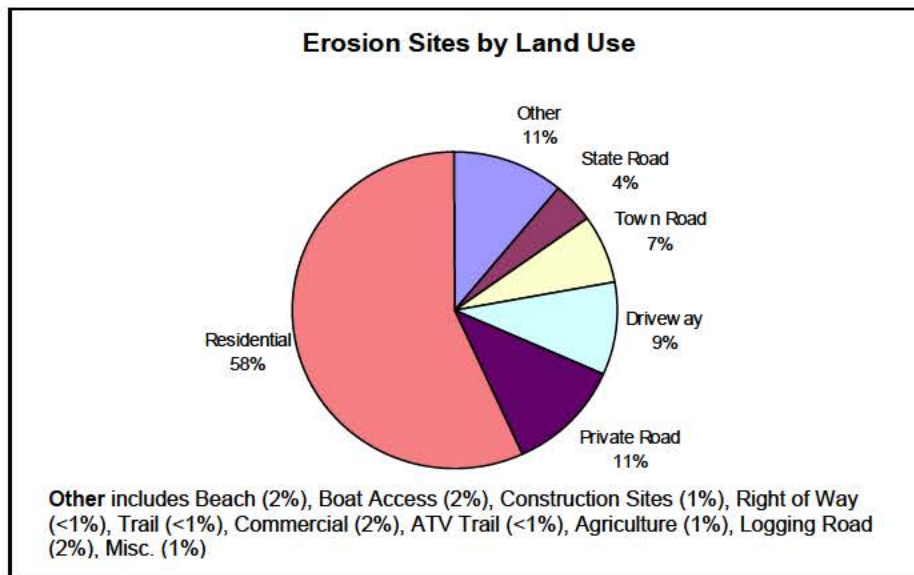
### 1. Land Uses Associated with Erosion Problems

Lake watershed surveys have been an important tool to help the Department and local communities identify specific pollution problems – namely in the form of eroding soil – to Maine lakes. During watershed survey projects, trained volunteers and technical staff walk all roads and developed areas in a watershed and document soil erosion problems. Over the past 15 years, over 150 surveys have been completed across the state. Data from 36 recent lake watershed surveys was compiled and analyzed to determine the most prevalent soil erosion sources and problems (see Appendix A). In total, 4,423 erosion sites were identified through these surveys.



The breakdown of land uses associated with documented erosion problems was analyzed across all of the 36 watershed surveys. Overall, residential areas (58%) accounted for the largest number of problems. Private roads accounted for the second highest number of problems (11%). Grouped together, road issues (state, town and private roads and driveways) accounted for 31% of the erosion sites.





Logging roads and agricultural areas accounted for less than 3% of the total number of problem sites overall. However, these land uses were responsible for a significant number of problems in surveys conducted in parts of the state with active timber harvesting and agricultural operations. Unstable construction sites were found in most of the watersheds surveyed, but they accounted for less than 2% of the total number of identified erosion sites overall. Most of these sites were associated with residential construction – either new home construction or renovations to existing homes.

#### a. Residential Areas

Erosion problems associated with residential areas represented the land use with the greatest number of problems. Typical problems included bare soils, inadequate vegetated buffers and soil erosion on shorelines, pathways and below gutter downspouts and roof drip lines. Of these sites, 65% were rated as low impact, meaning that individually they do not have a significant effect on water quality, while 4% were rated as high impact.<sup>1</sup> However, due to the sheer abundance of all of these sites, residential problems can collectively create significant cumulative impacts to lake water quality.



These residential problems can oftentimes be fixed by homeowners with “low tech” solutions and limited expense. Bare soils can be covered with mulch; roof runoff can be infiltrated by installing trenches filled with crushed stone; and shoreline buffers can be improved with plantings or reduced mowing.

<sup>1</sup> High impact sites are large areas with severe soil erosion and direct flows to the lake or feeder streams or ditches. Low impact sites are smaller areas with slight erosion and limited flow to the lake.

### b. Roads

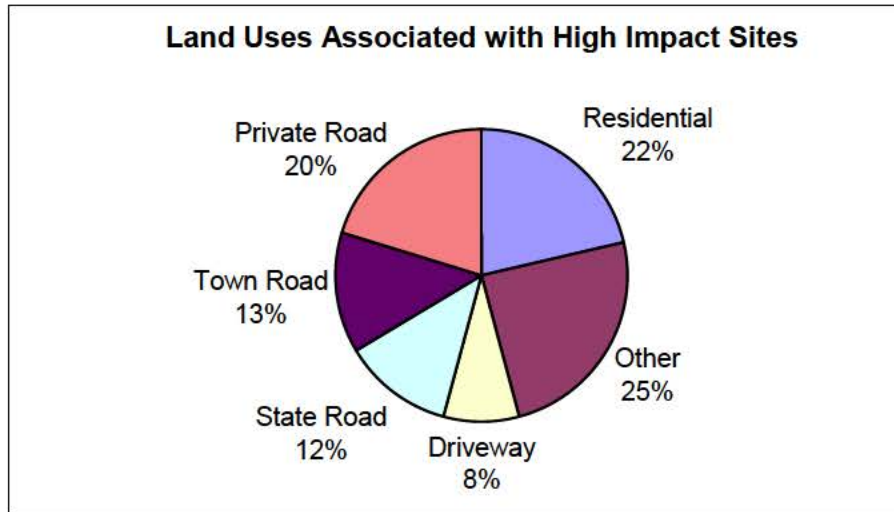
Roads were a significant contributor of pollution in all 36 watershed surveys examined. Private camp roads, in particular, experienced the greatest number of problems (11%). When combined, all categories of roads (private, state, town roads and driveways) accounted for 31% of the identified erosion sites.



Although there were fewer road sites compared with residential sites, road sites tended to be rated as higher impact problems. Of the 480 high impact sites identified, 255 (53%) resulted from town, state, and private roads and driveways.

Typical problems on all road types included unstable culverts, poor road surface material, inadequate drainage, and erosion on the road surface, shoulder and ditches. These problems can be fixed by armoring culverts and ditches, adding hard-packing gravel and proper crown to road surfaces, and keeping up with maintenance. However, many of these recommended measures are relatively expensive and require technical expertise and coordination between multiple landowners.





### c. Construction Sites

Overall, unstable construction sites accounted for less than 2% of the identified erosion sites in the 36 watershed surveys that were analyzed. However, there were at least three construction sites with inadequate erosion controls and direct erosion to the lake in 26 (70%) of the watershed surveys.

Although few in numbers, these sites can contribute significant amounts of sediment and phosphorus to lakes. In the 2003 watershed survey on Little Sebago Lake, project staff estimated pollutant loads from all of the documented high and medium impact erosion sites and found that one construction site alone contributed 12 tons of the total 71 tons (17%) of sediment per year to the lake.

In the summer of 2007, Department staff conducted a construction site inspection survey to assess the level of compliance with Maine's Erosion and Sediment Control (ESC) Law.<sup>2</sup> The study focused on 136 construction sites in 36 of the state's fastest growing municipalities. Compliance rates were compared between:

- municipalities with ordinances requiring the development and submittal of an erosion control plan for construction projects and those without such a requirement,
- municipalities with full time versus part time Code Enforcement Officers (CEOs), and
- sites completed by contractors with employees certified by the Department in erosion control practices versus those without certified employees.

There did not appear to be a significant difference in compliance rates between towns with full time vs. part time CEOs (62% vs. 57%) or erosion control plan requirements vs. no such requirements (55% vs. 63%). Based on interviews with CEOs, what did seem to make a difference was whether the CEO (or another official) conducted inspections of

<sup>2</sup> Maine Department of Environmental Protection, "Summary of a Study of Compliance with the Maine Erosion and Sediment Control Law," August 2007; [http://www.maine.gov/dep/blwq/docwatershed/summary\\_esc\\_2007.pdf](http://www.maine.gov/dep/blwq/docwatershed/summary_esc_2007.pdf)

construction sites, regardless of whether or not plans were required, and regardless of whether or not the CEO worked full time.

Only 14 of the 136 sites (10%) were operated by contractors who employ individuals certified in erosion control practices. Of these 14, 86% were in compliance with the erosion control law. This compares to a compliance rate of 58% for non-certified contractors. Although this was a small sample, the high compliance rates of certified contractors are consistent with results from prior surveys done by the Department. Based on this information, it appears that training of contractors is an important step toward improving compliance with the ESC Law.

## **2. Other Sources of Lake Problems**

While erosion and sedimentation are the most common sources of pollution to Maine lakes, several other sources from development are significant as well. Excess nutrients from over-fertilization of lawns and pesticides cause water quality problems. The increase in impervious areas also adds to the problems.

Stormwater washes excess fertilizer into waterways. If too much fertilizer is added to the lawn, the plants can't use it and it is washed away the next time it rains. Those nutrients that make lawns green make the plants in the lake grow too, causing nuisance algal blooms. In the case of lakes, phosphorus is the nutrient of greatest concern, which is why the legislature in the last session passed a law concerning phosphorus-containing fertilizer. The law requires retailers who sell fertilizer to post a sign that consumers should use phosphorus-free fertilizer unless they are creating a new lawn, overseeding or reseeding or have a soil test that shows phosphorus is needed. Most Maine soils have sufficient phosphorus to grow a healthy lawn. Adding additional phosphorus doesn't help the lawn, but can hurt the water.

Many fertilizers also contain pesticides. Many people who use the "Weed & Feeds" don't realize they are applying pesticides to their lawns. The Board of Pesticides Control is concerned with the large increase in the amount of weed and feeds sold because of the amount of toxic material being added to the environment. Broadcast applications of pesticides are generally not an effective way to deal with what is usually a limited problem. The Board promotes alternate approaches through a program called Yardscaping.

A physical feature that compounds the problem of nutrient and pesticide runoff is the amount of impervious surfaces around lakes. The impervious surfaces prevent stormwater from soaking into the ground. And it isn't just paved roads, driveways, and roofs – most lawns are relatively impervious. 40-60% of a hard rain runs off rather than soaks into our lawns. The solution to this runoff is to leave as much natural wooded area as possible between the developed land and waterways. The uneven topography allows the stormwater to puddle and soak in. Also the trees, shrubs, and groundcover slow the rain and their roots take up the water. These natural sponges are called "buffer strips" because they buffer the water from the pollution coming off the land.

## **D. Analysis of Lake Protection Issues**

### **1. Residential Areas**

Residential property owners have been the target audience for outreach activities by the Department for many years. Department staff has tried to educate this group on the importance to maintain buffers along the lake shorelines, to prevent erosion, to reduce over-fertilization and use of pesticides. This educational effort has also aimed to inform property owners of the Erosion & Sedimentation Control Law which requires that property is stabilized to prevent unreasonable erosion to a protected natural resource.

LakeSmart has proven to be an effective outreach program in helping landowners identify and fix pollution sources on lakefront residential properties. The program has been very well received in every location where it has been offered and many more lake associations have applied to enter the program. The Department has one staff person running the LakeSmart Program, with several other staff providing limited support due to other responsibilities. In addition, the Department has established a network of partner organizations (e.g., Soil & Water Conservation District staff) as LakeSmart evaluators. These evaluators carry out property inspections to determine if a property meets the requirements to attain LakeSmart status and provide recommendations to help landowners make improvements. The estimated cost to run LakeSmart for the last 3 years (Department staff time, contracts for evaluations, signs, awards, training, printing, etc) has been \$48,800 per year. The largest costs are Department staff time to administer the program and conduct some evaluations (\$38,400/year) followed by the costs of paying others to do evaluations (\$8000 contract with MACD in 2007). The average cost per evaluation has been \$529.

The Department and its partners have been getting more requests than they can service from people wanting LakeSmart evaluations on their lake or pond. To date, LakeSmart training and evaluations have been provided to property owners around 40 lakes. The Department would like to expand the LakeSmart Program so that property owners around any lake or pond in the state could receive training and seek certification; however, this level of outreach will not be achievable in the foreseeable future, given resource limitations. Therefore the program needs to be strategic in its expansion.

Another concern about outreach efforts is that they have lacked sufficient incentives to ensure that recommendations are widely adopted. In addition, the Department has lacked sufficient staffing to conduct routine compliance inspections to ensure that the Erosion & Sedimentation Control Law is being followed at construction sites. While the Department would like to be able to improve compliance through increased inspections, fiscal constraints will likely preclude any significant increases in staff in the near future. Therefore, increases in compliance may be best achieved through programs adopted at the local level.

Maine's Guidelines for Municipal Shoreland Zoning Ordinances, adopted through rule-making by the Department, contain minimum requirements that municipalities must meet to regulate land use activity in the Shoreland Zone of lakes and other water bodies. There are a number of towns that have gone beyond the minimum guidelines in order to better protect their lakes. Towns have adopted ordinances that:

- Limit the export of phosphorus from development sites that are not large enough to require state review;
- Require multiple site inspections of development sites (before, during and after) by the code enforcement officer; and
- Require on-site, pre-construction delineation of set-back lines and erosion control measure locations.

These types of provisions can make a significant difference in the overall success of lake protection efforts.

### **Options for improving land use activities on residential properties:**

- Encourage adoption of optional Shoreland Zoning standards.

In order to encourage towns to adopt additional requirements to better protect their lakes, the Department could develop a list of recommended standards that a municipality could choose to adopt if it wishes. In order to give recognition to towns that go above and beyond the minimum state guidelines, the Department could also establish performance thresholds; e.g., if a town adopted a certain number of optional standards, it might qualify as a "silver" level town. If most were adopted, it might qualify as a "gold" level town. Town residents could thus set a target protection level that they would like to achieve to ensure that the lake is being protected to the fullest extent practicable.

- Expand the LakeSmart Program.

The LakeSmart Program has been well received by lakeshore property owners. The Department needs to explore ways that it can increase delivery of the program. While additional funding for the program would be beneficial in expanding the program's reach, the Department needs to work with its partnering organizations to determine if more can be done under the existing budget.

- Require restoration of lake shoreline buffers.

Functional vegetated buffers are a key component of properties with LakeSmart status. Since newly developed shorefront properties are required to maintain vegetated buffers through Shoreland Zoning, a requirement could be adopted that would pertain to existing development. The requirement could be applied at the state and local level and could stipulate that vegetated areas along the shoreline be allowed to revert to natural conditions; i.e., not mowed. By allowing the lawns to revert to vegetated buffer areas, those areas could become more effective at filtering stormwater runoff.

This approach would not be popular with lakeshore property owners, who would be asked to give up an existing use of their property (lawn area). An alternative approach

would be an ordinance that towns could adopt whereby establishment of a vegetated buffer would be required, to the extent practicable, when a structure is improved (expanded, converted to year-round use, etc.) as discussed in the section above on optional shoreland zone standards.

## **2. Camp Roads**

Improper construction and maintenance of camp roads has long been recognized as a significant issue in lake watersheds. In the 36 watershed surveys examined for this report, camp roads accounted for 11% of total number of documented erosion problems and 20% of the sites rated as high impact to lake water quality.

The Department has wrestled with the lack of proper road maintenance issue for many years and has convened several interest groups in past years to develop ideas on how to address the problem. Guidebooks have been written on camp road maintenance and how to form a road association. Technical assistance has been offered on appropriate best management practices to treat runoff. Financial assistance has been offered, primarily through the 319 grant program to cost share on the cost of fixing roads as part of implementing watershed management plans. And the erosion and sedimentation control law was amended so that on-going erosion problems in most at risk lake watersheds are now a violation of the law and subject to enforcement by Department. These activities have resulted in some erosion problems getting fixed, but there are still many roads that are in need of upgrading and/or regular maintenance.

Municipal officials have also expressed concern about the problem of camp road maintenance. With more year round homes being built on these roads, there is increasing concern about safety. Roads that become impassable, or nearly so, during spring thaw, pose a concern about access for fire and health/medical personnel. There is also shared concern about lake water quality and the effect that a decline in water quality could have on property values.

Property owners who live on camp roads should be encouraged to take an interest in properly maintaining their access road.

### **Options for improving road maintenance:**

- a. Start a LakeSmart Road program based on the framework of the existing LakeSmart program. The LakeSmart Program could be expanded to include certification of LakeSmart Roads. With such a certification program, property owners and road associations would get recognition for doing the right thing to protect the lake. However, such recognition, while helpful, would not likely be enough to motivate widespread participation and make an appreciable difference in lake water quality due to the costs of fixing and maintaining roads.
- b. Identify camp roads in most at risk lake watersheds for which the Department should increase efforts get road problems fixed using a combination of incentives, including 319 grant funding; technical assistance; education and

outreach; and compliance and enforcement action. The Department has several tools at its disposal to prompt property owners to fix their roads. While grant money is clearly most desirable from a property owner's perspective, it is not always available and may not be a sufficient incentive by itself. While the Department has not had a history of taking enforcement action against problem roads, it remains a tool that should be used when a significant problem exists and other options are either unavailable or insufficient to correct the problem.

- c. Develop minimum standards for camp roads to be met in order to avoid an impact fee. The Department could develop standards that towns could adopt through ordinance, along with an impact fee provision that would apply to property owners who access roads that do not meet the standards. Administration of such an impact fee program would logically occur at the local level, with fees assessed along with property taxes. The town would use a portion of the fee to cover their administrative costs, which would include road inspections at least annually. Remaining funds could be placed in a road fund account and made available for residents to repair or upgrade their road. If a town did not want to handle the inspections directly, the Department in cooperation with partner organizations, such as Soil & Water Conservation Districts, could provide the assessments and offer some technical assistance, using a portion of the road impact fee money.

### **3. Construction Site Erosion**

Since property in the shoreland zone is in close proximity to important natural resources, excavation work in that area has the potential to have immediate impacts to these resources. Results from both field studies and erosion models indicate that erosion rates from construction sites are typically an order of magnitude larger than row crops and several orders of magnitude greater than rates from well-vegetated areas, such as forests or pastures.<sup>3</sup>The ongoing problems with construction site erosion center on inadequate enforcement of state and local laws and lack of proper installation and maintenance of Best Management Practices.

Municipal Code Enforcement Officers (CEOs) are often the last line of defense for protection of the state's lakes from the effects of soil erosion and improper shorefront development. However, CEOs typically have a lot of responsibilities that extend beyond environmental protection, so the amount of time available to enforce land use regulations may be small.

The Department's construction site survey in 2007 demonstrated that activity in enforcing land use laws varies significantly from town to town. Some towns support a full time CEO as well as, in some cases, assistants, while others with comparable or

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<sup>3</sup> "National Pollutant Discharge Elimination System--Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges", Federal Register: December 8, 1999 (Volume 64, Number 235) Page 68721-68770. <http://www.epa.gov/EPA-WATER/1999/December/Day-08/w29181a.htm>



even higher populations only have a part-time CEO. There are likely a number of reasons for this variation. The lack of sufficient funds is no doubt an issue, although some towns appear to have differing priorities for use of available funds. In towns with insufficient support to conduct inspections and enforcement, there may be a lack of knowledge among municipal officials concerning the link between land use practices and water quality.

The 2007 construction site survey reinforced the value of utilizing contractors who are certified as knowledgeable in using proper erosion and sedimentation control measures, with significantly higher compliance rates found at their sites versus sites where contractors were not certified. The survey also points out the relatively low participation level that the certification program has had. Despite an on-going training and certification program operated by the Department for over ten years, a relatively small percentage of earth-moving contractors have chosen to complete the requirements for certification, which consist of attending a training course and having an actual construction site reviewed and approved by an inspector authorized by the Department. As of December 2007, 561 contractors in the state have been certified. The Department has tried various approaches to advertise the program, including newspaper advertisements and direct mailing to published lists of earth-moving contractors. Despite these efforts, growth of the program has been slow in recent years.

#### **Options for improving erosion control at construction sites:**

- Require certified contractors in erosion control practices on all projects in lake watersheds, or in some portion of the watersheds, such as the shoreland zone. The Voluntary Contractor Certification Program is well established now and based on studies of compliance with the ESC Law, it has been shown to be effective in improving the rate of compliance. While many contractors have become certified, others have not, and there is concern among those who use good erosion control practices that they will be underbid by those who cut corners with respect to erosion control.

Making the Contractor Certification Program mandatory would create several concerns. Perhaps most significantly is the question of whether there would be sufficient numbers of contractors certified to meet demand. This could be addressed by having a phase-in period of as long as five years, so that contractors would have time to get certified. The program could also be limited geographically to a smaller area, such as the shoreland zone. This has the added advantage of being readily identifiable, whereas lake watersheds are not, so that it should be clear to all parties involved in a construction project as to whether a certified contractor is required.

- Collect data on town resources expended on compliance and enforcement and dedicate NEMO and Department resources to target training in areas with identified needs.

The Department, through its Nonpoint Source Training and Resource Center and its partnership with NEMO, could investigate the reasons for these differences and whether municipal officials are likely to be receptive to offers for training through NEMO or the Department. Where additional training would be helpful, it could lead to additional local commitment to enforce environmental regulations.



## E. Recommendations

1. Increase outreach to property owners on ways to minimize lake impacts due to runoff from their property. This should include an evaluation and refinement of the Department's current LakeSmart Program. The evaluation should include input from lake partners around the state and from other related state programs, including the Yardscaping program administered by the Board of Pesticides Control.
2. Develop a set of standards that unpaved roads should meet to ensure that they are not significant sources of nonpoint source pollution to lakes.
3. Identify lake watersheds where the Department should increase its effort to get problem sites fixed using a combination of incentives, including 319 grant funding; technical assistance; education and outreach; and compliance and enforcement action.
4. Develop guidance for municipalities on how to implement a road impact fee program. Enabling legislation should be enacted to give municipalities clear authority to assess the road impact fee and to use a portion of it to conduct periodic road inspections.
5. The Shoreland Zoning Program should adopt a set of optional standards for increasing protection, or promoting restoration of, lake water quality. Optional standards should include, but not be limited to:
  - Adopt a phosphorus control ordinance, similar to state stormwater law requirements, that would apply to smaller projects that do not need state approval;
  - Require that the code enforcement officer inspect a site to ensure compliance with local code requirements at least three times: before construction; during construction and after construction is completed;
  - Adopt a buffer restoration ordinance that applies to structural improvements on a property, and to sites requiring restoration due to land use violations;
  - Adopt road standards that address runoff /drainage concerns;
  - Require a road impact fee for private roads that extend into lake shoreland zones that do not meet the Department's standards (see #4 above). Enabling legislation should be adopted to allow towns to assess this impact fee and establish an account to cover inspection and evaluation costs, as well as to create a fund to cover road improvement work.

- Require contractor certification for all excavation work done in town (whether or not #6 below is adopted);
  - Require delineation of set-back requirements prior to construction activity to ensure that existing vegetated buffers are not encroached upon or damaged and that erosion controls are installed at proper locations.
  - Municipalities should be recognized for going above and beyond the minimum standards with designated levels established based on the number of optional standards adopted; e.g., bronze, silver and gold levels.
6. Over a period of five years, for all the state's excavation contractors, change the Contractor Certification Program from voluntary to mandatory for property subject to mandatory Shoreland Zoning.
  7. Collect data on town resources expended on compliance and enforcement and, in partnership with the Maine Nonpoint Education for Municipal Officials (NEMO) program, seek to provide training in areas with identified needs.
  8. Encourage municipalities to document shoreland zone conditions to provide a baseline to be used for comparison purposes during municipal review of applications, and for determining if construction projects are in compliance with their permits. Such documentation can be done inexpensively with photographs taken from a boat to document of shoreline conditions. A periodic survey of this nature would be a very effective way to document changing conditions, both natural and human in origin.

## Part II. Evaluation of the Stormwater Law Compensation Fee

### A. Background – Why the fee was established

Under the Chapter 500 Stormwater Management Rules, projects that are in lake watersheds and have at least one acre (20,000 sq ft in Most at Risk Lake Watersheds) but less than three acres of new impervious area must either meet the Phosphorus Standard or the General Standard. Projects in lake watersheds that will have three acres or more of new impervious area or five acres or more of developed area must meet the Phosphorus Standard.

The General Standard requires that certain prescribed stormwater management and treatment measures, known as best management practices (BMPs), be incorporated in the project design. The Phosphorus Standard requires that the increase in phosphorus discharged from the site in stormwater runoff as a result of the project may not exceed the amount allocated to the project's parcel based on the per acre phosphorus budget for the lake watershed in which the project is located. This is generally accomplished either by limiting the scope or intensity of the project or by incorporating BMPs that attenuate the discharge of stormwater phosphorus.

In some instances, the parcel's allocation may be very small in comparison with the amount of development required, and it may be technically infeasible or financially prohibitive to meet the phosphorus standard. This situation occurs most often on small lots with commercial development. In order to address this problem, the Stormwater Management Law allows the Department to accept a compensation fee in lieu of a portion of the phosphorus export reduction required to meet the parcel's allocation. Funds generated by these fees are then used to address chronic phosphorus sources within the lake watershed in which the project is located.

Sub-paragraph 11.A of the Stormwater Management Law (38MRSASection 420-D) states that "the department may allow an applicant with a project in the direct watershed of a lake to address certain on-site phosphorus reduction requirements through payment of a compensation fee . . .". It further states that ". . . best management practices must be incorporated on site that, by design, will reduce phosphorus export by at least 50%, and a phosphorus compensation fee must be paid to address the remaining phosphorus reduction required to meet the parcel's phosphorus allocation" and that "the Commissioner may set a fee rate of no more than \$10,000 per pound of available phosphorus, except that the commissioner may set a rate up to \$20,000 per pound for a project located in the direct watershed of a severely blooming lake". This provision, with the current fees, has not changed since it was enacted in 1997.

As of October 1, 2007, there had been 70 projects located in 35 lake watersheds that used the compensation fee option in meeting the Phosphorus Standard. Funds in many

of these watershed accounts have been used to implement mitigation projects. Some accounts have not yet accumulated sufficient funds to support projects.

## **B. Problems with Existing Fee Structure and Possible Solutions**

Over recent years the department has identified several problems with the compensation fee option and its implementation.

### **1. Over-use of the Compensation Fee.**

The fee was originally intended to decrease costs for development, particularly commercial development, in situations where the parcel being developed is small relative to the proposed development, and it would not be feasible to meet the parcel's phosphorus allocation, either because no combination of BMPs would be adequate, or because the necessary BMPs would be prohibitively expensive. In current use, the compensation fee is applied to any type of development, regardless of parcel size, provided that BMPs are applied which reduce the development's phosphorus export by at least 50%. In many instances other or larger BMPs that would get greater phosphorus removal would be reasonably feasible, but they are not used because the compensation fee option is available. Since, in many lake watersheds, finding projects with relatively permanent benefits to spend compensation funds on is difficult, the Department would like to require more effort towards meeting the allocation on site, rather than having applicants rely so heavily on the fee.

#### Possible Solutions:

- Increase the required level of on-site phosphorus export reduction, at least for residential projects, from 50% to 60%. This would require developments to at least meet the treatment level of the general standards in Chapter 500 on site before they could avail themselves of the compensation fee. The 50% threshold could remain for commercial development proposals on small lots. This would not require a statutory change.
- Increase the per pound fee to a level where its cost is a disincentive to relying on the fee if alternative BMPs or site designs are available. This would require a statutory change.
- Add language to the statute, or to rule, that requires an applicant to use alternative BMPs or site designs, if feasible, before resorting to the compensation fee.

### **2. Insufficient Fee Rate**

The cost of retrofitting BMPs that provide relatively permanent, long term reductions has gone up dramatically since 1995 when the original rate of \$10,000 per pound was derived. In the most recent round of proposals for utilization of compensation funds, most of the proposals that included BMPs with the potential for long term effectiveness were expensive, costing at least \$25,000 for every pound of phosphorus attenuated. The logic of the compensation fee option and its justification as an alternative to onsite mitigation of phosphorus export depends on the ability to provide at least equivalent off

site mitigation with the funds received, but, in most cases, this is no longer possible for \$10,000 per pound.

Possible Solution:

- Increase compensation fee from \$10,000 per pound to at least \$25,000 per pound. In the cases where the compensation option is most needed, the compensation fee will still be an attractive option for applicants, even at \$25,000 per pound. This is because the higher the level of phosphorus removal required to meet the parcel's allocation, the more sophisticated and expensive the BMPs that must be incorporated. The additional cost of going from 60% removal to 80% removal is usually much greater than going from 0% removal to 40% removal, even though the actual reduction in phosphorus export is much less. For developers, both the cost of the sophisticated BMPs required to provide a high level of phosphorus reduction and the cost of reduction in project density sometimes required to meet a small parcel allocation are usually much greater than \$25,000 per pound. An increase in the compensation fee would require a statutory change.

**3. Lack of Mitigation Opportunities.**

There are many lake watersheds where use of the compensation fee is inappropriate either because there are few if any long term retrofits opportunities available for expenditure of compensation funds, or because there are no entities interested in implementing the necessary retrofits if funds are available. There is a presumption in the development community that the compensation fee option is always available, but this is in fact not the case. The statute does not require the Department to allow the compensation fee option; it only says that the Department may use it. If we allow it in watersheds where there are not appropriate mitigation opportunities, or in watersheds where the funds are not likely to get applied since there is no one interested in using the funds, we will not be able to provide the appropriate mitigation. This is compounded by the fact that the phosphorus standard is an option in any lake watershed, not just in most at risk watersheds, as was the case prior to the rule changes of 2005.

Possible solution:

- Limit use of the compensation fee option to those lakes where implementing agencies (soil and water conservation districts, watershed districts, municipal governments) have identified watersheds where appropriate mitigation opportunities are available and have indicated an interest in implementing compensation fund projects in these watersheds. This would not require a statutory change.

**4. Need for Coordination with Local Ordinances**

Many towns require developers to meet the phosphorus standard to receive subdivision and/or site review permits. Some of these towns are willing to accept and approve applications that rely on payment of a compensation fee to meet the standard; some are not willing to accept or approve such proposals and still others may propose alternative mitigation or fee requirements, or may limit compensation fee options to only certain types of development. If a town has developed its own mitigation provision, and it is not consistent with the compensation fee structure in the Stormwater Management Law, a

developer may find himself having to both pay a state compensation fee and provide off site mitigation to meet the local ordinance. This is not a serious problem, from the lakes prospective, because it simply pushes the developer towards working to meet his or her phosphorus allocation with onsite BMPs or over compensating for any shortfall, neither of which is bad for the lake. However, it does drive up costs for developers.

Possible solution:

- Amend the statute to allow the Department to consider equally effective locally driven mitigation options in lieu of the state compensation fee option.

### **C. Recommendations**

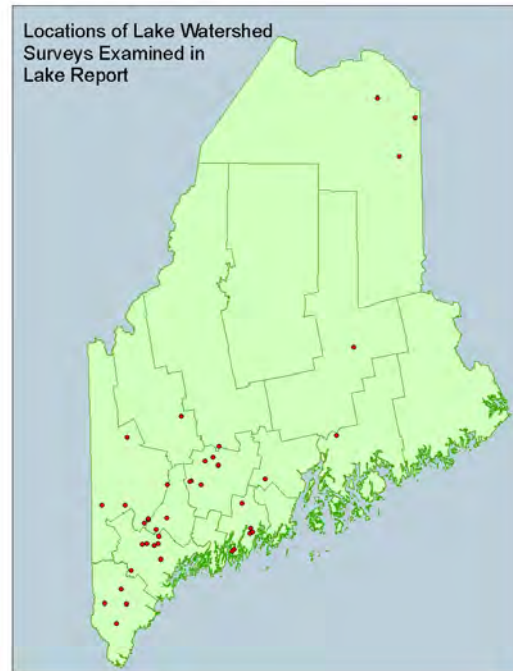
1. Require that BMPs for residential projects be installed that provide at least a 60% reduction in overall project phosphorus export before allowing an applicant to use the phosphorus compensation fee option. This is an increase from the 50% required in current law.
2. Increase the per pound fee rate from \$10,000 to \$25,000 to reflect actual costs of phosphorus reduction through use of BMPs.
3. Amend the Stormwater Management Law (38MRSASection 420-D) to eliminate duplicate fees where a municipality has an ordinance equivalent to state law.

## Appendix A - Lake Watershed Survey Analysis

### Selected Lake Watershed Surveys

For this report, survey data was compiled and analyzed from 36 watershed survey projects that were completed with technical oversight from the Maine DEP over the past decade. See below for a list of lakes, survey date and distribution across the state.

Adams Pond & Knickerbocker Lake - 2002  
Bauneg Beg Lake - 2000  
Bear Pond - 2002  
Big & Little Narrows - 2006  
Biscay, Little, & McCurdy Ponds - 2005  
Clary Lake - 2001  
Crystal Lake - 2004  
East Pond - 2000  
Echo Lake - 2001  
Forest Lake - 2003  
Great Pond - 2000  
Green Pond & Mirror Pond - 2002  
Hanson Lake - 2001  
Kennebunk Pond - 2003  
Kezar Lake - 2005  
Lake St. George - 2001  
Little Madawaska Lake - 2003  
Little Ossipee Pond - 1997  
Little Sebago Lake I & II - 2003 & 2004  
Long Pond - 2002  
Maranacook Lake - 2001  
McWain Pond - 2007  
Mesalonskee Lake - 2003  
Middle Range Pond - 2004  
Mousam Lake - 1997  
Panther Pond - 2004  
Pocosset Lake & Pickerel Pond - 2003  
Porter Lake - 2000  
Roxbury Pond - 1995



Sabbathday Lake - 1997  
Taylor Pond - 2003  
Thomas Pond - 2001  
Thompson Lake - 1999  
Trafton Lake - 2002  
Watchic Pond - 1998

### More Information on Specific Watershed Surveys

The Maine DEP maintains a file with hard copies of the watershed survey reports listed above as well as many other lake, river and stream survey reports. Many reports can also be found on the web. See below for links to several of the reports. Note that most surveys are conducted to raise community awareness and assess watershed problems, not for enforcement purposes. As a result, many local steering committees take measures to protect the privacy of landowners with identified erosion problems. Depending on local preferences, survey reports may identify the locations of erosion problems by tax map/lot numbers, street addresses or solely road names.

Crystal Lake - [www.cumberlandswcd.org/Crystal%20Lake%20Survey%20Report.pdf](http://www.cumberlandswcd.org/Crystal%20Lake%20Survey%20Report.pdf)  
Forest Lake - [www.cumberlandswcd.org/Forest%20Lake%20Survey%20Report.pdf](http://www.cumberlandswcd.org/Forest%20Lake%20Survey%20Report.pdf)  
Little Sebago Lake Part 1 - [www.cumberlandswcd.org/LSI\\_report%20\(Read-Only\).pdf](http://www.cumberlandswcd.org/LSI_report%20(Read-Only).pdf)  
Square Pond - [www.maine.gov/dep/blwq/docgrant/319\\_files/square\\_pond\\_watershed\\_survey\\_report.pdf](http://www.maine.gov/dep/blwq/docgrant/319_files/square_pond_watershed_survey_report.pdf)

## Appendix B. Proposed Legislation

### 1. Enact law to allow municipalities to assess an impact fee for sub-standard private ways:

**Title 23 MRSA § 3106 Road Impact Fees Assessed by a Municipality.** A public interest exists in ensuring that private roads in lake watersheds are properly constructed and maintained to prevent them from degrading lake water quality due to stormwater runoff. Therefore, a municipality is authorized to adopt an ordinance that includes the assessment of an annual fee to property owners who use a private road serving X or more properties to access a seasonal or year round dwelling, if the private road is located in whole or part within a lake watershed and is not constructed or maintained in accordance with road-related standards for protection of lake water quality adopted by the municipal ordinance. The Maine Department of Environmental Protection shall provide guidance on appropriate road standards. The amount assessed per lot must be based on the estimated cost to upgrade the road to meet municipal standards. Funds generated by this assessment must be held in a municipal account and used to pay for upgrading private roads that were the basis for the assessment authorized by this section and for the municipality's administrative costs, including the cost of inspecting the private roads.

### 2. Enact law to require contractors to be certified in erosion control for work in Shoreland Zones:

**Title 38 MRSA §439-B Contractors Certified in Erosion Control.** An excavation contractor conducting excavation activity in a shoreland area shall ensure that a person certified by the Department in erosion control practices is responsible for management of erosion and sediment control practices at the site. The person certified by the Department shall be physically present at the site each day when earthmoving activity occurs from the beginning of earthmoving activity until the site is permanently stabilized to prevent soil erosion.

For purposes of this section, an "excavation contractor" is individual or firm engaged in a business where disturbance of soil, including grading, filling and removal, is caused to occur, or results from an activity that the individual or firm is retained to perform.

This section takes effect January 1, 2013.

### 3. Amend Stormwater Law compensation fee language:

Amend the Stormwater Management Law, Title 38 MRSA §420-D.11.A as follows:

- (3) The commissioner may set a fee rate of no more than ~~\$10,000~~ \$25000 per pound of available phosphorus, ~~except that the commissioner may set a rate up to \$20,000 per pound for a project located in the direct watershed of a severely blooming lake.~~



(6) As an alternative to paying a compensation fee, the department may allow an applicant to meet a municipally required mitigation option, if the department determines that the local mitigation option will provide at least as much long term reduction in phosphorus loading to the lake as would have likely occurred under payment of the compensation fee.

## **Appendix C – Participating Stakeholder Organizations**

- Association of General Contractors (John Butts)
- Augusta Water & Sanitary District (June Mooney)
- China Region Lakes Alliance (Jim Hart)
- City of Lewiston, Dept. of Public Services (David Jones, Jan Patterson)
- Congress of Lake Associations (Maggie Shannon)
- Cumberland County Soil & Water Conservation District (Jami Fitch, Tamara Lee Pinard)
- Department of Health & Human Services, Drinking Water Program (Andy Tolman)
- Department of Transportation (Peter Newkirk)
- Franklin County Soil & Water Conservation District (Rosetta Thompson)
- Lakes Environmental Association (Peter Lowell)
- Maine Association of Conservation Districts (Bill Bell)
- Maine Association of Realtors (Jeremy Payne, Linda Gifford)
- Maine Land Use Regulation Commission (Fred Todd)
- Maine Municipal Association (Geoff Herman)
- Maine Nonpoint Education for Municipal Officials Program (LaMarr Cannon)
- Natural Resources Council of Maine (Nick Bennett)
- Pattee's Pond Assoc. (Larry Fleury, Carl Snow, Brad Whitaker)
- Portland Water District (Nate Whalen)
- Senator Joe Perry, Maine State Senate
- Town of Readfield, Code Enforcement Officer (Clif Buuck)
- Volunteer Lake Monitoring Program (Scott Williams)