



# McWAIN POND NEWS

www.mcwainpond.org

March 2009

## PROTECTING McWAIN POND NOW AND FOR THE FUTURE



Photo by Anita Brause

### President's Letter

Dear Friends,

We are about to start another season on McWain Pond. We are also in the second and final year of the Watershed Improvement Project. Last year we were able to take on major erosion control projects at McWain Shores, Camp McWain and the Plate Farm along with several smaller projects, called mini grants.

This year we will be working on major projects with the Town improving road drainage, fixing problems at Camp McWain, Birch Rock Camp and along Pride Ave.

However, there is still time and money for technical assistance mini grants that are ideal for fixing smaller erosion problems at residential sites. If you have a situation that may impact the pond and want help in resolving it call Jeff Stern at 583-2723 or me at 583-2955.

Remember, even after the Watershed Improvement Project has finished, we will have to maintain what we have accomplished because keeping healthy water quality in McWain Pond protects property values now and in the future.

Sincerely,  
*Tony Butterall*  
President  
McWain Pond Association

***SAVE THE DATE 2009 Annual Meeting***  
***July 11 • Birch Rock Camp • 10 am • Watershed Discussion***  
***Bring Friends and Family • Refreshments***

# McWain Pond Project Cuts Erosion by 22 Tons

The McWain Pond Watershed Improvement Project in 2008 reduced soil erosion that was polluting McWain Pond by an estimated 22 tons. The two-year project started in April 2008 and runs through March 2010. Funding for this project, in part, was provided by the U.S. Environmental Protection Agency under Section 319 of the Clean Water Act. The Maine Department of Environmental Protection in partnership with EPA administers section 319 grants. Partners include Lakes Environmental Association, Town of Waterford, Portland Water District, Birch Rock Camp, and individual watershed landowners.

The project, which is voluntary and does not involve any regulation or enforcement, aims to curb erosion that runs into McWain Pond. Studies show eroding soil that washes from surrounding land is the chief threat to water quality in Maine lakes and ponds.

Phosphorus, a plant nutrient common on land but naturally limited in lakes, attaches to soil particles. When these soil particles wash into a lake it upsets the natural balance and phosphorus serves as “junk food” for algae. The algae blooms uncontrollably, which can turn a formerly clear lake into a slimy green mess. Algae blooms ruin fishing, swimming and boating and have been shown to reduce lakeshore property values, which causes a negative ripple effect through a town’s tax base and economy.



Farm Road Before Erosion Control



Farm Road After Erosion Control



The enemy: green algae

Long-term water testing by Lakes Environmental Association and MPA indicates McWain Pond is vulnerable to an algae bloom. For this reason, the State of Maine included McWain Pond on its list of Priority Watersheds for protection.

In 2006, MPA volunteers, guided by a technical team, surveyed the watershed for erosion “hot spots” and found 95 problem areas. Some of the highest priority sites occurred on gravel roads and that’s where MPA focused its efforts in 2008.

The McWain Pond Watershed Improvement Project continues in 2009. MPA plans to work with the Town of Waterford to address town roads that are major contributors of soil erosion. Birch Rock Camp will complete work to control erosion from its steep property. MPA will continue assisting watershed landowners to control erosion problems on their properties. MPA provides free technical assistance to landowners and can match landowners’ cost of implementation at these small sites with “mini grants” up to \$300. Two public education workshops are planned for 2009, one focuses on how to plant vegetative buffers to control soil erosion and the other workshop will demonstrate proper maintenance of camp roads and driveways.



## Erosion Control Case Studies

Whiting Avenue was identified in the 2006 McWain Pond Watershed Survey and judged to have a “medium” impact to McWain Pond. However, this unpaved private road washed out almost entirely during the Patriot’s Day storm in spring 2007. The huge amount of sediment that entered the lake, and the potential for it to happen again, bumped the site up to one of the highest priorities for erosion control in the *McWain Pond Watershed Improvement Project*. Soil loss estimate is calculated at 5 1/2 tons per year.

The solution included:

- Increasing the capacity of the ditch at the corner of Whiting Avenue and Elliott Way. The ditch was widened and deepened. Rip-rap was installed over a layer of fabric. This increased ditch capacity will slow flows that come down the Whiting Avenue ditch and trap sediment in the rip-rap before storm water flows through a culvert under Elliott Way and through a forested buffer on its way to McWain Pond;
- Construction of two broad-based dips across Whiting Avenue to move surface water off the road. The dips were reinforced with crushed gravel;
- Construction of ramps over the road ditch at each broad-based dip. This design provides adequate space for snow plowing. Melt water, and storm water runoff from the road during warm seasons, will filter slowly into the ground and woods rather than flushing directly into the ditch and causing additional erosion;
- Culverts were installed where the ramps cross the road ditch. Each culvert was armored at both inlet and outlet with rip-rap.

The innovative erosion control designs used at this site will be featured on tours for the project steering committee, watershed residents and the media during the two-year life of the grant. It is hoped this project will be useful in providing an example of how to fix similar problems in the watershed.



Whiting Avenue Before Erosion Control



Whiting Road After Erosion Control



Musik Lane Before and After Erosion Control



## McWain Pond Association Annual Meeting 2008 (Abbreviated minutes)

50 members were present. Our consultant, Jeff Stern, described how to apply for matching grants for engineering or technical advice or to complete erosion control projects. Mini grants of up to \$300 are also available to individuals. Jeff added that future erosion control work is planned on McWain Hill, Mill Hill and the Waziyatah stream.

Colin Holme, LEA water quality monitor, found three areas of water quality improvement in 2007: Secchi disk reading; chlorophyll and phosphorous, but because of dissolved oxygen depletion in bottom waters, McWain Pond remains in the moderate/high degree of concern category. Our work to control erosion sites in the watershed should result in more improvements in 2008.

Bill Hanger gave an update on this season's successful loon hatch of two chicks. Photos are available on our website. Peter Sevcik announced changes and updates to our website, [www.mcwainpond.org](http://www.mcwainpond.org).



Lakeside Picnic Area Before and After Erosion Control



## We Need to Support LEA, .....now more than ever!

The Lakes Environmental Association (LEA) began serving McWain Pond in the late 1980's. Four year-round staff and about 20 seasonal staff operate LEA's programs: Water testing, milfoil eradication, milfoil surveys, boat inspections, school education programs, public education programs, free Clean Lake Check-Ups for landowners, mapping and technical assistance to municipalities, the Holt Pond Preserve and summer camp, and a resource headquarters in Bridgton.

LEA has a yearlong education program in Waterford Elementary School and LEA staff provide extensive water testing on McWain. In addition, LEA has been a key partner in the McWain Pond Watershed Project, which will reduce nutrient pollution within the watershed. LEA also provides free mapping, planning and technical assistance for Waterford in an effort to maintain water quality.

Two-thirds of LEA's income is from membership donations. This year will be a difficult one for all non-profits. LEA is asking for help from McWain in order to maintain water testing and other services. Only 17 of McWain's 100 landowners are LEA members and their donations do not cover the costs of services. Please consider becoming an LEA member to show your support for this important work. Visit the web site at [www.mainerlakes.org](http://www.mainerlakes.org) to join or to get more information. Or, visit LEA's Lakes Center at 230 Main Street in Bridgton.

### **McWAIN POND ASSOCIATION** PO Box 58, Waterford ME 04088 [www.mcwainpond.org](http://www.mcwainpond.org)

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