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# 2003-A New Year Full of Promise for the Cayuga Lake Watershed!

By Bill Foster, Watershed Educator



"\$3.5 Million for Cayuga Watershed Projects"

"\$1 MILLION FOR FINGERLAKES INSTITUTE"...

Perhaps you have read similar headlines in the past few months. The numbers are impressive, and you might be wondering where all this money goes, and who decides how it will be spent. More importantly, does all this attention ensure a healthy Cayuga Lake watershed? Well, the good news is that there is a method to the madness, so to speak, in the form of management plans for many of the Finger Lakes watersheds.

The theory is that a successful watershed management plan allows organizations and communities to direct efforts toward broadly recognized Areas of Concern, thereby maximiz-

ing benefits for the entire watershed. This collaborative effort by stakeholders greatly enhances both the potential for success and the attractiveness of a watershed to national foundations and granting agencies. In fact, the completion of the Cayuga Lake Restoration and Protection Plan ("RPP") in 2000 really set the stage for much of the attention we are receiving today. However, with so much work proposed, communities must act knowledgeably and cooperatively to ensure that the end results are consistent with their desires. In this and coming issues, the Network will provide some perspective on new funding and projects falling into place for our watershed, and on the ways in which these events affect you.

#### The Direction of New Funding Opportunities

A review of the numerous funding opportunities presently flowing toward our watershed and the Finger Lakes region quickly becomes overwhelming. Further, the uncertainties associated with many yet-to-be funded proposals, such as Senator Clinton's Finger Lakes Initiative Act of 2002, make them difficult to assess.

# Steward's New Year Message

appy New Year and Season's Greetings to all of you from all of us at the Network Office! We are looking forward to an exciting year, as the Network continues to grow and take on new challenges.

The theme of our winter newsletter, exploring the recent influx of funding to the watershed, sets the stage for the work we see ahead of us in 2003. We will be busy presenting workshops on stormwater control and well maintenance, producing new educational tools ranging from brochures to compact disks, and sponsoring local stream protection efforts, just for starters.

The Network not only receives grants but also frequently serves in an advisory or supporting capacity, facilitating cooperation and communication that leads to stronger grant proposals by other organizations. As we work together in ways that increase our effectiveness and our efficiency, the further resources can be stretched and the more our water resources benefit. The Cayuga Lake Watershed Network was founded on

these principles of networking and collaborating to increase effectiveness.

Funding alone will not protect our precious water resources. Ensuring the right projects are proposed and funds are used wisely requires that we, as citizens in the watershed, be educated and involved in the decision processes. And each of us – as individuals, municipalities, businesses and organizations – must do our part to reduce our contribution of contaminants. Watch for our spring newsletter for practical tips and information to help you make a difference personally in protecting the high water quality of our beautiful lake, our magnificent creeks and our precious groundwater.

Tremendous opportunity awaits us, and we believe that the Network's role as educator and advocate for watershed communities is perhaps more critical now than ever before. The Network stands poised to grow in its capacity, ever more able to carry out our mission and serve our membership.

## **A Frozen Tradition**

Thanks to Gwen Webber-McLeod, Director of Communications at Wells College

Wells College tradition states that whenever Cayuga Lake freezes over entirely, or at least past Aurora, the president must cancel classes for the day. The first time Cayuga Lake froze over in the college's history was in 1875. There is no record to indicate classes were cancelled on that occasion. However, the lake stayed frozen for a month during that time and student Emma Lampert Cooper, much to the horror of faculty members, ice-skated across the lake and back. Numerous sled rides were subsequently taken across the lake that year.

College records indicate that the lake also froze in 1912, 1918, 1934, 1948, 1962, and 1979; and on each occasion, classes were cancelled by the president. The most recent close call occurred in 1994, when then – President Robert Plane was called to close the college due to freezing conditions. However, he noticed that the ice was melting and did not cancel classes. Perhaps he felt it would be prudent to keep students occupied indoors!



Having fun on Beebe Lake is one thing, but would you skate across Cayuga Lake? Photo ca. 1944.

One other bit of student lore has always been attached to the lake freezing over. Supposedly, if the lake freezes, this natural act indicates that all the members of the first-year class are virgins. According to the Almanac, the winter of 2002-2003 should be a cold one, and we're off to a good start. What do you think are the chances that Wells students will get a chance to skate, walk or sled into history this year?

#### Cayuga Lake Watershed Network

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# Why Focus on Sediment?

AN OVERVIEW OF WATERSHED PRIORITY SETTING BY THE TECHNICAL ADVISORY COMMITTEE OF THE INTERMUNICIPAL ORGANIZATION

n creating the Cayuga Lake Watershed Restoration and Protection Plan (RPP), municipal officials, residents, and other stakeholders described their vision for the future of Cayuga Lake and its watershed. The lake's use as a high quality water supply surfaced

as the central aspect of that vision, followed by continued recreational use and aesthetic enjoyment. As part of this process, the Watershed Characterization Report identified pollutants that pose a threat to Cayuga Lake. Sediment was found to be of special concern because it is both a direct pollutant and a vehicle that carries other pollutants to Cayuga Lake and its tributaries.

We have all seen cloudy plumes both ends of Cayuga Lake in the lake following rainstorms and snowmelt. Studies indicate that sediment is the major factor affecting lake water clarity, particularly in southern Cayuga Lake. Sediment is also stressing many tributaries to Cayuga Lake, including, Cayuga Inlet, Fall Creek, Cascadilla Creek, Six Mile Creek, Bolter Brook and Yawger Creek, by degrading in-channel habitat for invertebrates and fish. These streams provide spawning habitat for many of the important recreational and commercial fish for which Cayuga Lake is renowned. Further, sediment clogging tributary mouths encourages excessive aquatic plant growth and inhibits recreational boating.

#### The Link Between Sediment and Phosphorus

Sediment particles transported from fields, parking lots and other areas carry with them many other contaminants, including phosphorus, pesticides, and heavy metals – all identified as concerns by the RPP – into the aquatic system. Phosphorus in Cayuga Lake is of particular concern because high levels lead to excessive algae and plant growth, which has been observed in some areas of the lake. Excessive algal growth reduces light penetration and available oxygen levels, upsetting lake ecology. Sediment and algal concentrations also interfere with effective treatment of drinking water supplies. While overall phosphorus concentrations have declined as a result of continuing wastewater treatment plant upgrades, the portion of phosphorus entering the lake system with sediments remains to be addressed.

Sediment originates via erosion from the landscape, or from the banks and beds of streams. In either case, erosion is strongly influenced by both natural and

human factors. The southern portion of the watershed, for example, is vulnerable to erosion as a result of glacial soils and steep slopes. The processes that created the region's beautiful gorges and waterfalls continue to carve the landscape. Human activities, such as poorly planned construction, roadwork, and agriculture operations, expose erodible soils and further contribute to the volume of sediment delivered to local streams. Impervious surfaces, such as asphalt, also increase the potential for

erosion by forcing more water into stream channels. Finally, loss of the extensive wetland areas in southern Cayuga Lake has removed a natural filtration process that captured sediment before it reached the lake.



Sediment-laden waters enter the lake from the Cayuga-Seneca Canal and surrounding lands at the north. Sediment is a priority concern at both ends of Cayuga Lake.

#### **Reducing Erosion and Sedimentation**

Because sedimentation is by nature a "non-point source" phenomenon, control actions are required on multiple fronts. The RPP recom-

mends voluntary, incentive-based programs and some changes in local laws to reduce sediment loads. It identifies priority areas for restoration of stream channels, vegetated stream corridors and wetlands. Additionally, new state regulations, commonly referred to as "Phase II Stormwater Rules," will require additional treatment, education and planning by many communities to further control sediment and associated pollutants. This combination of voluntary and regulatory controls will benefit the Cayuga Lake watershed, if properly balanced.

In the middle of the 1900s, national and state resources were dedicated to water quality improvements through control of point sources of pollution. However, evidence points to the increasing importance of non-point sources of water pollution, and the central role of sediment in delivering these contaminants to waterbodies. Controlling sediment poses a major challenge, which must be addressed if our vision for the future of Cayuga Lake is to be realized. Nonpoint sources of pollution are neither simple nor easily defined, and require active participation at all levels to protect the Cayuga Lake watershed for future generations. For these reasons, the IO has identified sediment as a top priority for restoring and protecting the Cayuga Lake Watershed.

Editor's Note: You can learn more about local projects being implemented in keeping with the RPP recommendations to reduce erosion and sedimentation in this and upcoming issues of the Network News! For information on phosphorus sources in our watershed, see the Network Website!

# **UPCOMING EVENTS**

#### **Well-Water Workshops**

The Cayuga Lake Watershed Network, in cooperation with the Tompkins County Health Department and local sponsors, will host a series of educational programs for private well owners at several locations this winter. The sessions will feature information on well construction and maintenance, a review of water quality and health concerns, and an opportunity to have your water tested for bacteria and nitrate at a 75% discount rate. Locations and times are set for the following sessions:

- Enfield Community Center: Jan. 14 and 28, 7:00 – 9:00 pm. (Participants must attend both sessions.)
- Newfield Town Hall: Feb. 1., 9 11 am.

Look for announcements of additional sessions for the Dryden and Groton areas in February and March. For more information, contact the Network. Advance registration is required!

#### **Controlling the Impacts of Stormwater**

The Cayuga Lake Watershed Network is hosting a workshop on new stormwater management regulations on Wednesday, January 22, 2003, from 8:00 am to noon, at the Tompkins County Cooperative Extension Building, 615 Willow Ave., in Ithaca. The free event is geared toward municipal officials and staff, though concerned members of the public are also welcome. Steve Eidt, NYSDEC Water Division, will provide an overview of the new regulations and guidance on completing the necessary paperwork. Sharon Anderson, Cayuga Lake Watershed Network, will review strategies for meeting education and public participation requirements, and also lead a discussion exploring options for intermunicipal cooperation. A light breakfast will be served at 7:45 am.

Advance registration is required. Contact the Network Office or E-mail manager@cayugalake.org.

The event is co-sponsored by the Tompkins County Water Resources Council and Cornell Cooperative Extension.

#### Landscaping for Healthy Streams and Lakes

Two "Green Thumbs for Blue Water" workshops on creating beautiful backyard buffers will be offered on Thursday, March 20, at the Cornell Cooperative Extension



Healthy streams CAN coexist with development.

Education Center in Auburn, and on Wednesday, March 26, location TBA. Two additional workshops on landscape and lawn care for water quality will be offered on Tuesday, April 1, 2003 at CCE Education Center, and Thursday, April 3, location TBA.

These FREE workshops will be held from 7pm to 9pm. Pre-registered participants will receive a toolbox full of helpful resources, and participants who attend both the backyard buffer and landscape workshops will receive a special gift. For information, call 255-1183, or log onto www.co.cayuga.ny.us/wqma/greenthumbs/.

# Motor Boats and Cayuga Lake – What' Your Opinion?

The Cayuga Lake Group is a Yahoo.com newsgroup dedicated to safety, pollution and noise concerns that arise from motorboat and jet ski use on Cayuga lake. Recommendations drafted for the Tompkins County Water Resources Council relative to safety, noise and pollution concerns are available for review on this site. Comments from the public are welcome. Contact quietclean@yahoo.com for more information on how to participate in this newsgroup.

#### Network Upgrades Its "Web-Presence"

The Network's updated website now provides more events, links and up-to-date information on our activities. Check it out at www.cayugalake.org.

The Network is also offering an expanded electronic version of

the Network News, transmitted via E-mail. If you didn't receive the premier issue of the electronic newsletter, we may not have your email address. To sign up, send an Email to Connie, at manager@cayugalake.org. Indicate

whether you want to save paper and be removed from the postal mailing list, or wish to continue receiving both versions. In either case, you may change your mind at any time.

# Six Mile Creek Sediment Projects Gearing Up

Provided by Tompkins Co. Soil & Water Conservation District staff.

During the Tompkins County SWCD's conservation tour in November, District Manager Craig Schutt presented the Town of Caroline and its Watershed Committee with a Watershed Enhancement and Protection Award for their work along Six Mile Creek. But Caroline's Watershed Committee isn't the only organiza-

tion doing good things along Six Mile Creek. In fact, with the watershed targeted as a high priority for sediment load reductions, Caroline, the SWCD, and the City of Ithaca have pulled in nearly \$600,000 for a comprehensive approach to stabilizing the stream and reducing sediment loads to



Eroding banks on 6-Mile Creek deliver sediment to the lake.

Cayuga Lake. "Good things are happening because of all our hard work on the RPP," noted Schutt.

Work planned for the next several years highlights the restructuring of nearly a half mile of highly eroded stream channel in Slaterville. Additional sites for restoration are being selected and several small sites have already seen reconstruction. To compliment these intensive, site-specific projects, a comprehensive list of tools to protect the entire stream corridor is being developed. The SWCD has received significant funding from USDA and HUD (Department of Housing and Urban Development) to implement voluntary agricultural practices, such as stream fencing, improved laneways, alternate water sources for cattle, and riparian buffers – all of which reduce stream erosion associated with cattle access. The City of Ithaca has also received state and federal funding to develop several demonstration buffer projects. Along with stream habitat and buffer restoration, stream-side, or "riparian" forest management will be a focus for land-owner educational efforts.

Finally, townships are making their contributions as well. Besides taking on much of the administrative responsibility for the above-mentioned restoration project, Caroline has purchased hydro-seeders to ensure that roadway ditches are quickly reseeded to minimize erosion. Along with the City of Ithaca, they are also working with the SWCD to complete a full-corridor stream survey. The Cayuga Lake Watershed Network will assist these efforts with volunteer planting projects, educational workshops, and on-the-ground presentations at restoration sites beginning in 2003. Look for future announcements.

# Finger Lakes Institute Funded

Provided by Senator Mike Nozzolio

The Finger Lakes region has been recognized as one of the most beautiful and exciting destinations in the entire country. With this national identity comes a responsibility to ensure the future vitality and viability of our region. That is why I was pleased to recently announce a \$1 million State grant to support the creation of the Finger Lakes Institute, located at Hobart and William Smith Colleges in Geneva.

The Finger Lakes Institute's mission is to preserve, protect and promote the Finger Lakes and advance the economic, environmental, and tourism potential of the region through research and education.

The development of this world-class Institute has the potential to drive economic revitalization and tourism, improve our communities, protect our environment, and expand educational opportunities for area students, from middle school, to high school, to college.

The Finger Lakes Institute will partner with local governments, lakeshore property owners, watershed protection groups, tourism agencies and regional environmental research centers, from Finger Lakes and Cayuga Community Colleges, to Cornell and Syracuse Universities, in protecting the ecology of the Finger Lakes and overseeing development along the lakes. The Finger Lakes are an integral part of our past and our future. This Institute will serve as an important resource for our region, ensuring the integrity of the Finger Lakes for centuries to come.

#### PROJECT HIGHLIGHTS:

## Stormwater Demonstration at the Sciencenter

Provided by Sciencenter Executive Director, Charles Trautmann

The system will collect water

from the Sciencenter's 30,000

square feet of parking lot and

roof, allowing it to seep slowly

into the adjacent soil.

The Sciencenter of Ithaca has received a grant to construct a stormwater pollution control

demonstration project. According to Executive Director, Charlie Trautmann, the stormwater retention system will

be completed during the Spring of 2003 and will be accompanied by outdoor signs and an indoor exhibit on stormwater and watersheds.

Located in the Sciencenter parking area, the system will collect water from the Sciencenter's

30,000 square feet of parking lot and roof, allowing it to seep slowly into the adjacent soil.

Typically, water that drains from these impervious surfaces would be channeled via a storm drain into Cascadilla Creek,

and subsequently into Cayuga Lake. The retention basin will reduce the volume of stormwater entering local streams, and will trap sediment and pollutants that would otherwise find their way to Cayuga Lake.

Sediment and other pollutants

caught by the basin's filter fabric will be removed and evaluated regularly to provide insight on the nature of pollution coming from cars and roadways, and on the effectiveness of control measures such as this one. This and other demonstration projects to be funded in the coming years should provide planners and residents alike with valuable information on best ways to restore and protect our watershed resources. We hope you will take time to tour the project once it is open to the public. Contact the Sciencenter at 607-272-0600 for more information.

# **Seneca County Tackles Erosion Sources**

Provided by Seneca Co. SWCD staff.

The Seneca County Soil and Water Conservation District (SWCD) has received approval for the expenditure of \$48,192 in grant funds to stabilize road banks in the Cayuga Lake watershed. During the past summer, interns conducted an assessment and identified a number of locations with severely eroding road banks and ditches. These sites can act as significant

sources of sediment loading to Cayuga

Lake tributaries. Work will be conducted with the Romulus and Covert highway departments during 2003 to eliminate these sediment sources and stabilize the roads.

Controlling sediment and erosion has become a focal point in Seneca County. The District is working to get information out to the public in anticipation of new

stormwater regulations that become

effective during 2003. In fact, the county's 2002 Agricultural Bus Tour included several erosion control sites, one of which was a non-farm-related travel plaza construction site. In an effort to reduce future erosion impacts from roadwork, the SWCD has also assisted NYS Department of Transportation in



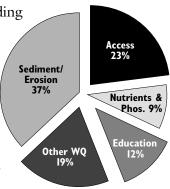
Officials discuss stormwater runoff and erosion controls at the Seneca Petro Travel Center construction site.

ensuring that exposed soils are properly reseded and mulched following construction work. For more information on the proposed work, call the District at (315) 568-4366.

Cayuga - Seneca

#### A New Year Full of Promise continued from page 1

However, we can provide an idea of how the funding received by Cayuga watershed organizations and agencies is being directed so far. The chart at the left illustrates the collective targeting of nearly \$5 million in newly secured funds, awarded as of December 31, 2002. Several examples of recently funded grant projects are provided in the following pages. Additional funding for upgrades to the Cayuga Heights and Ithaca Area wastewater treatment plants is also under negotiation. However, this funding is not considered on the chart right, as it is the result of a long-standing upgrade schedule that is not directly reflective of recent watershed planning efforts.



Estimated Proportions of Watershed Funding (See Network website for more detail.)

The relative proportions for the newly awarded grant funding should ring some bells for readers familiar with the Cayuga Lake Watershed RPP. In fact, the close correlation with RPP priorities and recommendations indicates that the efforts of the IO members who worked to create a living, usable document are beginning to pay off.

#### **But Will It Work?**

The question remains: will this new support from abroad actually ensure a healthy watershed? Even with millions of dollars at the disposal of capable agencies and organizations, the work thus far is just a beginning. Sustaining the momentum depends on internal support from watershed communities – and there is a role for individuals, as well. The projects in store must include plenty of inclusive decision-making to ensure that outcomes are suitable for all affected parties. In December, for example, Cornell



and IC rowers raised serious concerns about the *safety* of a proposed sea wall along Cayuga inlet, thereby sparking what might be seen as an instructive controversy. With informed community participation during the planning phase of each project, these conflicts can be avoided, and watershed protection can be a positive experience for all parties.

As watershed communities, we have envisioned a healthy watershed that not only functions ecologically, but also provides the basis of our livelihoods and community economies. Now, we have opportunities to make this vision a reality. We at the Cayuga Lake Watershed Network hope to assist communities in making these visions a reality.

As a beginning, this issue of the Network News features a number of items pertaining to watershed priorities, associated projects and learning opportunities. We will endeavor to provide continuing information on these topics and the Network's role in the watershed picture over the course of the year.

#### Get All the Information!

The Cayuga Lake Watershed Restoration and Protection Plan may be accessed via the Network and Intermunicipal Organization websites. A detailed and growing tabulation of Cayuga Lake Watershed projects and grants may be found on the Network website. Take a look!

# Expansion of Seneca Meadows Landfill Denied

Provided by Jim Delia, Network Board

n December 3, the Seneca Falls Town Board blocked a proposed enlargment of the Seneca Meadows landfill, voting 4 – 1 against an expansion of M2 zoning, which is needed to operate a solid waste facility.

The meeting was attended by approximately 100 people, many of whom opposed the expansion. In addition, the Board was presented with over 1,300 signatures opposing the zoning change. Seneca Meadows is located on the west side of Route 414, just south of Thruway exit 41, and is authorized to operate through 2010 on its existing property. The zoning change, if passed, would have allowed the landfill to expand to the east side of Route 414.

The Town of Seneca Falls receives over \$1.5 million annually in revenues from Seneca Meadows. This money has been used to keep taxes down and to help build public buildings like the new Recreation Center. However, concerns have been raised regarding aesthetics, increased truck traffic, and the potential for groundwater and well contamination. Look for a continuing exploration of the economic benefits and potential watershed resource risks associated with the Seneca Meadows landfill in future issues of the Network News.



Seneca Meadows Landfill rises above the countryside.

#### This Year's Essay Contest Theme:

### WHY IS WATER SO SPECIAL?

By Judy Pipher, Contest Coordinator

That Cayuga Lake Watershed's beautiful water resources are worth preserving and protecting seems obvious to many of us! But it is important to articulate the factors which define that worth for us – as individuals, or as communities. Understanding the value of our watershed resources is particularly important now. Fresh water is at a premium worldwide, as land and natural systems that provide pure water are often compromised in the name of progress.

Do you enjoy fishing in pure, cool water? Listening to a waterfall or hiking in the country-side? Perhaps you are concerned about your drinking water, erosion occurring along your favorite stream, or the appearance of foam on your lakeshore. The beauty of our lakes and streams, the health of forests, farmlands and neighborhoods, the vitality of our communities – all depend on the quality and quantity of water. But, what makes this resource special to you? Protection and preservation of our watershed resources requires an understanding of the issues behind this year's question – "Why is Water so Special?"

We'd like to hear your thoughts during our third annual essay contest. You could win one of the cash prizes below, but more importantly, your ideas will help us protect the Cayuga Lake Watershed – our community resource. Winning essays will be published in the *Cayuga Lake Watershed Network News*, now available world-wide on the internet. To view last year's winners, visit our website.

#### The essay contest has three categories:

- 1. Students grades 6-8, 500-word limit (1st prize \$75, 2nd prize \$30).
- 2. Students grades 9-12, 1000-word limit (1st prize \$150)
- 3. Adults, 2000-word limit (1st prize \$275)

Essays should be sent to Judith Pipher, 2429 Lower Lake Rd., Seneca Falls, NY 13148, postmarked by April 1 (no joke!), 2003. Complete rules are posted on our website. For more information, contact Ms. Pipher, at, jlpipher@astro.pas.rochester.edu, or the Network office. Winners will be announced during Water Week, which begins May 5, 2003.

Inspire the Cayuga Lake Watershed community to appreciate anew its water resources – share your experience and imagination by entering today!

**The Mission...** The Cayuga Lake Watershed Network seeks to protect and improve the ecological health, economic vitality and overall beauty of the watershed through education, communication and leadership.



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