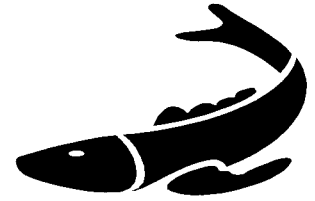


Tonetta Lake Advisory Committee

Sponsored by the Southeast Town Board

October 2004 Issue #2

Making Progress in Protecting and Improving Lake Tonetta



Working with the Tonetta Lake Advisory Committee, the Town Board of the Town of Southeast is moving forward to protect and improve the Lake Tonetta on several fronts:

- **First**, the Town has engaged a hydrologist to provide scientific data on the lake and to assist in an application for the deployment of sterile triploid grass carp. The carp has been used in many communities to control weeds, which in the case of Lake Tonetta, presents a hazard to swimmers and compromises water quality.
- **Second**, the Town has partnered with Putnam County in obtaining \$480,000 from the East of Hudson funds to fund the installation of a comprehensive storm water treatment sys-

tem. This will play a critical role in mitigating the impact of storm water runoff, which contains nutrients from fertilized lawns and failed septic systems and undermines water quality.

- **Third**, the Town continues to fund community outreach, like this newsletter, to educate residents to take steps to reduce the load of nutrients flowing into Lake Tonetta.

These initiatives as well as the steps that residents can take, like using low phosphate detergents and maintaining septic systems in a responsible manner, can do much to improve water quality and reduce aquatic plant overgrowth and algae blooms.

Automatic Dishwasher Detergent

Automatic dishwasher detergent is a large contributor of excess phosphorous in the environment because of the large amounts of phosphates that are added. Phosphates are added as a water softener during the dishwashing cycle and those are helpful for those of us with "hard water." But to help reduce out of control aquatic growth in the Lake and improve

water quality, we encourage residents to try newly formulated phosphate free automatic dishwasher detergent, both in liquid and powder form.

While reducing phosphates is important for all residents, it is especially important for those of us with less than efficient septic tanks or those that live near the Lake.

Plant-Eating Fish to Inhabit Lake Tonetta

Some new residents are moving into Lake Tonetta—and they're hungry. To control the high densities of aquatic weeds that currently plague our lake each summer, the Town of Southeast is planning to stock Lake Tonetta with triploid grass carp (*Ctenopharyngodon idella*). These fish, which are sterile and cannot reproduce in the wild, are vegetarians that especially enjoy eating weeds like coontail (*Ceratophyllum demersum*) and milfoil (*Myriophyllum spicatum*) that are found in abundance in Lake Tonetta.

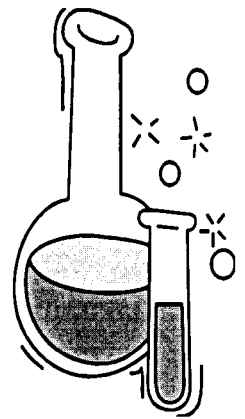
Grass carp have been used successfully stocked in other New York lakes (including Lake Mahopac in Carmel, Lake Peekskill in Putnam Valley and Lake Carmel in Kent) to reduce weeds and improve conditions for boating, swimming and fishing. They are an environmentally sound alternative to chemical weed killers, which have the potential to pose a risk to both humans and wildlife. And unlike herbicides, sterile grass carp don't need to be "re-applied" every year. Triploid grass carp can live for up to 15 years, making them a cost-effective long-term solution to Lake Tonetta's weed problems.

Princeton Hydro, LLC of Ringoes, New Jersey, the Lake Tonetta Advisory Committee and the Southeast Town Board recently submitted a grass carp stocking application to the New York State Department of Environmental Conservation (NYSDEC). As part of this pro-

ject, scientists from Princeton Hydro monitored water quality in the lake in June, August and September 2004. Although the lake's overall water quality was generally good, dense stands of aquatic weeds (primarily coontail) were consistently found throughout the lake, particularly in the northern and southern ends. The goal of the sterile grass carp stocking program is to reduce the density of these submerged plants.

After NYSDEC approves the permit application, the grass carp are tentatively scheduled to be stocked sometime in spring 2005. To make sure that the fish stay where they're needed, a fish barrier—one that keeps the fish in, but lets water flow through—will be installed above the lake's outlet to Tonetta Brook. Although some improvement should be seen by next summer, it may take another year for the carp to be fully effective in reducing weeds in the lake.

For more information about this project, contact the Tonetta Lake Advisory Committee, c/o Town of Southeast, 1 Main Street, Brewster, NY 10509. Reports prepared by Princeton Hydro are also available on the Town of Southeast website:



www.townofsoutheast-ny.com

1 lbs. of Phosphorous = 1,100 lbs. of Aquatic Vegetation

According to water test results, it is evident that Lake Tonetta has elevated levels of phosphorous. It is estimated that 1 lbs of phosphorus added to the Lake can yield 1,100 lbs of aquatic plant growth. This explains the overabundant growth of vegetation in the Lake.

Aquatic Weed Control in the 21st Century

by Edward Barnett, Putnam County
Watershed Information Coordinator

Putnam County, with the approval of County Executive Bondi and the members of the Putnam County Legislature have approved a pilot program to test a new technology that has been recently developed to address lake management issues. The test bed will be the 9.3 acre pond in Putnam County's Veterans Memorial Park. This pond suffers from excess aquatic vegetation that impedes recreation and negatively impacts the dry hydrant intakes for our fire training facility.

In the past there were three methods of dealing with excess aquatic vegetation: Mechanical (harvesting both mechanical and manually,) Chemical (herbicides,) and Biological (Triploid Grass Carp [fish,] weevils and other organisms that consume aquatic vegetation.) Acknowledging that we are now in the 21st Century, it appears that a fourth method of control may be on our horizon — Electronic! It is called the "Coherent Water Resonator" or Dissolved Oxygen Generator.

This technology is very new and the concept behind it appears very promising. This device makes it possible for warm water to more readily absorb oxygen from

the atmosphere to raise the dissolved oxygen (DO) level in the water column. The electromagnetic energy produced is less than that of a cell phone. If the water body has a low dissolved oxygen level, nature steps in by introducing aquatic vegetation (algae, milfoil, etc.) to make up the oxygen deficiency. When more oxygen is present in the water column, more and more microbes become active and essentially starve aquatic plant life. Adding oxygen does not harm the fish population.

This was tried in Veterans Park Pond late last summer and the results were inconclusive. The reason for this was that excessive water condensation, in the electronics container, compromised its efficiency. The manufacturer is correcting this deficiency and the unit will be re-introduced in March of 2005. This is the ideal time for the test, (better than late summer) since it will be brought in prior to the natural growth period for aquatic vegetation. We have hopes that this will present a viable, fourth method, in controlling aquatic nuisance vegetation. Stay tuned.

Sponsored by the Southeast Town Board

Tonetta Lake Advisory Committee
C/o Town of Southeast
1 Main Street
Brewster, New York 10509

Tonetta Lake Advisory Committee

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Raymond Knox, Chairman Don Hazen Paul Johnson (Town Board Liaison) Mike Langley Karl Lebitsch Bob Lund Peggy Papp Karen Ratajack Ralph Woodgate Robert Zubrycki
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Storm Water Project Moves Forward

Putnam County Executive and the Putnam County Legislature have agreed to provide \$480,000 to fund a comprehensive storm water treatment infrastructure around Lake Tonetta. The purpose of this infrastructure is to help filter out sediment and nutrients that exasperate the phosphorous load of the Lake.

Lake Tonetta will be among the first Lake in the area with a complete storm water remediation plan in place. The Town Board is working with the Highway Superintendent, the County and engineers to kick off this project so that construction can commence in 2005.

While this plan will offer substantial improvement in the quality of water entering

our Lake, it will not remove most of the suspended nutrients. Residents still need to be cautious of using fertilizers and chemicals, and to avoid allowing yard waste from entering storm drains.

We hope this second issue of the Tonetta Lake Newsletter is helpful and informative to Lake Tonetta area residents and helpful in our collective quest to improve and protect Lake Tonetta.

Sincerely yours,

**John J. Dunford - Supervisor
Town of Southeast**