

# Conservation Connections

## Erie County Soil and Water Conservation District

50 Commerce Way, East Aurora, New York 14052-2185  
Telephone: (716) 652-8480 Fax: (716) 652-8506  
E-mail: cally-miklasz@ny.nacdnet.org



Quarterly District Newsletter

Summer 2002

## Erie County Soil and Water Conservation District Hosts First Local Envirothon

On May 1<sup>st</sup>, teams of students from high schools throughout Erie County gathered at the Erie County Forestry Sugaring Facility in Sardinia to compete in the 2002 Erie County Envirothon. The Envirothon is an outdoor-oriented competition that combines hands-on experience with natural resources study. To complete the Envirothon challenge, teams of high school students utilize indoor/outdoor testing stations to address the topics of forestry, soils, aquatics, wildlife, and a current issue. This year's current issue is "Introduced Species and their Effect on Biodiversity." At each topic station, students work as a team to complete a test created and proctored by local conservation professionals. "Not only is the Envirothon a fun, outdoor challenge that brings

students from throughout Erie County together, it is an excellent opportunity for students to interact with and learn from local natural resource professionals," stated Erie County Envirothon Coordinator Megan Gollwitzer.

Hosted by the Erie County Soil and Water Conservation District, this year's Envirothon was the first to take place locally. In the past, the Envirothon has been held jointly with Genesee County at Genesee County Park.

"It was exciting to see that high school students in our county have enough interest in conservation and environmental science to enable us to have our own local Envirothon. We hope to have even more teams participating next year," stated Ms. Gollwitzer.

The Erie County Forest proved to be an excellent site for an outdoor competition with its scenic forests, streams, and recreational areas. During the Envirothon,



Erie County Envirothon Coordinator Megan Gollwitzer (right) presented Orchard Park High School students with their plaque as champions of the first locally-held Erie County Envirothon.

students received a tour of the sugaring and mill facility by forestry staff.

"The Erie County Department of Parks, Recreation and Forestry was glad to offer the use of Erie County's forest and park land to support this worthwhile educational event, and will continue to partner with the District on the Envirothon so that many more Erie County students can experience the beautiful natural resources of Erie County," stated Erie County Parks Commissioner Larry Jasinski.

Participating high schools in the 2002 Erie County Envirothon included Bishop Timon-St. Jude, Lake Shore Central, McKinley, Orchard Park, The Park School, Springville-Griffith, and Williamsville North High Schools. "The Envirothon is a great opportunity for our students to get outdoors, learn, and really appreciate our natural environment," commented one team advisor.



Mike Weimer of U.S. Fish and Wildlife Service (right) took the opportunity during a break in workshop activities to present examples of aquatic invasive species to McKinley High School students.

(Continued on page 3)

### 2002 Conservation Tree & Shrub Seedling Program

Erie County residents have planted over 100,000 seedlings this year through the District's 2002 Conservation Tree & Shrub Seedling Program. This year evergreen transplants were added to the program and were well received. A wet area seedling pack was also introduced.

The District would like to thank all those who help us in the distribution of these seedlings. A special thanks to AmeriCorps, Cornell Cooperative Extension of Erie County's Master Gardeners, NYS Department of Environmental Conservation, NY Forest Owners Association, USDA Natural Resource Conservation Service staff and Earth Team volunteers and Tops Markets of East Aurora. ♠

Dave Paradowski (left), NYS Department of Environmental Conservation Region 9 Forester, was on hand at the 2002 Conservation Tree and Shrub Seedling distribution to provide assistance to landowners on planting and caring for their new trees and shrubs.



### Caring for Bare-Root Seedlings and Transplants

You've just purchased (and hopefully planted by now) bare-root seedlings or transplants. Now it's time to protect your investment. Proper care for young plants is critical in the early stages of growth.

The most important supplement that new plantings need is water. The roots of seedlings do not extend far into the soil and therefore they cannot access groundwater as easily as mature plants. Watering frequency depends on the weather, but a good rule of thumb is if you insert a stick about 6" deep into the soil next to the seedling and it comes out dry, the plant needs water! Proper watering encourages vigorous root growth, and strong roots are important to maintaining healthy plants.

Bare-root seedlings typically do not need nutrient supplements for the first few years. Excess nutrients can harm the tender roots. However, you may want to start applying fertilizer to transplants after the first year.

Depending on where you planted your seedlings, they may need protection from deer, rabbits and other wildlife. Seedlings are a favorite food source for many species. Planting seedlings in a fenced-in nursery plot will provide protection from most wildlife. The best protection for deciduous trees is tree tubes, available at the District office. Tree tubes also promote healthy growth, conserve moisture and reduce wind and mowing damage.

### District Demonstrates Biotechnical Streambank Planting Techniques

Biotechnical Streambank protection utilizes living plant materials to reinforce soil and stabilize slopes. Plants can be used alone or in conjunction with materials like rock, concrete, and steel to help stabilize streambanks. Many terms have been used to describe the engineering use of plant materials for slope stabilization such as Biotechnical Stabilization, Bioengineering, Living Construction and Green Engineering. Soil bioengineering is a term most commonly used in our office to describe the use of plants in engineered erosion control practices. Although many terms have been used, the underlying concept is the use of plants to reduce the erosive forces of water and increase soil resistance to those erosive forces.

Traditional approaches to streambank and slope stabilization typically favored the hard engineering approaches that rely mostly on rock, concrete, and steel. However, recent concerns for more ecologically beneficial solutions have resulted in increased interest in biotechnical approaches.

The primary benefits of using biotechnical techniques are stabilized streambanks and reduced bank erosion. Other benefits include:

- Improved water quality and aquatic habitat by reducing sediment
- Improved soil quality
- Increased moisture uptake
- Reduced cost

- Reduced water temperature by shading
- Improved aesthetics
- Anchoring or shielding inert materials

Biotechnical stabilization may not be appropriate for all sites, especially in high-risk settings where immediate stabilization is needed. Many other site conditions may also limit the use of biotechnical designs, and the feasibility of a biotechnical approach needs to be thoroughly assessed on a site-by-site basis. However,

*(Continued on page 7)*



Live Red osier dogwood (shown above) and Streamco willow fascines were placed in shallow trenches parallel to the water's edge and staked in.

### Area Students Work to Restore Cazenovia Creek Streambanks

This spring Erie County elementary and middle school students continued a project started last year to restore streambanks along Cazenovia Creek. The Cazenovia Creek Habitat Restoration and Stewardship Project, started in Fall 2000 and coordinated by Erie County Department of Environment and Planning, also included water quality monitoring and a workshop/presentation day involving five area schools.

The Erie County Soil and Water Conservation District provided assistance to the Erie County DEP and five participating schools with streambank plantings and classroom education. Five sites along Cazenovia Creek were planted last year with Red Osier Dogwood and Streamco Willow bare-root seedlings to stabilize eroding streambanks and provide food and shelter for wildlife. This spring, students from two schools and the West Seneca AmeriCorps returned to plant additional seedlings to replace those lost in last summer's drought.

Students in Gail Hall's third grade class at Winchester Elementary School in West Seneca planted seedlings at the West Seneca Soccer Complex, where they also erected Bluebird nest boxes, hoping to attract the New York State bird. The mowed fields at the soccer complex should provide bluebirds with plenty of insects, their preferred food source.

Beth Schoelkopf's eighth graders at The Park School planted seedlings at Cazenovia Park in Buffalo to supplement last year's plantings at the site. A first-time participant in the project, the Park School students enjoyed having the opportunity to learn about natural resources conservation hands-on.

Signs will soon be in place at the park and soccer complex, describing the project and explaining why the seedlings were planted there. For more information, call Ellen Ilardo at 652-8480 or Jill Jedlicka at 858-8846. ♣



*Eighth grade students from The Park School braved a windy day to plant seedlings at Cazenovia Park in Buffalo. The seedlings will provide soil erosion control on the banks of Cazenovia Creek.*

### Erie County Envirothon

*(Continued from page 1)*

All students received certificates for participation in the Erie County Envirothon at an awards ceremony following the competition. The highest scoring teams in each Envirothon topic category received medals for their achievement. The Park School placed third overall and Springville-Griffith High School won second place; both teams were awarded a plaque for their school and field guides for each student. "The teams that did well clearly demonstrated a solid understanding of natural sciences concepts, and deserve to be congratulated for their hard work," stated Ms. Gollwitzer.

The Orchard Park High School team became the 2002 Erie County Envirothon champions, with the highest cumulative score in the Envirothon testing categories. These talented students will advance to the New York State Envirothon to be held on May 29 and 30 in Cobleskill, NY, where they will compete against winning Envirothon teams from other counties throughout the state. At the state level, top-scoring teams will have the opportunity to win college scholarships. The winning NYS Envirothon team will compete at the Canon National Envirothon to be held July 29 - August 4, 2002 at Hampshire College in Amherst MA.



*The Erie County Forest provided excellent sites for students to easily study all of the Envirothon topic areas.*

Through youth education, the Envirothon strives to ensure the success of future conservation efforts by fostering a deeper understanding of and appreciation for the natural world in students. The District would like to thank the sponsors, donors, and educators who contributed to this investment in our future including the Erie County Bureau of Forestry, USDA Natural Resources Conservation Service, U.S. Fish and Wildlife Service, Earth Spirit Educational Services, Cornell Cooperative Extension Master Gardeners, Visteon Climate Controls, Ltd., Carleton Technologies, Inc., Erie County Farm Bureau, Inc., LiRo-Kassner, Inc., 3<sup>rd</sup> Rock Materials Testing, Mayer Bros. Spring Water, Pepsi-Cola Company, Tim Hortons Donuts, and Tops Markets. The District would especially like to thank Visteon Climate Controls, Ltd. for sponsoring the winning Erie County Envirothon team's participation in the New York State Envirothon. ♣

# Invasive Plants

## Now Spreading: *Purple Loosestrife*

Purple Loosestrife (*Lythrum salicaria*) is native to Eurasia and was introduced to the northeastern United States in the early 1800s. It usually occurs in wetlands, along streambanks, in disturbed soils and roadside ditches. The plant is very adaptable, can tolerate a wide range of soil types and grows in full sun or partial shade.

Purple loosestrife is highly invasive and once it has become established in an area it can spread rapidly by producing an abundance of highly viable seeds. The 3-5 foot plants will often form dense stands and shade out native vegetation. It can quickly degrade valuable wetland habitat, affecting over 450,000 acres of wetlands, meadows and pastures in North America each year.

*L. salicaria* seeds are small and easily dispersed by wind or transported by waterfowl, animals or humans. The tall flower spikes bloom from bottom to top, from July through September. The individual flowers have five or six pinkish purple petals with small yellow centers. As the flowers drop off, capsules containing tiny seeds appear. Each plant can produce hundreds of thousands of seeds each year, and the seeds may sprout the following year or even several years later. The stalks have four, five or six sides, becoming woody as they mature, and the leaves are oval with smooth edges.

Stands of purple loosestrife can be attractive when in bloom, which leads many landowners to allow them to persist, or worse yet, encourage the plant to spread. There are many environmentally-friendly alternatives available that have characteristics similar to purple loosestrife, including *Delphinium spp.*, *Astilbe arendsii* (false spirea), *Liatris spp.* (gay feather), *Lupinus* (lupine), and *Salvia spp.* These perennial plants can usually be found at local garden centers.

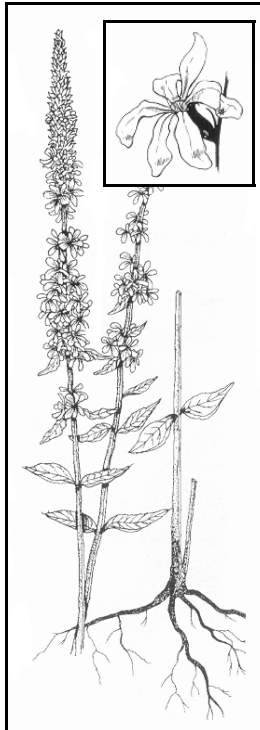
Controlling the spread of *L. salicaria* is crucial to the protection of wildlife and native plant habitat. There are several methods to use, but the best control depends on the size and severity of the purple loosestrife infestation. For small stands (less than an acre) or isolated plants, cutting or digging may be the most effective solution. When digging, remove as much of the root as possible - the plant can easily re-sprout from broken roots. Removing the flowering spikes will prevent this year's seeds from producing plants, but seeds from previous years will most likely still be able to sprout for several years. When cutting spikes, first bend the spike over into a plastic bag to collect seeds that may fall to the ground when handling the plant. The best time to remove the plants is in July, when the flowering spikes are easily recognized and before they go to seed.

In areas of large or dense stands, chemical application of the herbicide glyphosate will control growth and spread of loosestrife. Glyphosate should only be applied directly to the purple loosestrife plants, since it will kill all vegetation it contacts. Broadcast spraying could result in an explosion of purple loosestrife regeneration because of the long-term viability of the seed and the lack of competition from other vegetation.

All removed plants should be placed in plastic bags to better facilitate decomposition of the vegetation, and taken to a landfill. Purple loosestrife should not be burned, as the seeds are easily scattered by drafts in open fires, and it should not be composted, since the tiny seeds are not easily destroyed and the stems are slow to decompose.

If *L. salicaria* stands are very dense and large (more than 4 acres) then biological controls may be necessary. Extensive research has been done on several insects native to Europe that will feed on purple loosestrife without negatively impacting native North American plant populations. Cornell University and the NYS Department of Environmental Conservation have been working to release these European beetles at selected sites with large loosestrife populations, and the control has been effective.

For more information on purple loosestrife or other invasive plants, consult: [www.ipcnys.org](http://www.ipcnys.org), [www.tncweeds.ucdavis.edu](http://www.tncweeds.ucdavis.edu), or [plants.usda.gov](http://plants.usda.gov)



## Welcome Sarah Kron, Soil Conservationist

Sarah Kron, a Soil Conservationist with NRCS, recently transferred here from Bangor, Maine where she worked for two and a half years. Sarah is a 1997 graduate of Cornell University with a degree in Natural Resources. She is originally from Colorado, but has spent many summers at her family's cottage on Owasco Lake in the Finger Lakes region. In her spare time, Sarah enjoys singing, playing her flute, reading, spending time outdoors, and playing with her three cats. ♠



## Erie County Soil and Water Conservation District Staff and Directors

### District Staff:

Cally Miklasz, Executive Secretary/Treasurer  
 Mark Gaston, District Field Manager  
 Brian Andrzejewski, Senior Civil Engineer  
 Don Stribick, District Technician  
 Ellen Ilardo, Water Quality Technician  
 Chris Enser, District Technician  
 James Sroka, Water Quality Technician  
 Joanne Masterson, Program Assistant  
 Megan Gollwitzer, Program Assistant

### USDA Natural Resources Conservation Service:

John Whitney, District Conservationist  
 Michael Shinnick, Area 1 Ag Engineer  
 Sarah E. Kron, Soil Conservationist

### Directors:

Francis Gernatt - At Large  
 Charles M. Swanick - County Legislator  
 John Greenan, Assistant Treasurer - County Legislator  
 Calvin Kohn - Grange  
 David Phillips - Farm Bureau  
 Darlene Vogel - At Large  
 Rosemary Bapst - At Large

District Board meetings are held at 8:30 am on the second Wednesday of each month.

### Office Hours:

7:30 AM - 5:00 PM Monday through Friday

**Erie County Forest to Re-open Camp**

Did you go to 4-H Camp when you were younger? It has been closed for ten years, but the Erie County Bureau of Forestry has been hard at work restoring and renovating the camp in Sardinia, and hopes to re-open it soon as a year-round educational facility.

Erie County Department of Parks, Recreation and Forestry is partnering with the University at Buffalo and Earth Spirit Educational Services to renovate the camp and develop educational programs for the site, now called "The Woodlands Environmental Educational Center."

The current structures, all requiring renovation or reconstruction, include a caretaker's residence and offices, dining hall, nurse's cottage, barn, open shelter and primitive cabins. The land itself consists of a variety of unique habitats including northern hardwood forests, conifer plantations, a two-acre pond, two creek systems, marshlands, beaver meadows and open fields.

The Erie County Bureau of Forestry maintains and manages all buildings and grounds at The Woodlands, Earth Spirit develops and implements a day-use and residential environmental education program for schools, community groups and the general public, and

the University at Buffalo Environmental Studies Program operates a field campus involving student internships, field studies coursework and environmental research projects.

During the first phase of the project, the partnership completed a site inventory and cleanup, carried out a series of public programs involving a wide range of nature education hikes and field studies, repaired and reconstructed the caretaker's residence, developed a management plan for the site and established a fundraising committee for construction and site development costs.

The partnership is now in the second phase of The Woodlands' development, and the former camp should be fully functional as a year-round residential facility by Spring 2003. The center will be staffed by Earth Spirit naturalists and University at Buffalo student interns and will be the only residential center in Western New York that provides both the physical and educational resources for a comprehensive environmental program. Erie County Soil and Water Conservation District staff visited The Woodlands at a recent nature festival and fundraiser and were impressed with what the facility has to offer. ♣

*For more information on public programs at The Woodlands contact Earth Spirit at 941-6267.*

**Fish "Fry" Anyone?**

The District is pleased to offer its annual summer fish-stocking program. The District offers largemouth black bass for summer stocking of warm-water and cool-water ponds. Largemouth bass perform well for sport fishing in ponds that are one-sixth acre or larger. Bass are initially stocked at rate of 100 per surface acre (43,560 square feet) and the population will thrive if appropriate management practices are followed. More information about fish stocking can be found in the Cornell Cooperative Extension Information Bulletin no. 116 *Fish Management in New York Ponds* which is available at the Erie County Cooperative Extension (phone 652-5400) and at the District; both are located in East Aurora.

Feeder fish should also be stocked for the bass. The District offers fathead minnows, which are stocked at a rate of 400 minnows per surface acre. Ideally minnows should be stocked one year before a new introduction of bass. If minnows are stocked at the same time as the bass, it is a good idea to provide habitat and hiding places or a nursery area for the minnows to develop in. Some weed growth

in the pond is desirable; it gives the forage fish cover and attracts insects and other food for the fish.

A pond stocking permit from the NYS Department of Environmental Conservation (DEC) is necessary to stock pond fish. A simple NYS DEC application is available at the District office.

The District also offers a selection of rainbow, brook, and brown trout in its annual fall fish-stocking program. Do not stock other fish species if you plan to stock trout. More information will be provided in the Fall 2002 issue of *Conservation Connections* or you may call the District for ordering information.

To order bass and/or minnows, please send the completed order form below and a check or money order payable to Erie County SWCD, 50 Commerce Way, East Aurora, NY 14052. **The fish will be available at the District office for your pickup on July 20 at 10:00 AM ONLY.** Please arrive at 10:00 and provide transport buckets or garbage cans with water from your pond. **DO NOT** use tap water. Approximately ten fingerlings per gallon of water can be safely transported. Aeration should be provided if transport time exceeds 45 minutes. ♣

**Erie County Soil and Water Conservation District  
2002 Bass and Minnow Stocking Order Form**

**Order Deadline:  
July 12, 2002**



Species	Price per Fish	Qty Ordered	Cost
1-1½" Largemouth Bass	\$0.65 each	_____	\$ _____
1-2" Fathead Minnows	\$0.15 each	_____	\$ _____
Name _____			Subtotal \$ _____
Address _____			+ 8% Sales Tax \$ _____
City _____	State _____	Zip _____	<b>TOTAL ORDER \$ _____</b>
Phone _____			



## Rain Gardens Improve Water Quality

Did you ever wonder how much water runs off your roof each year? Rain and snow account for over 40 inches of precipitation each year in Western New York. This stormwater runs off driveways into streets, accumulating oil, litter, pesticides, pet wastes and other pollutants from street gutters and ditches as it flows into streams where, over time, it causes far-reaching environmental damage. Some large storms cause localized flooding and erode streambanks.

Rain gardens are shallow landscaped depressions created to allow stormwater to infiltrate the soil rather than overloading storm sewers with huge volumes of runoff from precipitation. A rain garden combines physical, biological and chemical process to naturally remove most of the pollutants from stormwater runoff and slowly release water to streams after storms. The pollutant removal process takes place as water comes in contact with the soil and roots of the trees, shrubs or other vegetation in a rain garden.

**Any rain garden, large or small, will enhance the landscape, protect surface water quality and provide wildlife habitat.**

It's easy to build a rain garden. Here are some basic guidelines:

The shape of the garden is not as important as the drainage area. The size of the rain garden should be 5% to 7% of the drainage area (generally the drainage area is the same size as your lot).

Note the lay of the land in your yard and the basic drainage pattern. Following that pattern, dig a depression - about 20 feet away from your house and your neighbor's - to catch runoff. Make it deep enough to accommodate a 6-inch ponding depth for no more than four days. That's deep enough to hold the first flush of rain but not so deep that the area becomes a breeding ground for insects. Make sure your roof gutter drains toward the rain garden.



*A rain garden "combines environmentally sensitive site design with pollution prevention to form a comprehensive approach to water quality problems." - Larry Coffman, Prince George's County (MD) Department of Environmental Resources*

Add gravel and soil to your rain garden. A soil mixture of 20% leaf mulch, 50% sandy soil, and 30% topsoil will retain some water and provide nutrients for the plants. Plus, clay particles in the topsoil absorb pollutants. Top off the rain garden with shredded hardwood mulch and possibly some small rocks.

Your planting plan should include species that tolerate extremes. Sometimes the garden will be inundated with water and other times it will be very dry. The choice of species should include plants that mimic forest habitat and have an aesthetic landscape value such as flowers, berries, interesting leaves or bark. Groundcovers, perennials, shrubs and trees should all be incorporated into the planting design. Some suggestions include cardinal flower, great blue lobelia, Joe-pye weed, daylilies, buttonbush, sweet pepperbush, river birch and dogwood. These plants provide nesting sites and food for birds, and attract beneficial insects that provide pollination and pest control. Rain gardens should not require any fertilizer or pesticides, and maintenance consists only of weeding and pruning.

For more information, consult these websites: [www.epa.gov/owow/info/NewsNotes/issues.htm](http://www.epa.gov/owow/info/NewsNotes/issues.htm) (click on issue 66), [www.state.vipnet.org/dof/rfb/riparian/rain\\_gardens.htm](http://www.state.vipnet.org/dof/rfb/riparian/rain_gardens.htm), or call the District office at 652-8480. ♣

### District Products and Services

Backyard Conservation Kits	\$14.00
USGS Topographic Maps	\$5.00
Erie County Base Map	\$5.00
Bluebird Nest Boxes	\$11.00
Bat Houses	\$12.00
Wood Duck Nest Boxes	\$23.00
Marking Flags or Fertilizer Tablets	10¢ ea.
Tree Shelters - 5 foot	\$4.45
Tree Shelters - 3 foot	\$3.25
Finder Pocket Field Guides	\$4.00
Peterson's Flash Guides	\$6.00
Bird Watcher's Digests	\$3.00
Fish Management in NY Ponds (CCE #116)	\$5.00

Please add 8% sales tax to above items

**Technical Assistance:** Erosion control, farm drainage, water quality, conservation planning, streambank restoration (please call our office for more information)

On-Site Evaluation and Pond Layout	\$600.00
Soil Group Worksheets	\$15.00

### Funding Received for Streambank Protection

The Erie County Soil and Water Conservation District recently received award notification for streambank stabilization grants under the Great Lakes Basin Program for Soil Erosion and Sediment Control. The streambank stabilization work will include bio-technical stabilization using plant materials with some rock riprap in the Scajaquada and Cazenovia Creek watersheds.

The Great Lakes Basin Program for Soil Erosion and Sediment Control is administered by the Great Lakes Commission, established in 1955 by interstate compact "to promote the orderly, integrated and comprehensive development, use and conservation of the water resources of the Great Lakes Basin." The program is funded through the USDA Natural Resources Conservation Service.

In the Scajaquada Creek Watershed, the District will install streambank erosion control practices on sites in the Town of Lancaster and Village of

Depew using re-shaped banks, reinforced bank toe protection and conservation shrub plantings.

Over 300 erosion and sediment reduction projects were implemented on Buffalo, Cazenovia and Cayuga creeks in the 1950's and 1960's. Many of these sites are at the age where rehabilitation is necessary to prevent further failure or property damage. The District will repair two of these failing sites through this program.

At a site in the Town of Colden, the District will realign the west branch of Cazenovia Creek through a large gravel bar and plant the new shaped streambanks. The District will install a rock riprap toe with plantings above at a site in the Town of Holland on the east branch of Cazenovia Creek.

Project site owners will also be educated on proper streambank maintenance techniques to maintain the installed erosion control practices, which will also improve aquatic and riparian habitat. ♣



Erosion control fabric was pinned under live Red osier dogwood and Streamco willow fascines (background), and the section of fascines in the foreground was only seeded with grass to determine the effectiveness of the fabric in retaining soil along the bank.

(Continued from page 2)

biotechnical approaches can almost always be combined with hard engineering to add environmental benefits. \*

The District recently completed a number of plantings at streambank stabilization projects that were constructed under the District's Buffalo Creek Watershed Streambank Stabilization Partnership Program. The stabilization projects all consisted of an engineered hard armor approach where limestone rock of a specified size and placement was used for protection and to resist erosion for a calculated height of streambank. Biotechnical plantings were specified in the original plan of work for these projects to meet the benefits mentioned above. To date, a total of eight projects sites in the towns of Colden, Holland, Lancaster, Marilla and Wales have received implementation of biotechnical techniques. The types of techniques planned for each site depended on specific goals and site conditions. Two main goals included: 1. Stabilization of fill behind rock riprap and protection from runoff and out-of-channel flood flows and 2. Stabilization of access ramps previously used by construction equipment to access the project site. The materials/techniques used to meet these goals included:

- Red osier dogwood seedlings and Streamco willow rooted cuttings were used to plant slopes above the limestone rock and at streamside areas to create growth of dense root mass to stabilize backfill and protect upslope areas from runoff and flood flow. These materials are suitable for simple erosion problems.
- Red osier dogwood and Streamco willow fascines which are bundles of live cuttings tied together and placed in a shallow trench parallel or diagonal to the slope. When fully developed, the plants provide erosion control for bank scour and over-bank runoff and are useful on moderate to severe situations. These materials were used to stabilize access ramps.
- Live stakes (pole planting), which involved the insertion of live, rootable vegetative cuttings into the ground. They provide erosion control for bank scour and are suitable for simple erosion problems. Streamco willow live stakes were used at sites where slopes were steep or on unshaped bank faces.

Additionally, environmental benefits are being addressed with the use of these plant materials. One of our specific concerns is the warming of the limestone and subsequent warming of the stream. The plantings will eventually shade the rock and reduce the warming effect to the stream.

Admittedly, the Erie County Soil and Water Conservation District is relatively new to using biotechnical plantings. Although we

## Coming Events

June 22	Household Hazardous Waste dropoff, 9am to 2pm, ECC South Campus, call 858-6800 for details
July 4	Office closed for Independence Day
July 12	DEADLINE to place fish stocking order
July 20	Bass and Minnow delivery, East Aurora field office
August 3-4	Fleet Waterfest, Erie Basin Marina, call 831-9376
August 8-18	Erie County Fair, Hamburg - visit the District/NRCS displays in the Grange and Conservation Buildings

## Kennegloenn Scenic & Nature Preserve Wales, NY

### 2002 Tour Schedule

<b>Birding</b>	May 18, September 7
<b>Wild Flowers, Trees and Plants Tour</b>	June 1, 8, 15, 29 July 6, 13, 20, 27 August 3, 10, 17, 31
<b>Geological Creek Bed Tour*</b>	June 22, August 24 September 14

\* Participants will be walking in the water and over rocks. Please wear appropriate clothing and foot wear.

**All tours are on Saturdays, 9:00 a.m. – 11:00 a.m.**  
Reservations are required and tour sizes are limited.  
For reservations call: Buffalo Audubon Society at 457-3228.

**Tour Rates:** \$5 WNYLC and BAS Members  
\$7 Non-members  
\$3 Children

*sponsored by Western New York Land Conservancy and Buffalo Audubon Society*

referenced literature and specialists with expertise in the field of bioengineering, we are still in a trial-and-error situation. The District is monitoring the plantings and has planned for appropriate maintenance of the materials. To date, most of the plant materials are growing which is attributable to the wonderful (for the plants!) moist weather our region has been experiencing.

\* Much of the preceding text was referenced from AGROFORESTRY NOTES: *Biotechnical Streambank Protection – The use of plants to stabilize streambanks.* USDA National Agroforestry Center: AF Note-23, March 2002. ♦



The West Seneca AmeriCorps assisted the District with the streambank planting projects.



**Erie County Soil and Water Conservation District**  
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