

Contours of Conservation

Newsletter of the Tioga County Soil & Water Conservation District

WINTER 2016

Riparian Forest Buffers: A Growing Conservation Practice

By Lydia Brinkley

Riparian forest buffers are perhaps the most effective conservation practice for addressing water and habitat quality across the landscape. The benefits of buffers extend beyond our local ecosystem, and in Tioga County, these benefits are seen all the way to the Chesapeake Bay! Tioga County and the rest of the Upper Susquehanna Watershed residents and landowners now have many programs available to them for riparian forest buffer establishment. Whether you are a small landowner with a little creek or a large farmer with multiple streams, there is a way for you to incorporate a buffer into your landscape.

A *riparian area* is an area immediately next to a stream or river which has significant influence on its water and habitat quality. Riparian vegetation acts as a buffer, or an area that lessens the impact of adjacent land use. Buffers are typically implemented between the stream or river and lands with human impacts, as human land uses can have dramatic effects on stream ecosystems. A healthy riparian buffer includes diverse vegetation and excludes any human impacts such as development or livestock. Most notable, riparian buffers will trap sediments and nutrients from runoff, preventing stream degradation.

Riparian Forest Buffers (RFBs) are areas where the riparian vegetation is composed mainly of trees and shrubs. This type of buffer provides additional water and habitat quality benefits over grass buffers. Forested areas have a greater ability to uptake nutrients than grass buffers, further reducing impacts on the stream. Forested buffers increase biodiversity by creating habitat for aquatic and terrestrial animals through shading the stream to provide stable temperatures, dropping leaf litter into the stream for food for in-stream critters, and by overall acting as wildlife highways. Furthermore, by helping to re-create or protect a riparian buffer, the stream may retain its natural character and function, promote channel sta-

bility, reduce stream erosion, recharge groundwater and potentially reduce downstream flooding.

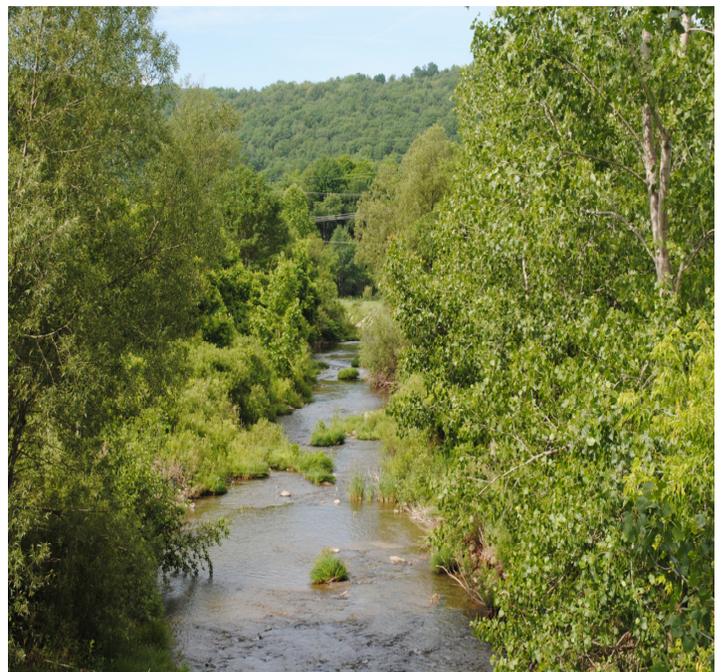
Here is a peak at existing programs addressing riparian forest buffers:

The *DEC's Trees for Tributaries program* provides free plant material for buffer establishment. We can help you get plant material and get the plants in the ground!

The *Farm Service Agency's Conservation Reserve Enhancement Program (CREP)* is a federal program providing economic incentives for riparian forest buffer implementation. This program also provides cost-share funding for practices that are complementary to buffer establishment, such as fencing and alternative water for livestock. Buffers are an effective way to address many types of resource concerns on farms.

Already have a buffer? That's great! If you would like to enhance your existing buffer by adding trees, or if your buffer needs maintenance, we can help with that too. Contact Tioga SWCD for more information.

Picture is of a Riparian Forested Buffer



New Hires and Retirement

This past year two of our long term employees retired, Jeff Barnes and Blanche Delaney. Jeff was with the district for 40 years as the district manager then retired the for the first time and came back as a technician where he finished out his term. Blanche was with the district for 30 years as the executive secretary. We would like to thank them for their service and wish them a happy retirement.

With retirement comes new hiring. Lizbeth Monell was hired full time as our new administrative assistant and Alex Marks was hired as Jeff Barnes's replacement as a technician. Lizbeth was part time most of last year and was hired full time in August. Alex was with the district from 2007 to 2011 but took a 3.5 year hiatus before coming back to take over the duties that Jeff was in charge of. So if you have any questions about the tree sale, No-till drill, Hydroseeding, or DEC fish stocking program then call Alex.

Attention Tioga County Farmers!

The Tioga County Soil and Water Conservation District has partnered with the New York State Department of Agriculture and Markets to deliver a grants program to support agricultural projects in the county.

Funding is now available through the Southern Tier Agricultural Industry Enhancement Program to eligible farmer landowners to complete projects that increase farm production, advance on farm conservation/environmental goals, and enhance profitability.

Funding is available to address a variety of projects:

\$20,000 - \$50,000: 90% state cost share rate (applicants provide 10% match)

\$50,001 - \$100,000: 75% state cost share rate (applicants provide 25% match)

Applications for funding will be accepted during the following Open Application Periods.

Application Period 1: January 19, 2016 to March 7, 2016

Application Period 2: July 11, 2016 to September 19, 2016

Application Period 3: January 16, 2017 to March 6, 2017

Application Period 4: July 10, 2017 to September 18, 2017

Applications must be received **by 4:00 pm local time on the last day of the Open Application Period in order to be considered for funding during that application period.**

Prospective applicants with questions concerning this RFA should present those questions to:

Attn: Wendy Walsh

Tioga County SWCD

183 Corporate Drive,
Owego, NY 13827

walshw@co.tioga.ny.us

CONTOURS OF CONSERVATION

is the newsletter of the Tioga County Soil and Water Conservation District, and is available without charge to conservation cooperators and all other interested landowners and users and the general public. To be placed on the mailing list simply send a request with your complete mailing address and E-mail address to: **Tioga County Soil and Water Conservation District, 183 Corporate Dr, Owego, New York.**

Telephone - (607) 687-3553/2240. Email: tcsxcd@co.tioga.ny.us

Website: tiogacountyny.com/programs-agencies/soil-and-water/

Board of Directors meet the third Wednesday of the month @ 9:00am

USDA Natural Resources Conservation Service phone - (607) 565-3454. Located at 109A Chemung St., Waverly, NY 14892

Conservation of privately owned natural resources for the sustaining of food, fiber, timber and wildlife begins with you. It is the purpose of the Tioga County Soil and Water Conservation District and cooperating agencies to provide technical assistance to those who are ready willing and able to utilize the practices of conservation on the land. All programs of the Natural Resources Conservation Service and the Tioga County and Soil and Water Conservation District are offered on a non-discriminatory basis, without regard to race, color, national origin, religion, sex, age, marital status or handicap.

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Nutrient Management Specialist	Rick Neuman

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Located at 109A Chemung St., Waverly, NY 14892

District Conservationist	Elena Steele
Soil Conservationist	Erin Paczkowski
Soil Conservationist	Phil Zurheide

Tioga SWCD installs third “Toe Wood” project on the Owego Creek

Stable banks, vegetated buffers, with structure and habitat for aquatic organisms!

The Toe Wood method of stream bank rehabilitation consists of excavating to below the low flow elevation of the stream to a stable soil layer (often cutting back into the existing bank to get a stable footing) and installing large wood in the form of 20 ft logs attached to the root balls. This forms both the stable toe of the bank and the cover and habitat for the fish. Above the root ball layer, a layer of brush is placed and shallow back fill. Coir fabric was then installed to create stable soil lifts up to the average high flow elevation to create a flood plain bench. Live willow stems are planted throughout the installation to promote long-term stability and shade.

Something different about the installation on this site is that a portion of the project length had to be reinforced with heavy stone under the layers of wood. This was due to the deep pool in the stream and the proximity of a house near the top of the high eroding bank. Those constraints required the bench that forms the bottom of the system to be constructed out into the stream channel. Using the heavy stone was an alternative to just filling with stream gravel which could wash out from under the wood system over time.

Project Background and Funding:

A 400 ft section of the Owego Creek was severely eroding in this location, contributing approximately 866 tons of sediment per year into Owego Creek, and ultimately the Susquehanna River. This location has been monitored by SWCD staff over the years to determine the need for restorative work. The project was able to be completed with buy in from the landowners, and a grant from the New York State De-

partment of Environmental Conservation’s Water Quality Improvement Program (WQIP).

The SWCD initiated the grant application process in 2013, and received the award of funding in 2014. SWCD staff completed survey, design and construction oversight where a contractor was hired to install the project using the WQIP funds. The Water Quality Improvement grant Program is a state funded program intended to fund projects that reduce polluted runoff, improve water quality, and restore habitat in New York’s water bodies. This particular grant was a 75/25% cost share, so the landowners had to provide 25% of the funding needed to complete the project. This is an infrequent grant program that is not funded every year, so the SWCD keeps a database of all calls and stream visits we conduct to try and match the appropriate funding with the highest need when grant funds are available to apply for.



Above photo: before work facing upstream. Lower two photos work complete



AEM Program

The primary goal of Agriculture Environmental Management (AEM) program is to protect and enhance the environment while maintaining the viability of agriculture in New York State. Through AEM and funds, the District was able to assist 30 farmers in 2015. Below are few photos of completed projects in Tioga County. Funding for these projects were a combination of NRCS EQIP, NYS Ag Non-point Source funds, and the landowners. If you have resource concerns that need addressed, please contact Brian Reaser or Rick Neuman at 687-3553.



Completed Milkhouse Vegetated Treatment Area in Town of Owego



Completed Manure Storage in Town of Spencer

Sundaes at the Farm 2016– Lawton's Jersey



Maria Knirk, Deputy Commissioner at New York State Department of Agriculture and Markets, stops for a visit and some ice cream with Mrs. Lawton.

The Tioga County Agriculture Resource Group (TC ARG) has been holding this event for the last 10 years, with the goal of educating both rural and urban landowners in the county by giving them an opportunity to spend a few hours on a working dairy farm. This free celebration of local agriculture brings the public to a different farm every year where they can enjoy locally grown foods and other products while experiencing the farm firsthand, and getting to meet the farm family and learn about agriculture from agencies and businesses. This year's event was held at the Lawton's Jersey Farm

in Newark Valley on August 23, 2015.

This year we had about 600 attendees. Family-friendly activities include the Tioga County dairy princess speaking about the benefits of local dairy and serving milk, punch, free ice cream sundaes with locally made toppings, a vendors' market with various local foods and products for purchase, learning stations around the farm to educate the entire family on farm operations, and for the younger attendees a scavenger hunt that they can complete and win a prize.

Hazard Mitigation, Flood Response, and Severe Storm Events

Emergency Stream Intervention Training

Upper Susquehanna Coalition was honored for its Stream Team Flood Response Training Program and received the NYS Environmental Excellence Award in November. The training program takes an innovative and hands-on approach to teach local and agency officials and personnel, contractors and landowners how to effectively address stream management issues in post storm situations which will prevent or lessen unnecessary environmental and economic damages. This sustainable, statewide training campaign is enhancing New York's capacity to respond to increasingly common extreme weather events. As a result, there are more local communities using sustainable stream work practices. In addition, more local and agency officials and personnel, contractors and landowners are trained to effectively address stream management issues in post storm situations. **The Tioga SWCD plans to host at least one Emergency Stream Intervention Training (ESI) in the summer of 2016.** Details will be provided on our web-site in late spring or early summer.



Severe Storm Events and Our Aging Infrastructure

The summer of 2015 saw a number of localized severe rain events causing damage to many roads and culverts throughout the county. Areas in Spencer, Candor and Newark Valley were hit especially hard. Numerous stream crossings were washed out by these storm events, creating additional burden to the town highway departments. After any damaging storm events, municipalities tally damages and report them to the county emergency management office. That information is used to determine if certain thresholds are met to request state or federal emergency funding for repairs, as was the case after the 2006 and 2011 flood events. Unfortunately, the damage caused by these smaller storm events usually does not add up to the minimum amounts to qualify for emergency funding. This leaves the county, towns, and individuals footing the bill for all repair work needed. In the case of private stream crossings, we encourage landowners to report washouts, so these amounts can be added to the totals. Those damages can be reported to the SWCD, where a staff member can also make a site visit to help assess the damage and provide technical and permitting assistance.

The SWCD is also trying to be proactive by having staff trained in culvert assessment methods that are approved by the NYS DEC. We will be conducting assessments on culverts identified by the towns in the Hazard Mitigation Plan as a first step to applying for any potential funding sources. The objectives of this program are to help improve aquatic life movement, water quality, proper water and sediment flow through (potentially reducing damages from flash flooding), and reduce costs to the towns/tax payers and improve safety.

Multi-Jurisdictional All-Hazard Mitigation Plan

This year SWCD is moving forward on reviewing the Tioga County's Hazard Mitigation Plan (HMP) for all the towns, villages, and school districts. In response to the requirements of the Disaster Mitigation Act of 2000 (DMA 2000), Tioga County, and the towns and villages located in the County have developed this Multi-Jurisdictional All-Hazard Mitigation Plan (HMP) which is an update of the 2006 Tioga County Hazard Mitigation Plan. DMA 2000 requires that States with support from local governmental agencies update HMP's on a five year basis to prepare for and reduce the potential impacts of natural hazards.

The HMP was last updated in 2013, 2016 and 2017 is the year of gathering information on both status of past and future initiatives. SWCD is the lead on this process before it goes to the steering committee and consultant to be put in the new updated plan for 2018. More information is located on the Tioga County website at www.tiogacountyny.com/departments/emergency-management/.

Nutrient Management Program at Tioga SWCD

AEM Comprehensive Nutrient Management Plans (CNMP) can be developed by the SWCD office. The CNMP is considered a Tier 3B and is part of the AEM process. Each Plan is custom made for the farm and is a great way to maintain records (soil samples, fertilizer usage, rotations). The CNMP's are part of the eligibility requirements needed to receive grants such as NYS Ag Nonpoint and EQUIP. CNMP's also should document any resource concerns on the farm with a list of Best Management Practices (BMP) to address them. All plans once completed should be updated once a year (crop rotations, manure applications) and progress on resource concerns to keep in compliance with the AEM program. If you would like a CNMP done or have questions about a CNMP please contact Rick Neuman at 607-687-3553.

Other Nutrient Management news is the Tioga Soil and Water received a grant for cover crops which will be used to purchase a new 12' No-Till drill. This drill will be used to plant grains and grasses with a planter spacing of 5.5" and will be able to handle most seeds. The old drill will still be used as a rental, the new planter will come with a tractor (rental) and driver to plant fields for farmers (custom planting). The Farmer will be responsible for fuel, seed and field location. The cost of the drill has yet to be determined but will be in line with other custom applications in the area. The no-till drill will be ready for the 2016 season. Priority will go to landowners participating in grant program Call Alex Marks or Rick Neuman for questions and more details.

Tioga Soil and Water has soil and manure sample kits available at the office. These test kits are a valuable way to identify nutrients in the soil and in the manure. This information helps when selecting and purchasing fertilizer for future crops at the present cost of fertilizer sampling is the best way to be cost effective. The samples can be sent to Cornell Labs in Ithaca and results emailed back along with a hard copy. For more information call 1-607-687-3553 or to pick up a sample Kit the location is 183 Corporate Drive, Owego, NY 13827.



Esch 5512 12' No-Till Drill with a swing tongue for 8'8" road transport. Drill will come with tractor and driver for your custom planting needs.



TRUAX FLEX II 812RD No-Till Grass/Grain Drill

We have had our No-Till Drill for a number of years now and over the last few years it has grown more popular to rent. It is a TRUAX FLEX II 812RD No-Till Grass Drill. It has a planting width of 8ft, a transport width of 9ft and has an 8" planting width.

This past year 18 people rented the drill and they planted 275 acres in Tioga County which was the most acres planted in a year since we purchased the drill. Over the years farmers were the only ones to rent it but now it is turning into quite the food plot machine for wildlife. The drill will end up saving you time and money during planting because you don't have to plow up the field. Preparation for planting could be as simple as mowing/brush hogging the field that will be planted. We recommend using some kind of herbicide to kill off weeds and reduce competition. A soil test should be done before planting to find out what kind of fertilizer and how much lime to spread on the field as well.

The drill has three bins. A small seed bin for clover, alfalfa, timothy, and other small seeds; a large seed bin for grasses, soy beans, oats, rye, and small round corn; and a middle bin for fluffy warm season grasses. A 50 horse powered tractor with two sets of hydraulic remotes is required to operate the drill. **The price to rent the No-Till Drill is \$10/acre and \$50 for delivery and calibration.** If you would like more information call the office and ask for Alex

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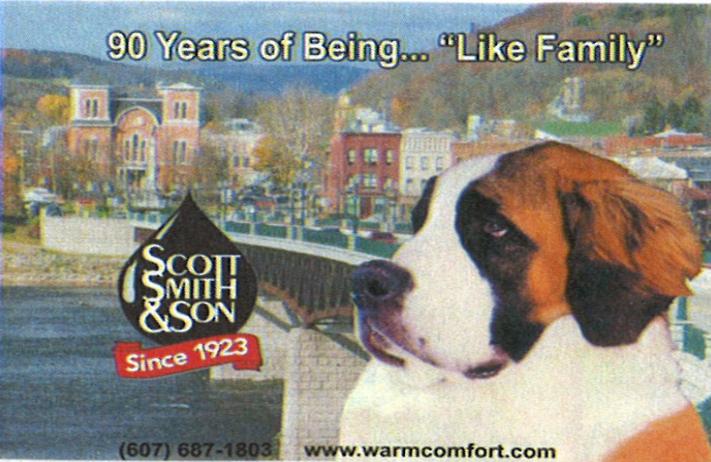
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TCSWCD Stream Program Report

The Tioga County SWCD continues to be active in stream restoration and rehabilitation work throughout the county continuing to assist municipalities in environmentally sensitive maintenance, repair and construction work on or near stream channels and balancing the need for environmental protection with private property use, rights and safety. We continue to strive to provide the highest level of service in monitoring and mapping of stream issues, education on natural stream process and function, technical assistance/advice, permit assistance, design work and engineering, construction oversight, and searching for potential funding sources.

In 2015, the SWCD stream program assisted with 14 NYS DEC stream permit applications, 39 Army Corps of Engineers stream permits, helped in stabilizing approximately 2,725 ft of stream bank, provided technical assistance on stream channel work, and provided advice/technical assistance to 28 landowners.

SWCD Services/ Products Provided

- Aerial Photos
- Topo Maps
- GIS Maps
- Soils Maps
- Ag. Assessments
- Bird Houses
- Post Pounder rental
- No-Till Drill rental
- Tree Planter rental
- Tire Cutter rental
- Soil/Manure sample analysis
- Water Testing
- Tree/shrub sale
- Fertilizer Tablets
- Marking Flags
- Stream technical assistance
- Farm assistance

Tioga County Soil and Water Conservation District
183 Corporate Drive
Owego, NY 13827

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WINTER 2016

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CONSERVATION PLANTING PROGRAM FOR 2016

Does the winter weather seem to keep dragging on? If so choosing trees and shrubs to plant this spring or putting up bird nesting boxes may lessen the feeling that spring is too slow coming.

The Tioga County Soil and Water Conservation District offers a wide variety of species for reforestation, Christmas trees, wildlife food, windbreaks, borders, erosion control and ground cover. The Annual Tree and Shrub Conservation Planting Program sale includes eleven species of evergreens, twenty-six species of deciduous trees and shrubs, four groundcovers and four berry species available for planting this spring. There are five wildlife pacs for different uses to benefit a wide range of wildlife. A fern pac with two each of five fern species and two wild flower pacs round out the selection of bare root stock for sale. Seven wildflower seed mixes for sunny, shady, bird & butterfly and other uses are available in $\frac{3}{4}$ and 4 ounce packets. We offer the species and sizes best suited for all types of conservation planting in this area. All stock is bare root and packed with a water gel to keep moist.

New shrubs and trees offered are Catalpa, a member of the ornamental flowering tree family; bignoniaceae, and American Basswood, a member of the Tilia species which is a rapid growing tree.

Stock for the sale was ordered from nurseries last September based on previous years' sales. Generally more

evergreens can be ordered if our stock runs out. Deciduous species, however, are not as likely to be available when our stock runs out, especially toward the deadline.

The order deadline is April 1, 2016, but we will continue sales of available species through the order pick up dates of April 15 and 16.

We feel the district offers a good variety of species for a wide range of conservation plantings for wildlife, songbirds, windbreaks, groundcovers, erosion control, Christmas trees, or other needs. District staff is available to answer questions on species and site selection. Order blanks are available from the Soil and Water Conservation District office, **183 Corporate Drive, Owego, NY. Phone (607)687-3553. Or e-mail to have one e-mailed or sent by USPS.** Order blanks are also on the Conservation District page on the Tioga County website: tiogacountyny.com/programs-agencies/soil-and-water/. We also have ordering information available for the NYSDEC Nursery Program

We also have bluebird, chickadees/house wrens, nuthatch/downy woodpecker/titmouse and flicker nesting boxes for sale. A limited number of bat houses are offered as well. The boxes are built to specifications of the North American Bluebird Society. Traditional bluebird boxes as well as Peterson style boxes are available.