

# Warren County Soil and Water Conservation District

# 2008 Annual Report



We're almost there! Thanks to the Warren County Board of Supervisors, our long-held housing issue has been resolved. If you've been in touch with the Warren County SWCD over the past year, you probably know that we are busily working on building a new office facility. As you read this, our new modular office building is being erected at the Warren County Fairgrounds property, to be completed in March of this year. Read more about it inside this report.

In 2008 the District faced many challenges, but also discovered new and interesting opportunities. This Annual Report highlights an array of

projects and programs that Soil and Water embarked upon this past year, working in conservation arenas we never have before. Our Board of Directors continues to provide fresh ideas and leadership for conservation in Warren County, and the District staff is always up to taking on new challenges. As grant funding for conservation will likely decline in upcoming years due to budget issues, we must continue to be creative in addressing natural resource issues in our county. We always welcome your thoughts and ideas for conservation initiatives, so please feel free to drop us a note. Better yet, come on by the new office this Spring and we'll give you the tour! <u>-Dave Wick, District Manager</u>

# Lake George Stream Crossing Assessment

There are almost 400 public roadway stream crossings in the Lake George basin, with the vast majority of those being culvert pipes. These pipes range in age from one to fifty years or even older, with varying structural conditions and abilities to pass fish such as brook trout and smelt.

To gain an understanding of these stream culverts in the Lake George Basin, the Lake George Park Commission contracted with the Warren County Soil and Water Conservation District to undertake a comprehensive study on this topic. Two hundred stream culverts were assessed in the field, evaluating both their general structural condition and their ability to allow the migration of fish.

The majority of culverts assessed throughout the watershed were ultimately rated as being in "good" structural condition, with only 5% seen as structurally deficient. However, over one-third of culverts (37%) assessed had significant impediments to fish passage, many of which



District Technician Dean Moore evaluates a stream culvert on West Brook in the Town of Lake George

exceed the leaping abilities of both brook trout and smelt. It is likely that these culverts have contributed to the decline of brook trout, landlocked salmon, and smelt over the past few decades.



The report has been well received by conservation agencies and organizations, and local highway departments as well. As an outcome of this report, the District is expected to receive more than \$60,000 of US Fish and Wildlife Service grant dollars to replace high priority stream culverts in the watershed. These new culverts will meet all standards for fish passage, restoring the migratory fishery on those streams. This project will act as a model for future culvert installations in the Lake George Basin, and will include all local highway departments on these new techniques. In time, it is hoped that through these efforts we will begin to see fish populations on the rise once again in our Lake George basin streams.

# Projects and Programs

#### East Brook Watershed Assessment.

East Brook, which outlets at the southern tip of the lake near Million Dollar Beach, is one of the largest tributaries to Lake George. In 2008, the Lake George Watershed Conference contracted with the District to undertake the task of providing a detailed assessment of the East Brook Watershed. The primary purpose of this assessment was to define natural resource conditions within the watershed, and to identify potential impacts on water quality and achievable solutions.

District staff walked the stream and its tributaries to assess stream stability and erosion, and drove the complete road network

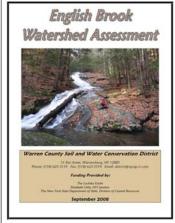


to determine drainage patterns and inspect stormwater infrastructure. Parameters such as stream morphology, classification, hydrology, water quality, soils, land use, wetlands, and stream ecology were addressed in the formation of the plan. Stream corridor impacts such as stormwater runoff, buffers and erosion, tree removal and on-site wastewater treatment are addressed in this plan. This watershed assessment is available for review at our office or downloadable and printable from our website at <u>www.warrenswcd.org</u>.

#### English Brook Watershed Assessment:

In late 2007 the Warren County Soil and Water Conservation District began a process to evaluate and identify impacts to English Brook from its watershed. District staff walked nearly the entire stream system with a GPS unit and camera, mapping all stormwater pipe outfalls and streambank erosion sites on the brook. Located in the town of Lake George, English Brook is also one of the largest watersheds in the Lake George Basin. In the past 50 years, it has exhibited declines in its water quality and shown significant increases in the volume of sediment that it carries to the lake.

With the inventory and mapping efforts completed, numerous recommendations were made for retrofits and management along the major roadways in the watershed. This report reveals the need for a concerted effort by all involved parties to affect a significant change in the watershed in the upcoming years. This watershed assessment is also available for review at our office or downloadable and printable from our website.



#### Reservoir and Sediment Pond Program:

In 2008, three in-stream sediment ponds in Hague were dredged to remove the accumulated sediments. District staff worked with the Town of Hague and Bolton Highway departments to arrange and undertake these important water quality protection efforts. Seven hundred cubic yards of sand, silt, and debris were removed, keeping it from reaching Lake George and adding to the deltas in the lake.

This work is a continuation of the highly successful reservoir cleanout program that has been conducted over the past 15 years within the watershed. To date over 9,000 cubic yards of excess in-stream sediment has been captured and prevented from reaching Lake George.

#### French Mountain Roadway - Environmental Assessment:

This past year, the District assisted the Town of Queensbury in evaluating the environmental damage from a major roadway construction up French Mountain. This roadway has sparked significant controversy and numerous lawsuits, so the Warren County SWCD was asked to step in and develop an assessment and restoration plan. The recommendations in the District's plan are now be the framework for restoration activities on the mountain, which will be undertaken in 2009 by the landowner.





# **Projects and Programs**

### **New SWCD Office Facility !**

Over the past three years, the Warren County SWCD has worked towards obtaining a much-needed new office facility. Our current location in the hamlet of Warrensburg is an old refurbished horse barn, which has significant issues with a failing foundation, noncompliant electrical and heating, significant space constraints and other problems. In 2008, the Warren County Board of Supervisors ultimately authorized the expenditure of \$450,000 for a new office facility and pole barn for the District's equipment, to be located at the Warren County Fairgrounds in Warrensburg.

To minimize costs, the District worked to obtain approval to purchase a modular building. In so doing, we saved over \$150,000 compared to traditional stick-built construction costs. As the District staff is conducting all of the project permitting, the building layout and design, the site grading and landscaping, and finishing the second floor, we have really



The Town of Bolton Highway Department constructed the new driveway and parking lot

kept the costs down. We expect to be approximately 10% under budget when complete, with a budget that was already considerably less per square foot than any traditionally built municipal structure. The office building is expected to be delivered to the site (on four tractor trailers) at the end of January 2009. With some finishing work



finishing construction in January

to be had, the District expects to be up and running in the new facility by the end of February.

This project marks a great milestone in the District's 52 year history, and we owe a great deal to many people. Thanks in particular go District Chairman (and Stony Creek Supervisor) Frank Thomas, the Warren County Board of Supervisors and Chairman Fred Monroe, the Town of Bolton Highway Department, the Town of Warrensburg Water Department, and many others. Our new address will be 394 Schroon River Road, Warrensburg, across from Cornell Cooperative Extension. We look forward to seeing you come visit us at the new office!

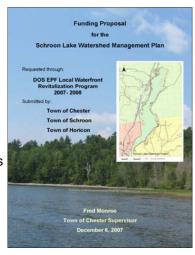
# Schroon Lake Management Plan

If you've ever looked east off of the Northway around exit 27, you will catch a glimpse of a beautiful lake surrounded by mountains and a village. This picturesque area is the Schroon Lake watershed, which is now the subject of a study to help find ways to keep it clean.

In 2008, the Warren County SWCD and Town of Chester applied for, and received a \$57,600 grant from the NYS Department of State to undertake a Watershed Management Plan. The concept of this plan is to identify the current state of Schroon Lake (water quality, invasive plants, etc), identify areas where pollutants may be entering the lake, and to develop specific cost-effective solutions to those issues.

Schroon Lake is among the largest lakes in the Adirondacks at more than nine miles long and over 150 feet deep, and crosses between Essex County to the North and Warren County to the south. Its beauty and quality are well known to local residents and visitors, although this quality is threatened by issues such as stormwater runoff and Eurasian Milfoil (a fast-growing, invasive aquatic plant). When this planning effort is complete, it will describe numerous opportunities for improvements, and outline funding possibilities to address these problems.

This project is being conducted in conjunction with the Towns of Schroon, Chester, and Horicon, all of which have shoreline on the lake. Perhaps most important partners in this effort are the Schroon Lake Association and the East Shore Schroon Lake Association, who originated this initiative and are the driving force behind it. These associations have been tremendously active in working to protect the lake for years, and this plan will act to guide all future planning and restoration activities for the lake.



# Stormwater Management

## **Bixby Beach Road Stormwater Improvement Project**



Bixby Beach Road is located in the Town of Bolton, on the southern edge of Bolton Landing. For many years, this road has contributed a significant amount of stormwater and sediment into Lake George. In 2008, the Warren County SWCD and the Town of Bolton highway department designed and installed a stormwater system to help reduce these pollutants entering Lake George from this roadway.

This system collects stormwater coming off the road in an eight foot long concrete trench drain, which outlets into a dry well and then into six Stormtech© infiltration chambers. When completed, the beach was restored and the surrounding area was mulched and planted with native species by the Town of Bolton and Lake George Association.

Installing stormwater infiltration Chambers under the beach

In addition to the stormwater project, there was also an opportunity

to limit the spread of Japanese Knotweed, which is a highly invasive plant. An adjacent hedgerow of knotweed was removed from the project site and barriers were dug 3-4 feet into the ground to limit the spread of the root system.

This project was a great collaboration between the District, the Town of Bolton, and the Lake George Association who funded this project. These types of partnerships are the model which the District fosters, as so much more can be achieved when the strengths of the various groups are brought together.



Beach restoration nearing completion. The landscaping will be completed in 2009

# The 2008 North Country Stormwater Tradeshow & Conference

One of the most pressing water quality related issues facing our lakes and streams today is pollutants in stormwater runoff. Every time it rains, runoff picks up litter, road sand and salt, oils from cars, and lots of other pollutants. There is considerable interest in addressing these issues in New York State, and even new regulations which address stormwater runoff from new development.

Towards that end, the Warren County SWCD has played a strong part in organizing the North Country Stormwater Conference and Trade Show, held each year in Lake George. This event is co-sponsored by the Champlain Watershed Improvement Coalition of New York, the Lake George Watershed



Attendees met with the more than 20 stormwater products and services vendors at the Tradeshow

Conference, and the NYS DEC. This past year's event was held on October 16th, 2008 at the Roaring Brook Conference Center, hosting over 150 attendees from both the public and private sectors.



The North Country Stormwater Conference is the largest of its kind in New York State

The goal of the conference is to provide training to local municipalities, professional engineers, contractors, and local citizens about stormwater issues and solutions. Over 20 different stormwater product and services vendors attended the tradeshow, displaying cutting-edge environmental technologies. This is the fourth year of this Conference and Trade Show, which is now the largest stormwater conference in New York State. This year's Stormwater Conference is tentatively scheduled for October 15, 2009 . For more information on this event, contact the Warren County SWCD at 623-3119.

# Partnering For Progress

# Hague and Finkle Brook Delta Mapping

Two of the largest deltas in Lake George are getting a closer look. In 2008, the LGA contracted with the Warren County Soil and Water Conservation District to undertake the bathymetric (underwater contour) mapping of the Finkle Brook delta in Bolton and the Hague Brook delta in the Town of Hague. The District surveyed these deltas at 1 foot contour intervals from the shoreline out to a depth of 6 feet, which is the maximum depth that a dredging project would envision. Mapping was conducted with a Trimble GeoXT Global Positioning System unit and a meter rod to obtain the one foot contour intervals.

These sediment deltas at the mouths of these streams are considerable, in the range of tens of thousands of cubic yards. Winter road sanding operations, streambank erosion, and upland construction activities all contribute to this



problem. These deltas cause issues with nearshore boat navigation, dock depths, and they can also provide a good breeding ground for invasive plants. This mapping project



Hague Brook delta contours

is required as a component of the planning process to ultimately dredge these large sediment deltas out of the lake.

These two brooks have had significant upland work to help reduce the volume of sediment entering the lake. As such, the local municipalities, landowners and many conservation groups would like to remove much of these deltas and bring these areas back to a more natural state.

# West Brook Conservation Initiative and Upland Study

If you have been reading the papers over the past year, you are likely familiar with the multi-million dollar conservation initiative planned for West Brook in the Town and Village of Lake George. This project, which is the largest environmental initiative in Lake George's history, will convert the old Gaslight Village entertainment park properties into an environmental park. Over two acres of constructed stormwater wetlands, a new in-stream sediment retention pond, rain gardens, boardwalks, festival space and more are planned for this project. This is a multi-partner effort, involving three municipalities, three separate environmental groups, and numerous conservation agencies.

2008 was a very good year in moving this important project ahead. The NYS Department of State has dedicated \$1.2 million dollars of matching grant funds, the NYS DOT has dedicated \$600,000 towards the stormwater wetland complex, and the U.S. Army Corps of Engineers will be undertaking the road relocation, instream sedimentation pond, and the improvements on the north property. These commitments from state and federal government shows the importance of this project in helping to protect Lake George.



To maximize the effectiveness of this project, the Warren County SWCD conducted an upland study of the West Brook watershed to identify other areas in need of improvement. This study included stormwater impacts from the Adirondack Northway and other roads draining to West Brook, a complete walking of the stream system to identify streambank erosion issues, and a summarization of needs for the Village wastewater treatment plant. The action items in this report will be incorporated into the overall project recommendations, ultimately enhancing the large-scale efforts at the Gaslight properties.

For more information about these important projects, contact the Warren County SWCD at 623-3119.

# Ongoing Programs

#### Agricultural Environmental Management

Over the past three years, Warren County has made great strides in being recognized for its unique niche farms. The Warren County SWCD has actively engaged our farming community in identifying natural resources issues they may be facing, and assisting them with these concerns. Using a voluntary initiative called the Agriculture Environmental Management (AEM) Program, local producers are looking at their properties with a greater stewardship objective.

AEM is a statewide initiative which has been recognized nationally as an innovative program for voluntary sustainable farming. In 2008, Warren County SWCD won an award for efforts to get the word out about our local agricultural producers and their stewardship efforts. We look forward to continuing these efforts into 2009 and beyond.





#### **District Hydroseeding Program**

The season never seems to end for our roadside erosion control program. This is one of the District's most successful water quality protection programs, benefiting all of Warren County. Bare road ditches are the number one cause of sedimentation of our lakes and streams in New York State. By seeding these ditches, a thick grass mat grows in the ditch locking the soil in place and eliminating significant erosion problems.

Over 33 acres of road ditches and other critical areas were hydroseeded in 2008, keeping hundreds of tons of sediment from reaching local streams and lakes. The District offers free hydroseeding to local, county, and state highway departments following road ditching activities.

### **Dry Hydrant Program**

"Dry hydrants" are essentially pipes installed into waterbodies which are easy to hook up to a fire pumper truck for firefighting purposes. These hydrants are critical in areas which have no public water supply (therefore no regular hydrants). The Warren County SWCD conducts the designs and permitting, and helps install these hydrants for local fire companies.

Since we began this program in the late 1990's, the District has installed 53 hydrants across the county. Thanks to Senator Betty Little and the Greater Adirondack RC&D Council, the region once again has funding for local



communities to provide these hydrants at little cost. Standard dry hydrant parts costs around \$600 per hydrant and they provide a reliable firefighting water source where no pressurized hydrants exist. This is an extremely important program for rural firefighting, and look forward to installing even more systems in 2009.



#### The 2008 Warren County Envirothon

The Envirothon is a day-long program in which teams of high school students compete to solve hands-on environmental problems. The Warren County SWCD's 15th Annual Envirothon was successfully held last April, with 85 high school students attending. The event challenges students to work in teams to solve conservation related questions. There are five exams that the teams take, and the overall winner of the competition is sent to the NYS Envirothon.

The Envirothon provides students the opportunity to discover subjects not normally found in the high school curriculum. The goal of the Envirothon is to provide that educational opportunity and encourage the student's

interests. The 2008 winning team came from Hadley-Luzerne and went on to finish 18th at the state competition. Great job! Many thanks go to the assistance of local businesses that donate funds and prizes to make this event fun and educational.

# Municipal and Landowner Assistance

### Conservationist of the Year - 2008

Congratulations to <u>Walt Lender, Executive</u> <u>Director of the Lake George</u> <u>Association</u>, for receiving the District's 2008 Conservationist of the Year award! A beautiful Lake George framed print from local photographer Joe Kaye was presented to Walt at the District's Annual Meeting in December. The District has

worked with Walt and his staff at the LGA on numerous projects around

the Lake George Basin with great success. In nominating Walt, the District Board of Directors felt that the partnership between the LGA and District has been key to addressing significant natural resource and water quality issues on Lake George. In Walt's three-year tenure with the Lake George Association, his efforts have only enhanced the role of the LGA as the premier non-profit environmental organization on Lake George.

#### Landowner Technical Assistance

The Warren County Soil and Water Conservation District works to meet the ever growing conservation needs of the county landowners. We receive well over 100 landowner requests for assistance every year, and meet with each of these landowners on their property to directly address their needs.

Most site visits are conducted within the same week as the request, providing timely response to their concerns. There is never a fee for these services, whether it is a 30 minute site visit or a long-term relationship to develop a full conservation plan for their property. If you have a drainage issue, are planning a logging project, have soil erosion problems or just about any other natural resource question, the District can be of assistance to you.

In addition to the on-site assistance, the District has historic aerial photography, many kinds of maps, and a huge resource library of conservation practices. If we

cannot answer your question, we generally know who can. If we can be of any assistance relating to natural resources and conservation issues, please feel free to contact our office at 623-3119.



#### **Municipal Assistance**

Throughout the past year, the Warren County SWCD has worked with all of the county's 13 municipalities on issues including road drainage, stream culverts, erosion control, stormwater



management, computerized mapping, flooding, mineland plans, lake management, forestry, hydroseeding, grant writing, project permits, and much more. The District is often requested to assist municipalities to identify funding sources, develop cost-effective solutions, or directly take on a project. The services that the SWCD provides to municipalities are free of charge.

With these difficult budget times, it is imperative that agencies and municipalities work together to maximize benefits while minimizing costs. The District has always worked to partner with municipalities, providing a variety of technical support and services. If you think that the District can assist your municipality, please feel free to contact us at 623-3119.

#### Fish and Tree Programs



Conservation is defined as the wise use and management of natural resources. Here at the District we take pride in having programs that allow landowners to develop their

own "conservation on the ground" projects through our annual Tree and Shrub Seedling Program and the Fish Pond Management Program.

In 2008 we provided 7,900 low-cost bare root tree and shrub seedlings to landowners, along with 400 pounds of various conservation seed mixes. Twenty nine habitat boxes (bluebird, wood duck and bat) were sold as well to promote and increase local habitat.

In the fall, 3,500 fish (brook, brown & rainbow trout, largemouth & smallmouth bass and fathead minnows) were sold and distributed from our office. Please be aware that a fish stocking permit is required from the NYSDEC if you are planning on stocking fish.

If you would like to be added to our mailing list or have any questions pertaining to these programs, please feel free to contact us. We would be glad to hear from you!



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 The Warren County SWCD has been in existence for 52 years. It was created by the Warren County Board of Supervisors in 1956 under NYS Soil and Water District Law. The District is a county-based organization overseen locally by a seven member board of Directors.



- The District's total 2008 operating expenses were \$379,510.
- Our 2008 funding allocation from Warren County was \$225,400. The remainder of the District budget comes from competitive grants and some reimbursement from NYS.
- The District has received over 40 grants in the past nine years, totaling over \$3 million dollars. These dollars go directly to conservation projects and programs for Warren County.

#### Board of Directors

Frank Thomas - Chairman Ron Montesi - Vice Chairman Dan Belden Mark Brown Tim Costello Charlie Maine George Ryan

#### **District Staff**

Dave Wick, District Manager Rhonda Jarvis, Office Manager Lori Kerrigan, Nat. Resource Spec. Jim Lieberum, Water Resource Spec. Dean Moore, District Technician Josh Davis, Intern

The District's mission is to implement projects and programs to protect and improve the lakes, streams, and other natural resources of Warren County.

Visit us online at our website: www.warrenswcd.org