



# 2010 Annual Report

*A brief summary of the many projects and programs undertaken by your local Conservation District in 2010.*

*At the Soil and Water Conservation District, our sole focus is to protect and improve our natural resources by getting results on the ground. Our role in the conservation arena is fairly broad, which gives us the ability to not only identify issues, but to then work on those issues until resolved. The District has been tremendously successful at not only bringing millions of grant dollars into Warren County, but also working to turn those dollars into cost-effective conservation projects in our local communities. Our staff (all five of us) do everything from grant writing to project development to surveying, design, and ultimately construction. This doesn't happen in a vacuum, and we have a great number of partners (highway departments, lake associations, Regional Planning, etc) that play key roles in these efforts. You'll see these folks noted throughout.*

*This report offers a brief review of some of the District's highlights from the past year, and we hope you find it interesting and informative. Many of these projects and programs address some of the most difficult and pressing environmental issues that we face in Warren County. Take a look, and you'll see that while these challenges are many, we can work together to take them head-on.*

***-Dave Wick, District Manager***

## Lake George Fish Passage Initiative

In order for a stream to flow under a road, it must go through a culvert pipe to the other side and continue downstream. Not many people think much about this, but over the past few decades these pipes have had a significant impact on fish populations. If the downstream side of a culvert pipe is too high and creates a waterfall, fish cannot pass through and spawn upstream. This ultimately has a major impact on the number of fish in a stream, and over time our local fishing industry is diminished. What sounds like a small issue is actually a significant problem not only in Warren County, but nationwide for our fish populations.

To help address this in the Lake George Watershed, the District was successful in bringing a \$60,000 grant to the county to improve fish passage by replacing six old and failing stream culverts on major streams. Working with the Town of Lake George and Town of Hague Highway Departments, the District replaced four culverts that were in poor condition, and retrofitted two culverts to allow improved passage. The existing structures were replaced with squash culverts that were made of aluminized steel which will last up to 70 years.



These culvert pipes aren't cheap (\$100+ per foot just for the pipe), so the town highway departments were thrilled to get all materials paid for through the grant. All culverts replaced were structurally failing, and the towns would have had to pay for these replacements themselves in a few years anyway. So, not only did this project work out for improved fish habitat, but for municipal highway budgets as well.

District staff designed and installed these new culverts, working with the Lake George and Hague town highway departments. Highway departments continue to be one of our best partners in getting conservation projects completed, and we're pleased that we were able to put money into new infrastructure at no cost to the towns. The District recently received another grant award of \$150,000 to replace 11 more culverts in Warren County, and we're looking to tackle those projects in 2012.

## Lake George Highway Department Stormwater Improvement Project



In the summer of 2010, the Warren County SWCD and Town of Lake George Highway Department completed a significant stormwater infiltration project at the town's highway facility. This system was designed by the District and treats all stormwater runoff from the totally impervious 2+ acre town highway property, eliminating a huge source of sediment and pollutants flowing into the adjacent waterbody, West Brook.

This stormwater retrofit system consists of two locations of large concrete drywells, which outflow into a bed of large stormwater "infiltration chambers" to capture and infiltrate water from large storm events. Highway department and District staff spent two weeks installing

the system, and finished just in time for a three-inch rainfall two days later. The system handled all of the runoff, and kept a tremendous amount of runoff from leaving the property.

This effort is a model for addressing stormwater runoff through infiltration from large impervious areas such as other DPW's, municipal complexes and even private commercial properties. The Town of Lake George highway department has been a great partner on many projects which help protect Lake George over the past decade. Funds for this project came from the NYS Department of State, the Lake George Association and the Champlain Watershed Improvement Coalition of New York (CWICNY).



## Alder Brook Bridge Project

In 2008, the Town of Chester highway department contacted the District about a failing bridge on one of their roads. After a review, the District recommended using a structural aluminum plate culvert to replace the bridge, which would cut their estimated cost by more than 60% over a traditional bridge system. Working with a local engineer, the District, the town and the Warren County DPW worked together to get this project ready to go. Construction began in the summer of 2010.

Demolition of the existing bridge, excavation, grading for footers and pouring of the footers took 5 days. During this time, the town highway and District staff assembled the new plate culvert on the roadway. It took over 1,800 bolts to assemble the full span.

Once the concrete footers had cured, the structure was placed and backfilling began. The road was made passable after only five days work, using a 12 person assembly and excavation crew. The following week, the Highway Department constructed the

aluminum headwalls and finished up the final grading.

This was the first time that any of the District or Town employees worked on this type of structure, and it was a great success. The project came in on-budget (less than \$50,000 in expenses) and was completed in less time than anticipated. The great benefit of these structural plate culverts is that they can be installed by a town highway crew using existing equipment, with considerable savings over a more complicated traditional bridge construction effort. For relatively small spans, this is a great way to go.

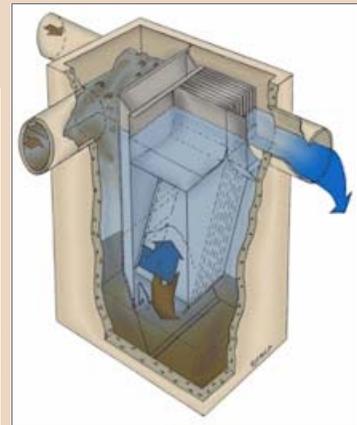


## Halfway Brook Breathes a Little Easier

After two years of planning and design, a massive new filter has been installed on Route 9 in Queensbury to keep pollutants and litter from reaching Halfway Brook. Funded by the NYS DEC and the Town of Queensbury, this project cleaned up one of the largest stormwater drainage pipes in all of Warren County. Installed in the underground stormwater drainage pipe across from the Price Chopper in Queensbury, this new “hydrodynamic separator” filters out such things as litter, plastic bags, cigarette butts, soda bottles, road sand, oils, and more from the heavily developed NYS Route 9 corridor before it empties into Halfway Brook.

While planning and design took over a year, construction was complete in only three weeks time and began in late December 2010. While the project had its share of challenges (old fuel spill on property, 12” gas main in the way, etc), construction itself went very well. As the grant recipient and project manager, the Warren County SWCD worked with the landowner and the Enterprise Rent-a-Car people to obtain permission to install the system, and they were tremendously accommodating on the whole endeavor.

This new “TerreKleen 54” stormwater separator is one of the largest stormwater filters in the industry, and it will work for decades to help keep Halfway Brook clean. The Town of Queensbury highway department has generously offered to clean out the unit on a regular basis to keep it functioning properly. Thanks to all involved in making this important project happen!



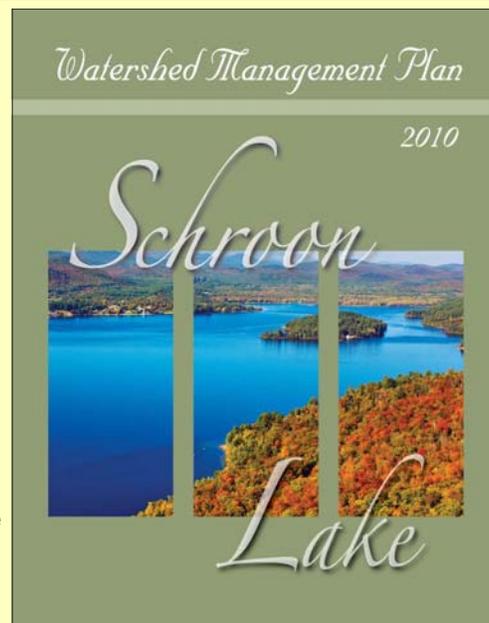
## Schroon Lake Watershed Plan

In the northern portion of Warren County and southern Essex County lies Schroon Lake, a gorgeous nine-mile long lake that exudes the essence of the Adirondacks. Over a three-year period, a very committed group of individuals worked to develop a comprehensive watershed management plan for this important lake. The Warren County SWCD and Adirondack Ecologists, LLC authored the plan, with tremendous input from members of the Schroon Lake Association and the East Shore Schroon Lake Association.

Funded in part by a \$57,600 grant from the NYS Local Waterfront Revitalization Program, this effort takes a very close look at the lake’s water quality, ecosystem, upland development issues, wastewater treatment, and much more. District staff spent more than 2,500 hours walking streams, inventorying roadside catch basins, mapping drainage ways, interviewing municipal officials and more. The outcome is a document which acts as both an information resource on Schroon Lake itself, and a specific action strategy for addressing problems which face the lake. This plan was completed in August of 2010, and is seen as a model for watershed planning by the NYS Department of State and other planning entities.

This plan will not be one to sit on a shelf and collect dust. There is a new committee already working to prioritize and implement its many recommendations. Led by the local lake associations and with involvement from the municipalities and the Warren and Essex County Soil and Water Conservation Districts, this implementation group will remain active for years to come.

The full plan can be viewed at the District’s website, at [www.warrenswcd.org](http://www.warrenswcd.org).



## New Grants Received

The Warren County SWCD is very active in seeking out and obtaining grants which help protect and improve our streams, lakes and our community infrastructure. In fact, over the past 10 years, the District has received more than 50 competitive grants, totaling more than \$3.5 million dollars. The District is seen by funding agencies and organizations as having the skills and reputation for getting cost-effective projects on the ground, and working cooperatively to make these projects happen. This past year, the District received notices of award for many projects, as follows:



- English Brook Stormwater and Sediment Abatement: \$186,850 DEC grant
- Schroon River Fish Habitat Restoration: \$54,500 DEC grant
- Fish Passage Improvement/Stream Culvert Replacement Project: \$149,200 DEC grant
- Glens Falls Urbanized Area Stormwater Initiative: \$78,000 DEC grant
- Warren County Water Quality Strategy Committee Outreach: \$4,500 DEC grant
- Village of Lake George Stormwater Mitigation: \$44,000 DOS grant
- Roadside Erosion Control Project: \$28,000 DOS grant
- Town of Lake George Highway Department Stormwater Project: \$74,000 DOS/EPA grant
- Lake George Basin Reservoir Cleanout Project: \$20,000 DOS grant
- Town of Bolton Stormwater Improvement Project: \$24,200 Lake Champlain Basin Program grant

Implementation of these grants will commence from 2011-2014, pending the release of funds from the state. We sincerely thank the NYS Department of Environmental Conservation, NYS Department of State, Lake Champlain Basin Program and other funding organizations for working with us to help protect and improve the quality of our natural resources and our communities.



## Village of Lake George Storm Water Retrofits

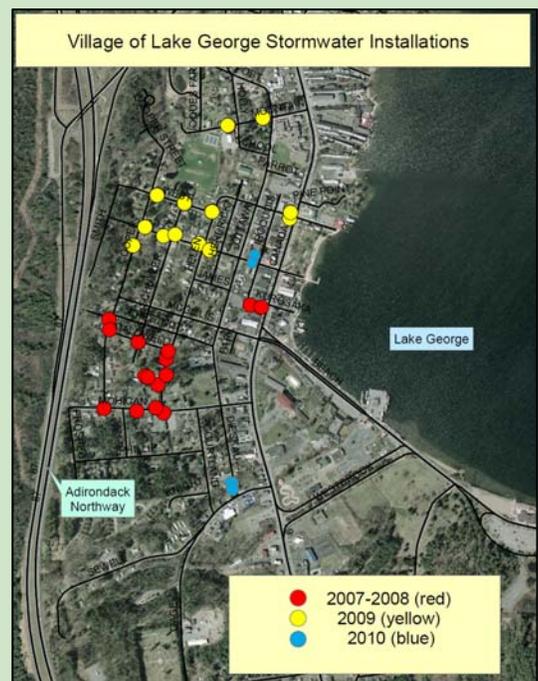
In 2007, the Soil and Water Conservation District and the Village of Lake George DPW began undertaking the process of addressing stormwater runoff pollution to Lake George coming from Village roads. Through a simple process of installing large honeycomb-like concrete structures under the storm grates in the streets, polluted stormwater runoff is now infiltrated into the ground instead of running directly into the lake. Just like a septic

system, the soil filters and treats the pollutants in the water, and returns the runoff into the ground.

In 2010 the District and Village remained dedicated to this cause, installing an additional five underground infiltration structures. To date, a total of 32 drywell infiltration systems have been constructed within the Village of Lake George streets. The Village of Lake George Department of Public Works has been outstanding in their commitment to helping protect Lake George, and has built this work into their regular schedules. Working with a local excavation contractor Mike Morrissey, the Village and District have seamlessly worked for three seasons on these installations.



Grant funds for this project have been provided by the NYS DEC, NYS DOS, and the U.S. EPA. We've received additional funds to continue this important project, and we look forward to the spring of 2011 to get right back to it.



## Education and Planning Efforts

**Stormwater Tradeshow and Conference:** The District worked with CWICNY and Regional Planning to organize and host the 6th Annual North Country Stormwater Tradeshow, drawing 130 attendees from around the region. This was one of the two largest stormwater conferences in New York State in 2010.



**Contractors Erosion Training:** The District organized and conducted 7 Erosion and Sediment Control workshops for contractors in 2010, totaling over 400 contractors in attendance. The Warren County SWCD is one of only a handful of Districts in NYS with three technical staff who are *Certified Professionals in Erosion and Sediment Control, CPESC*.

**Stormdrain Stenciling:** We developed a program with Warrensburg High School environmental program to have students conduct "stormdrain stenciling", in which we painted "Don't dump, Drains to river" on the roadway by storm grates. This program promotes public awareness and is a good environmental program for students.

**Town Mineland Plans:** SWCD staff conducted surveys and design work for mineland plans for the Town of Bolton and Lake Luzerne and the Town of Stony Creek at no charge. These plans allow the municipalities to obtain sand and gravel for their highway operations.



**Roadside Erosion Inventory Grant:** Thanks to a grant from the Regional Planning Board and the Champlain Watershed Coalition, the Warren County SWCD has undertaken an inventory of all roadside erosion issues and failing road banks in the Lake George and Halfway Brook watersheds. This inventory and mapping initiative will greatly assist the District and local town highway departments in obtaining funds to fix identified erosion and drainage problems along roadways.

## FEMA Assistance Projects

In March of 2010, Warren County experienced a severe storm event that caused a number of road failures across the county. Disaster funding through the Federal Emergency Management Agency (FEMA) became available for road repairs, and the District was requested by the Towns of Warrensburg and Chester to become involved in the road repair and replacement of three stream culverts.

To qualify for reimbursement, these culverts needed to be designed to meet the 100-year storm event. District staff calculated



the upstream drainage areas and hydrology contributing to the affected culverts, and determined the appropriate sizes of the pipes needed for the projects.

When the time came for construction, District staff worked with both highway crews on construction of the new stream culvert pipes. Through these efforts, FEMA was able to reimburse these municipalities over \$50,000.

To the small towns of Chester and Warrensburg, these dollars are significant and greatly assist with their highway budgets. The strong working relationships between the municipalities, their highway departments and the Conservation District is a key in helping to get a considerable number of projects completed in a time of very limited funding.





## Glen Lake Septic Program

The year 2010 was the second and final year for the District's voluntary septic system inspection and pump-out program. Through an EPA grant to the District, approximately 30% of identified septic systems around Glen Lake were inspected and had their tanks pumped (black parcels on the map). Each landowner was also given water conservation kits for their showers, sinks, and toilets, which greatly reduce overall water usage. Glen Lake has the most densely developed shoreline of any lake in Warren County, prompting the need for increased awareness on septic system and lake water quality issues. The District has conducted this program on four Warren County lakes over the past decade, all of which were successful in raising awareness and helping protect water quality.

## Hydroseeding for Erosion and Sediment Control

The District had another busy roadside erosion control program this past year. There were 15 project areas in the 2010 season, including the towns of Thurman, Bolton, Lake George, Horicon, and Queensbury. This is a tremendous program for the prevention of roadside erosion and stream sedimentation due to highway ditching activities. Nearly ten miles of road ditches were covered and a total of 170,000 square feet of ground was mulched and seeded in 2010. Approximately one and a half miles of road were sprayed for NYS DOT, which has become much more active in using the District's program in recent years. We hope to build the program even more in the coming years, as we encourage all highway departments in the county participating in this free program.



## West Brook Conservation Initiative

After years of planning, grant writing and design, the multimillion dollar *West Brook Conservation Initiative* in the Town of Lake George is now under construction. Excavation of the 3-acre stormwater wetland is now underway, which, when finalized will be one of the largest stormwater improvement projects in the state, helping protect Lake George water quality. Also moving forward on the adjacent parcel of land is the design for an "environmental park" where public use meets environmental innovation. These projects have been made possible by a tremendous partnership between municipal entities and non profit environmental groups. The District has been involved in this project since the late 1990's, and is thrilled to see such great

progress being made. Come to Lake George in the summer of 2011 and check out this cutting-edge project!

## The 2010 Warren County Envirothon

The Envirothon is a hands on, academic challenge for high school students which tests their knowledge in the areas of forestry, wildlife, aquatics, soils and a select topic for that year. The 2010 event was a success, with a total of 80 students from seven out of the eight county high schools participating.

All teams fared very well, demonstrating their knowledge of outdoors and conservation topics while enjoying team spirit and competitive rivalry. A team from North Warren won the 2010 Warren County Envirothon for a second year in a row, and went on to place 8<sup>th</sup> amongst 50 other teams at the NYS Envirothon competition held at Keuka College. Our Envirothon could not have been possible without donations received from our local and regional community minded companies, and the dedication and commitment from teachers and students who share a common interest in science and the environment.



## Conservationist of the Year

The District is pleased to announce that the Warren County SWCD Conservationist of the Year Award is the East Shore Schroon Lake Association (ESSLA). President Bill McGhie, Jane Smith and Vince Blando accepted the award on behalf of the association. This award is given annually to an individual or organization in Warren County for outstanding work in the field of natural resources conservation and water quality protection.

Dedicated to the health and beauty of their lake, ESSLA has helped to spearhead the creation of the Schroon Lake Watershed Management Plan released in 2010. Over the past two years the District has worked with the ESSLA on the development of this plan with a tremendous amount of communication and cooperation that was key to the Plan's success. ESSLA's role in this endeavor provided not only the local initiative but was a key factor in the District's involvement in the process.

In addition, ESSLA is taking a leading role in the implementation of this plan, and their actions will undoubtedly help to shape the state of the lake for years to come.



## Landowner Assistance

Many landowners don't know what a vast resource Soil and Water Conservation Districts are throughout NYS. We provide free on-site technical assistance on erosion issues, drainage problems, forestry, pond site location, streambank failures, logging planning, invasive species management and much more. Following a visit, our staff will draft a letter with detailed recommendations for solutions and guidance on the permitting processes that may apply to your particular situation.

Our office also has a significant amount of information about the county, from historic to recent aerial photos, stream, wetland and topography to soils information and GIS mapping. Please feel to stop by the office any time to take a look at the information we have, or the ever-popular aerial image of your property.

If you have a natural resource question or concern please contact us between 8-4:30 M-F to set up a consultation or just get more information.



## Municipal Technical Assistance

This past year the District has conducted dozens of site visits to help towns throughout Warren County with resource issues. We've assisted with culvert replacements, drainage improvements, reservoir cleanouts, stormwater system installations, dry hydrants, developed mine land plans for several municipalities and hydroseeded over 5 acres of municipal projects. 2010 was also very successful in bringing grant dollars into the county and communities to assist them in their infrastructure needs. The Warren County SWCD staff regularly attends county, town and watershed meetings to promote conservation activities. If any Warren County



municipality has a resource issue and believes that the District may be of assistance, give us a call at 623-3119.

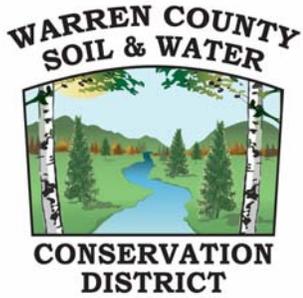
## District Fish and Tree Programs

Every year, the District organizes and sponsors a tree and shrub seedling program and a fish stocking program for landowners. In 2010, we sold over 4,000 low-cost tree and shrub seedlings, a total of 5,000 fish including species of trout and bass, and forage minnows.

This year we began trying to update our email list of customers to get the word out in a more environmentally friendly and efficient way. To get early notification for the sale, be sure to provide us with your email address when you place your order. The Tree and Shrub Program is available in the spring of the year, the Fish Program is held in the fall.

You may visit our website [www.warrenswcd.org](http://www.warrenswcd.org) to download order forms and to find information on products. If you have any questions or comments, please feel free to call us. We are happy to assist you.





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## *By The Numbers...*

- The Warren County Soil and Water Conservation District has been in existence for 55 years, and 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 2010 operating expenses were \$394,080.
- Our 2010 funding allocation from Warren County was \$210,000.
- The remainder of the District budget comes from competitive grants and some reimbursement from NYS.
- The District has received over 50 grants in the past ten years, totaling over \$3.5 million dollars. These dollars go directly to conservation projects and programs for Warren County.
- The District fielded over 1,500 calls related to conservation issues in 2010.
- SWCD staff conducted more than 300 landowner and municipal site visits in 2010 related to conservation issues.



### **Board of Directors**

Frank Thomas - Chairman  
Ron Montesi - Vice Chairman  
Dan Belden  
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Tim Costello  
Charlie Maine  
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### **District Staff**

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

*The District's mission is to protect and improve the lakes, rivers, streams, soils and other natural resources of Warren County through locally-led conservation projects and programs.*

*Visit us online at our website: [www.warrenswcd.org](http://www.warrenswcd.org)*