



The Great Swamp Watershed Association

ACROSS THE WATERSHED

Fall-Winter 2009

Green Acres Gala

GSWA's 2009 Green Acres Gala will be held on **Thursday, October 15th**, beginning at 6 p.m. at the Basking Ridge Country Club. The cocktail hour and silent auction will be followed by a seated dinner, guest speakers and the presentation of the Marcellus Hartley Dodge Award. The annual meeting will be held immediately before the gala festivities, beginning at 5:30 p.m. at the Basking Ridge Country Club.

This year's recipients of the Marcellus Hartley Dodge Award are Schering-Plough Corporation and Wyeth. GSWA is delighted to honor both of these

**2009 Marcellus Hartley Dodge
Award Recipients**

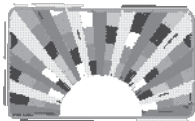
 **Schering-Plough**
Wyeth

companies for their commitment to environmental health, their leadership in the Great Swamp Watershed Association's Corporate Council and their long-time support of GSWA.

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Start your day with GSWA

GSWA's Breakfast Briefings are back. Each of these events is from 8 to 9:30 a.m. at GSWA Headquarters, 568 Tempe Wick Rd., Harding Township (next to Jockey Hollow). A complimentary continental breakfast is included, though donations are gratefully accepted. Pre-register by visiting www.greatswamp.org or call 973-538-3500 x22.



Tuesday, September 15: Citizen Science – What's In It For You?

Presented by Danielle Donkersloot, NJDEP's Volunteer Monitoring Coordinator.

Learn about opportunities for citizens to actively participate in observing the environmental health of the state through such programs as World Water Monitoring Day, Community Collaborative Rain/Hail/Snow (CoCoRaHS) network, oil

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From the Desk of the Executive Director



by Sally Rubin

So, I was just listening to the radio and there was a commercial for some vacation destination. While I don't remember what the destination was, the commercial basically reminded parents that school is around the corner and the first thing the children will be asked to do is write something about their summer vacation. So I thought I'd write something as summer comes to a close about what GSWA's been up to.

Many of our accomplishments are discussed elsewhere in this newsletter, but I'll give you a quick run down. As you know, we held our second biennial BioBlitz in May. Remember, the BioBlitz was an intensive 24 hour survey of everything that lives, grows, crawls, swims, flies, or otherwise inhabits a portion of the Great Swamp National Wildlife Refuge. Over 60 biologists, professionals and lay people, from public and private institutions and organizations, participated and identified almost 650 species of living things. More than 240 visitors participated in our walks and talks. Personally, I was so pleased that Great Swamp Watershed Association worked collaboratively with the Great Swamp National Wildlife Refuge and the Friends of Great Swamp to make this event such a success. Bringing together our science and education programs was the ideal way to raise public awareness of the importance of biodiversity and our environment in general.

We continue to play an important role in fostering intelligent land use. Over the summer, I have attended planning board meetings for the development of Primrose Preserve in Harding, a meeting with the DEP regarding the Millington Quarry in Bernards Township, and a meeting with town officials in Morristown regarding a "tree massacre" on Woodland Avenue. I was also fortunate enough to attend the reception at Delbarton to celebrate the preservation of 188 acres of property. GSWA, along with many others, worked for years to prevent inappropriate development of this land.

Our educational water monitoring and stewardship program is off and running with Madison High School, Garfield High School, Mendham High School and Fairleigh Dickinson University participating. Our goal is to expand this program into several more schools this fall.

We've also been hard at work developing a new program to be launched this fall called Streamside Living which will focus on actions you can take as a homeowner to improve the environment. We're not talking about major lifestyle changes, like walking to work instead of driving; we're talking about simple changes in behavior that can make a world of difference in improving the quality of our water, now and for generations to come. Check out our new blog (at www.greatswamp.org) to learn more about how reducing the amount of phosphates we use

at home helps maintain a healthy level of oxygen necessary for the survival of fish and other organisms, each of whom has their own roles to play in maintaining stream health.

Last but not least, we have spent a lot of time thinking of ways to reduce our expenses while still communicating effectively. As you can see, we have changed the look of our newsletter. The new size saves money both in printing and postage. (And yes, we're still using recycled paper!) To further reduce costs, we have decided to print two newsletters per year instead of three, saving both money and trees, though we will be sending supplemental mailings to our members twice per year with a full slate of programs and events. We'll also continue to publicize our educational and water quality programs on our website, in local newspapers (and on their on-line calendars), and via TheAlternativePress.com. You, our readers and supporters, can help us keep our printing costs down, too, by providing us — if you haven't already — with your current e-mail address so that we can communicate with you through our monthly e-newsletters. Finally, please be sure to check our blogs and tweets for timely tips, stories, and program offerings.

I hope you'll give GSWA a good grade on "what we did on our summer vacation." 🌲

Great Swamp Watershed Association extends its sincere appreciation to Pfizer Inc. for sponsoring the printing of this issue of *Across the Watershed*.



ACROSS THE WATERSHED

is a publication of the **Great Swamp Watershed Association**.

GSWA is a membership-supported non-profit organization that protects the water you drink and the places you love. We preserve the natural beauty and promote the health of the local environment now and for the future.

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Watershed Watch – Environmental Hot Spots

by Jim Northrop and Louise Witt, Land Use Committee Members, and
Sally Rubin, GSWA Executive Director

Local area residents will recognize a program that GSWA brought to several watershed towns over the past two years. It was called “The Citizen Advocacy Program” (CAP), and was presented eight times. The purpose was to show citizens how to be more effective as advocates before local governmental bodies deliberating on land use and environmental issues.

GSWA believes that by helping sharpen the presentation of an issue, better planning and variance decisions will be made because of more effective deliberation. With that in mind, GSWA occasionally has become involved directly as an advocate in land use issues, if environmental concerns do not appear to be adequately represented.

Summarized below are several advocacy situations, or “environmental hot spots,” in which GSWA has recently been involved and, where appropriate, continues to closely monitor.

Bernards Township

Millington Quarry will undoubtedly be a hot spot for a long time. The quarry has requested that DEP approve a very limited testing protocol for the imported fill. GSWA and representatives from CCSMQ (Citizens for a Clean and Safe Millington Quarry) met with the DEP regarding the quarry request. In addition to appropriate soil samples, GSWA is concerned with both surface water and ground water contamination and has requested the DEP to include these elements in their testing protocol. GSWA continues to remain actively involved with this issue.

Chatham Township

After several successful years of operation, the Chatham Day School (CDS) applied last spring to the Chatham Township Board of Adjustment for certain variances necessary for a planned, two-phase expansion program. This intensification of the use of the property on the western end of Shunpike Road, would involve construction of a field house, increased paved parking and removal of a substantial number of mature trees. GSWA became interested in this application because some of these changes would increase impervious coverage on the CDS grounds, or might otherwise affect ground water re-charge. Importantly, beneath the CDS property is the aquifer that provides drinking water to Madison Borough and the Chathams.

However, during the deliberations it was recognized that the 2004 authorizations upon which CDS had been operating were granted by the Board of Adjustment, whereas the Chatham Township Planning Board was the governing body which actually had jurisdiction. Therefore, all parties agreed that the authorizations dated 2004 had been null and void. The CDS then withdrew its application without prejudice from the Board of Adjustment, and it now appears they may make a retroactive ratification application to the Planning Board, sometime in September. As of the end of August, it is not clear exactly how or whether the CDS will seek to expand its operations, but GSWA continues to actively follow the application process to ensure that all environmental issues are properly presented and considered.

Harding Township

Primrose Preserve has been approved as a 13 lot subdivision of approximately 130 acres with lots ranging from 5 to 25 acres. The property will be accessed via a private road off of Brook Drive South. The approval includes requirements for a stormwater maintenance agreement between the property owners' association and the township, as well as conservation easements on environmentally constrained areas and expanded tree conservation.

Morris Township

GSWA is pleased to announce that approximately 188 acres of property at Delbarton was conveyed by St. Mary's Abbey and preserved for \$13.75 million on June 30, 2009. Great Swamp Watershed Association has been actively involved for many years in the effort to preserve and protect this environmentally sensitive parcel of land. We are delighted that we were able to work collaboratively with this dedicated group of individuals and entities to accomplish our common goal. Kudos to the Trust for Public Land and our other partners for this outstanding achievement.

Morristown

In mid-July, a prospective developer cut down 22 mature trees, removed the stumps and graded two lots without submitting a site plan for approval pursuant to a planning board resolution. The property is near Loantaka Brook. GSWA asked the board to create conservation easements and to require the developer to build revegetation

areas and storm water retention basins. The engineer and the planner are reviewing the developer's recently submitted plan. Some of the options the professionals are considering, in addition to municipal fines, are requiring sod instead of seed, specific species of trees for replacement, including their size and number, a conservation easement and retention basin for stormwater management. It is the developer's complete disregard of the Planning Board resolution that is most disconcerting. Yet again, we see a developer seeking forgiveness instead of permission. After lengthy discussions with the Morristown professionals, it is our sincere hope that they will use all methods legally available to remind this developer that appropriate protocol must be followed.

"Environmental advocacy" is not limited to addressing local governmental bodies. There are numerous other ways individual citizens can positively influence land use and environmental issues. With this in mind, GSWA's first fall Breakfast Briefing (see page 1) is entitled "Citizen Science — What's in it for you?" We will learn some interesting additional ways that individual citizens can become "environmental advocates." One may be just right for you! 🌱

Interested in volunteering?

Fill out our volunteer profile at www.greatswamp.org/VolProfile.htm, or e-mail volunteer@greatswamp.org.

Workshops for Educators

Great Swamp Watershed Association facilitates several useful workshops for K-12 formal and non-formal educators, who will experience activities they can use back in the classroom or Nature Center to teach across the educational curriculum. These workshops provide activities relevant to the local environment and for the first time will be linked with the online resources of Verizon's thinkfinity.org.

Each of these six-hour hands-on workshops, led by Hazel England, an experienced naturalist educator, is offered at \$25/person, which includes breakfast and activity guides. They confer six NJDOE Professional development credits too!

Workshops will be held at the Great Swamp Watershed Association offices on Tempe Wick Road, Morristown. For more information contact Hazel, Director of Education and Outreach, at 973-538-3500 x20 or hazele@greatswamp.org.

Healthy Waters Healthy People Workshop

Tuesday, October 27, 9 a.m. - 3 p.m.

This workshop encourages investigation of the connections between water quality, the environment and human health. This is an advanced workshop best suited for educators of grades 6-12, who have basic water chemistry background. Program will spend time outside, so please dress appropriately.

Project WET Workshop with additional Great Swamp Focus

Wednesday, December 2, 9 a.m. - 3 p.m.

The workshop is an interdisciplinary, supplemental water education program for formal and non-formal K-12 educators. Educators will learn by doing, experiencing activities they can use to teach a variety of water concepts from the water cycle to water properties, aquatic ecosystems, and water pollution prevention. Participants will receive the curriculum and activity guide, a collection of innovative, water-related activities that are hands-on, easy to use and incorporate a variety of educational formats.

Wonders of Wetlands Workshop

Wednesday, March 24, 2010, 9 a.m. - 3 p.m.

WOW! is an instructional guide for educators that provides a resourceful and creative collection of wetland activities, information and ideas. The WOW! Guide includes over 50 hands-on multidisciplinary activities in lesson plan format, extensive background information on wetlands, ideas for student action projects, and a wetlands resource guide. WOW! has been called "The most comprehensive introduction to wetland issues and definitions." Great for educators who have access to or are considering creating their own wetland site.

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GSWA's Fall Citizen Science Programs

World Water Monitoring Day

GSWA will be participating in World Water Monitoring Day again this year. World Water Monitoring Day™ (WWMD) is an international education and outreach program that builds public awareness and involvement in protecting water resources around the world by engaging citizens to conduct basic monitoring of their local water bodies.



The kick-off date is September 18th. Please help us out by volunteering to collect basic water quality data on the streams and lakes in our watershed between **September 18 and October 18, 2009**. To participate, simply follow these five easy steps:

- Step 1: Grab a test kit from GSWA
- Step 2: Pick a site(s)
- Step 3: Collect your data
- Step 4: Report your results
- Step 5: Return the kit

For further details on participating, contact Kelley Curran, Director of Water Quality Programs at kcurran@greatswamp.org or 973-538-3500 x16, or visit www.greatswamp.org.

This is a great way to get the whole family involved in a citizen science program. You can learn more about WWMD by visiting their website, www.worldwatermonitoringday.org.

Visual Stream Assessment Training

Become a member of GSWA's Stream Team to help observe what's going on in our streams and rivers, and help GSWA collect information on water bodies that are not currently being assessed by the NJDEP. You don't need to be a trained scientist or have a Ph.D. All you need is a sharp eye, and the ability to capture data critical to assessing the health of our streams.

At the local level, the data our stream team volunteers collect provides valuable information to municipalities. At the watershed level, it helps to discover or follow-up on areas in need of attention or remediation. At the state level, the data serves to identify impaired waterways and provides baseline information for future studies.

As a trained stream team volunteer, you'll gather information on stream depth and width, the location of pools and riffles, observed wildlife and plants, condition of the water's surface, and condition of the stream banks.

The next training session is planned for late October/early November. Watch our website and your e-mail for the official announcement. You can also contact Kelley Curran, Director of Water Quality Programs at kcurran@greatswamp.org or 973-538-3500 x16 for more information. 🌿

**Become a fan of GSWA
and join the cause on**

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Educational Programs

Learn more about what's going on in and around the swamp by joining friends and members of GSWA for one or more of these educational programs. We ask that you pre-register for these programs to learn meeting locations and other information. Wear sturdy footwear and bring a snack for the walks. Bring binoculars or wildlife guides if you have them. These programs are free for members. For non-members, the fee is \$10 per adult, \$5 for each child five and over, and \$30 per family. Pre-registration is required. Visit www.greatswamp.org and click on our secure Event Registration page, or contact Hazel England, hengland@greatswamp.org.

BioBlitz 2009: The Results Are In

Check out this year's BioBlitz results on our website, www.greatswamp.org. Find out what we discovered living in the Great Swamp and take a look at some awesome photos!



Fall Colors of the Watershed – A Natural History Hike

Friday, October 9, 6:00-7:30p.m.

GSWA Conservation Management Area,
Tiger Lily Lane, Harding Township

The Great Swamp Watershed Association owns 50 acres in Harding Township that we maintain as the Conservation Management Area. This forested wetland contains vernal pools, streams and woodland with wildflowers and wildlife aplenty. We will take an early evening stroll along the boardwalk trails, listening for birds and watching out for fabulous fall foliage displays of native plants. Look forward to the season of mists and mellow fruitfulness on this easy paced hike at an important restoration area.

Full Moon Hike

Saturday, January 30, 2010, 6:00-7:30p.m.

Cross Estate, Jockey Hollow, Morristown
National Historical Park

While we don't guarantee the moonlight, there will be plenty of nature to learn about on this night hike around the watershed. We may hear many watershed animal inhabitants including screech or barred owls, night insects or other night noises, perhaps even coyotes calling! Play some games to learn more about night senses, and revel in being out after dark without a flashlight! 🌲



GSWA is now blogging at
<http://acrosstthewatershed.blogspot.com>

New “Streamside Living” Program Launching this Fall

by Sally Rubin, GSWA Executive Director

This fall GSWA is introducing its Streamside Series. The first of the series — Streamside Living — will focus on actions you can take as a homeowner to improve the environment. We’re not talking about major lifestyle changes, like walking to work instead of driving; we’re talking about how simple changes in behavior can make a world of difference in improving the quality of our water now and for generations to come.

You don’t have to wait until the official launch of this exciting new program, though, to start making a difference. One relatively easy yet powerfully effective thing you can do today is reduce the amount of phosphorus (also called phosphates) you use at home. Though an essential nutrient for plants, too much phosphorus finding its way into our rivers and streams creates excessive plant growth. The over-abundant plants then decompose, reducing the available oxygen necessary for the survival of fish and other organisms, who have their own roles to play in maintaining stream health.

A recent study found that 19% of phosphates that enter the sewer treatment systems comes from dishwasher detergent. So, one way you can personally help reduce the amount of phosphorus flowing untreated into our streams is to find a dishwasher detergent that contains little or no phosphates. Tests conducted in 2005 by Consumer Reports found that enzymes in dishwasher detergent was the most important cleansing agent in dishwasher detergent. So read the

label and find a detergent with enzymes and low or no phosphates... and your dishes will be as clean as ever.

Stay tuned for the formal introduction of our Streamside Series — Living, Working, Playing — coming soon. 🌲

DPWs invited to Winter Roads Maintenance Workshop

If you’ve read our past newsletters, you already know that two of the major contaminants found in our streams are sodium and chloride. The elevated levels of these contaminants are attributed to the application of road salt, a common de-icing agent. Unfortunately, it’s not just a seasonal problem since these salt constituents can be retained in soils, slowly leaching into shallow ground water which eventually seeps into the streams.

GSWA will host a “best management practices” workshop this fall for the watershed region’s Departments of Public Works (DPWs) on winter roads maintenance. As development increases, and road miles are added to our counties and municipalities, the efficient use of salt on paved areas is progressively more important to the effort of protecting drinking water quality.

Sponsored by United Water, this ½ day workshop is being offered to the DPWs in the watershed’s ten towns at no cost.

Household Hazardous Waste Disposal

by Ann Campbell, GSWA Webmaster

No, we're not talking about nuclear waste from power plants or medical waste from hospitals. Household Hazardous Waste (HHW) includes household cleaning products, pesticides, herbicides, oil-based paints, stains, paint thinners, solvents, antifreeze, motor oil, gasoline (which must be transported in a certified gas can), batteries, pool and darkroom chemicals, chemistry sets, BBQ-propane tanks, fluorescent bulbs, ballasts, and thermostats, among other things.

Most New Jersey counties hold special disposal days when homeowners can take their HHW to specified locations. Upcoming dates and locations are:

Morris County

(<http://www.mcmua.com/HazardousWaste/HHWDisposalDays.htm>):

- **Saturday, September 12**, 9 a.m. – 2 p.m., at the Firefighter & Police Training Academy, 500 West Hanover Avenue, Parsippany (just west of Greystone)
- **Sunday, November 1**, 9 a.m. – 2 p.m., at the Jefferson Township D.P.W., 1033 Weldon Road, Lake Hopatcong

Computers, TVs, and other consumer electronics will be accepted for fees of \$3 and up per item, depending on size.



Somerset County

(<http://www.njhazwaste.com/somhome.htm>):

- **Saturday, September 12**, 9 a.m. – 2 p.m., at the Branchburg Public Works Garage, 34 Kenburry Road, Branchburg
- **Saturday, October 24**, 9 a.m. – 2 p.m., at the South County Public Works Garage, 410 Roycefield Road, Hillsborough

Somerset County residents (proof of residency required) may drop off **consumer electronics** between 8 a.m. and 2 p.m. on the **first Saturday of the month** at the Somerset County Recycling Center, 40 Polhemus Lane, Bridgewater.

Union County

(<http://www.ucnj.org/recycle/hhwd.html>):

- **Sunday, October 18**, 9 a.m. – 2 p.m., at Union County College, Springfield Avenue, Cranford

Union County residents (proof of residency required) may also drop off up to eight automobile tires per household.

Consumer electronics, up to six per car, may be dropped off between 9 a.m. and 2 p.m. on **Saturday, September 26**, at Alcatel-Lucent Technologies, 600 Mountain Avenue, New Providence, or **Saturday, November 7**, at Schering-Plough, Galloping Hill Road, Kenilworth.

Check the website listed for your county for specific information about what is accepted and what isn't at that facility. 🌱

GSWA Stream Monitoring: A Volunteer's Perspective

by Amy Dziemian and Becca Heard, GSWA Stream Team Volunteers

Hip waders! Who would have thought we'd be wearing these, measuring the velocity of a stream and snapping photos of frogs and raccoon scat?

It all began several years ago when we heard about the GSWA Stream Monitoring Program, run by Kelley Curran, and decided to become a part of the "Stream Team." Along with a group of other volunteers, we received classroom training from Kelley and Mike Romankiewicz (who at the time was the AmeriCorps Watershed Ambassador to our area) at GSWA's headquarters before heading out for some hands-on instruction at Primrose Brook in Jockey Hollow. Kelley then assigned pairs of volunteers their very own stream to monitor; ours is a tributary of Black Brook located in Chatham Township.

Twice a year, we venture into our stream in our waders to measure among other things the width and depth of the stream and the velocity of the water. We walk the stream, taking sketches and photos, and noting changes from our previous visit. It's amazing how well you get to know a quarter-mile stretch of stream: just by looking, we're able to note changes, such as the formation of new sandbars, differences in the streambed composition and accumulation of newly fallen trees. After our visits, we prepare a report for GSWA that includes notes and photos of our findings.

Our study area happens to be located directly adjacent to the Chatham Township

Water Treatment Facility, and in fact the facility empties treated water directly into our section of stream! We took a tour of the plant to better understand exactly what was being discharged into the Black Brook tributary. We learned a great deal about the treatment process and were pleasantly surprised to find out that the final output was not quite as bad as we thought it would be. It is technically safe to drink, although you might not want to as it is not mandated to meet the stricter drinking water standards.

Being a part of the Stream Team means a great deal to us. By giving our time to the team, we're able to help GSWA protect the waters that flow directly into the Great Swamp National Wildlife Refuge – a place that GSWA's founders fought to preserve so many years ago. 🌲

Great Brook Water Quality Summarized

GSWA staff and volunteers have been collecting stream samples from Great Brook for the past 18 months. The samples are collected quarterly and analyzed by a NJDEP-certified laboratory for various water quality parameters including: total phosphorus, nitrates, and total dissolved solids. The results have been summarized in a report which has been submitted to the NJDEP. The report will be available on our website soon so stay tuned!

Drinking Water Contaminants: The Case of Nitrates

by GSWA Science & Technology Committee and Stream Team

The never-ending responsibility to ensure safe drinking water requires enforcement of government-imposed quality standards. It also relies upon an educated public to anticipate and avoid dangerous situations. The large number and diversity of potential drinking water contaminants can be confusing, and their threat level can vary considerably between locales. As a contribution to public awareness, this short overview is devoted to the case of nitrates in water supplies, their sources, medical consequences, and preventive actions. This specific issue carries a special emotional content owing to the fact that infants are especially vulnerable to nitrate poisoning, resulting in the so-called “blue baby syndrome”.

Hemoglobin, the substance that gives blood its characteristic red color, has the job of carrying oxygen from the lungs to various body tissues, and carrying carbon dioxide back to the lungs for exhale disposal. Ingested nitrates sabotage that vital role by rendering a proportional amount of the hemoglobin inactive. The result of substantial nitrate intake is a bit like high-altitude sickness, and may produce headache, dizziness, and nausea. Healthy adults have the physiological capacity to neutralize nitrate effects to some extent, but this capacity is essentially lacking in infants between birth and approximately four months of age. Although fortunately quite rare, there are also hereditary diseases that prevent adults


from neutralizing the damaging effects of nitrates. The visible external appearance of serious nitrate invasion in the body is bluish or slate-gray appearance of lips, skin, mucous membranes, and nailbeds, hence giving rise to the colloquial name “blue baby syndrome.” This disease can be effectively treated once properly diagnosed, but before such treatment is administered it may have irreversibly disturbed the normal development of affected infants.



The most prominent sources of nitrates in water are animal waste, runoff from fertilized farm fields and lawns, and the effluent from sewage treatment facilities. The EPA has established a Maximum Contaminant Level (MCL) for nitrate-nitrogen in municipal drinking water supplies, equal to 10 parts per million. The commercial and municipal water suppliers for residents within the Great Swamp watershed are consistently in compliance with this conservative standard. However, single-family or other private wells can be in jeopardy due to infiltration from surface runoff, and they should be tested on a regular basis to ensure safety. A listing of certified laboratories can be found on the NJ Department of Environmental Protection’s Office of Quality Assurance website at: <http://www.state.nj.us/dep/oqa/certlabs.htm>. It might also be mentioned that the currently fashionable use of bottled water is not subject to EPA nitrate contamination standards.

The GSWA Stream Team regularly samples stream water at several sites in the watershed, fulfilling its mandate to monitor the quality of water flowing into the Great Swamp Natural Wildlife Refuge. Those samples are then laboratory tested for a variety of contaminants. In a focused 3-year study of Loantaka Brook (2005-07) several sites were sampled. The Woodland sewage treatment facility (“WCPU”) in Morris Township is located along one of the upper reaches of Loantaka Brook, and its effluent is discharged directly into the stream. Not surprisingly, the GSWA Stream Team testing results during this study period regularly found nitrate concentrations exceeding the EPA MCL at sites located at and below the treatment plant. Further downstream, however, nitrate concentrations fell below the MCL owing to the inflow of less contaminated surface and groundwater within the Loantaka Brook Reservation, a testimonial to the value of protected open space within our watershed.

The water quality concerns of GSWA and its Stream Team volunteers extends well beyond monitoring watershed stream contaminants such as nitrates. It also includes identifying possible stream and riparian zone improvements that would aid in assuring acceptable water supply quality in the future both for watershed residents and for the Great Swamp National Wildlife Refuge.

For additional information contact Kelley Curran at 973-538-3500 x16, or kcurran@greatswamp.org. 

Silver Brook Watershed Management Plan is Complete

In October 2008, The Watershed Institute announced that they would be awarding GSWA a \$12,960 grant to develop a management/restoration plan for the Silver Brook subwatershed. Once the funds were received, GSWA hired AKRF, Inc., an environmental consulting firm specializing in this type of work, to draft the plan. The project involved a formal evaluation of the Silver Brook subwatershed (a headwaters system of the larger Great Brook watershed) to determine the sources and nature of adverse stream conditions. Both desktop and field assessments were conducted by AKRF as well as GSWA staff and volunteers. Upon completion of the full evaluation, AKRF identified nine high-priority restoration projects for Silver Brook and its tributary streams. Projects described in the plan have estimated costs ranging from \$25,000 to \$1,340,000. Plans are now underway to secure funding necessary to implement some of these projects. The Silver Brook Management Plan was finalized in July and will be available on our website soon.



Follow us at www.twitter.com/gswa

First Person: CMA on the Fly

by Blaine Rothauer, CMA Biologist

GSWA stewards its Conservation Management Area (CMA) like a mother hen broods its young — with care and patience. Nurturing the landscape is hard work and rewards come slowly. One of the measures of success is the variety of migrating songbirds who find the CMA's understory (forest layer between the ground layer and the canopy) a welcome site amongst an endless sea of impoverished landscapes.

Excluding the white-tailed deer from the 24-acre core of the site with a deer fence has resulted in the formation of a distinct understory — a good thing if you're a bird looking for prime real-estate in which to forage during long migrations from Central and South America. Excluding deer fosters the regeneration of sapling trees, shrubs, and flowering plants that would otherwise be mowed down by the insatiable appetites of white-tails. Neotropical migrant songbirds are once again on the fly at the CMA as they find seclusion and insects.

I have been monitoring use of the CMA as a nesting and migratory pit stop for birds since 1996 and have created quite a nice list of visitors over that span — 82 thus far — not bad for 30 acres (24 fenced plus 6 unfenced). Bird sightings can indicate our success as land stewards when they become more frequent as the diversity and total number of species increase. My observations over the last 13 years indicate this is true for the CMA.

One example is a little canary-sized gem of a bird called a black-throated blue warbler (*Dendroica caerulescens*). These winged beauties travel to the northeast from their wintering grounds in the Caribbean in search of suitable breeding habitat, timing their arrival with the explosion of insects and insect larvae resulting from the leaf-out of trees and shrubs in early spring. Between 1996 and 2001, I observed just one of these wood warblers at the CMA, and none again until this May when I observed a total of 12 birds. Black-throated blue warblers are listed by the Endangered and Non-Game Species Program as a species of “special concern,”

a designation that warrants special attention and an alteration to its natural habitat lest they descend farther towards extinction. The American Bird Conservancy notes that this species has been in steady decline since the 80's. I believe the presence of this species in the CMA this year correlates with the presence of an understory in recovery.

Observations of other species in recent years are consistent with those of the black-throated blue warbler. Every year since I've been birding at the CMA in spring, I've added a bird here and subtracted a sighting there — pretty normal stuff for 30 acres of land dominated by mixed forest types skewed toward the wet. I've made some pretty cool sightings too, like the state-endangered American bittern (*Botaurus lentiginosus*) in



*Yellow-billed Cuckoo, seen for the first time at the CMA this year.
Photo by Blaine Rothauer*

the Zimmer marsh in 2001 or the two-day observation of a Virginia rail (*Rallus limicola*) in 1997 at the cattail patch off the orange trail. Scarlet tanagers have popped up on the site each year I've been looking, never in abundance but always there, gobbling up bug larvae as they beef up in search of nesting sites

in secluded interior forests — a dwindling habitat commodity these days. It's the recent increase in variety and quantity of birds that has impressed me.

This spring and last, observations of breeding wood thrush, veery and black-and-white warblers were confirmed. One wood thrush was seen nesting in a dogwood right on the entrance path. Mixed flocks were commonplace this year. One such group working the site in May contained black-throated green, magnolia, and redstart warblers along with a few blue-grey gnatcatchers. Rose-breasted grosbeaks (*Pheucticus ludovicianus*), a beautiful forest edge species, have been found to nest throughout the CMA. They've always been on my CMA list, but there are more of them this year. This species is habitat-specific when choosing its nesting grounds. They love a forest edge with a thick and rich understory — just the kind you now find at the CMA.

Another common warbler that has paid us a visit each year I've been logging birds is the common yellowthroat (*Geothlypis trichas*).



Common Yellowthroat on deer fence at CMA. Photo by Blaine Rothausser



Rose-breasted Grosbeak. Photo by Blaine Rothausser

One can't help but find this little masked bandit endearing as it chatters its trilly alarm call from the thickets at the edge of wetlands. Yellowthroats are not uncommon, but this year I found 12 locales at the CMA where a different male responded with unwavering vigor to my calling device (iPod Nano). Yellowthroats are found only in areas of dense understory. They require a tight vegetative cover for breeding. These wetland thicket birds find the lushness of our enclosure compatible with this prerequisite.

Worldwide, eight out of ten songbirds are experiencing a decline in population. This is compounded with the local pressures imposed by the fragmentation of the landscape, so it's a wonder that we catch a glimpse of any of them. The hope for songbirds must come in the form of land restoration like that now taking place at the CMA through the dedicated efforts of Hazel England and her army of volunteers. My observations indicate that management of the CMA — diversifying the vegetative community through native planting and the nurturing back of an understory by excluding deer — has resulted in the recent uptick of observable migrating birds.

GSWA invites anyone who wishes to report bird sightings of interest to email me at blaine@e-naturaleyes.com. Happy birding! 🌿

CMA Notes and News

by Hazel England, GSWA Director of Outreach and Education

There has been much activity over the last few months at GSWA's 50-acre Conservation Management Area (CMA) in Harding. Despite above average rainfall, causing wet conditions and copious mosquito populations at the CMA, GSWA has managed to host over ten workdays with various corporate groups. Goldman Sachs Community TeamWorks program enabled over 85 employees to help GSWA staff and volunteers raise the height of our 23-acre deer enclosure to eight feet, stopping high-jumping deer from entering the site. More than three acres of invasive species have been cleared from the site, 250 native shrubs

planted along the streams and in cleared areas, trails mulched and clipped, and many other tasks achieved. GSWA thanks Pfizer, Verizon, Ethicon and Goldman Sachs for their efforts.

Scheduling a workday is easy, especially with the newly revamped Conservation Management Area website giving potential volunteers all the information they need to schedule a group or corporate volunteer effort at the site. Visit www.greatswamp.org or contact Hazel England, Director of Outreach and Education at hazele@greatswamp.org for more information. 🌱

Evening Program: Benefits of Backyard Composting

Composting diverts green house and yard debris from landfills, saves money, reduces methane levels and creates fantastic, free soil amendments you can use around your property. Composting recycles nutrients back into the soil, and improves both the soil moisture and structure, as well as feeding your plants for free. And best of all it really is EASY! After the success of our spring breakfast briefing on composting, we are presenting an evening talk with the added incentive of being able to buy your very own composter after the program.

Learn how to turn kitchen and garden scraps into a valuable soil amendment

starting right now! The program will cover all the steps necessary to begin backyard composting. The talk forms part of our Streamside series, which encourages watershed residents to adopt greener practices.

If you wish to purchase an Earth Machine 3'x3' compost bin on the night of the event, a limited number will be available for \$40 each.

This program will take place on Wednesday, October 28, from 7 - 9 p.m. Free for members. The fee for non-members is \$10 and includes refreshments.

Welcome New Members

Special thanks to the following donors who became members of GSWA between March 28 and August 18, 2009:

Ms. Claire Armstrong, Berkeley Heights
Mr. Asa Berger, Summit
Ms. Marjorie Brandriss, Summit
Ms. Frances Call, Mendham
Ms. Linda S. Campbell, Burlington, VT
Mr. Philip Caruso, Metuchen
Mr. Jonathan Chatinover, Chatham
Mr. & Mrs. Robert Cipolaro, Berkeley Heights
Mr. John Collins, Raritan
Ms. Ann Colman, Florham Park
Mr. & Mrs. Henry C. Dearborn, Summit
Ms. Geraldine DeSapio, Berkeley Heights
Ms. Sally Glick, Basking Ridge
Ms. Susan Goldberg, Highlands
Mr. Robert W. Hasbrouck, Summit
Mr. & Mrs. Lawrence Keller, Short Hills
Mr. Gerald Klass, Livingston
Mr. Steve Klawitter, Millington
Mrs. Loretta Lane, Basking Ridge
Ruth & Malcolm Macpherson, Chatham
Mr. William Marshall, Millington
Ms. Marcia McInnes, Pluckemin

Mr. and Mrs. Kirk Meighan, Far Hills
Mrs. Linda Mellina, Chatham
Ms. Betty Mills, Morristown
Jamie Mills, Gillette
Ms. Sharyn S. Model, Summit
Mr. Jacques Nioche, Berkeley Heights
Mr. & Mrs. Victor Padlo, Berkeley Heights
Mr. Kenneth Peskin, Summit
Ms. Stephanie Philwyn, Madison
Mr. Adam Slutsky, Mendham
Mr. Daniel Sroka, Morristown
Mr. Joseph Taylor, Florham Park
Mr. Jack Teital, Montville
Mr. Gerard Trafford, Bloomfield
Mr. & Mrs. Richard Trezza, Mendham
Uwe Trinks, Basking Ridge
Ms. Grace B. Vance, Murray Hill
Mr. John Velling, Millington
Dr. & Mrs. Richard W. Watson, Murray Hill
Ms. Louise Witt, Morristown
Mr. Ron Wysocki, New Providence

GSWA also thanks those new members who wish to remain anonymous.

ACROSS THE WATERSHED is also available electronically

Help reduce our print and mailing costs by signing up for electronic delivery of future issues of *Across the Watershed* at www.greatswamp.org or send an e-mail with your name and address (so we can identify you in our member database) to ddolan@greatswamp.org. By giving GSWA your e-mail address, you'll also receive our monthly e-newsletter, which provides

timely information on upcoming programs and events along with news on what's happening in and around the watershed.

Your e-mail address will be used solely for the purpose of sharing information with you about GSWA-related programs and events. We will not provide your e-mail address to any other person or entity without your permission.

Spring Appeal Donors

GSWA would like to thank the following members and contributors who gave so generously to our 2009 Earth Day Appeal and/or Chairman's Appeal:

Mr. Joseph Amatelli, Milford
Mr. Alfred Angelo, Madison
Dr. & Mrs. Edward Babbott, Basking Ridge
Ms. Darlene Bakur, Chatham
Mr. Giorgio Balzer, Bernardsville
Mr. & Mrs. Marshall Bartlett, New Vernon
Mr. & Mrs. Duncan L. Bethune, Chatham
Mr. & Mrs. Grosvenor Blair, Bernardsville
Mr. & Mrs. Alan Brazil, New Vernon
Mr. & Mrs. Edward J. Broderick, Westfield
Mr. & Mrs. Robert B. Broomall, West Orange
Ms. Joan B. Buck, Mendham
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Ms. Pat Budziak, Morristown
Ms. Linda S. Campbell, Burlington, VT
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Ms. Suzan Mitchell, Bernardsville
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Mr. & Mrs. Thomas Quinn, Chatham
Mr. John Raby, Warren
Mr. John Rakszawski, Basking Ridge
Mr. & Mrs. Donald W. Remlinger, Morristown

Mr. Alfred Riccardo, Woodcliff Lake
Mr. & Mrs. David Rosen, Short Hills
Mr. Elliott Ruga, Green Village
Mr. & Mrs. R. Edwin Selover, Morristown
Mr. Al Sferra, Basking Ridge
Mr. & Mrs. Walter V. Shipley, Summit
Mr. & Mrs. Brian Sibiga, Raritan
Mr. & Mrs. Frank Stillinger, Chatham
Mr. & Mrs. Tom Swayne, Basking Ridge
Mr. John F. Swift, Green Village
Mr. & Mrs. Edward Traub, Jr., Millington

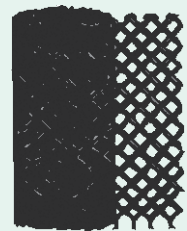
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Mr. & Mrs. Benjamin Wolkowitz, Madison
Mr. Thomas Wolsky, Basking Ridge
Mr. & Mrs. John E. Yingling, Jr., Hopatcong
Mr. Robert Zega, Denville

We also thank those donors who chose to remain anonymous.

GSWA Invites You to Support our “Wish List”

If you're wondering how member support is making a difference, here are just a few examples:

- \$25 buys a pond study kit for one classroom
- \$50 buys a stream flow kit — including “rubber duckies” for stream monitoring
- \$100 helps buy native shrubs for restoration of the Conservation Management Area
- \$250 sponsors community outreach and education presentations and teacher workshops
- \$500 helps fund advocacy programs that educate citizens of all ages about the importance of preserving and protecting our limited natural resources
- \$1,000 buys deer exclosure fencing for three acres at the Conservation Management Area



If you would like to make a donation, or encourage your friends and neighbors to become members of GSWA, visit www.greatswamp.org or call Debra Dolan at 973-538-3500, x21.

Volunteers and Interns Help GSWA Keep Its Head Above Water

Volunteers honored at 2009 Volunteer Appreciation Event

GSWA held its annual volunteer appreciation event on June 5 to thank all those who give so much of their time to the success of our mission. We have more than 300 active volunteers who donate their time to everything from stuffing envelopes, to donning hip waders for stream monitoring, to drowning themselves in bug repellent and sun block to tackle land management projects at the CMA.

Honored for their outstanding service at this year's event were:

Laura Costello, for volunteering to be GSWA's volunteer coordinator in addition to all the hard work she puts into water monitoring and visual stream assessments as a member of the stream team.

Bob Crocco, for jumping in with both feet to help with the sometimes monumental task of improving and maintaining GSWA's Conservation Management Area.

Jim Northrop, for almost single-handedly taking on the challenge of organizing the GSWA reference library, cataloguing everything he could lay his hands on, while continuing to be an active member of GSWA's Land Use Committee. As announced in the July e-newsletter, the fruits of Jim's labor are outlined on our website under Reference Library.

Though we recognize just a few of our many dedicated volunteers each year, GSWA appreciates the work of every one. So, thanks to all our volunteers for a job well done!

Interns spend their summer with GSWA

GSWA thanks the following students who interned with us this summer. Their support was invaluable.

Chris Heckman, Colorado Mountain College

Andrew Livingston, Colgate University

Katherine Perri, Hobart and William Smith Colleges


Kristin Vanderbilt, University of New Haven

Sasha Waldstein, Carleton College 

Educator Workshops *(continued from page 6)*

Schoolyard Habitat Enhancement Workshop

Wednesday, April 14, 2010, 9 a.m. - 3 p.m.

Enhancing your school ground creates habitat for wildlife, can help improve water quality, and offers students areas to study without costly field trips. You don't need a country setting for habitat enhancement to work, and to offer teaching opportunities! Learn about the process of creating an outdoor place for learning including mapping, site design, and correlation to your existing curriculum. This workshop is suited for K-12 educators in all subject areas. Start your planning this fall to be ready to make changes to your school site in the spring. Leave armed with ideas for your own site. This program will spend some time outside. 

Millington Quarry Update

by Sally Rubin, GSWA Executive Director

The Millington Quarry in Bernards Township recently submitted a Memorandum of Agreement and a Remedial Investigation Work Plan to the NJ Department of Environmental Protection. Basically, the quarry requested that the DEP investigate whether or not a portion of the fill imported to the quarry is contaminated. The quarry request was very limited in scope, both in terms of where on the site the investigation would take place and in the scope of the testing. The DEP responded to the quarry and determined that the quarry's requested protocol was insufficient.

On July 31, the DEP met with Sally Rubin from GSWA as well as two representatives from Citizens for a Clean and Safe Millington Quarry (CCSMQ) and reviewed the quarry's application.

The DEP advised GSWA and CCSMQ that the current very limited investigation is an interim step and will not result in a no further action letter for the entire site. When quarrying activities are terminated and the quarry proposes its ultimate use, the quarry must conduct a Preliminary Assessment Site Investigation (PASI) which will be a full investigation of any and all areas of concern of potential contamination of the entire site. It will also include a baseline ecological evaluation and include ground water sampling. The quarry must conduct a PASI



and remediate any and all contamination in order to receive a no further action letter and rehabilitate the site.

At this time and for the limited requested purpose, the DEP will require 75 soil borings, as opposed to the requested 29. The DEP will require 225 laboratory samples as opposed to the requested 78. The DEP has determined that some of these borings will be shallow and some will be deep. This will yield a variety of sampled material to test. The DEP has

determined that the fill material tests shall include base neutrals, metals, pesticides, PCBs, chromium, hexavalent chromium, and synthetic precipitation leaching procedure (SPLP). If and when contamination is found, DEP will reevaluate all testing protocols.


CCSMQ and GSWA have requested DEP to include some test pits on the steep slopes, to test ground water in the existing monitoring wells, and to test the surface water immediately. GSWA is very concerned about potential surface and ground water contamination. The DEP is willing to require monitoring wells but advises that the location of the wells should be determined after the soil testing so that they are appropriately located.

Bernards Township's consulting engineer, Icon, will be present for all borings and will run duplicate tests on the samples. GSWA will continue to be actively involved in this matter. 🌱

Gala *(continued from page 1)*

Schering-Plough Corporation and Wyeth have generously supported Great Swamp Watershed Association for more than ten years. Their support of the Adopt-a-Stream Project since 2003 has allowed GSWA to conduct chemical analyses and water quality monitoring and to identify strategies for ecological restoration. These data have been used by DEP to propose new regulations that have improved our drinking water.

This support demonstrates how good corporate neighbors can have a positive impact on their communities. We honor these companies' commitment to helping GSWA achieve its mission.

If you'd like to purchase tickets, donate to the silent auction or place an ad in our commemorative ad journal, visit www.greatswamp.org or contact Sarah Rosen, GSWA's Director of Development at 973-538-3500 x18 or srosen@greatswamp.org. Both the ticket purchase and ad journal/silent auction forms can also be found on the back inside cover of this newsletter. 

GSWA Experts Available to Speak to Area Groups

Do you wonder, "What is in my water?" or "What can I do to ensure clean water for my children?" These and other questions about water quality, land preservation and local efforts to protect the environment can be answered by GSWA's Speakers Bureau, who will present interesting, hands-on presentations that will educate and inspire members of your local club or group. Call today for more details: (973) 538-3500 x13.

Breakfast Briefings *(continued from page 1)*

spill monitoring, horseshoe crab counts, and more.

Tuesday, October 13: How to Go Back₂ Tap – Tap Water That Is!


Presented by: Lydia Chambers, Back₂ Tap co-founder and long time Chatham resident.

Back₂ Tap is a Chatham-based organization whose mission is to reduce the number of disposable bottles being used (100 million plastic bottles enter landfills every day) and encourage homeowners to go back to drinking tap water, shown in some recent studies to be healthier than bottled water because it is regulated by the EPA. Join us to learn how to go back to tap.

Tuesday, November 10: Conserving Energy At Home

Presented by: David Rosen, LEED certified architect, Partner, Rosen Group Architecture/Design.

Economic times are tough, and it makes sense to save money where you can. Saving green can often also be about being green. Join us to learn some simple energy conservation measures you can take around the house.

Additional breakfast briefings are being planned for the second Tuesday of March, April and May, 2010. Visit www.greatswamp.org for announcements on topics and speakers for these upcoming events. We'll also be sending out reminders via our monthly e-newsletter; so if you're not already on our e-distribution list, please sign up at www.greatswamp.org or send your current e-mail address to ddolan@greatswamp.org. 



Name _____

Address _____

City _____ State _____ Zip _____

Phone (daytime) _____ E-Mail _____

Please Reply by October 1, 2009

I would like to attend GSWA GREEN ACRES GALA on October 15, 2009

___ Benefactor Table of 10 \$5,000 ___ Sponsor Table of 10 \$2,500

___ Premier Ticket \$500 ___ Benefactor Ticket \$250 ___ Individual Ticket \$150

___ I am unable to attend, but would like to make a contribution of \$ _____

___ Check enclosed (payable to Great Swamp Watershed Association) 

Charge my ___ Visa ___ MasterCard ___ AmEx

Credit Card # _____ Exp. Date _____

You can R.S.V.P. and contribute online at www.greatswamp.org
For questions, call 973-538-3500. The amount of your contribution in excess of \$70 per ticket is tax deductible.
(See other side for ad journal information).



Green Acres Gala
COMMEMORATIVE AD JOURNAL

We are proud to support the GREAT SWAMP WATERSHED ASSOCIATION!


Please reserve an ad in the following size:

___ Full Page (4½ x 7½) \$750 ___ Half Page (4½ x 3¼) \$400 ___ Business Card (3½ x 2) \$100

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___ A pdf file of the ad will be sent to srosen@greatswamp.org

___ Our camera-ready artwork is enclosed

Deadline for all artwork is September 25, 2009
Please send this card with payment to GSWA, PO Box 300, New Vernon, NJ 07976
(See other side for r.s.v.p. information).




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