



The Great Swamp Watershed Association

ACROSS THE WATERSHED

Fall-Winter 2010

Chris Daggett to Speak at *Green Acres Gala 2010*

Great Swamp Watershed Association is pleased to welcome **Chris Daggett** as the keynote speaker at this year's Green Acres Gala. Mr. Daggett, president and CEO of the Geraldine R. Dodge Foundation, was the 2009 independent candidate for governor of New Jersey and former commissioner of the NJDEP.

GSWA's 2010 Green Acres Gala will be held on **Thursday, October 14th** at the Basking Ridge Country Club, beginning at 6 p.m. with a cocktail hour and silent auction followed by a seated dinner. GSWA's Annual



Photo courtesy of
The Geraldine R. Dodge Foundation

Meeting will be held prior to the Gala, beginning at 5:30 p.m.

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 Amy Maddaluna at 973-538-3500 x14 or amaddaluna@greatswamp.org. You can also purchase tickets by completing the RSVP card found on the back inside cover

of this newsletter, and mailing it, along with payment, to GSWA, P.O. Box 300, New Vernon, NJ 07976. 🌿

Phosphorus: The Good, the Bad and the Ugly

by Alex Brenner, GSWA Intern

GSWA's Stream Team has found that some of the lakes and streams in our watershed contain excessive amounts of phosphorus. While the element phosphorus is critical to all forms of life (it's found in every living cell), freshwater systems that contain too much of it suffer from eutrophication, the over-fertilization of water resulting in harmful algal blooms that suffocate lakes and streams, as well as the fish and organisms (e.g., macro invertebrates) that live in them.

Two of the biggest contributors of excess phosphorus in our lakes and streams are dishwasher detergent and plant fertilizers. In an effort to alleviate the overabundance of phosphorus entering our water bodies through wastewater and storm water runoff, GSWA is encouraging our watershed communities to choose consumer products that contain little or no phosphates.

Dishwasher detergent can have up to 9% phosphate content, while rinse-aids

(continued on page 22)

From the Desk of the Executive Director



by Sally Rubin

Even though New Jersey does not typically experience drought conditions, it does happen, and this year is a perfect example. Changing climate conditions with more frequent heavy storms and periods of drought make it harder to predict water supply. Additionally, as our population increases, we must make the same quantity of water go further and serve more people and greater needs. Since we haven't invented a way to create water, we must utilize the water we have more efficiently and effectively.

There are so many things you can do to save water around the house. You can conserve water everywhere you use it: kitchen, bathroom, laundry, and outdoors. If you're shopping for a water-related product, look for the new WaterSense label — it's water's version of EnergyStar. Here are a few other ideas.

In the kitchen: Drink tap water instead of bottled water. If you need to let the tap run before you fill up your glass, don't just let the water run down the drain — capture it in a pot or bucket for washing fruit or watering plants and flowers. Better yet, use a Brita, Pur or other water filter and store the pitcher in the refrigerator rather than running the tap each time you want a cold, fresh glass of water. If you have a dishwasher, you should use it; but run it only when it's full. Washing

dishes by hand uses more water on average than an automatic dishwasher.

In the laundry: Buy a high efficiency washing machine if you're in the market for a new one; they require less soap and use approximately 40% less water! No matter what kind of washing machine you have, you can conserve water by: running the washer with full loads only, using shorter wash cycles and less detergent, and pre-treating stains to avoid rewashing.

In the bathroom: Don't let the water run while shaving or brushing your teeth. The toilet is typically the largest indoor residential water hog. If your toilet was made before 1993, it's probably using 3.5 gallons of water per flush. Newer models flush less than half that amount. Regardless of the age of the toilet, make sure you check for and repair toilet leaks. Avoid using caustic toilet bowl cleaners which can damage the plastic and rubber parts of the toilet and cause leaks.

There are many simple ways to save water outdoors, too. Landscape irrigation is probably the single largest residential outdoor water use. Use soaker hoses instead of sprinklers to minimize water loss from evaporation and avoid watering the driveway, street, and sidewalk. Use a rain barrel to collect rain water and use this water to irrigate your garden. Landscape with native and drought-tolerant plants that require

less water. Use mulch around plants to help reduce evaporation. Don't over fertilize and don't over water. Remember: more is not always better.

Each of us doing our part to conserve water helps our rivers and streams maintain adequate levels so that aquatic ecosystems can thrive and our human needs can be met. Using water wisely will help ensure that there is always enough of this valuable and limited resource to go around. 🌳

Welcome

We are pleased to announce that **Stephen N. Howard** has joined GSWA as **Director of Development**. Passionate about the environment, Steve brings a wealth of experience in development for environmental organizations, having held senior management positions with the New Jersey Conservation Foundation (NJCF), the National Parks Conservation Association in Washington, DC and The Wilderness Society, also in DC. Steve can be reached at 973-538-3500 x18 or showard@greatswamp.org. 🌳



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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 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.

Bernardsville

The Bernardsville Centre application continues. We have retained both an attorney and an environmental expert



to assist us. The primary concern is the storm water impact in Penns Brook and the potential flooding downstream. The applicant is proposing construction in the flood plain, riparian buffer and within the stream proper. The applicant’s proposed storm water management system does not appreciably decrease the runoff volume and will only exacerbate current flooding and erosion conditions.

Bernards Township: Millington Quarry


The quarry’s environmental expert, JM Sorge, has submitted its report from initial soil and groundwater testing. Groundwater samples showed higher levels of arsenic than standards allow. It is possible, however, that this is naturally occurring arsenic. The samples were above groundwater standards, but they were below drinking water standards. Further groundwater investigation is proposed. The quarry must propose a plan for remediation that will prevent direct human contact or migration of contamination.

Chatham

The Chatham Day School application continues. In addition to new buildings and parking, the application includes remediation of minor contamination from prior farm use of the property. The applicant appears to be willing to reduce both the number of trees to be removed and the size of the area being remediated, in addition to planting appropriate trees and vegetation. Unfortunately, the applicant has refused to consider a conservation easement for the

remediation area. We continue to actively participate in this application.

Harding: Primrose Preserve

This 13-lot subdivision on approximately 130 acres may not be built. GSWA has been working with the developers and the Trust for Public Land to endeavor to have this property preserved. The property has steep slopes, wetlands and endangered species habitat, and borders both the Primrose Brook and the Upper Passaic. We are thrilled that the property may be preserved. The estimated value of the property is \$10 million and it may be acquired in two phases over two years. Phase 1, totaling about 45 acres includes seven approved forested lots for approximately \$4.5 million. Harding Township, Harding Land Trust and the Trust for Public Land would all contribute Green Acres funds, with the majority of the funding coming from Morris County Preservation Trust and Open Space Fund. Former Harding Township Committeeman and current President of the Harding Land Trust, John Murray, states that they hope the property will be used for passive recreation and require minimal maintenance. We sincerely hope that Morris County sees the value of preserving this property and funds this grant application. 

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 enclosure fencing for three acres at the Conservation Management Area

To make a donation or to join GSWA, visit www.greatswamp.org or call Debra Dolan at 973-538-3500, x21.

Teacher Education Workshops

Great Swamp Watershed Association will again facilitate two popular and useful workshops for area educators this season. Workshops are for K-12 formal and non-formal educators alike. They focus on core content correlated activities that educators can use back in the classroom or Nature Center to teach across the curriculum. They encourage critical thinking skills and focus on sustainability topics such as water conservation, the water cycle, biodiversity, habitats and more. Workshops provide activities relevant to the local environment and will be linked with the amazing online resources of Verizon's thinkfinity.org.

Each six hour hands-on workshop, led by GSWA's own experienced naturalist educator, Hazel England, will provide participants with activity guides chock full of relevant and engaging content that can be interwoven into existing curriculums. Workshops are \$15, and include breakfast. They confer six professional development credits too! For more information email Hazel at hazele@greatswamp.org. All workshops take place at Great Swamp Watershed Association offices at 568 Tempe Wick Road, Morristown.


Wonders of Wetlands Workshop

Saturday, November 13, 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. This workshop is great for educators who field trip to, have access to, or are considering creating their own wetland site.

Project WET Workshop with additional Great Swamp Focus

Saturday, March 26, 2011, 9 a.m. - 3 p.m.

This workshop is an interdisciplinary, supplemental water education program for formal and non-formal educators, K-12. It is hands-on, action packed and informative! Educators will learn by doing, experiencing activities they can use to teach all kinds 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 up to date. 

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

facebook.

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, 2010**. To participate, simply follow these five easy steps:

- Step 1: Grab a test kit from GSWA
- Step 2: Pick a site
- 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. 🌿

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. All fees associated with educational programs held at Great Swamp National Wildlife Refuge are suggested voluntary donations only. Pre-registration is required. Visit www.greatswamp.org and click on our secure Event Registration page, or contact Hazel England, hengland@greatswamp.org.

Thanksgiving Hike

Sunday, November 28, 2010, 10 - 11:30 a.m.

GSWA Conservation Management Area, Tiger Lily Lane, off Harter Road

You can rest and be thankful this Thanksgiving weekend, or you can be thankful there are places such as Great Swamp Watershed Association's Conservation Management Area that are protected, and open for hiking and enjoying the late fall weather and natural sights. Walk off some turkey and you may even see the real thing on this gentle hike on flat ground.

Moonlight Hike

Friday, December 10, 2010, 7 - 8:30 p.m.

Jockey Hollow Section, Morristown National Historical Park, Tempe Wick Road, Morristown

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 owls, flying squirrels or other night noises, perhaps even coyotes calling! Get your senses sharpened as we play some games to learn more about night senses, and revel in being out after dark without a flashlight!

Winter Exploration Around Great Swamp

Saturday, January 8, 2011, 10 - 11:30 a.m.

Meet at Great Swamp National Wildlife Refuge, Pleasant Plains Road, at the parking area of the former Friends gift store

Join us for a hike, as we start the new year to search out the winter inhabitants of the Great Swamp watershed. As many creatures make themselves scarce when temperatures drop we will play nature detective to seek out the winter denizens of the swamp. We'll check for scats, tracks and other tell-tale signs to find out who's calling the winter swamp home. 🦋



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

Results from the 2009 Macroinvertebrate Study in the Great Swamp Watershed

by Katherine A Perri, GSWA Volunteer

Macroinvertebrates (MIVs) are useful creatures when it comes to studying the quality of water. These small creatures give a long-term view of the quality of the water because they have to live in it, while a chemical analysis is only a snapshot in time.



Larva of a crane fly, Order Diptera, Family Tipulidae

Seventeen sites throughout the Great Swamp watershed were sampled in May 2009. Sites were surveyed on Black Brook, Loantaka Brook, Great Brook, Passaic River, Indian Grave Brook (a tributary of the Upper Passaic), and Primrose Brook. All of these streams and sites have been sampled annually since 2000 by Dr. Lee Pollock, a now retired Drew University professor.

The sites were rated from “very poor” to “good” with regard to the quality of the water based on the number and type of MIVs collected there. The streams that rated “good” at all sites in 2009 were Indian Grave Brook (one site) and Primrose Brook (three sites), while the Passaic River had one site of three that rated “good”. The other two sites

along the Passaic River were rated “fair” and “poor” with slight upward trends. Both Indian Grave Brook and Primrose Brook have shown consistently good ratings, if not improvement over the course of the 10-year study.

The streams that rated the worst were Loantaka Brook, Great Brook and Black Brook. Loantaka Brook had four sites, two of which rated “very poor” while the other two rated “poor”. All four sites have consistently been in that range and only one site has shown an upward trend in the past five years. Great Brook had three sites, all of which were rated “poor”. However, all three sites have shown an overall improvement since the beginning of the study. Black Brook had just one site that rated “very poor” and has consistently received that ranking. One site is not indicative of the entire stream, but it does provide helpful insight into the stream’s possible condition.

Dr. Pollock’s full report and supporting documentation will soon be posted to the GSWA website so be on the lookout! 🌿

Please be sure to let us know if you change your e-mail address. Send a note with your name, address, and old e-mail address to ddolan@greatswamp.org so you don’t miss out on our monthly e-newsletters.

A Guide to Understanding NJ American Water Company's 2009 Annual Water Quality Report

by Katherine Perri, GSWA Volunteer


When you receive a water quality report from your water company, do you feel overwhelmed by all the scientific data, charts and graphs? Well, here's a guide to understanding the latest water quality report from NJ American Water, one of the companies that provides water to Great Swamp watershed communities.

The New Jersey Department of Environmental Protection's Source Water Assessment Program (SWAP) allows for the testing of groundwater throughout the state to determine levels of potential contaminants from natural and anthropogenic (human) sources. The goal of the program is to study existing and potential threats to the quality of public drinking water by analyzing the major water sources. This report was divided into three different areas: Little Falls, Short Hills, and Twin Lakes. The Great Swamp Watershed falls into the Short Hills system. Within the Short Hills system, 44 different sites from the Passaic River, Brunswick aquifer and Canoe Brook were analyzed for any contaminants and the ones that were detected were included in this annual report.

Some of the contaminants sound very hazardous to human health, such as arsenic, lead, and selenium but these elements are found in the bedrock and the levels are so low that they do not pose a threat to human health. The low levels also indicate that they are coming strictly from natural processes and not resulting from any human activities. There were some contaminants detected as a result of the water treatment process, by-

products such as trihalomethanes that form during the disinfection process and are very volatile. The levels detected, however, were less than half the maximum contaminant level (MCL).

Some tap water samples were analyzed as well and two contaminants were present: lead and copper. The most common source for these contaminants is from piping within your house. Old lead piping should be replaced since lead has been associated with causing neurological problems. Copper can also cause neurological diseases, but it is far less common and the newer pipes are generally lined to prevent decay of the pipe surface. Lead or copper can build-up between uses of pipes, letting the water run for a couple of seconds before using it will allow for the majority of the build-up to go down the sink rather than into your glass.

The last contaminant is radon, a naturally occurring element that is part of a radioactive decay process. Radon is present in the bedrock through which source water flows and gets absorbed into the water supply. Ingestion of radon is not harmful to humans, but inhalation is. When water flows out a faucet, it releases some of the radon trapped in the water into the air. Once in the air, the radon can attach to particles and get adsorbed through the lungs into the blood stream. Home test kits are relatively cheap if you are worried about the concentration of radon in the air in your home, but the level of radon within the Short Hills system water ranged from not detectable to 1432 pCi/L (a unit of measurement for radioactivity). 


Area Schools Testing the Waters

GSWA recently launched its newest citizen science program, School Water Monitoring on the Passaic (SWaMP). This program gives high school and college students in communities along the Passaic River the opportunity to engage in hands-on environmental science to learn more about the impacts of pollution and land use on water quality.

The quality of the water in the Passaic River changes as it flows downstream from its origin in the Great Swamp. By engaging high school and college age students along the entire length of the Passaic River as stewards of their local environment through practical hands-on testing of the quality of the river's water near their school, they'll come to understand that they can change their environment by changing their own behavior and that of their communities.

Eight schools (College of St. Elizabeth, Drew University, Madison High School,

Garfield High School, Kent Place School, Summit High School, Saddle Brook High School and West Morris Mendham High School) have started or will begin testing specific sites along the Passaic River twice per year. Using simple test kits, students perform basic water quality tests on samples they take along a section of the Passaic in close proximity to their school. The results are then posted by the students via GSWA's website, resulting in an interactive mapsite available to the students and the general public showing all test sites, which school tested which site and the results of those tests. GSWA expects the mapsite to be available for public access later this year.

If your school is interested in participating in this educational science program, contact Kelley Curran, GSWA's Director of Water Quality Programs at 973-538-3500 x16 or kcurran@greatswamp.org. 

Sustainable Living Tip: Make a habit of conserving water, so it doesn't become a necessity.

New Jersey's hot, dry summer prompted the DEP to ask a number of northeast New Jersey counties to voluntarily conserve water as reservoir levels dropped considerably.

Don't wait for a drought before thinking about reducing your water usage. Some easy ways to conserve at the tap: install low-flow toilets and fixtures;

repair leaky toilets and sinks; make your next washing machine purchase a high efficiency appliance; don't let the water run when washing your hands or brushing your teeth; and fill up and use your dishwasher instead of hand washing your dishes (and remember the low-phosphate detergent!).

We Don't Want Bullies in Our Neighborhood!

by James Northrop, GSWA Land Use Committee Member

Some of us may remember youthful encounters with a bully — a blustering, browbeating person habitually cruel to others weaker than himself. The bully's presence could change the dynamics of your situation if you were to allow it. Occasionally, one might successfully confront the bully and send him away. But, usually, once we recognized him for what he was, we would try to avoid him in the first place.

Don't think that bullying behavior is limited to humans. Bullies also exist in the world of plants, and their behavior may have similar consequences for us. For example, the reason many "non-native" plants are classified as "invasive" (bullying) is because they spread beyond planted areas, displace native species, and generally become difficult to control.

So what? you might ask!

Naturalists talk about the need for local plant diversity, and they see a threat in the presence of invasive, "bullying" plants like Japanese barberry, (Japanese) honeysuckle, and garlic mustard. These bullies tend to crowd out native species. By reducing plant diversity, they upset the long-established balance of food sources for insects, small animals and birds. A diversity of plants would broaden the opportunities to feed the insects and plant foods that, in turn, support bird diversity. Studies have shown that native plants supply more food to more insects than non-native plants, in turn supporting more birds and insect eaters. It is entirely possible that over time, fewer and fewer songbirds

will return each season to raise their young, as insect and plant foods for birds decline. Of course, the invasion of "bullying" plants also reduces the floral beauty of our parks, forests and residential neighborhoods.

An invasive species that colonizes a new area may gain an ecological edge since the insects, diseases, and foraging animals that naturally keep its growth in check in its native range are not present in its new habitat.

Some plants do not even become invasive until they are neglected for a long time. Invasive plants are not all equally invasive. Some only colonize small areas and do not do so aggressively. Others may spread and come to dominate large areas in just a few years.

Because "invasives" are any plants able to grow and spread aggressively, they may include trees, shrubs, vines, grasses and flowers, and they can reproduce rapidly by roots, seeds, shoots, or all three.

Ironically, local deer help promote the non-native invasion. New Jersey tends to be over-populated by deer, hungry to eat our native plants. This foraging clears the way for inedible, non-native plant species to take their place. Even the native plant species less enjoyed by deer as mature plants, seem to be enjoyed by deer as shoots and seedlings. Some forested areas have not seen new native tree growth in decades because deer have regularly eaten the seedlings. Furthermore, some homeowners seeking plants that will survive the insatiable appetite of the deer, then purchase and plant the less tasty non-natives. Japanese barberry is popular.

Missing in many places now, as plant diversity is attacked, are such favorites as dogwood, spicebush, witch-hazel, maple leaf viburnum, and a variety of wildflowers.

What can we do? Of the 113 invasive species of plants in New Jersey, 103 are still available for purchase. Some of these are not well known as being invasive, such as yellow iris and butterfly bush. Some of these species are prohibited in other states, including Norway maple, multiflora rose (*Rosa multiflora*), lesser celandine (*Ranunculus ficaria*), Japanese barberry, and burning bush.

We should plant native plants when we can. Native plants often are adapted to a specific environmental niche, and have natural controls to keep them in balance. Native plants are low maintenance and will flourish with a little watering and no fertilizer. Some native plants to consider are: dogwood, redbud, shrub dogwoods, winterberry holly, summersweet (*Clethra*), black-eyed Susan and gayfeather (*Liatris*). A good reason to avoid invasive plants, even when grown in a cultivated yard, is their ability to spread, escape and cause landscape maintenance weeding problems for years to come. In urban and suburban areas, there is a good chance that the worst weeds on your property are escaped non-native plants.

If you are planting non-natives, just be aware of their “bullying” tendencies, and keep them under control. Select species that co-exist with our native species and will not be “bullies.” For example, beautyberry,

boxwood, spireas, lilacs, peonies, and hostas. However, avoid planting the very invasive non-native plants such as Japanese barberry, privet, Norway maple, oriental bittersweet, burning bush, linden viburnum, Japanese honeysuckle, purple loosestrife, Chinese silver grass, Japanese knotweed, and Bradford pear. Unfortunately, plants selected for their resilience may be invasive because of their adaptable nature. Plants selected for their aesthetic value may be hard to banish from your garden even after their invasive tendencies are revealed. 🌲

Hats Off to Harding

On the recommendation of Harding Township’s Planning Board, a new ordinance was introduced in July by the Township Committee that would ban fertilizers containing phosphates. Following the state’s model, “The ordinance says, essentially, that property owners can’t use phosphorous on their lawns, and that no fertilizers can be used within 25 feet of any water body,” according to Mayor Marshall Bartlett (Observer-Tribune, August 12, 2010). See cover story, *Phosphates: The Good, the Bad and the Ugly*, for more on the impact of phosphates on the environment.

Clearing the Air

An article in The Star Ledger regarding the disbanding of a committee comprised of representatives from the ten towns in the Great Swamp watershed may have suggested to some readers that our organization, Great Swamp Watershed Association, and the Great Swamp Watershed Association Ten Towns Committee were one and the same. Rest assured that GSWA remains in a strong position to continue its work protecting water and land in the region thanks to your support, and the dedication of our board and staff.

The following Letter to the Editor was sent to The Star Ledger in response to their August 4th article.

To the Editor,

Tomas Dinges' article of August 4th, "Great Swamp watershed advisory panel disbands," gives the impression that oversight of the Great Swamp watershed is no longer needed. It would be nice to declare success and move on, but the Great Swamp Watershed Association (GSWA) is fully engaged in protecting both the quality and quantity of our water and the biodiversity the water supports. With greater resources, we could be doing even more. Monitoring the health of our streams, educating the public about environmental concerns, and advocating for intelligent land use, are tasks that are never completed.

The demise of the Ten Towns Committee is largely an unfortunate result of the serious budget constraints within which our towns

are operating. Absent alternative funding, they had no choice but to close. The GSWA has been asked to take over certain functions of the Ten Towns Committee, which we have agreed to do. Although we also feel financial pressure because of the current economic situation, our funding sources are private and we are therefore able to continue this important and necessary work, which is far from finished.

Sincerely,

Sally Rubin

Executive Director

Great Swamp Watershed Association

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.

Chatham's Own Hatfields & McCoys in a Battle to Conserve Water

When the Environmental Protection Agency's WaterSense program, in partnership with American Water, was looking for an east coast community to participate in its national "We're for Water" contest and cross-country tour this past summer, it was Chatham Township's "green" reputation that caught their eye. The program, which kicked off on July 14 in Los Angeles, ended on August 2 with a special event in our very own Chatham Township.

Our two local celebrity families, the Abbotts and the Johnsons, faced off to see who could conserve the most water by making improvements around the house and changing their water-use habits. Both families made relatively simple yet effective changes (e.g., using more efficient shower heads, taking shorter showers, repairing leaky faucets and toilets) in their week-long challenge to reduce their water consumption.



Sarah Abbott and Mariana Johnson compete in "the most efficient shower" contest.

The end result? The winners, Chris Johnson, Ann Cavuoti-Johnson and their children Mariana 18, Courtney, 16, and Carolyn, 12 reduced their water usage over the same period last year by 40%, saving 400 gallons of water. Their challengers, Kenneth and Katherine Abbott, and their children, Joanie 16, Sarah, 11, and Meredith, 4 did a great job to reduce their water consumption by 25%, saving 610 gallons.

The campaign's closing ceremonies featured the Abbott Family and the Johnson Family together demonstrating ways we can all help conserve water. 🌱



Start Your Day with GSWA

GSWA's Breakfast Briefings have returned after a summer break. Check out what's on tap this fall:

Tuesday, September 14, 8 - 9:30 a.m.: **Fall Gardening Tips**

Presented by: Mike Bucek, Green Path LandCare

As Fall approaches, learn how to put your garden and lawn safely to bed for the winter. Green Path LandCare, a Chatham-based family-owned and operated business, helps beautify landscapes, reduce chemical pollution and simplify lives.

Tuesday, October 12, 8 - 9:30 a.m.: **Social and Physical Landscapes of the Great Swamp Watershed**

Presented by: David Tulloch, Rutgers University

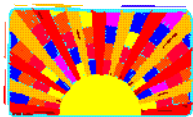
The Rutgers University junior class in landscape architecture will present initial findings from their recent inventory of the social and physical landscapes of the Great Swamp watershed. Their report will be a creative reflection on both existing knowledge of the watershed as well as their own perceptions. They will be conducting further analysis and exploring regional design strategies for the area, so your input and response to their presentation will be invaluable to their progress.

Tuesday, November 9, 8 - 9:30 a.m.: **The State of the Passaic River**

Presented by: Kirk R. Barrett, Director, Passaic River Institute, Montclair State University

The watershed's five streams flow through the Great Swamp and exit as the Passaic River. So what happens downstream of the Great Swamp watershed? Come and learn about issues facing the Passaic River, a source of drinking water for more than a million people.

Each Breakfast Briefing is held at GSWA's office at 568 Tempe Wick Rd., Morristown. A complimentary continental



breakfast is included, though donations are gratefully accepted.

We ask that you pre-register by visiting www.greatswamp.org, or call our Event Info Line at 973-538-3500 x22. 🌲

Welcome New Members

Special thanks to the following donors who became members of GSWA between February 2 and July 30, 2010:

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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 2010 Earth Day or Chairman's Appeal:

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(continued on page 21)

A Giant Sponge Grows in Harding?

by Hazel England, GSWA Director of Education and Outreach

In recent editions of our newsletter there have often been references to the numerous corporate workdays and land stewardship successes achieved at our 50-acre Conservation Management Area on Tiger Lily Lane in Harding Township. We are justifiably proud of the volunteer land management leveraged by



these groups at the site, which has allowed the management objectives and successes to grow in number and volume each year.

In 2010, alone we are on track to benefit from more than 1800 hours of volunteer labor at the site. Volunteers labor to plant native shrub and perennial species (over 200 so far this year), remove invasive non-native ones (almost three acres cleared this year), build boardwalks (200 feet so far this year and counting) and manage trails to encourage recreation, and maintain and increase deer enclosure fencing. These are

all labor-intensive tasks, especially given the difficult conditions this workday season!


Some might wonder why an organization concerned so mightily with water quality should trouble itself with being a landowner — certainly a time-consuming business! After all, there are other organizations whose mission is to save land and open space in the region. While this is true, the CMA provides several invaluable water quality functions in addition to simply functioning as protected open space.

We consider ourselves the manager of a 50+ acre gigantic sponge, which is constantly mopping up water, holding on to it and slowly releasing it into the Silver Brook. This metering of water helps abate downstream flooding, while at the same time creating valuable wetland forest and vernal pool habitat for wildlife. Many of the land stewardship practices we undertake enhance this sponge-like water-holding capacity of the area. Deer enclosure fencing allows



vegetation regeneration. Strong unbrowsed native plants sink their roots deep into the soil, allowing clay-rich soils to remain uncompacted, which provides increased water penetration, moisture retention and leaf litter buildup. Added benefits of the 30-acre enclosure fence are that deer excluded from the 1200 feet of Silver Brook banks cut down massively on the stream bank soil erosion that deer crossings can cause.

As the CMA-straddling Silver Brook flows on into Great Brook, and then on downstream into the protected lands of the Great Swamp National Wildlife Refuge, every bit of positive land management is magnified in downstream benefit within the boundaries of the refuge. Additional water quality benefits are that the CMA can act as a model site for best management practices, demonstrating to other streamside landowners what can be done at their own properties.

A recent GSWA-funded environmental study on the sections along Silver Brook most in need of remediation to improve water quality called for stream bank restoration at several sites. The CMA is not only one of those sites; it can show other landowners along the stream what can be done to improve the quality of the water which for many might well be their very own drinking water. So GSWA will continue to be a small, but we think vital, landowner of the largest sponge in Harding. If you haven't done so recently, come and see the improvements afoot at the CMA. 

Know Someone Who Would Like to Become a Member?

GSWA relies on members like you to help protect our watershed's natural resources. So please pass this newsletter along, and encourage your friends and neighbors to join us! Visit www.greatswamp.org for more information.

Spring Appeal *(continued from page 19)*

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We also thank those donors who chose to remain anonymous.

Phosphorus *(continued from page 1)*

can contain up to 20% phosphate. With dishwashers in almost every household, the aggregate phosphorus in our water from dishwasher detergent is staggering. Research has shown that enzyme content, not phosphates, is the most important factor in the effectiveness of dishwasher detergent. So the use of phosphate-free dishwasher detergent is an intelligent way to decrease water pollution without sacrificing product effectiveness.


Thanks in large part to successful grassroots efforts to ban phosphates locally in Spokane, Washington, the soap and detergent industry has agreed to begin eliminating phosphorus from dishwasher detergents in the U.S. this summer.

Another major contributor to phosphorus pollution in the United States is plant fertilizer. In general, fertilizers contain three primary ingredients: nitrogen, phosphorus, and potassium, and are termed N-P-K fertilizers for the chemical symbols of these elements. These nutrients are indeed vital for plant growth, but today phosphate fertilizers are widely misapplied and largely unnecessary for home landscaping purposes. Since phosphorus is not a limiting nutrient in landscaped settings, the addition

of the element to the soil has no effect on the growth of the plants. Adding phosphorus as part of an N-P-K fertilizer therefore causes an overabundance of phosphorus, which eventually ends up in our water.

Instead, nitrogen is typically the limiting nutrient in soil and should be applied to promote healthy growth. Some N-P-K fertilizers have been reformulated to contain no phosphorus and are able to provide plants with the nutrients they need without creating toxic levels of phosphorus. Over 100 municipalities in New Jersey have adopted or are considering adopting a ban on phosphate fertilizers, including Berkeley Heights, New Providence, and Summit,* which all lie on the Passaic River just downstream of the Great Swamp Watershed.

To find out whether your fertilizer contains phosphorus, look for its N-P-K designation; all consumer fertilizers are marked with three numbers, separated by dashes, showing the amounts of nitrogen, phosphorus, and potassium they contain. If the middle number is zero, the fertilizer is phosphate-free. Make the switch to non-phosphate fertilizers, and live sustainably; help our waterways stay free of toxic over-fertilization.

Read the full articles researched and written by Alex Brenner on phosphorus in dishwasher detergent and plant fertilizers at www.greatswamp.org. 

Interested in volunteering?

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

*"Union County towns along Passaic River plan to limit fertilizer." August 23, 2009. http://www.nj.com/news/local/index.ssf/2009/08/river_towns_move_to_limit_fert.html.

You are cordially invited to attend

GREAT SWAMP WATERSHED ASSOCIATION

Green Acres Gala 2010

Thursday, October 14, 2010

Cocktails and Silent Auction 6 p.m.

Dinner 7:30 p.m.

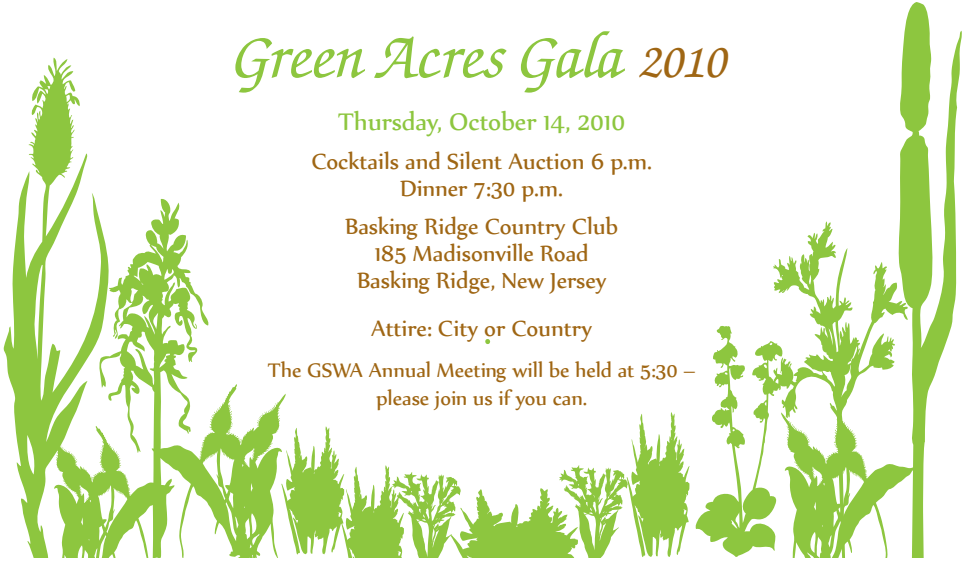
Basking Ridge Country Club

185 Madisonville Road

Basking Ridge, New Jersey

Attire: City or Country

The GSWA Annual Meeting will be held at 5:30 –
please join us if you can.



R.S.V.P.

Name _____

Address _____

City _____ State _____ Zip _____

Phone _____ E-mail _____

Please Reply by October 1, 2010

I would like to attend GSWA Green Acre Gala on October 14, 2010

<input type="checkbox"/> Premier Table of 10	\$10,000	<input type="checkbox"/> Benefactor Table of 10	\$5,000
<input type="checkbox"/> Sponsor Table of 10	\$2,500	<input type="checkbox"/> Premier Ticket	\$500
<input type="checkbox"/> Benefactor Ticket	\$250	<input type="checkbox"/> Individual Ticket	\$150
<input type="checkbox"/> I am unable to attend, but would like to make contribution of \$ _____			

Check enclosed (payable to Great Swamp Watershed Association)

Charge my Visa MasterCard AmEx Discover 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 is tax deductible.



GREAT SWAMP WATERSHED ASSOCIATION

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