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Winter 2007

The Great Swamp Watershed Association

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An Evening To Remember

by John Malay

The Great Swamp Watershed Association celebrated 25 years of environmental stewardship in a single night on November 17th and over 225 friends were there to help us mark our anniversary with "A Salute to Silver".



Guest of Honor, Governor Thomas Kean, holds his Marcellus Hartley Dodge Award.

The evening at the Brooklake Country Club featured a silent auction, a raffle, door prizes, a short video of friends past and present, as well as the presence of luminaries from the world of politics, business and philanthropy.

The annual event is, first and foremost, a fundraiser to help the Association continue its important work to preserve water and land throughout the Watershed. We are happy to report that after

expenses we raised over \$60,000 for our operating funds and an additional \$75,000 for the endowment fund. This is a new record for us. Thanks to all of you for your attendance, donations and contributions!

We had 84 auction items, 10 door prizes and -- new this year -- a raffle! (See sidebar article, "Rapids Raffle".)

Down Memory Lane

A highlight of the evening was a video presentation put together by award-winning videographer Elliot Ruga. In it a number of people important to the organization over the last quarter century shared their

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Event Photos on Page 2 & 11!

Rapids Raffle

One of the most anticipated events this Salute to Silver celebration was drawing the winner of the Acadia Kayak package, valued at approximately \$1,000.



GSWA Director of Development Ruth Kerkeslager congratulates Jeff Howell on his winning the Acadia Kayak Raffle.

The winner of the Kayak Raffle was not at this year's event, however. Jeff and Dawn Howell had purchased their lucky ticket on-line at www.greatswamp.org before the event! Almost half of the 100 tickets were sold prior to that evening.

Jeff and Dawn have lived in Chatham Township since 1981. According to Jeff, "It didn't take long for us to realize how much the Great Swamp influences the whole area from recreation to traffic patterns." Jeff and Dawn are big nature lovers and are not only members of

the Watershed Association but also support the Nature Conservancy and the New Jersey Conservation Foundation. They have been members of the Association since 1996.

When asked if he had ever been in a kayak, Jeff told us that he has been in a submarine, canoe, rowboat and sailboat but he's never been in a kayak. He said he has always wanted to try kayaking but just never did -- now he doesn't have any excuses!

Jeff said that he plans to try it out when the weather gets a little warmer. All of us at the Great Swamp Watershed Association want to congratulate Jeff and Dawn on their good fortune and hope that they have as much fun with their new kayak as we did raffling it to our members.

A Salute to Silver



Madison Mayor Woody Kerkeslager chats with Barry Kroll, also of Madison.



NJ Assemblyman Dr. Eric Muñoz and guest of honor Thomas Kean speak with guests.



Schering-Plough CEO Fred Hassan converses with Congressman Rodney Frelinghuysen (R-11).

A Night To Remember

continued from front page

impressions of the organization and defined the important work that we have done and need to do into the future. Participants included Candace Ashmun, David Moore, Jim Gilbert, John Cunningham, Frank Parker, Maureen Ogden, Rich and Pat Kane, Helen Fenske, and Julia Somers.

Marcellus Hartley Dodge Award

After that, Master of Ceremonies and NJ Assemblyman Jon Bramnick (R-Union) noted such honored guests as Congressman Rodney Frelinghuysen (R-Dist. 11), Assemblyman Dr. Eric Muñoz (R-Union), honorary Event Co-Chairs Nancy and Nelson Schaenen and Nancy and Bill Conger, as well as Event Chair Anne Essner. He then introduced the evening's special guest, former Governor Thomas Kean.

Governor Kean is a long-time supporter of the environment in New Jersey and while governor he signed into law the Freshwater Wetlands Protection Act, probably the single most important legislation in protecting the Great Swamp and other wetland areas in the state.

For this and other important work Governor Kean was the recipient of this year's Marcellus Hartley Dodge Award. The Dodge Award is presented annually to the person who, in the opinion of the GSWA Board of Trustees, has made a significant impact on natural, cultural and historic preservation in the Watershed.

It is named for the late owner of Hartley Farm in Harding and Morris Townships. Together with his wife, Geraldine Rockefeller Dodge, Mr. Dodge engaged in numerous philanthropies.

Corporate sponsors for the 25th anniversary event were: Maersk, Peapack-Gladstone Bank, Pfizer, PSEG, Reckson, Schering-Plough, Sterling Properties, Verizon and Wyeth.



Wyeth CEO Bob Essner shares a moment with Jeff Rich (Mendham), husband of GSWA Trustee Nancy Miller-Rich.

From the Desk of the Executive Director

by Joan G. Fischer



The big news for me to report is the result of our November 17, 2006, 25th anniversary Salute to Silver Gala. In attendance at the event were over 225 people, who spent a pleasurable few hours bidding on silent auction items, vying for door prizes, eating and drinking and enjoying each others' company. The event raised over \$60,000 for operating expenses and \$75,000 for the Endowment Fund! I had the pleasure of meeting and thanking many of our long-term supporters, members, and volunteers, and the honor of presenting the Marcellus Hartley Dodge Award to Governor Thomas Kean. Our long-time friend and ally, Congressman Rodney Frelinghuysen, presented us with a bound copy of the issue of the Congressional Record that memorializes the history and accomplishments of the Great Swamp Watershed Association. I felt very proud to be associated with such a venerable and productive organization.

As I work on plans and projects for the Association, I frequently look out of my office window at the russet, gold, brown and magenta leaves crowning our hilltop. The beauty of the view is a reminder of the Association's hard work during the previous 25 years. However, it is also a reminder of why we must remain committed to the task of preserving and protecting the water and land of our Watershed region. Currently, there are two major threats to our resources: the ongoing matter of Abbey Woods at Delbarton (Morris Township), and a newer issue from a proposed "clean up" and development of the Rolling Knolls Landfill in Green Village (Chatham Township).

As you may recall, the Abbey Woods matter reached a place in its long history where the NJDEP had denied the developer's application for a sewer line, thereby halting any hopes for construction of a high density CCRC. Abbey Woods has now appealed that denial, seeking a hearing in the Administrative Court of Law. GSWA would like to participate or intervene in the hearing, and is being represented by the Rutgers Environmental Law Clinic in filing a motion seeking that relief. The request will be filed with the DEP shortly, and we hope to be able to participate in any further proceedings in the Administrative Courts.

The Rolling Knolls Landfill cleanup and redevelopment matter is of a more recent vintage. It involves an approximately 200 acre former municipal landfill located at 35 Britten Road, in the Green village section of Chatham Township. It is bound by the Great Swamp National Wildlife Refuge on three sides. (For more details, see the full article in this issue.)

Congressman Frelinghuysen and US Senators Lautenberg and Menendez have been concerned about the potential for further damage to Federal Wildlife lands, and have organized informational meetings attended by their staff and representatives from EPA and NJ DEP, and Chatham Township. I have been included in all such meetings, and will attend the next one, scheduled for March.

The tone of the meetings thus far has been constructive, and open. All at the meetings seem to acknowledge that the potential return for allowing the site to be rezoned for high density residential use is small and the potential cost is enormous- in dollars, quality of life, and negative publicity. The EPA should be allowed to do its work without participation of a private party which is seeking to be the ultimate developer, so that all open issues can be addressed and the clean up of this Superfund site does not threaten our drinking water, our backyards and the Great Swamp.

I hope you all enjoyed a wonderful holiday season. I look forward to your support in the new year.

Joan G. Fischer

Across the Watershed is a quarterly publication of the Great Swamp Watershed Association. The Watershed Association is a membership-based non-profit that protects drinking water, and preserves land to maintain the natural beauty and enhance the livability of *your* town.

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Across the Watershed

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Outreach & Education

As 2006 ends, we take stock of what a successful year this has been for education and outreach. We have increased both the number and diversity of teacher workshops and public outreach programs offered. With our "Educate the Educators" programs, we magnify the reach and effect of our small staff and teach the teachers to pass on the benefits of environmental education to *their* students, the Great Swamp Watershed and its inhabitants.

Over the course of the year, I have provided over 200 formal and non-formal educators with a diverse array of hands on teacher workshops. From two project WET workshops per year two years ago, the Watershed Association now holds 12-14 workshops a year available to Educators from within and beyond our watershed boundaries.

- Fifty teachers, participating in one of four six-hour Schoolyard Habitat workshops held in 2006, learned the value of improving school grounds by planting native species. Teachers investigated how water runs off at varying rates over different typical school landscapes. By planting native vegetation at their site teachers and students can slow the runoff of water into local streams and waterways and improve water quality.
- Sixty-seven other educators benefited from hands-on activities to teach about water during five Project WET (Water Education for Teachers) workshops. They role-played worried sewage treatment plant managers in an activity entitled *Super Bowl Flush!* and learned how difficult it can be to manage a plant without pollution incidents. During one activity that had them developing their very own "riverfront property", they discovered the role of point and non-point source pollution coming from upstream sources.
- Other successful education events have included presentations to local garden clubs, libraries and organizations.

Educators take away the activity guides at the end of the workshop, loaded with projects that can help teach their students useful water and environmental concepts. They and we are helping to create environmentally-literate students who can problem solve and think critically about pollution and other environmental issues.

If you attended one of the numerous community days around the ten communities that make up the watershed and saw kids with snakes, turtles, herons and blueberries painted on their faces, you saw the outreach and education team in action, as we painted 100s of faces with creatures that call the watershed home. We look forward to a productive and educational 2007. For more information on Education and Outreach contact me at hazele@greatswamp.org or at 973-538-3500 x20.

-- Hazel England, Outreach & Education Director

WINTER EVENT INFORMATION

Moonlight Hikes

Although we don't guarantee the moonlight, there will be plenty of nature to learn about on a night hike around the watershed. We may hear owls, crickets 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!

Friday, January 26, 6 - 8 pm, Cross Estate, Morristown National Historical Park. \$8 each for members, \$10 for non-members. Sign-up online at www.greatswamp.org.

Winter Nature Detectives Hike

Winter is a great time to observe animals as they go about their search for food and live their daily lives. It is often easier to look for signs of wildlife than to see the animals themselves. Celebrate winter by playing Nature Detective as we search for tracks and scats, nibbles and nests of some of the denizens of the swamp. Event will take place snow or shine.

Saturday, February 24, 10 am - 12 noon. Meet at Pleasant Plains Road, Great Swamp National Wildlife Refuge. \$8 each for members, \$10 for non-members. Sign-up online at www.greatswamp.org.

Watershed Fun Scout Night

Join us at the GSWA headquarters to learn some amazing stuff about the watershed you live in. Through hands on activities and games we will learn what we can do to keep the water and land of Great Swamp safe for all its inhabitants. Several badge guidelines will be met. \$10 per scout (adults free) includes refreshments. Best suited for 6-10 year old boy and girl scouts with an adult for every three scouts.

Friday March 2, 6:30-7:30pm and 7:30-8:30pm

Conservation Management Area Hike

No Fooling: join us on April 1 at the GSWA's Conservation Management Area to learn about the ecology and restoration of this 50-acre forested site owned and managed for wildlife diversity by the staff and volunteers of GSWA. Bring your boots as this site can be wet! We may see or hear wintering birds, early calling frogs and more.

Sunday April 1, 10-12noon. Meet at Conservation Management area, Tiger Lily Lane. \$8 each for members, \$10 for non-members. Sign-up online at www.greatswamp.org.

PROGRAMS & WORKSHOPS FOR EDUCATORS

Please check our website home page for the link to these workshops. Current information is maintained along with fees and locations.

Protecting Your Land

Rolling Knolls Landfill: A Ticking Time Bomb

Excerpts from a position paper read by David Budd, Chairman, GSWA Board of Trustees, to the Chatham Township Planning Board

The Rolling Knolls Landfill is an approximately 200 acre former municipal landfill located at 35 Britten Road, in the Green Village section of Chatham Township. It is bordered by the Great Swamp National Wildlife Refuge and by Loantaka Brook. A portion of the landfill is actually located within the current boundaries of the Great Swamp National Wildlife Refuge.

From the 1930's through 1968 the landfill received municipal solid waste, as well as construction debris from surrounding towns. Beginning in 1959, pesticides and oil were routinely applied to control rodents, weeds and dust. Semi-liquid swamp muck was applied daily to a depth of 6 inches for required cover.

Surface and subsurface soil samples analyzed by the EPA in 1999 indicated unacceptable levels for metals, phthalates, and polychlorinated biphenyls (PCBs). Additional sampling in 2003 showed PCBs on Refuge land and indicated a potential for exposure of nearby residents. Mercury and PCBs are leaching offsite.

This drainage flows into Loantaka Brook water from which ultimately discharges to the Passaic River: a source of drinking water for a large down stream population.

In 2003, the EPA designated the Rolling Knolls Landfill as a Federal Superfund site, including it on the National Priorities List. The remedial investigation and feasibility study was initiated in September 2005 but has not yet been completed. Additional sampling is needed to further define the nature and extent of contamination and additional research is needed to identify all of the Potentially Responsible Parties. The EPA will not begin to develop a cleanup plan until after the study is completed. The study process will take at least two years to complete.

Despite these facts, a private developer is asking Chatham Township to change its Master Plan and zoning ordinances to permit the site to be developed with townhomes. In return, rather than wait for the EPA's cleanup plan, the developer has proposed its own plan, offered to carry it out, and as an additional inducement, has offered to give six recreational ballfields to the town.

Here is why Chatham Township should say "no" to the request to rezone:

Economic Analysis Says "No"

Since no one knows what the EPA cleanup plan will entail, any estimate of the actual cost is as yet unknown to both the public and the developer. Therefore:

- Should the EPA's plan be more comprehensive and expensive than the developer's proposal, the developer

is likely to ask to increase the number of proposed housing units on site to cover additional costs. One such increase, from 208 units to 250, has already been requested.

- If such an increase is refused and the liability for cleanup costs exceed that which they have planned, it is likely that such costs will fall back onto Chatham Township and its taxpayers.
- Other potential tax payer liabilities include the long term direct and indirect costs of intensive development (schools, road infrastructure, regular municipal services, emergency services, COAH obligations), the cost of maintenance, inspection and any repairs, the cost of legal defense should the landfill containment fail and the town be sued will be borne by the tax payer, costs of repair and remediation should package sewer plant fail, legal costs of condemnation of nearby properties for road widening.

The traffic impact on Britten Road, Green Village Road and the Shunpike Shopping Center has not been quantified or evaluated.

In short, the potential benefit to Chatham Township is relatively small, while the potential cost is enormous in dollars, quality of life and negative publicity.

Environmental Analysis Says "No"

Developer intervention and participation is premature at best. The EPA investigation is still in progress. A remediation plan is years away. Consideration of any alternative plan should be delayed until after the EPA has finished its investigation and analysis.

- The EPA is required to provide public comment and participation at every stage of the process. A private developer potentially thwarts any unbiased review of data and creates the appearance of a conflict. The EPA's process requires quality control and review to ensure the health of humans and the environment, while a developer's plan is primarily profit driven and has no such mandated safeguards.
- The EPA still needs to obtain reliable data from site borings, cross sections, groundwater testing, surface runoff examination, test wells, and land fill gasses in

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Watershed Watch--Environmental Hot Spots

Bernards Township

New Height Ordinance

On December 5 the Planning Board recommended to the township committee a revised height ordinance that redefines from what points height is measured and also sets new ground rules for manipulating grade before construction. In other words, no more "mounding" under a house and then measuring height from the top of the mound. The actual height limit, 35 feet, is unchanged.

This is the second "teardown" ordinance to be considered in Bernards. A revised side yard setback ordinance was approved in September.

Green Acres Funding

The township committee is getting ready to submit a grant application to Green Acres for \$11 million worth of potential open space and farmland preservation acquisitions. For years Bernards refused to participate in Green Acres because of perceived limitations on local autonomy.

So far the Open Space Advisory, Agricultural Advisory and Parks Committees have endorsed the application as well the Planning Board.

The vote may not come until January.

-- John Malay

Other Towns

The *Observer-Tribune* reports a \$325,000 state grant to **Harding** to purchase the Eggert property off Rt. 202. The land is adjacent to Jockey Hollow and the National Historical Park.

Although the land itself is not in the Watershed, watershed community **Mendham Township** is getting \$3.4 million from Morris County to purchase the Sisters of St. John property -- a major land preservation effort.

Debate continues in **Long Hill Township** over property tax levels. This has led to proposals for more business properties along Valley Road. The problem facing this idea is that currently Long Hill is under a ban on new sewer hook-ups.

-- John Malay

Madison

Rock-GW Property

On November 22, 2006 representatives from Madison, Florham Park and the Rock-GW developers signed a letter of intent to reach an agreement for Madison to buy 53 acres of an already approved Rock-Florham office development behind Madison High School. They would convert it to open space and recreation and annex it from Florham Park. 8.75 acres of the Exxon property in Madison next to Verizon on Park Avenue and owned by Rock-GW would in turn be annexed by Florham Park from Madison. In addition, Madison would also annex land at Madison High School in Florham Park currently owned by Madison Board of Education. The developers would provide two acres off Ridgedale Avenue for Florham Park to provide emergency services facilities adjacent to the proposed development.

As a result of the proposed agreement, the 223,000-square-foot Rock Florham office building approved by Florham Park for the 53-acre lot off Ridgedale Avenue would no longer be developed at that site, which would be purchased and annexed by Madison; the approved building would be relocated as additional office space on the adjacent Exxon tract off Park Avenue. The proposed Florham Park annexation of 8.75 acres in Madison on Park Avenue adds to the lands for three other office buildings planned for the tract, each 200,000 square feet.

Finally, the towns agreed to a regional traffic study to be completed by Madison, Florham Park, the Chathams, Morristown and Morris County (other towns are invited to participate).

While we would prefer to see the Exxon property not be developed as planned, the proposed agreement addresses many of our original concerns regarding the development. Over the past several years, the planned commercial development has been significantly reduced. The stormwater management, which was a major issue in the previous lawsuit and settlement is now addressed by the new state storm water management regulations (modeled on the GSWA stormwater model ordinance) which Florham Park has agreed to meet. The agreement opens up 53 acres for open space and recreation where commercial office development was previously approved. Finally, the agreement mitigates the impact on the national and state registered Bottle Hill residential historic district on Ridgedale Avenue.

We will continue to closely monitor this development and work with the DEP and municipalities to minimize the negative impact on the environment.

-- Ruth Kerkeslager

Protecting Your Water

Macroinvertebrate Surveys of the Great Swamp Watershed or, Just What Are the Bugs Trying to Tell Us?

Leland Pollock, Ph.D., Professor Emeritus of Biology, Drew University

The 5 streams that run through the Great Swamp Watershed form the headwaters of the Passaic River: a source of drinking water for millions of residents of North Jersey. As such it is extremely important to be able to quickly and accurately assess the quality of the water in those streams. One can do chemical testing, and this is the task of the Great Swamp Watershed Association's "Stream Teams". GSWA also does "visual assessments": observing the streams for changes in color, flow and other obvious environmental factors.

Just as importantly, one can judge water quality by examining the creatures that live it. The types and numbers of macroinvertebrates (mostly insect larvae/nymphs... AKA, "the bugs") found at a particular stream location are influenced by the environmental conditions at that site. In-stream conditions are a direct reflection of the degree of environmental stress in the surrounding area. Thus a collection of macroinvertebrate samples provides one with a useful method for evaluating the water quality of an entire watershed and for pinpointing specific problem areas within it.

Insects are particularly attractive water quality study-subjects. Why?

- Flying insects can reach and potentially live and lay eggs in streams anywhere throughout the entire watershed. However, they are only able to survive in those stream locations that have the specific conditions they require.
- They respond predictably to human-induced stress. Because species differ in their tolerance to surrounding conditions, including pollutants, particular species make useful environmental "indicators".
- They are large enough to be seen with the unaided eye, making them relatively easy and inexpensive to collect, yet as stream inhabitants, they are far less mobile than fish.
- They are relatively abundant, there is little danger of wiping out populations through sampling.
- They are relatively easy to identify.
- As long-term inhabitants of streams, the presence of macroinvertebrates reflects stream conditions over the preceding days, weeks, or months. Therefore, studies of macroinvertebrate communities provide a valuable "historical" perspective.

From 1992 through 1999, the National Resources and Conservation Service (NRCS) of the Morris County Soil Conservation Service conducted an annual, early-summer survey of macroinvertebrate communities within the Great Swamp Watershed. Following the expiration of NJ DOT funding support for this project, I have been engaged by the Ten Towns Great Swamp Management Committee to continue this valuable work. (Full reports are available online under the "Studies" heading on www.tentowns.org).

Where and How

Our studies include 17 sampling locations placed among the five major streams of the Great Swamp watershed, including 2 sites on Black Brook, 4 sites on Loantaka, 4 sites on Great Brook, 3 sites on Primrose Brook, 4 sites on the upper Passaic River and 1 site on a tributary of the Passaic River, Indian Grave Brook.

We follow Environmental Protection Agency protocols.

- Stretches of "riffles" or turbulent water over stretches of shallow bottom are used because such habitats support the greatest species richness.
- We use a net to collect and preserve a representative sample at three spots within the riffle zone at each site.
- Back in the laboratory, we isolate subsamples of at least 200 individuals from each site. These animals are sorted, enumerated, and identified.
- To add a context to these surveys, one day during the June sampling period is devoted to the collection of environmental data at each of the sampling sites.

We calculate what is called a "Benthic Index of Biological Integrity" (B-IBI) to characterize the quality of the macroinvertebrates. This combines several distinctive characteristics into a single value that can be used as a "quality score" for each site. For comparison, this is also applied to communities found at the minimally disturbed "reference" site at Indian Grave Brook. The values can range from a maximal (least stressed) score of 40 to a minimal (most stressed) value of 8. All sites from a particular collection date can be compared with one another in this way.

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Guarding Our Little Neck of the Woods

Blaine Rothauser, Science & Technology Committee

The earth's total landmass consists of 36,731,473,638 acres. The area GSWA manages at the end of Tiger Lily Lane in Harding, lovingly called the Conservation Management Area (CMA), is an infinitesimal one ten-millionth of one percent of this. Amazingly, this tiny fraction continues to support an astounding array of life:

- eighty species of bird,
- 8 species of reptile, 7 species of amphibian, 11 species of mammal,
- 6 species of fish, and countless invertebrates all call CMA their home.
- An astonishing 180 species of flowering plants, trees and shrubs are also found in our "little neck of the woods."

The lessons we are learning here will help us preserve the water and land everywhere in the region, *including your own backyard*.

GSWA volunteers are hard at work managing this minute piece of landscape, where every drop of rain is held tethered to the Great Swamp watershed. Staff, corporate groups, and individual volunteers continue to work on invasive species control (especially the removal of tartarian honeysuckle and multi-flora rose), wildlife management, and the propagation of native plant species to increase biodiversity. Maintaining natural communities that are native to a particular area – in our case the Piedmont region – is the goal of the conservationist. With the completion of our 7-foot-high deer fence surrounding 23 acres of the CMA, we have a fighting chance at native plant regeneration. With deer densities running as high as sixty per square mile in Morris County this fence will give our understory shrubs, tree seedlings and native plants a chance to survive and prosper.

Enhancing native vegetation will in turn increase animal species diversity. Geologic time and natural selection have created some very unique relationships between plants and animals and you don't have to go far to catch a front seat for evolution's showcase – just visit the CMA, park your car and take a glimpse into the native meadow that first greets you.

- Monarch butterflies rely on poisonous glycosides found in the common milkweed plant, which are ingested by their caterpillars (this becomes a crucial biological weapon against any birds who dare to mess with them).
- The catbird's digestive system only attacks the dogwood berry's outer flesh while conditioning the hard inner seed for germination as it passes out through their back door, dropping back to earth to sow life anew.
- Ruby-throated hummingbirds need very specific high energy nectars like those found deep in our native cardinal flower– the bird's long curved beak fits like a key into the flower's corolla, which permits a symbiotic dusting of pollen to other cardinal flowers.

- Leaf cutting bees rely on flowers, rotting wood and the leaves they cut that give them their name.

All of these relationships are the result of co-evolution: nature's way of strengthening the bonds of our local ecology. These connections are what we as environmental stewards must understand and preserve. Ecologists are certain that the myriad relationships we find everywhere in nature have a benefit beyond that for the living entities directly involved. In nature having many species performing the same function (for example, wasps, bees, flies, beetles and butterflies that all might help pollinate one species of flower) might seem unnecessary.

However, ecologists call this redundancy "over-yielding" – nature's insurance policy if you will – in case some of these evolutionary pathways fail, others will continue to survive and adapt. It is the gradual failure of this system that causes grave concern to the conservation biologist who witnesses first hand the our planet's life forms failing to keep pace with the ravages imposed by humankind.

One of the reasons why our efforts at CMA are so important is to drive the point home that the diversity of life forms that we nurture and augment on site help fortify our local ecology and bolster the entire watershed's ability to purify the life-sustaining watercourses that cleanse our environment.

Obviously, to foster 20, 30 or 50 acres of our watershed is only going to have a marginal effect on the functionality of the Great Swamp Watershed as a whole, but this is only a small part of the greater job we have. One of the main missions of the Watershed Association is Education and Outreach. The real aim of the Conservation Management Area is to cultivate awareness in all who visit in the hopes they might become better stewards of their own backyards.

If the earth is to heal and function in a sustainable manner we must work hard to help biodiversity "over-yeild" to its maximum extent. If a person who visits us goes home and incorporates just one of our techniques then we have helped fulfill the GSWA mission.

This is our 10th year at the CMA and although we have come a long way with our management of the property we still have quite a way to go. In truth we will never really finish. Invasive species return every year, fences are breached, storms cause destruction and native species will always need planting and nurture.

Also, we still lack a quantitative tool to measure our progress. We have solicited the help of an intern from Eckerd College in Florida, Janine Hayes, to help us establish a baseline vegetative analysis for the community types found on site. Janine has been put to work plotting points inside our deer fence in order to accurately

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Just What Are the Bugs Trying to Tell Us?

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The Results

Three major habitat modifiers appear to most adversely influence immediately downstream sites within the Great Swamp watershed: sewage treatment plants, impoundments, and parking lot runoff/detention ponds.

There is a clear distinction between poor macroinvertebrate quality at struggling Black, Loantaka, and Great Brooks and much higher quality at the Primrose Brook and Passaic River sites. From the locations of the three habitat modifiers, it is clear that nearly all sites in poorer quality streams are impacted by at least one of these sources of stress.

Time Will Tell

Conditions at a single site can be compared over time. In general, over the past six years, the higher quality streams within the Great Swamp watershed, Primrose Brook, the upper Passaic River, and Indian Grave Brook, have gradually improved, while sluggish water flow, sedimentation, and resultant poor substrate conditions at Great, Loantaka, and Black Brooks appear to have limited their capacity to improve.

Annual surveys of the “bugs” in our streams provide a convenient way to assess existing living conditions, track long-term trends and identify short-term crises. Ultimately, we are concerned with the environmental conditions that impact us and the complex ecological systems upon which we all depend.

By using the presence or absence and the abundance of our fellow creatures as a barometer, we can directly view the biological impact of in-stream conditions. The bugs are quite literally our “canaries in the coal mine”.

BIOBLITZ!



**Bioassessment of all that crawls, flies, swims,
jumps or grows in the Watershed!**

Rolling Knolls Landfill: A Ticking Timb Bomb

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order to determine the potential risk to humans, fish and wildlife. It has already been determined that soil, surface and groundwater, sediment and biota are contaminated.

- Ciba-Geigy, Millmaster Chemical and local hospitals have been listed in local media accounts among the industrial users, raising the possibility for pharmacological waste products not yet detected.
- The hydrogeology of site needs to be established in order to protect groundwater from further contamination and to learn the pattern of migration of any onsite contamination in order to prevent damage downstream.
- Disturbing the site without knowing these and other answers is likely to create more contamination, greater public health concerns and pollution issues.
- Any proposed sewage treatment package plant will discharge into a C-1 waterway (the state’s most pristine classification) and in turn into the Great Swamp Refuge and the Passaic River. Previous experience with a privately owned and maintained package plant in Chatham Township indicates potential for future failure of such plants.

The historical and environmental significance of the Great Swamp demands a greater imperative for protection. The rural character of Green Village will be forever lost if zoning is changed to permit increased density, a concern since the State Plan designates Green Village as “Planning Area 5” and discourages intense development and infrastructure increase. Increased traffic is also contrary to a PA5 designation.

In conclusion, the EPA should be allowed to do its work without the participation of a private developer, so that all open issues can be addressed and the clean up of this Superfund site does not threaten our drinking water, our backyards and the Great Swamp.

Our Corporate Council

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Pfizer

PSEG

Reckson

Schering-Plough

Verizon

Wyeth

Planned Giving... Protecting the future

As a supporter of the Great Swamp Watershed Association you have many options for contributing to our mission to protect water and land in your town above and beyond your annual membership or annual support. Some of these are listed below. Almost all of them carry some tax deduction and can be valuable tools in estate planning.

By providing us with money or other assets that will arrive at some future time you help us to plan ahead and to provide us with the ability to do long-term planning.

Cash Gifts

All cash donations to charitable organizations are federally tax-deductible up to half of your adjusted gross income. Writing us a check is a simple way to immediately assist our mission.

Securities

If you wish to give marketable securities (stocks, bonds, mutual funds), the value of securities will be set by their price *on the day the gift is made*. Gifts of marketable securities qualify for the normal income tax deduction but allow you to avoid being taxed on the capital gain of your stock. Ask your broker to contact us directly for details.

Real Estate

Tax benefits for directly donating real estates are similar to those of appreciated securities. You avoid capital gains tax on your property's appreciation, you receive an income tax deduction for the market value of the property, and you avoid the inconvenience of maintaining and selling the property.

Life Insurance Gifts

Assuming your family no longer requires the previously purchased life insurance policy, you can make GSWA the owner and beneficiary of the policy and receive an immediate income tax deduction in the year of your donation. If you continue to pay the premiums, you will receive an annual tax deduction. If you still need your insurance policy, you can still name GSWA as a beneficiary. We will receive the proceeds should your other beneficiaries predecease you, and in addition, you can create a trust to receive the insurance proceeds for support during your survivors' lifetimes, after which the trust remainder can be paid to GSWA.

Charitable Remainder Unitrust

A unitrust is a deferred giving plan managed by a professional trustee that allows you to fund the trust with assets (cash, securities, property) during the lifetime of you and/or your beneficiary. You receive a set percentage of the current value of the trust, securing a lifetime income for yourself. Thereafter, the principal of the trust

goes to GSWA. At the creation of the trust, you will receive a major income tax deduction, and if the trust is funded by securities, you avoid taxes on your capital gain.

There are many other ways to contribute to our continued success, such as donating closely held stock, retained life estate, annuity trust and charitable gift annuity, retirement plan assets, and living trust. We will ensure that the giving option you select will be the best fit for your needs and wishes. Please contact your broker or financial advisor, your insurance provider, or our Development Director, Ruth Kerkeslager, for more details at 973-538-3500 x18 or at ruthk@greatswamp.org.

The Legacy of Austin Hooey

In 2004, a long-time Chatham resident and GSWA member, Ms. Austin O. Hooey, left us a \$25,000 donation in her will in honor of her parents. Ms. Hooey's support of our endowment fund has allowed us to continue our programs in watershed conservation. Ms. Hooey, a Mount Holyoke graduate who

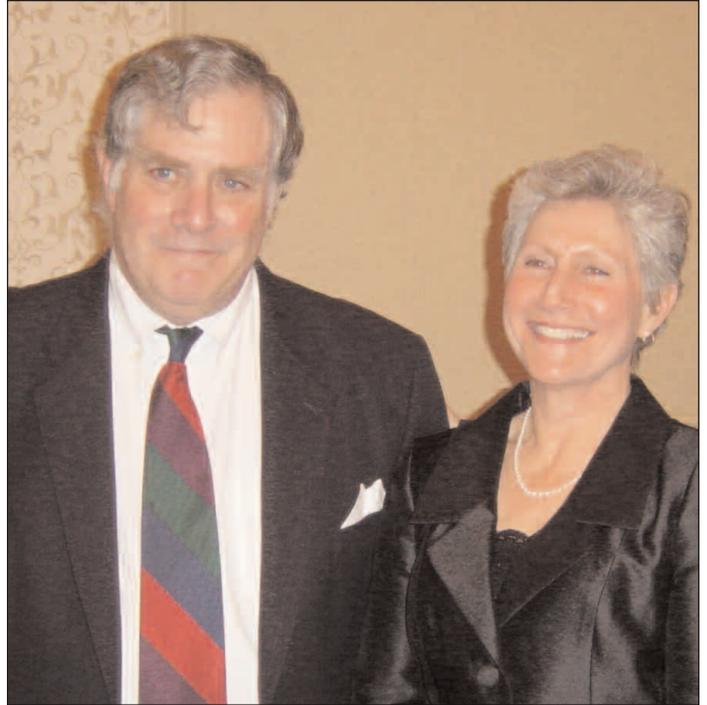


worked on Wall Street in the 1950s, was a philanthropist who was deeply concerned with nature conservation, and her legacy will live on for many future generations as the Watershed Association continues to protect land and water in your town.

A Salute to Silver



Congressman Frelinghuysen and Carolyn Kelly, former mayor and current Committeewoman from Bernards Township, enjoy the festivities.



Board of Trustees member David Budd (Morris Township) enjoys the evening, along with GSWA Executive Director Joan G. Fischer of Chester.



Honorary Co-Chair of the Event, Nancy Schaenen of Madison, greets guests at A Salute to Silver.



Event Chair Anne Essner (Morris Township) and her husband Bob wait for the award presentation with Noreen Hassan, wife of Fred Hassan (Schering-Plough).



Congressman Frelinghuysen thanks Honorary Event Co-Chairs Nelson Schaenen (Madison), and Bill and Nancy Conger (formerly of Millington).

The View From the Top of the Hill

Executive Director **Joan Fischer** is recuperating from ankle surgery to correct an old riding injury. Joan should be up and about in no time. In the meantime she is working mostly from home (she can't drive!) and "telecommuting" via our computer and phone networks. By the time you read this Joan should be back in the office "taking care of business."

Communications Director and Land Use Committee Liaison **John Malay** finished up his year as mayor of Bernards Township as he puts it "without any indictments." No small feat in New Jersey! He also won reelection in November for his second three-year term on the Township Committee. During his year as mayor he introduced and saw passed a number of land use and zoning ordinances to help protect the environment; including enhanced rules for septic systems, a natural resources preservation ordinance, enhanced stream buffering and an anti- "bash and build" zoning ordinance.

Stream Steward **Kelley Curran** was awarded a Certificate of Appreciation by the NJDEP's Division of Watershed Management at this year's Volunteer Monitoring Summit (Nov 2-3) in "grateful recognition of her participation in the development and testing of New Jersey's first Volunteer Monitoring Data Management System". The system is scheduled to come online in the early part of 2007. All of GSWA's stream monitoring data will be entered into the system and will be accessible to the public. The system will also have graphing and reporting capabilities.

Memorials

Mrs. Lily B. Apgar in memory of Raymond S. Apgar.

Ms. Elizabeth Falter in honor of Mel Solomon and Mollie Leitzes.

Guarding Our Little Neck of the Woods

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characterize the different sub-habitats found within the greater forested wetland. These same sub-habitats have also been plotted outside the fenced areas for comparison. Janine painstakingly counted every herb, grass, sedge, seedling, shrub and tree in each of the five plots we established. The data she has collected will be used to gauge our success in years to come as the property begins to heal from the ravages of deer overpopulation and the elimination of unwanted invasive vegetation. Her data can be viewed on our website (www.greatswamp.org). Thanks to Janine for braving mires and mosquitoes, and for a job well done.

Contact us at 973.538.3500 or visit our web site at www.greatswamp.org

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