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# ACROSS THE WATERSHED

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Winter 2006

The Great Swamp Watershed Association

Vol. 26 No.1

## To Sewer Or Not To Sewer

*That Is The Question As The NJDEP Holds Hearings On “Abbey Woods At Delbarton”*

*by Julia Somers & John Malay*

On January 5, 2006, NJDEP held a public hearing in the Morris Township municipal building in Convent Station. The subject was the Abbey Woods at Delbarton's request for a site specific Water Quality Management Plan amendment. It began at 1:00 p.m. continued till 5:00 p.m., began again at 6:00 p.m. and continued until everyone had testified.

As a result of this hearing and the additional comments it will generate, the Department will decide whether or not the Delbarton property can be sewered to permit a Continuing Care Retirement Community. Without sewerage, there will be no project.

The Great Swamp Watershed Association and numerous other environmental, conservation and land use groups strongly oppose this proposal to build a 250 unit high-end commercial facility on 41 acres of the Washington Valley because the project:

- is located next to the Jockey Hollow Section of the Morristown National Historical Park, the nation's first national historical park;
- is located in Planning Area 5 of the State Development and Redevelopment Plan (Environmentally Sensitive);
- is located in the Highlands Planning Area;
- is located in a National Historic District;
- includes property with Category One waters and exceptional value wetlands;
- includes Landscape Project Areas 4 and 5 for threatened and endangered species (barred owl, coopers hawk, red shouldered hawk, wood turtle and possibly Indiana Bat)
- will require the loss of 3,153 large, mature trees and removal of 344,000 cubic yards of fill;
- is located on very steep slopes and is mostly forested;

GSWA does not believe the project meets the state's stormwater regulations.

The project features units that will have purchasing prices ranging from \$1,475,000 to \$435,000 each, will cost from \$8,300 to \$3,300

per month in maintenance fees to live in, and will include no affordable income units. Despite rumors to the contrary, no retired monks will live there.

### Broken Promises

During a previous set of DEP hearings eleven years ago (February 17, 1994) on an earlier sewer line plan, Abbot Brian Clark, the monastic superior of St. Mary's Abbey at Delbarton, testified:

*"I can say that we have a master plan reaching into the next century which includes no development of our property as far as selling property or selling property to developers. Any development of our property has to do with additional buildings or facilities or fields that will enhance the present Delbarton School... I would like to stress that point because in the press I have seen suspicions expressed that perhaps we intend to do a lot of developing or selling of our property."*

The sewer line was eventually permitted and installed at public expense, based on the sworn testimony that there would be no non-school related development in the future. Unfortunately, the suspicions on that occasion turned out to be warranted. The current

*continued on page 9*

### Annual Event Raises Over \$35,000!



Details & Photos On Page 11!

# Protecting Your Water

## Rubbing Salt into Environmental Wounds

by the GSWA Science and Technology Committee

***“Hey Mom, it’s snowing. Do you think school will be closed?”***

To the joy of every kid, 6 inches of snow fell on December 9, 2005. Almost all schools closed but shopper and business traffic combined with the snow to create hazardous conditions. Plows and salters could be seen on almost every street as towns prepared for business as usual. The salting and sanding may have made driving safer but the problem created by the salt will still be with us long after the snow is a distant memory.

Coping with adverse weather conditions is a part of life. The tragic hurricane experiences during the late summer and fall of 2005 suggest that this situation is likely to intensify in years to come. Winter storms in the Northeast and upper Midwest sections of the U.S. also create vexing problems, demanding attention to sustain normal human activity. Snow and ice on roads, parking lots, driveways, and sidewalks pose obvious dangers to moving about, whether in vehicles or on foot. In particular, police, fire, and medical emergency vehicles require passable roadways at all times. These demands have resulted in a dramatically rising use of salt as a de-icer on impervious paved surfaces. Needless to say, the 55 square miles of the Great Swamp watershed have been a participant in this trend. As with so many other management policies, the widespread winter application of salt for de-icing has generated a collection of unintended secondary consequences that are worrisome. Salt water corrosion of automobiles and bridge deck structures are annoying, potentially threatening, and ultimately expensive, but other road salt consequences occurring at the same time are the degradation of the quality of the local drinking water supply and the damage to plant and animal life in the watershed. These deserve at least equal attention.

To put the situation into concrete terms for the Great Swamp watershed, note that this area presently contains 282 miles of roadways. One of the ten towns within the watershed, Chatham Township, accounts for 37 of those miles, and reports that it spreads approximately 500 tons of road salt each winter. The salt eventually dissolves, of course, and adds to other contaminants making their way into the local streams and ground water. Storm sewers act as conduits

into Great Swamp for much, but not all, of this transfer. The Chatham Township situation is typical of the ten towns in the watershed, and it is typical for high-population-density communities in the northeast.

Operating under the auspices of the Great Swamp Watershed Association, the GSWA Stream Team has monitored water quality and flow characteristics for years. Their primary attention has focused on four major streams feeding Great Swamp (Primrose Brook, Great



Brook, Black Brook, Loantaka Brook), as well as the Upper Passaic River and its outlet from Great Swamp through the Millington Gorge. The Stream Team expends special attention on Loantaka Brook through its “Adopt a Stream” project. Among the several key contaminants that the Stream Team detects and quantifies in Loantaka Brook, sodium and chloride ions, components of common table salt, are major concerns on account of their potential for environmental damage. Not only do the test

results clearly show the presence of these ions in relatively high concentration during winter months, as would be expected, but they also show a persistence into spring, summer, and autumn, indicating long-term contamination of ground water resources.

Usage of road salt in the U.S. has risen dramatically over the last 65 years. Records show that in 1940 the amount was 160,000 tons. The corresponding numbers during subsequent years exhibit explosive growth and are now over a hundred times higher, in the neighborhood of 20 million tons per year. This steep upward trend shows no obvious sign of abating. A well-recognized consequence of this rising usage has been the death near roadways of many salt-intolerant trees, including the sugar and red (swamp) maple species that are prized for their colorful autumn displays.

Consequences of road salt application have become the subject of serious scientific study. A recent example was published by a group of eight qualified experts in the peer-reviewed journal *Proceedings of the National Academy of Sciences*. It has captured press attention, and has become the subject of a widely disseminated

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*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

**Editing & Layout:** John Malay

### Contributors:

Science & Technology Committee  
Kelley Curran

## From the Desk of the Executive Director

2006 is the 25th anniversary of the founding of the Great Swamp Watershed Association. My, but time does fly!

In 1981, a group of like-minded people incorporated the Watershed Association as a 501(C)3 in the belief that it was high time an organization had as its sole focus the Great Swamp watershed – the entire 36,000 acre watershed – because without a regional, watershed approach, the marvelous resources of this special place could never be effectively preserved or protected.

We are the headwaters of the main stem of the Passaic River, one of the State's major river systems. The river provides drinking water for well over one million residents, and the watershed's shallow aquifers provide private well water for thousands more. We know that everything we do on the land affects the quality of our drinking water. It also benefits/protects or damages the environmental habitat available for the unusual variety of vulnerable species (flora and fauna) extant here.

Our wealth of preserved open space covers more than one-third of the watershed. It includes the Great Swamp National Wildlife Refuge (including the nation's first National Wilderness Area), the Morristown National Historical Park (the nation's first national historical Park, of which Jockey Hollow is a part), the Loantaka Brook Reservation and Lewis Morris Park (both part of Morris County's fabulous park system), Somerset County's Lord Stirling Park (the Environmental Education Center and the Lord Stirling Stables are both part of this park), and myriad municipal and non-governmental open space. But again, we cannot protect these places from behind a fence; hence the need for a watershed association.

In 1992, the Watershed Association had conducted a ground-breaking wetlands conference leading to the adoption of statewide wetlands regulations, and undertaken a number of important planning projects for the region. Membership was growing and the Board decided to hire staff and open its first office, in the Presbyterian Church in Madison. Truly, this was a leap of faith on their part because at that time we had \$3,000 in the bank and two unpaid employees.

Today, fourteen years later, we have a hard working, visionary Board of Trustees, some great programs, dedicated staff, numerous wonderful volunteers, a \$500,000 budget, a larger office on Tempe Wick Road, an ambitious, brand new strategic plan, and I am still the Executive Director. Our restated mission: "We protect drinking water and preserve land to maintain the natural beauty and enhance the livability of *your* town." To achieve our goals, our strategies are:

- Monitor and assess local streams through stream monitoring done by a "stream team" of volunteers
- Create a Science and Technology Committee to identify and advocate scientific research to support our programs and enhance the scientific credibility of GSWA
- Influence local and state actions and decisions to preserve the local natural environment
- Assist in acquiring and preserving critical and threatened properties to save from development
- Strengthen partnerships with local and state public and private organizations to establish broad-based conservation projects
- Establish municipal advocacy programs to encourage a regional approach to development
- Expand education and outreach to deliver family friendly programs, provide student education programs to teach future generations about the environment, and leverage our educational reach by teaching the teachers
- Enhance our brand and image to make GSWA goals personal and relevant
- Increase and broaden GSWA's base of support
- Maintain a high quality professional staff and an extensive network of volunteers with a strong scientific and technological presence.

Some of these strategies are ongoing, others require us to increase programs or introduce new ones. Our future is certainly challenging, going to be exciting and, more than ever, will demand that we ask our members and supporters to help us reach our goals.



# Event Calendar

## What's Happening In the Great Swamp Watershed

Following is a highly selective listing of events and activities offered to the public by private and county agencies that have facilities within and near the Great Swamp watershed. Many of these organizations offer far more activities than those listed, including day and weekend trips to other areas. Call for complete information.

In addition to programs and activities, many of the agencies are also staffed by naturalists and maintain extensive hiking trails, nature-center displays and exhibits, and book sales. For many listings, advance registration is required; for all, it is advised. To register, to receive additional information, or for directions, call the telephone numbers given below.

### Ongoing

*Sundays in January (15, 22, 29): 2 PM. Maple Sugaring Demonstrations.* Come and learn how maple syrup is made and taste some of the syrup that is made on site at the Great Swamp Outdoor Education Center. All ages. \$2. Morris County Outdoor Education Center, Southern Blvd., Chatham. (973) 635-6629

*Saturdays in February (4, 11, 18): 2 PM. Maple Sugaring Demonstrations.* Come and learn how maple syrup is made and taste some of the syrup that is made on site at the Great Swamp Outdoor Education Center. All ages. \$2. Morris County Outdoor Education Center, Southern Blvd., Chatham. (973) 635-6629

### Guided Nature Walks

Experience the wonders of the Morris County Parks through this adult hiking series (18 & older) meeting every other Wednesday. \$2. (973) 635-6629

*1/25: 10 AM - 12 PM Hedden Park.* Easy level – 2 miles over hills at an easy pace.

*2/8: 10 - 11 AM. Great Swamp Outdoor Education Center.* Moderate level – 3-4 miles over hilly terrain at a moderate pace.

*2/22: 10 AM - 12 PM. Cooper Mill.* Easy level – 2 miles over hills at an easy pace.

*3/8: 10 - 11 AM. Mahlon Dickerson.* Moderate level – 3-4 miles over hilly terrain at a moderate pace

*3/22: 10 AM - 12 PM. Bamboo Brook.* Easy level – 2 miles over hills at an easy pace.

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## January

*1/23: 2 PM. Pre-K Walk. Tricky Tracks.* Kids ages 4 and 5 will enjoy these hour long guided walk and activities, including a fun nature craft! \$5. Morris County Outdoor Education Center, Southern Blvd., Chatham. (973) 635-6629

## February

*2/5: 9 AM-5 PM. Bald Eagle Watch.* Enjoy a day watching Bald Eagles along the Delaware River. Dress warmly and bring binoculars and a bag lunch! Ages 18 and up. \$20. Call the Morris County Outdoor Education Center, Southern Blvd., Chatham for more info. (973) 635-6629

*2/6: 10 & 11:15 AM. Toddler Trek. Maple Sugaring for Seedlings.* Toddlers ages 2 and 3 learn about nature with a walk on our wooded trails and a story! \$5. Morris County Outdoor Education Center, Southern Blvd., Chatham. (973) 635-6629

*2/8: 4-5 PM. Awesome Animal Artists.* Budding young artists mix nature and art in this indoor/outdoor program. Each class features a different New Jersey animal to learn about and draw. Ages 5-6. \$3. Morris County Outdoor Education Center, Southern Blvd., Chatham. (973) 635-6629

*2/12: 2:00 – 4:00 PM. Second Sunday ... with Friends. Wilderness in NJ? You Bet!* 3,660 acres of the approximately 7800 acres of the Great Swamp National Wildlife Refuge is considered wilderness. This program presents the inspiring story of how local citizen action made it all possible resulting in the Great Swamp NWR that we know today. A walk along the Orange Trail, once known as Meyersville Road will follow. Dress warmly and wear boots. Free. Activities are available for all ages. Friends Bookstore & Gift Shop, Pleasant Plains Road, Long Hill Township. 908-647-2508 during the week or 973-425-9510 on the weekends.

*2/12, 1 PM. Backyard Birding.* Come learn about some of our feathered friends found in backyard bird feeders. We will teach you how to participate in Project Feeder Watch through Cornell's Laboratory of Ornithology. Free. Morris County Outdoor Education Center, Southern Blvd., Chatham. (973) 635-6629

*2/14, 10 AM. Winter Wonders Walk.* Take someone you love on a peaceful walk around the swamp. Free. Morris County Outdoor Education Center, Southern Blvd., Chatham. (973) 635-6629

*2/15: 4-5 PM. Awesome Animal Artists.* Budding young artists mix nature and art in this indoor/outdoor program. Each class features a different New Jersey animal to learn about and draw. Ages 7-10. \$3. Morris County Outdoor Education Center, Southern Blvd., Chatham. (973) 635-6629

*2/17: 4 PM. Track Attack!* Children will love learning about the tracks they see in the snow. They'll even get to try moving like different animals and make a track craft. Appropriate for families and children 5 and older. \$5. Morris County Outdoor Education Center, Southern Blvd., Chatham. (973) 635-6629

*2/25: 2 PM. Maple Sugar Festival.* Tree tapping demos, games, maple syrup snow cones, crafts, syrup taste tests and more! All ages. \$3. Morris County Outdoor Education Center, Southern Blvd., Chatham. (973) 635-6629

*2/26: 2 PM. Branches & Buds Walk.* Who needs leaves? Want to know how to identify trees in winter? Learn how buds, bark, branches, and more give us clues to the trees' identities! Ages 18 and older. \$3. Morris County Outdoor Education Center, Southern Blvd., Chatham. (973) 635-6629

*2/27: 2 PM. Pre-K Walk. Maple Sugar For Seedlings.* Kids ages 4 and 5 will enjoy these hour long guided walk and activities, including a fun nature craft! \$5. Morris County Outdoor Education Center, Southern Blvd., Chatham. (973) 635-6629



## March

3/2: 10 AM. *Snow Celebration*. Help us celebrate all the wonders of the winter season. Bring your child for a nature walk, games, storytelling, and a snack. Appropriate for ages 2 to 5 with an adult. \$5. Morris County Outdoor Education Center, Southern Blvd., Chatham. (973) 635-6629

3/6: 10 & 11:15 AM. *Toddler Trek. Whose Been Here?*. Toddlers ages 2 and 3 learn about nature with a walk on our wooded trails and a story! \$5. Morris County Outdoor Education Center, Southern Blvd., Chatham. (973) 635-6629

3/8: 4-5 PM. *Awesome Animal Artists*. Budding young artists mix nature and art in this indoor/outdoor program. Each class features a different New Jersey animal to learn about and draw. Ages 5-6. \$3. Morris County Outdoor Education Center, Southern Blvd., Chatham. (973) 635-6629

3/10: 6 - 8 PM. *Moonlight Nature Hike*. 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, early wood frogs, or other night noises, perhaps even coyotes calling! Play games to learn more about night senses, and revel in being out after dark without a flashlight! Cost \$8 per member \$10 per non-member, children under 5 free. All children welcome. Cross Estate in Bernardsville. Register at [www.greatswamp.org](http://www.greatswamp.org) or contact Hazel at 973-538-3500 x20, [hazele@greatswamp.org](mailto:hazele@greatswamp.org) for more info.

3/11, 9 AM. *It's March In The Marsh!* Bring your family for a wild walk to discover what and who lives in the marsh. Free. Morris County Outdoor Education Center, Southern Blvd., Chatham. (973) 635-6629

3/12: 2:00 – 4:00 PM. *Second Sunday... with Friends. Your Wildlife Background*. Join Brookview Wildlife Center naturalist Ellen Goldberg for a look at the way that “life” within our backyards interacts. She will describe how dead trees, flowers, and bugs increase the amount of wildlife in your backyard. The presentation is followed by an easy walk in the Refuges “backyard”—the management area. Program is open to all ages. Refreshments are available. Free. 908-647-2508 during the week or 973-425-9510 on the weekends.

3/14, 5:30 PM. *Woodcock Walk*. Join us to listen for these fascinating birds as they strut their stuff for potential mates. Appropriate for adults and teens. Free. Kay Center, Chester Twp. (973) 635-6629

3/15: 4-5 PM. *Awesome Animal Artists*. Budding young artists mix nature and art in this indoor/outdoor program. Each class features a different New Jersey animal to learn about and draw. Ages 7-10. \$3. Morris County Outdoor Education Center, Southern Blvd., Chatham. (973) 635-6629

3/16, 4 PM. *Skunk Cabbage Safari*. Thought it may be stinky, skunk cabbage is the first plant to bloom in the spring. You will be amazed to learn some of the peculiar facts about this plant as we hike in search of specimens to examine. For families with children ages 5 and older. \$3. Morris County Outdoor Education Center, Southern Blvd., Chatham. (973) 635-6629

3/16: 10 AM. *Winter's Waning - Spring is Springing*. Celebrate the end of winter with a story, snack, and craft. Appropriate for children 2 to 5 with an adult. \$5. Morris County Outdoor Education Center, Southern Blvd., Chatham. (973) 635-6629

3/19: 1 - 2 PM. *Family Nature Scavenger Hunt*. Calling all adventurous families! The Great Swamp challenges families to work together to follow a new set of clues and find the answers to some nature riddles! For families with children ages 3 and older. \$3 per participant. Morris County Outdoor Education Center, Southern Blvd., Chatham. (973) 635-6629

3/20: 2 PM. *Pre-K Walk. The Forest Comes Alive*. Kids ages 4 and 5 will enjoy these hour long guided walk and activities, including a fun nature craft! \$5. Morris County Outdoor Education Center, Southern Blvd., Chatham. (973) 635-6629

3/25: 5:30 PM *to dusk. Woodcock Watch*. The Greater Watchung Nature Club and the Friends share this evening of romance as American Woodcock take their mating flights—amazing sights and sounds! Last year a short eared owl was seen as we waited for dusk! Program recommended for ages 10 and above. Free. 908-647-2508 during the week or 973-425-9510 on the weekends. Friends Bookstore & Gift Shop, Pleasant Plains Road, Long Hill Township. 908-647-2508 during the week or 973-425-9510 on the weekends.

3/29 - 5/3: 9:45 - 10:30 AM. *Nature's Little Explorers*. Toddlers enjoy discovering the wonders of nature. Appropriate for children 2 and 3 years of age with an adult. Registration begins March 9 at 8am. \$50. Morris County Outdoor Education Center, Southern Blvd., Chatham. (973) 635-6629

3/30, 1 PM. *Frog Jamboree Walk*. It's frog calling time! Stroll along on the trails and listen to all the frogs of the swamp. Free. Morris County Outdoor Education Center, Southern Blvd., Chatham. (973) 635-6629

## April

4/2: 2 - 4 PM. *Spring Wildflower Hunt*. Spring breaks early as the spring blooming wildflowers raise their heads to spring. Join us for a leisurely walk to spot early blooms. We will concentrate on learning how to identify these wildflowers by their characteristics as well as folk and wildlife uses. Leave with a knowledge of at least ten of the common Spring Ephemerals. Meet at the Conservation Management Area in Harding Twp. Register at [www.greatswamp.org](http://www.greatswamp.org) or contact Hazel at 973-538-3500 x20, [hazele@greatswamp.org](mailto:hazele@greatswamp.org) for more info.

4/22: 10 AM - 12 PM. *Spring Nature Detectives Hike*. Spring 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 Earth day 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 rain or shine. Meet at Pleasant Plains Road. Great Swamp National Wildlife Refuge. Register at [www.greatswamp.org](http://www.greatswamp.org) or contact Hazel at 973-538-3500 x20, [hazele@greatswamp.org](mailto:hazele@greatswamp.org) for more info.

# Swamp Watch -- Environmental Hot Spots

## Bernards Township

### Verizon Plans Larger Workforce Population

Verizon has not yet revealed a master plan for the former AT&T site on North Maple Avenue in Basking Ridge, evidently because their plans continue to evolve. In May 2005, Verizon officials told Bernards Township that they planned to move in 2,800 employees by mid-2006. Beginning in August the figure mentioned repeatedly was 3,000 employees. In December, Verizon acknowledged that they will be moving in a previously unexpected 600 employees related to their MCI acquisition to Basking Ridge. The 600 will be in addition to the 3,000 figure, for a total of 3,600. Verizon also intends to seek approval to build two additional buildings on their office campus which would house 1,200 to 1,400 more workers. Bernards residents must now contemplate the very real possibility of 5,000 Verizon employees, a number far higher than the peak occupancy by AT&T (which Verizon claims to have been 4,200 employees at an unspecified date). Whichever lucky board gets the application - either planning or zoning - will have to ponder serious environmental, traffic and COAH issues that will result from Verizon's escalating plans.

### New Mayor. New Agenda.

New Bernards mayor John Malay has vowed to end several years of inertia exhibited by previous township committees. Noting that almost none of the goals of the 2003 master plan had been addressed so far, the mayor called for action on neighborhood preservation, scaled-back infrastructure improvements, and aggressive open space acquisition. In what would arguably be a dramatic change of direction for the township, he said it was time to think small, efficient, and "green." Is the era of belgian-blocking, road-widening and sidewalking really over in Bernards? Will the tear-down trend be tamed? Is there still open space left to acquire? Stay tuned.

*Ann Parsekian*

## Morris Township

See lead article, page 1.

## Chatham Township

### St. Hubert's Expansion Would Result in 3.8 Acres of Impervious Cover.

In November 2005 St. Hubert's Animal Welfare Center submitted an expansion proposal to the Chatham Township Board of Adjustment that would result in total impervious cover, that is, buildings plus parking lots, of 3.8 acres. Right now the facility covers only 1 acre. Zoning for the site allows 2.3 acres, so the plan calls for 1.5 acre, or 65%, more than permitted.

St. Hubert's Environmental Impact Statement (EIS) did not use information from the NJDEP Landscape Project concerning threatened & endangered species. Wood turtle habitat is shown by the DEP Landscape Project maps to be adjacent to the property on three sides and to adjoin the wetlands in the southeast area of the property. The EIS incorrectly dismisses the issue of threatened and endangered species.

Net loss of about 20 trees, performance and maintenance of underground storm water facilities, and the overall efficacy of the stormwater management plan are also serious concerns. The stormwater plan appears to reduce peak rates of flow but not the total volume of stormwater leaving the site.

### Open Space Tax Diverted from Land Acquisition to Maintenance

In November the people of Chatham Township approved a single referendum question that lumped together two actions—raising the Township open space tax from 1 cent to 2 cents per \$100 of assessed value, and also using the Township open space tax revenues for maintenance of recreation fields. In December, the Township Committee chose to approve a law that was as vague as the ballot question. The Open Space tax in Chatham Township can now be used either for open space acquisition or recreation field maintenance, without any priority given to open space acquisition. The Open Space Committee had objected to the vague wording of the question, but thought that the Township Committee would consult them in putting some strict guidelines on priorities given to open space purchases and caps on the portion used for maintenance. The current Township Committee says it intends to use the open space tax primarily for open space acquisition, but would not write in the law that such acquisition was a priority over maintenance.

*Kathy Abbott*

# Travel Beyond The Watershed!

These day and overnight trips will acquaint you with the culture and natural history of some of the Garden State's hidden gems. Even if you think you know New Jersey we guarantee you will see places and things new to you!! We'll leave the Great Swamp watershed to venture to the Pine Barrens, Highlands, Delaware Bay shore and South Jersey, all locations ecologically different from our own watershed!

Continental breakfast is included with each tour and lunch is either brown bag style or at a local diner. We will travel by 15-passenger van, and make frequent stops to stretch your legs, and visit interesting locations. We feel adults and children over 10 will best enjoy these programs.

Day trips are \$80 per person, overnights at \$130 per person or \$220 for a room-sharing couple. Limited to ten people per trip. Register at [www.greatswamp.org](http://www.greatswamp.org) or call (973) 538 3500 x20 for more information.

## Discovering the NJ Pine Barrens

Discover the Pinelands National Reserve, last great East Coast wilderness. In the winter the Pines come into their own with the cedars and pines giving evergreen colors. We'll visit some of the secret places of the Pines, including a Blueberry-Cranberry company town, primeval cedar swamp, Pygmy pine forest and even a typical Pine Barrens diner! We'll walk a couple of miles as we poke about the pines.

Saturday, February 25, 8am – 7pm



## Discovering Secret South Jersey

Enjoy an overnight trip to south of the Mason-Dixon Line without leaving New Jersey! Cape May County in early spring is often milder weather wise. We may see early migrant returnees and we'll enjoy hidden gems such as Jake's Landing in Belle Plain State Forest, Cape May Meadows, and the scenic Maurice and Manumuskin rivers of Cumberland County. Our relaxed pace will allow us to stop and enjoy the sights, starting our journey with an overnight stay in a local hotel will allow us to get the best from the day.

April 7-8, Depart GSWA at 3pm Friday Return 8pm Saturday

## Highlights of the Highlands

Go Waywayyonder as we tour New Jersey's Highlands region. Parts of Great Swamp sneak into the political and physiographic region, but we'll tour places you won't believe are New Jersey! Ancient mountains twice the gage of the Appalachians with habitat remnants from glacial times, the Highlands are a fascinating area. We'll visit black spruce bogs, evergreen forests of white pine and hemlock, remote rock ledges, historic sites and enjoy stunning vistas. Hikes over some rough terrain totaling 3-4 miles by days end.

Saturday, March 11, 8am-7pm

## Delaware Bay Shore Delights

Step back in time to the unspoiled landscape of an earlier New Jersey, as we tour wild and scenic Delaware Bay. Visit historic towns, vast Bay shore salt marshes, bald eagle nests, scenic rivers, and take natural history hikes. A Friday afternoon start and overnight stay at a local inn will allow us to take full advantage of New Jersey's oldest settled region, and to offer a relaxed pace for this tour.

Friday 5-6th May. 3pm depart GSWA, return 8pm Saturday



## Crepuscular Hike

If you think that nature disappears into the torpor of winter's chill during the month of February—think again. Life still abounds, it just takes a little more effort to uncover her secrets. Come join naturalist and biologist Blaine Rothauser on a crepuscular (active dawn and dusk) hike into the inner recesses of our very own conservation management area. We will learn about the ecology of a wetland forest and the mechanisms that species use to survive during the toughest month of the year. Bring boots and warm clothes.

Saturday, February 18 3 – 5pm, meet at the GSWA Conservation Management Area at the dead end of Tiger Lily Lane in Harding

## WORKSHOPS FOR EDUCATORS 2006

Great Swamp Watershed Association is facilitating several interesting and useful workshops for K-12 formal and non formal educators. Educators will experience activities they can use back in the classroom or Nature Center to teach across the educational curriculum. The workshops are hands on, led by an experienced Naturalist educator and provide participants with activity guides for each workshop. The 6 hour workshops are offered at little or minimal cost, and often include breakfast and lunch. They confer 6 NJDOE professional development credits too! For more information call Hazel England, Director of Outreach and Education, (973) 538 3500 ext 20, hazele@greatswamp.org or contact workshop location directly to register.

### **January 28, March 31, May 10, 2006 Schoolyard Habitat Enhancement Workshops**

1/28, 5/10 at Trailside Nature Center, Watchung Reservation (908) 789-3670; 3/31 at Morris County Outdoor Education Center, Chatham (973) 635-9391

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 suited for k-12 educators in all subject areas. Leave armed with ideas for your own site. Cost \$20 including breakfast.

### **March 29, 2006 Project WILD Workshop**

Trailside Nature Center, Watchung Reservation (908) 789-3670

Go WILD about learning, as you experience one of the leading supplemental environmental education curricula. The Project WILD activity guide contain hands-on activities that K-12 teachers across the curriculum can use to teach about wildlife and Natural resources. The activities take students from awareness to action, and are designed to be incorporated into most major subject areas, strengthening basic skills while teaching existing curricula. Activities can be used to meet state standards for core course proficiencies. Best of all, the activities are enjoyable and educational. Cost \$25 including breakfast.

### **April 28, 2006 Project WET Workshop**

Trailside Nature Center, Watchung Reservation (908) 789 3670

*continued on page 10*

## **Rubbing Salt into Environmental Wounds**

*continued from page 2*

Associated Press newspaper article. This study was financially supported by the National Science Foundation, the Environmental Protection Agency, and the A.W. Mellon Foundation. It focused attention on selected watersheds in Maryland, New York, and New Hampshire, but reached conclusions relevant to many more states. The research group observed chloride concentrations rising to approximately 25 percent of that found in seawater. These high levels are not just a winter phenomenon, but, as in the case of Loantaka Brook observations, slow movement through water tables caused chloride to be observed year-round at levels up to 100 times that of unaffected forest streams. A direct quotation from the published paper contains a vivid summary of the situation:

*"...if salinity were to increase at its present rate due to changes in impervious surface coverage and current management practices, many surface waters in the northeastern United States would not be potable for human consumption and would become toxic to freshwater life within the next century."*



With its commitment to protect the quality of water and the living environment in its area of direct involvement, the Great Swamp Watershed Association is obliged to pay attention to informed conclusions of this sort. On account of the clash of conflicting values (reduction of winter danger versus watershed environmental protection), careful thought and planning for the future are mandatory. In the short term several items deserve attention. These include (a) assurance that local salt stockpiles are completely covered off season to prevent loss by rainfall leaching; (b) use of calibrated and well-maintained spreading equipment for optimal application rates of de-icing substances; and (c) evaluation of alternative, less problematic de-icing materials, at least for specialized applications.

For interested readers seeking more detailed information about the road salt situation both locally and nationally, contact Kelley Curran at the Great Swamp Watershed Association headquarters, telephone number 973-538-3500, ext. 16 or at [kcurran@greatswamp.org](mailto:kcurran@greatswamp.org). Detailed results of the Stream Team sampling and testing activities in the Great Swamp watershed are available at <http://www.users.drew.edu/ctimmons/gswa/index.htm>.



## To Sewer Or Not To Sewer

continued from page 1

application is for massive and environmentally disastrous commercial development.

The Watershed Association feels it is highly inappropriate for the State to sacrifice so many important environmental and historical policies for such a project and therefore feels the DEP should NOT grant the Water Quality Plan amendment. To that end, GSWA is preparing comments on stormwater and engineering issues, planning issues and threatened and endangered species issues.

### The Wrong Plan In The Wrong Place

Ritter & Plante Associates, a professional planning firm from Philadelphia, prepared a 17-page report for the Watershed Association that includes the following conclusion:

*"In summary, the CCRC [Continuing Care Retirement Community] and active recreation facilities are not in character with the surrounding neighborhood, the unique historic setting of the area, or the intent of the State Plan regarding preservation of environmentally sensitive lands."*

### Their Duty Is Clear: Protect The Public

Representing the Watershed Association, the Rutgers Environmental Law Clinic prepared additional comments in opposition to the project. These include the following:

*"The [DEP] has a clear duty to deny the proposed WQMP [Water Quality Management Plan] and the WMP [Wastewater Management Plan] because they will cause adverse secondary and cumulative impacts that have been foreclosed. During the Level 3 EIS [Environmental Impact Study], members of the public asked the Department for stronger land use protections, since it seemed probable to them based on their experiences with Morris Township's development practices that the township might well allow more intensive development once Washington Valley was provided with sewers. The Department's answer was that the public would be protected through the Master Planning process and the Wastewater Management Planning Process. The former has failed; the latter must hold up."*

### It's An "Uphill" Battle

TRC Omni Environmental, of Princeton, NJ, prepared for the Watershed Association a detailed hydrological study of the proposed plans for the development and reached a number of negative conclusions, among them:

*"...we believe it can be concluded that the proposed development for Abbey Woods at Delbarton and St. Mary's Active Open Space does not meet the New Jersey Stormwater Regulations or the New Jersey Residential Site Improvement Standards."*

*"Upon reviewing the pipe layout, it was found that there are several locations where the stormwater is proposed to travel in the wrong direction (i.e., uphill)..."*

## Protecting Your Land!

*"Additionally, it would appear that in several areas, the flows from the emergency spillways will be collected and re-deposited into the stormwater system."*

The TRC Omni report also highlighted numerous other deficiencies:

- problems with missing soil borings;
- 30 foot cuts on 30% slopes to construct basins when DEP's Best Management Practices manual recommends no more than 10% slopes and much smaller cuts;
- basins being dug to up to 22 feet below grade when the BMP Manual recommends, "the bottom of the infiltration basin must be at least 2 feet ABOVE seasonal high water table or bedrock."

And so on, *ad nauseum*.

### A Wastewater Plan That Doesn't Hold Water

Justification for the expansion of the Woodland Sewage Treatment plant into Loantaka Brook, the Great Swamp watershed and the Great Swamp National Wildlife Refuge was not provided. This is particularly mystifying in light of the exclusion of the potential for residential development on two golf courses served by that plant that had been included in previous plans. Of all five streams in the Great Swamp watershed, Loantaka Brook has by far the worst water quality, which stream testing suggests may worsen below the plant. (At this point in time, GSWA and the Ten Towns Committee have years of water quality results from Loantaka Brook at multiple sites, all of which meets DEP's QAQC requirements and all of which has already been submitted to the Department.) Until NJDEP determines absolutely that the plant is not responsible for this condition, or aggravating it, it is inappropriate for the plant to be expanded.

Also, the Township's maps in the proposed WMPs shows the entirety of the Delbarton site as being sewerage — all 385 acres. Portions of the property are connected to the Butterworth Sewage Treatment plant with only a 35,000 GPD wastewater allocation approved by the NJDEP in August 2000 for the school needs only.

Julia Somers, Executive Director of the Watershed Association said, "Is there any important New Jersey environmental or historical land use policy not raised by this project?"

The Watershed Association sees this hearing as a crucial test of all New Jersey's land use planning strategies: State Plan, Highlands Council, etc. **If this land — with its documented and significant historical and environmental sensitivity — cannot be saved, no land in New Jersey can be saved.**

# Keeping An Eye Out For Clean Water

By Kelley Curran, GSWA Stream Team Coordinator

Monitoring water quality in the streams and rivers of our area can involve highly sophisticated scientific techniques, special equipment and the services of a licensed laboratory.

Or not. You would be surprised to know that a great deal of useful monitoring can be done by merely observing the stream and taking detailed notes on what you see.

The main reason for a visual assessment program is to get more eyes watching our streams and rivers to see what is going on. Even simple information, such as stream depth, width, as well as the location of pools and rapids can be helpful. What wildlife is observable? What plants? Is the surface covered with algae or a film? What shape are the stream banks in? Banks that are crumbling or eroding will fill a stream with sediment, harming fish and other wildlife. Are there trees over hanging the water? Shade is a good thing in summer, keeping water temperatures cool and protecting plant life.

And, of course, visual assessment team members can be the first to discover pollutants or man-made hazards in our waterways.

People with a desire to get out, explore the natural beauties of the Great Swamp Watershed and aid in a good cause all at the same time, may be interested in volunteering to help conduct "Visual Assessments of Stream Reaches in the Great Swamp Watershed". You don't need to be a trained scientist or have a PhD. All you need is a sharp eye and the ability to collect data. The Great Swamp Watershed Association, located on Tempe Wick Road in Harding Township, will provide the necessary training.

The main purpose of this program is to help gather data for the Watershed Association on water bodies that are currently not being assessed by the staff of the NJDEP. This important data can be used in several ways:

1. At the local level it provides valuable information to municipalities.
2. At the watershed level it helps to identify or follow-up on areas in need of attention or remediation.
3. At the state level it serves to identify impaired waterways and provide baseline information for further studies.

There are a few requirements for volunteers.

They must attend a training session with an Americorps member or the Watershed Association's Project Director. The training session lasts about three hours and includes both a classroom session and a field demonstration. Volunteers must agree to conduct visual assessments of their assigned stream section in the Great Swamp Watershed two times per calendar year using the NJDEP Visual Assessment protocol. One assessment needs to be conducted in May or June and one must be conducted in Nov or Dec on each section, so the minimum time commitment is one year.

The Great Swamp Watershed Association will provide most of the necessary equipment.

- One pair of boots
- Visual assessment data forms and instructions for completion of the forms
- Measuring tape
- Clipboard
- Maps and/or directions to assessment site
- A digital camera (if you do not have one)

The volunteer should be prepared to provide pens and pencils, weather appropriate clothing, bottled water, and any other amenities they choose. All assessments will be conducted by at least two people for safety reasons. The time needed to complete one assessment is estimated to be 2-3 hours, including driving time from GSWA office to and from the site.

Training sessions are held at the Watershed Association office, 568 Tempe Wick Rd., Harding, NJ. If you are interested, contact Kelley Curran, Stream Team Director, Great Swamp Watershed Association, 973 538 3500 x16 or kcurran@greatswamp.org

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The 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 a copy of the curriculum and activity guide. The guide is a collection of innovative, water-related activities that are hands-on, easy to use and incorporate a variety of educational formats. Cost \$25 including breakfast.

## **May 3, 2006 Wonders of Wetlands (WOW) Workshop**

Morris County Outdoor Education Center, Chatham (973) 635 9391

WOW is an instructional guide for educators that provides a resourceful and creative collection of wetland activities, information, and ideas. WOW! 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". Well suite for those educators who have access to, or are considering creating their own wetland educational site. Free workshop includes breakfast and lunch.

## 2005 Annual Event Raises A Record Amount!

On November 11th, 2005, the Watershed Association held its Annula Event and Meeting, at the Basking Ridge Country Club in Bernards Township overlooking the Passaic River Valley.

Over 230 people attended for food, drinks, catching up with old friends and a chance to bid on silent auction items. Over \$35,000 was raised to fund Association events!

The other main event of the evening was the presentation of the Marcellus Hartley Dodge Memorial Award to James G. Gilbert of Morristown. The Dodge Award is presented annually to the person who, in the opinion of the Board of Trustees, has made a significant impact on natural, cultural and historic preservation in the Watershed. The Award was presented by David Moore, last year's recipient.



*2004 Marcellus Hartley Dodge Award Winner Davis Moore presents the 2005 Award to recipient James G. Gilmore of Morristown.*



*Quite a crowd! Over 230 people showed up for an evening of conversation and bidding on the Silent Auction.*



*GSWA Executive Director Julia Somers chats with Roger & Alberta Edwards of Millington. Roger is a member of the GSWA Stream Team.*



*Barbara Lawrence, former Director of New Jersey Future, catches up with Candace Ashmun and George Hawkins, the current Director.*



*GSWA Trustee Cathie Coultas (Madison), Patty & Don Bowen (Madison Councilman), Trustee Dot Stillinger (Chatham Twp.) and Peter Miller (Bernardsville).*

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Contact us at 973.538.3500 or visit our web site at [www.greatswamp.org](http://www.greatswamp.org)

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