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ACROSS THE WATERSHED

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Spring 2004

The Great Swamp Watershed Association

Vol. 24 No.2

Do The Swamp Thing 2004 Fourth Annual Celebration of the Swamp

The month of May will be dedicated to celebrating the exceptional recreational, historical, and educational resources abundant in the Great Swamp watershed. The Watershed Association will be publicizing events held May 1-30 throughout the region.

The month-long celebration will begin with a kick-off on May 1 at 10:30 a.m. at the Jockey Hollow Visitor Center. The reception will feature many state and local dignitaries and refreshments will be served. Senator Jon Corzine and Representative Rodney Frelinghuysen have both been invited to participate. The reception will be followed by a Hike to the Huts at noon. The park historian will lead a guided tour from the Visitor Center to the Soldier's Huts and back again. Visitors will learn about the winter encampment, the 1890's aqueduct system, the Civilian Conservation Corps and the development of Morristown National Historical Park.

Also scheduled for opening weekend are free guided tours of the Watershed Association Restoration and Conservation Area from 10 a.m.-2 p.m. on Tiger Lily Lane in Harding Township. The Somerset County Park Commission is holding their 23rd Annual Carving and Wildlife Art Show and Sale on May 1 and 2 from 10 a.m.-5 p.m. at the Somerset County Environmental Education Center in Basking Ridge. The show features realistic woodcarvings, paintings, sculpture, photographs, and drawings. Admission is free. On Sunday May 2, join naturalists Neil Collins, Steve Byland, Mike Newlon, Mike Bisignano, and others for a 2-3 hour trip along good trails and roads. Meet at the Wildlife Observation Center on Long Hill Road.



Len Soucy of the Raptor Trust tutors State Senator Tom Kean, Jr. on the finer points of owl handling during the 2003 "Do the Swamp Thing".

As part of the "Do the Swamp Thing" promotion, the Watershed Association is offering two special events. On May 1 there will be guided tours of the Restoration and Conservation area and on May 8 from 11 a.m. 1 p.m. you will have the opportunity to test your skills with a map and compass while exploring the Great Swamp up close. The orienteering course begins and ends in the Sugarloaf Area of Lewis Morris Park in Mendham Township.

"Do the Swamp Thing" is organized by Great Swamp Watershed Association and sponsored by Kings Super Markets Inc., PSEG, and Recorder Community Newspapers. This year's celebration includes a four-page advertising supplement in many of Recorder's local papers, a weekly ad highlighting a wide variety of family activities, publicizing the event on Kings grocery bags, and local school children decorating Kings store windows in Morristown and Bernardsville.

For updated "Do the Swamp Thing" events and calendar information, check our website at www.greatswamp.org.

From the Desk of Julia Somers, Executive Director:

You know that this watershed enjoys one of the greatest natural and historical resources in the nation, the Morristown National Historical Park, a crown jewel of our region, state and arguably of our country. The Jockey Hollow section is a critical part of the Park, the first historical park created in the United States. The legislation passed by Congress in 1933 to create the Park recognizes the enormous struggles that the continental army withstood here in 1779-1780, George Washington's leadership, and the fact that there were areas in and adjacent to the Park that miraculously had not fallen to development.

All of Jockey Hollow lies within the Great Swamp watershed. It shares a long, common boundary with the Delbarton School, and its Sugar Loaf Hill overlooks the school property. Delbarton, and the land owned by the Order of St. Benedict, lie on the other side of the hill in the Whippany watershed.



Jockey Hollow, one the "crown jewels" of the Watershed, is threatened by development... again.

Delbarton proposes to build a continuing care retirement community on their property. Of the CCRC, Michael Henderson, Superintendent of the Morristown National Historical Park, is on record as stating that, "The National Park Service is deeply concerned that the new land use proposed for part of St. Mary's Abbey/Delbarton will have a significant immediate impact on the resources of, and visitors to Jockey Hollow." That (along with the disastrous environmental precedent this project would set for all of New Jersey if it were built) is just one of the many reasons why the Great Swamp

Watershed Association opposes Abbey Woods at Delbarton.

Morris Township has written to the Attorney General, Charities Registration Section, complaining that "it would appear that the Association is engaging in activities (including the dissipation of substantial financial resources) in areas beyond the limits represented" to our members as being within our mission. In other words, because the Delbarton property is in the Whippany watershed, not Great Swamp's, our opposition to the CCRC's construction is outside our mission. We could not disagree more because this project will undoubtedly impact Great Swamp's watershed in many ways.

Two years ago, the Township raised the issue in court of our "standing" to bring suit against them. Judge Zucker-Zarrett found us to have a legitimate right to file and prosecute a complaint, so our suit against the Abbey and Morris Township went forward.

I have to assume the Township has written this letter of complaint for three reasons: (1) because the Township Committee resents our continuing opposition to the CCRC; (2) it is attempting to intimidate us in a heavy handed fashion into dropping our opposition to the project; and, (3) the Township hopes its suggestion that they have "received complaints" from (unidentified) members, in the best tradition of McCarthyism, about our spending monies outside the watershed will cause donations to the Watershed Association to drop.

How quickly the Township forgets! Only three months ago, we handed it a check for \$500,000 in NJ Green Acres funds that subsidized the Township's acquisition of Jockey Hollow Top VI, 58 acres of land on the side of Mt. Kemble almost contiguous with Jockey Hollow.

Some members are about to receive an Annual Appeal mailing (others receive theirs in December) and all members will receive an appeal to support our Endowment. Please continue your generous support and send a clear message that you also want to protect the Great Swamp watershed's precious environment including Jockey Hollow, the nation's first historical park. Thank you.

Across the Watershed is a quarterly publication of the Great Swamp Watershed Association. The Watershed Association works to protect the ecological, historic, and cultural integrity of the Great Swamp and its watershed. The Association promotes the conservation and restoration of the watershed's natural resources and encourages land use that is compatible with these goals.

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New Software Eases the Planning Process

by Diana Lemberg

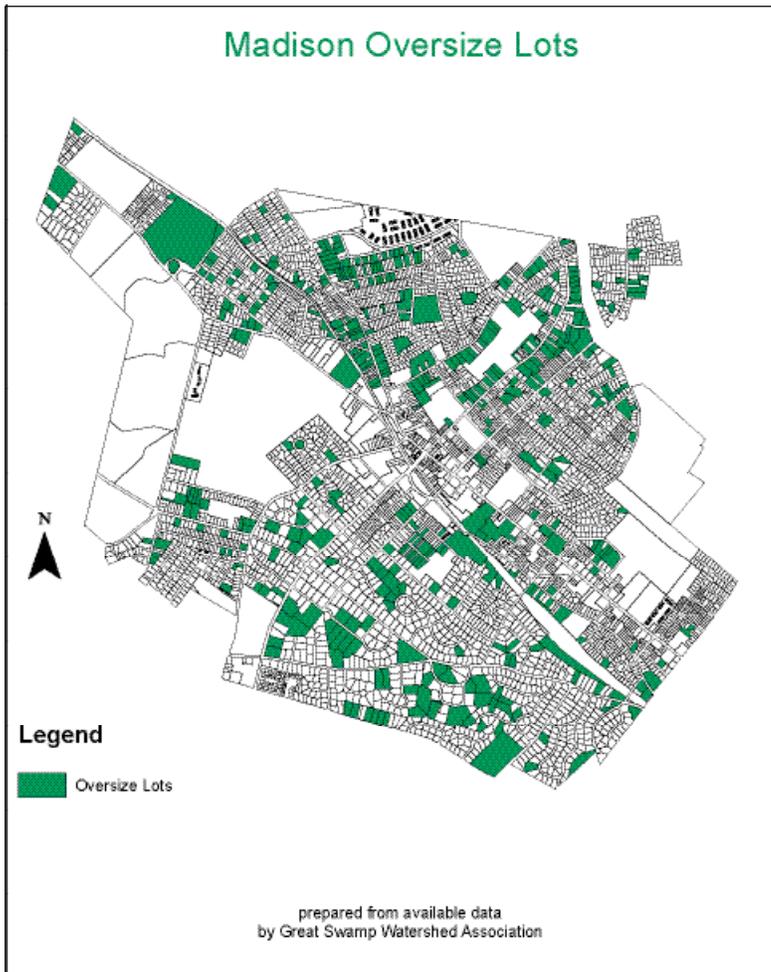
Eutrophication. Excess algal bloom. Acid deposition. Words like these are not usually a part of the municipal planning process. Indeed, non-scientists might not know that these ecological processes can result from unchecked development, and can in turn lead to more familiar harms like killing off wildlife and aggravating human health problems. Now, a new software program called Goal Oriented Zoning (GOZ) aims to make ecological data part of the planning process.

Town planning is not an easy business. Planning boards -- composed exclusively of volunteers -- may not have access to accurate cost-benefit studies, and in the long run, their partial information is costly indeed. In addition to its environmental consequences, development

has a wide range of economic ramifications, such as the need to expand roadways, sewers, and school facilities. Contrary to popular myth, the property tax revenues (or "ratables") a town gains from development rarely exceed the cost of expanding municipal services. GOZ helps to fill the need for better analysis of development scenarios' environmental and fiscal impacts.

The program allows planners to map future development of the municipality's undeveloped land. It creates a "build-out" model of what the town would look like if all available land -- i.e., land that is not already used and is not legally protected as open space -- were developed. If, for example, current maps show an open ten-acre parcel zoned for residential two-acre lots, GOZ will plot five houses on the parcel. Then, GOZ calculates the cost of development using "impact indicators" like residents per household, number of school kids, and capital costs for building new infrastructure. The net cost is calculated by subtracting these costs from property tax revenues. GOZ allows users to model other kinds of growth scenarios as well, including open-space preservation plans and transit-oriented development around existing rail lines.

In Mendham Township, a 208-acre parcel was slated for development until the builder went bankrupt. The town then stepped in to acquire the land as open space. Afterwards, the township's Open Space Trust Committee analyzed the costs of both scenarios. They concluded that the "break-even point for open space vs. development was approximately twenty years." Once the township pays off the 20-year bond it took out to acquire the land, the remaining costs of open space -- maintenance and police -- level off; on the other hand, after year



20, the cost of residential development relative to open space spikes, because school and infrastructure spending are never "paid off" like a bond is. Thus, for Mendham Township open space is a sound long-term investment.

GOZ accounts for environmental resources as well. Unchecked development can damage a town's ecosystem and quality of life for its residents; as Partha Dasgupta, environmental economist at the University of Cambridge, notes, "Nowhere is the environmental resource-base in unlimited supply." GOZ calculates the amounts of pollution a town can expect from its development scenarios, projecting emission levels in pounds per year.

Water pollution from run-off is one concern: the more area that is covered by "impervious" surfaces -- i.e., pavement or roofs -- the higher a town's "non-point source" pollution is. Cars, fertilized lawns, and other non-point sources release pollutants onto land surfaces. Those pollutants are then swept off the land with rainwater runoff in what may seem like small amounts, but cumulatively can be quite large.

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Swamp Watch — Local Environmental

Bernards Township

Demolition Trend Meets Objections

The Board of Adjustment was sued in January 2004 for denying a proposal to raze a modest 1,034 sq. ft. house on an undersize lot and replace it with a 3,949 sq. foot one. The applicant sought a lot-width variance, but members of the board expressed concern that a large house on the site could hasten the demise of the other modest houses in the neighborhood.

Elsewhere in the township, Millington Quarry Inc (MQI) received approvals from the Planning Board and Board of Adjustment on two applications to demolish a total of four historic houses in Lyons and replace them with seven new houses. Members of the Historical Society of the Somerset Hills criticized the loss of an entire early streetscape, and in response both boards conditioned their approvals with a requirement that MQI pay for formal documentation of the houses before demolition.

No Records on Fill Dumped at Millington Quarry

In December Millington Quarry Inc. (MQI) officials admitted that they failed to keep records on the sources for almost one million cubic yards of fill dumped over the last eight years at two locations in the quarry. MQI had been presenting updated plans to the planning board for rehabilitation of the 190-acre property when this surprising news was revealed. Quarry officials said no environmental testing of the soil had been conducted but prior water tests turned up no problems. MQI agreed to test the fill material to its full depth, and results should be available at the next hearing in May.

Ann Parsekian

Morris Township

The Watershed Association has filed notice of our intent to appeal the spot-zoning lawsuit against Morris Township, which Superior Court Judge Theodore Bozonelis decided in favor of the Township last year.

Further, GSWA has appealed the preliminary site plan approval by the Morris Township Planning Board of the Abbey Woods at Delbarton project to construct a 250-unit continuing care retirement community on the Delbarton property. As part of the same project, Delbarton also wants to build a large athletic field and squash court facility for the school. This is proposed to be built on land next to the north gate into the Jockey Hollow section of the National Historical Park on what was formerly part of the Guerin farm. Joshua Guerin's farmhouse is inside Jockey Hollow. His smithy and blacksmith shop were on the Delbarton property/Jockey Hollow Road frontage next to what is proposed to be the entrance to the facility.

Julia Somers

Mendham Township

On February 26, the Department of Environmental Protection wrote to the Morris Area Girls Scouts seeking additional information about a proposed amendment to the Mendham Township Wastewater Management Plan. The amendment arises from the approval by the Board of Adjustment for MAGSC to rebuild, expand and make their camp usable year-round. DEP indentified a number of concerns and issues which need to be addressed before they can proceed to public notice of the amendment. No further information is available at this time and the Township has taken no action.

Julia Somers

Chatham Township

Sunset Lake to Get Protection

In February, the Chatham Township Committee authorized Township Engineer Michael Bennett to work on an emergency relief storm water filtration system to prevent further non-point source pollution of Sunset Lake. Sunset Lake is located near Shunpike Road and Southern Boulevard and is used for swimming and fishing by members of the Sunset Lake Association, which is made up of residents of the 30 or so homes surrounding the lake. Storm sewer water from both Chatham and Madison flows into this lake and then on to the Great Swamp Wildlife Refuge.

The flow of oil, grit, litter, and lawn chemicals into the lake is ongoing, and was highlighted last spring when someone poured a deck sealant down a catch basin on Garfield Road in Madison and the sealant traveled downstream to form a toxic film on Sunset Lake. Residents have become wary of swimming in the lake.

The first step in the pollution remediation will be a catch basin that diverts a storm sewer pipe away from the lake. In a later step, the lake should be dredged to remove contaminants, according to Bennett. Morris County will be asked to be part of this project since the storm water originates in more than one municipality.

Woodland Park

The newly unveiled plans for Woodland Park are on a 6.6 acre wooded parcel, which Chatham Township and Chatham Borough purchased jointly as open space from a single owner. It is slated to be partially cleared for two multi-purpose playing fields, a memorial to the victims of September 11th, and 120 parking spaces. Left in tact will be an area of wetlands and a nature trail. School and Recreation officials had sought as many as six playing fields on the property at the outset of the land purchase. Neighboring residents in Madison are opposing the project as it is designed.

Sterling Properties Works on Details of Townhouse Complex

The Planning Board and Sterling Properties are still working out details for the proposed 56-townhouse development on the 30-acre property at the corner of Shunpike and Green Village Roads. Recently the Planning Board has tried to assure that the County-mandated widening of Shunpike Road to 25 feet would have minimal impact on the wetlands and would still allow for a visually pleasing landscaped barrier along the road. The Planning Board is also asking for detailed landscaping plans for the rest of the property so that the townhouse complex will still have a park-like setting despite the fact that the woodlands, except in a wetlands area below the pond, will be largely bulldozed. The NJ Department of Environmental Protection is still working with Sterling on dam design, though it has already issued a dam permit. Sewer permits and storm water management review are pending.

Heavy Engineering for Stormwater at Rolling Hill At Candace

Builder Harvey Caplan, who proposes a four-lot development on hilly Candace Lane, has further refined his plans for a heavily-engineered solution to achieving no net increase in storm water runoff from the properties. In addition to grading a system of swales, he intends to create an underground detention basin measuring 90 x 70 feet, which is a bigger footprint than any of the proposed houses. The basin will be 20 feet deep and contain nine 5 feet diameter pipes. The stormceptors will be 12 feet deep by 6 feet in diameter and weigh between 2 and 6 tons.

The revised plans also show a 20 ft. wide conservation easement strip along the back of the upper three lots. The Chatham Township Environmental Commission is recommending that a conservation easement instead be placed on the steep ravine in the middle of the backyards of the three lots. The ravine has sandy loam soil that is so good at permitting rain infiltration that the ravine is dry even in the springtime! While other soils would have produced a stream or intermittent stream between these steep slopes of greater than 25% grade, remarkably, in the sandy loam of the ravine there is no surface water!

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St. Hubert's to Expand

In February, St. Hubert's Giralda, the non-profit animal shelter and dog-training school on Woodland Avenue, issued a notice to neighbors that it is applying to the NJDEP for wetlands delineation and for a Transition Area Waiver for cutting trees & vegetation, placement of impervious surfaces, and placement of buildings. St. Hubert's property is 16 acres, and it intends to more than double the size of its operation.

Kathy Abbott

Madison

Madison Approves Open Space Tax

Madison voters passed by a 2-1 margin the Open Space, Recreation and Historic Preservation Trust Fund referendum in November's election. The initiative sets up a dedicated, tax-supported fund for purchase of open space for preservation, recreation and historic purposes and maximizes matching funds from federal, state and local resources.

In January, the Madison Planning Board approved the Borough's first-ever Open Space, Recreation and Historic Preservation Plan, amending the town's Master Plan. New Mayor Woody Kerkeslager appointed an ad hoc committee to begin identifying priorities for open space acquisition.

Judy Kroll

Long Hill Township

The Great Swamp Greenhouses allowed the deadline to pass for appeal of Long Hill Township's denial of their application for expansion that came before the Board of Adjustment. The commercial operation has, however, begun the process of submitting an Agricultural Management Plan to the Morris County Agricultural Development Board (MCADB) seeking many of the same expansions that were denied by Long Hill. The MCADB scheduled the first hearing of this application on February 19. Long Hill had sent its attorney and planner to testify, the Watershed Association had sent its attorney and environmental expert to testify, and several neighbors of the commercial greenhouse operation were also present to testify. The attorney for the MCADB invoked a rule that the procedures for Agricultural Management Plans permit but do not require public input, and the Board elected not to take testimony. There is, however, a formal complaint process that requires a public hearing, and neighboring residents are pursuing this option.

Len Hamilton

Morristown

Testimony from neighborhood residents and their consulting experts continues on the Temple B'Nai Or application for expansion of the temple on Overlook Road. Despite extensive comments, including suggestions for changes from the Watershed Association that we believe will improve the application and protect Great Brook, no amendment to the original has been incorporated into the application at this time.

Julia Somers

Harding Township

On March 17 the Township Committee of Harding voted to locate the proposed new public library at a site near the Municipal Building on Blue Mill Road rather than in the village of New Vernon. The library plans a major fund raising effort in the near future to cover the costs of construction. At the same time the Redevelopment Plan continues for the village center of New Vernon on both sides of Village Road between Millbrook Road and Lee's Hill Road. It is expected that the Post Office will relocate to one of two sites in the redevelopment area, and it is also hoped that several small businesses will open in this area.

Lancor Development has filed for a six building lot major subdivision on about 40 acres of land owned by Bruce McShane off Cherry Lane, which leads down to Dickson's Mill Road. These acres are among the most beautiful in Harding. The 40 acres are composed mostly of well kept fields which have views over toward Silver Lake. The property is a center of equestrian activity. The proposed new lots vary in size from 4 to over 8 acres. The existing McShane residence will remain on one of the lots. The plan includes a specially designed and planted meadow for purposes of retaining storm water run off. Open issues include location of bridle trails, status of Cherry Lane as a public or private road, preservation of historic rights of way and tree lines, drainage, and many more. The Planning Board of Harding Township has held two public hearings and expects to consider the application further at its April meeting.

Marshall Bartlett

Indeed the cumulative impacts can be toxic to wildlife, and affect drinking water quality for humans as well. Development also means greater levels of air pollution from cars and trucks. Carbon monoxide released by vehicles can reduce the body's ability to transport oxygen, and non-methane hydrocarbons (NMHC) can irritate the respiratory tract. Former Watershed Association Project Director Karen Patterson used GOZ to estimate pollution for Mendham Township's development scenario. Had the land been developed as planned, the traffic generated by the thirty-nine households would have released over 5,000 pounds of hydrocarbons and 35,000 pounds of carbon monoxide per year into the air, over 20 pounds of nitrogen into water runoff per year, and increased wastewater production by 13,000 gallons per day.

In his report "The Economics of the Environment," Dasgupta writes that maintaining natural resources does not necessarily come at the expense of growth or at high cost to taxpayers. Mendham's experience is a real-world example of cost-effective conservation. By providing planners with customizable, user-friendly economic and environmental analyses, GOZ will allow other municipalities to follow this promising lead.

Dana Lemberg was a summer intern at the Watershed Association and is currently a junior at Princeton University. She resides in Bernardsville.



Water Quality Monitoring

Morristown High School students Francis Yango and Maria Cardona take part in the Watershed Association's on-going stream monitoring program. They are collecting water samples from Loantaka Brook that will be analyzed to help determine the quality of the water that flows into the Great Swamp.

Super Swamp Science

The Super Swamp Science Show was back for its second annual appearance on February 28th, 2004. This popular Watershed Association Membership Event is put on by Paul Becker, a former Trustee and retired naturalist from the Somerset County Environmental Education Center, and Rich Hoffman, also of the EEC.



Kids participate in the wonders of swamp science. Meanwhile Rich and Paul demonstrate that learning can be fun, at least when the teachers are doing something that makes them look silly!



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

Birding and Natural History Walks: Great Swamp National Wildlife Refuge: First and third Sunday of the month 8:00–10:00 a.m. Meet at the Wildlife Observation Center on Long Hill Road. 973-425-1222

Free Nature Walks: Scherman-Hoffman Wildlife Sanctuary; Every Friday and Saturday, 8-9 a.m. No pre-registration – just show up! Walks focus on birds, butterflies, wildflowers, and all other aspects of natural history. Led by Scherman-Hoffman naturalists, these walks are fun and informative. Meet at the Hoffman Parking Lot. 908-766-5787.

Ford Mansion Tours: Daily, 10, 11 a.m., 1, 2, 3, 4 p.m. 973-539-2016

The Wick House at Jockey Hollow: Daily, 9:30 a.m. – 4:30 p.m. (Except when school programs conducted; call for availability) 973-539-2016.

April

17, *The Raptor Trust Story.* 2 p.m.: Learn how a wild bird rehabilitation center is run and meet a life resident hawk. Morris County Great Swamp Outdoor Education Center. (973) 635-6629.

24, *Homestead Cleanup.* 8:30-noon: Twice a year volunteers go out into various areas of the Refuge to pick up man-made debris – the remains of old homesteads and farms. Help pick up litter, pull out fencing, remove heavy materials – and leave the swamp a better place for the wildlife. Wear boots, bring gloves if you have them. Meet at the Friends Bookstore & Gift Shop. (973) 425-9510.

25, *Wildlife Babies.* Noon-4 p.m. Annual educational festival with live animals, games, wildlife info, demos, crafts, hikes, and more. Morris County Great Swamp Outdoor Education Center. (973) 635-6629.

25, *Yesterday's Games.* 1-4 p.m.: Step back in time to when toys were made of wood, cloth, and yarn. Wick House. (973) 539-2016.

25, *Frog Walk.* 6:45 p.m.-dusk: Enjoy a video presentation showing the frogs and toads of Great Swamp, complete with calls – then go out to hear the early calling frogs – the wood frogs and

spring peepers. And who knows what else!! Refreshments will be available. Wear boots or water-proof footwear. Auditorium at Friends Bookstore & Gift Shop. (973) 425-9510.

May

1, *Do The Swamp Thing 2004 Kick-off.* 10:30 a.m.: Jockey Hollow Visitor Center. Free. (973) 966-1900.

1, *Hike to the Huts.* 12 noon: It's exercise and education all in one trip as you join the park historian on a guided hike from the Visitor Center to the Soldiers Huts and back again along the yellow trail. Learn about such varied topics as the winter encampment, an 1890's aqueduct system, the Civilian Conservation Corps, and the development of Morristown National Historical Park. The hike is approximately 2 miles long and should last about 2 hours. Jockey Hollow Visitor Center. (973) 539-2016.

1, *Guided Tours of Restoration Area.* 10:00 a.m.-2:00 p.m.: Join us for guided tours of the Great Swamp Watershed Association Conservation and Restoration area on Tiger Lily Lane in Harding Township. Free. (973) 966-1900 x 11.

1,2, *23rd Annual Carving & Wildlife Art Show & Sale.* 10 a.m.-5 p.m.: More than 40 artists will be exhibiting their Wildlife art at this unique show. Realistic woodcarvings and paintings are featured, along with sculpture, photographs, and drawings. Somerset County Environmental Education Center, Basking Ridge. Free. (908) 766-2489.

2, *Nature Walks at Great Swamp:* 8:00-10:00 a.m.: Join New Jersey Audubon Society (NJAS) naturalists on guided walks to look for migrating birds and other signs of spring. Bring binoculars if you can. Meet at the Wildlife Observation Center (the blinds) on New Vernon / Long Hill Road. (973) 425-9510.

7, 14, 21, 28, *Rookery Heron Watch.* 5:30 p.m.: At the Heron Rookery Overlook, we have an unobstructed view of dozens of herons setting up their huge treetop nests and raising their young. Join us on Friday nights in May. Meet at the Friends parking lot or drive up Pleasant Plains Road to the Overlook any time before dusk. (973) 425-9510.

8, *Orienteering.* 11 a.m.-1 p.m.: Test your skills with a map and compass while exploring the Great Swamp up close. Course begins and ends in the Sugarloaf Area of Lewis Morris Park in Mendham Township. Great Swamp Watershed Association. (973) 966-1900 x 21.

8, *Colonial Toys.* 1:00-4:00 p.m.: Come experience history with your children as they play with 18th-century toys while learning things such as how wood, cloth, and yarn were used to make something fun and educational. Wick House. (973) 539-2016.

9, 23, 30, *Nature Walks.* Noon-1 p.m.: Join naturalists for an hour-long interpretive walk. Each week will focus on a different theme, so make these walks part of your spring weekend. Somerset County Environmental Education Center, Basking Ridge. Free. (908) 766-2489.

9, *Moms in the Wild.* 2:00 p.m.: What better place to celebrate Mother's Day than the Great Swamp! Join bird and wildlife

mothers in celebration of Mother's Day! Program followed by an easy walk outside to see "Moms in the Wild". Meet at Friends of Great Swamp Bookstore & Gift Shop. (973) 425-9510.

12, Sounds of Nature Walk. 7:30 p.m.: Take a stroll through the woods at night with a wildlife biologist to explore the many nocturnal sounds at the swamp. Ages 18 & up; registration required. Free. Morris County Great Swamp Outdoor Education Center. (973) 635-6629.

15, World Series of Birding – Great Swamp Style. All Day: Last year's tally was 112 species – surely we can do better this year? Bird for a few hours or all day – it's fun and easy – you don't need to be an expert birder. It's a fun day for a good cause. Call for more details. (973) 425-9510.

16, Nature Walks at Great Swamp. 8:00-10:00 a.m.: Join New Jersey Audubon Society (NJAS) naturalists on guided walks to look for migrating birds and other signs of spring. Bring binoculars if you can. Meet at the Wildlife Observation Center (the blinds) on New Vernon / Long Hill Road. (973) 425-9510.

19, Giants in the Forest. 10:30-11:30 a.m.: Take a special hike into the forest to find the giants who live there-the trees. Somerset County Environmental Education Center. (908) 766-2489.

21, Darling Dragons and Dainty Damsels. 3:30-5 p.m.: Have you ever wondered what was swimming with the fishes and spying on the frogs? Join a naturalist and find out. Somerset County Environmental Education Center. (908) 766-2489.

22, Extra Baggage. 1:30-3:30 p.m: Explore an "unknown" part of Washington's army at the soldier huts to discover the role of women and children who assisted soldiers with the daily chores of camp life. Learn who these women were and why they left their homes to follow the army. Jockey Hollow Soldier Huts. (973) 539-2016.



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22, Life in a Pond Study: 10 a.m.: Learn about the critters in the pond by catching them, studying them and assessing the water quality. Includes a walk, collecting nets and mud! Morris County Great Swamp Outdoor Education Center. (973) 635-6629.

22, Basically Bats 7-9 p.m.: The only true flying mammals are often misunderstood and feared, rather than appreciated for their prowess as our best natural insect predators. Interested? Come and learn some bug biology. Somerset County Environmental Education Center. (908) 766-2489.

23, Hike to the huts. 1:00 p.m.: It's exercise and education all in one trip as you join the park historian on a guided hike from the Visitor Center to the Soldiers Huts and back again along the yellow trail. Learn about such varied topics as the winter encampment, an 1890's aqueduct system, the Civilian Conservation Corps, and the development of Morristown National Historical Park. The hike is approximately 2 miles long and should last about 2 hours. Jockey Hollow Visitor Center. (973) 539-2016.

25, Round the World. 4 p.m.: Travel around the world with a naturalist and explore the many different habitats on planet Earth. Somerset County Environmental Education Center. (908) 766-2489.

29, Night Hike at the Swamp. 7:30 p.m.: Join naturalists for a night-time stroll through the swamp, while you listen for the sounds of frogs, owls, and flying squirrels. Morris County Great Swamp Outdoor Education Center. (973) 635-6629.

June

5, Fishing Derby. 10:00 a.m.-1:00 p.m.: Join us for the third annual fishing derby for kids under 16. Poles will be available – or bring your own. The pond will be stocked with fish from the NJ State Department of Fish & Wildlife. Southard Park, North Maple Avenue, Basking Ridge. (973) 425-9510.

19, H2O Hoopla. 2 p.m.: A fun, educational way to learn about water and the critters that live in it. Wear appropriate footwear. Free. Morris County Great Swamp Outdoor Education Center. (973) 635-6629.

July

4, Warm-up for the Declaration. 1-1:30 p.m.: Stories, riddles, jokes and an inspection of the troops are part of the warm-up activities prior to the reading of the Declaration of Independence. Ford Mansion Grounds. (973) 539-2016.

4, Public Reading of the Declaration of Independence. 1:30 p.m.: Celebrate the fourth of July the way our ancestors did, with a public reading of the Declaration of Independence. Cheer along with costumed park rangers as they denounce tyranny and praise liberty. Ford Mansion Grounds. (973) 539-2016.

Giving In A Way That Makes You Feel Good

By Bonnie Gannon

As a non-profit, member based organization, the Watershed Association relies on the generosity of members and other private supporters to fund our environmental programs. While writing a check to make a donation is always welcome, did you know that there are other ways that you can contribute to the Watershed Association?

Make a gift through your will and estate plans: Providing for the Watershed Association in your will, living trust, or other estate plan represents a gift that will help our future ability to preserve and protect Great Swamp for future generations.

Make a contribution of land: The Watershed Association encourages contributions of land. There are a variety of options for land donations including contribution, bargain sale, grant of conservation easement, and retaining life interest. Contributions of land qualify for tax deductions.

Contribute appreciated securities: If you own stocks, bonds, or mutual funds that have appreciated in value and are in a taxable account, you can completely avoid capital gains taxes and get a deduction based on the current market value of the contribution.

Create a deferred annuity: A deferred gift annuity can help you provide income for yourself and others during your retirement years while making an important gift to the Watershed Association.

Create a charitable gift annuity: A charitable gift annuity can help you provide fixed income for you and your family while making a major contribution.

Create a charitable remainder unitrust: This requires a minimum gift of \$50,000 for trusts established with cash or securities and \$100,000 for trusts established with real estate.

For more complete information and advice, contact your financial advisor or estate planner.

Business Members Offer Discounts

Local businesses have begun offering discounts to Great Swamp Watershed Association members. It's an effective way to encourage members to visit your store or sample your services, and we'll list your business in our newsletter. If you're interested, contact Development Director Bonnie Gannon at 973-966-1900 x 18 or bgannon@greatswamp.org.

Blue Ridge Mountain Sports on Main Street in Madison offers a 10% discount. 973-377-3301.

The Environmental Approach landscaping offers a 10% discount. 973-635-9404.

Moving On...

If you've ever visited our offices at 36 Madison Ave in Madison, you know that we've seriously outgrown them. The good news is that we've been offered the opportunity to rent a house in Jockey Hollow, from the National Park Service and expect to move there this June. The bad news is that because the house is vacant, we will need furniture and a wide variety of odds and ends. We can already begin storing things at the new place so, if you're cleaning out, redecorating, or upgrading, please keep the Watershed Association in mind...as always, contributions and donations are tax deductible. The kinds of things we'll need include: sofas, easy chairs, folding chairs, rugs, desks, file cabinets, shelving, refrigerator, dishwasher, and lamps.

Our Corporate Council

Atlantic Mutual

Briarpatch

Honeywell

Integrated Communications Corporation

Kings Super Markets

Maersk Sealand

Pharmacia

PSE&G

Schering-Plough

Wyeth

Business Membership Category Now Available

Development Director Bonnie Gannon is encouraging local businesses to become our community partners in helping protect the places you love and the water you drink. Membership is \$100 for businesses and will include listings in the quarterly newsletter and on our website. For more information, contact Bonnie Gannon, 973-966-1900 x18, bgannon@greatswamp.org.

Watershed's Restoration & Conservation Area Awakens For Spring

Annual Celebration

By Blaine Rothausen

Spring is on the verge of being called to order by those hairless sprites hiding invisibly in our native wetlands. For me it is an annual celebration, a holiday if you will, that reinvigorates my spirit and welcomes me back into the swamp. Visit our restoration and conservation area in Harding Township anytime March through May, especially during warm evenings, where you will be baptized in the amorous sounds of amphibian bliss.

The wet woodland complex that the Watershed Association holds stewardship over is riddled with waterfilled ditches, swamps, rivulets, and vernal ponds – inviting a guild of specialized creatures to do “the swamp thing”. Chorus, green, wood, spring peeper, and leopard frogs will be at the dance. Spotted, painted, snapping and wood turtles will be arriving soon, all with one wonderfully expressive purpose – the business of a new generation.

Melting snows, spring rains and warming temperatures drive the hormonal changes in these creatures resulting in a mass migration to their breeding spots. Some species strategically choose very specific temporary pools to meet and fall in love. These are called vernal ponds. The word vernal means springtime because this is the season these fleeting bodies of water appear. In order to be classified as vernal a pond must remain isolated from other bodies of permanent water or streams. Another characteristic of these habitats is that they are temporary or simply, ephemeral. Vernal ponds are attractive to all those specialized animals because they are generally devoid of breeding populations of predatory fish.

One common denizen of our northeastern wetlands is the wood frog and he only croaks his duck-like mating call in vernal ponds. If they lay eggs in a pond that dries up in a few months their tadpoles will avoid the wolfish effects of predators. The downside is that they must be a species that can go from egg to adult quickly in order to survive the ensuing dry-up. Wood frogs develop in a record breaking effort to beat the clock. From the time the eggs are laid in March to the time they metamorphose into land hopping froglets is a mere 95 days. Other species that are quick to develop and whose survival depends on the existence of vernal ponds (known collectively as vernal indicator species) are the blue-spotted, Jefferson's, spotted, and eastern tiger salamanders. Another species that associates with these ponds is a bizarre little crustacean known as a fairy shrimp. Swimming upside down and doing the backstroke with 10 pairs of leaf-shaped limbs this species sometimes clouds the water with eerily waves of movement. The first time I witnessed this I thought I was in a psychedelic sixties flashback.

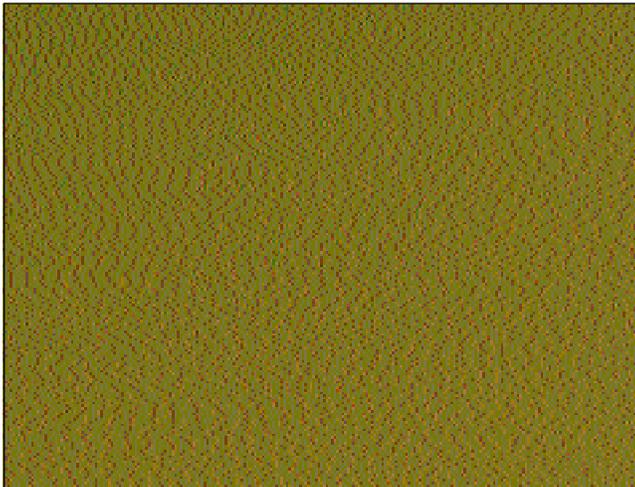
Without question vernal ponds are truly magical and mysterious oasis of life. These unique habitats are indeed testimony that you don't have to leave our galaxy to see alien life forms. Just grab a pair of hip boots and take the blue trail to the orange trail at the Watershed Association Restoration and Conservation area, bear right across the bridge and walk until you see a small side trail that quickly dead ends at a vernal pond. Here you might hear frogs barking like ducks (wood frogs), spots weaving below the waters' surface (possibly a spotted turtle), and sticks moving on tiny legs (caddis fly larvae) – all without the aid of mind enhancing drugs.

Before 2001 these ponds could be filled and developed – rendering whole populations of species doomed to that ignominious category we call extinction. Now the Department of Environmental Protection regulates these precious habitats and actively seeks help in identifying the ones that remain. If you or anyone you know suspects that a vernal pond exists on a property please notify the state Endangered and Nongame Species office and an expert

will come out to map it on a statewide database. The effort that has been ongoing will ensure their protection so that future generations may marvel at their biological treasures.



A vernal pond at the Watershed's Conservation & Restoration property.



A wood frog. Their breeding cycle is dependent on the temporary existence of vernal ponds.

Blaine Rothausen is a naturalist, photographer, and devoted volunteer at the Watershed Association Restoration & Conservation Area.

Staff Notes



The Watershed Association welcomes Project Director **Kelley Curran**. She joined the staff in January. A former volunteer, Kelley has several years of experience in environmental consulting and directs our stream monitoring program. Kelley holds an M.S. in Environmental Science from the NJ Institute of Technology, and a B.S. from

Kutztown University.

Congratulations to former Watershed Association staff member **Karen Patterson** and family on the birth of Finley West Greene, March 9. Fortunately he arrived a week early because he weighed in at 10 lbs, 9 oz and measured 22"! Karen, husband Jeff, big brother Ben, and Finn are all doing well.

Project Director **John Malay** attended the Annual Land Trust Rally in Trenton this spring where he and Watershed Association naturalist **Blaine Rothauser** made a presentation on invasive species.

Donations

Mrs. Ella A. Dubose in memory of Nancy Foster

Ms. Marion J. Kingsford in memory of Cosmo

Ms. Elizabeth Zanders in memory of Marguerite P. May



Contact us at 973.966.1900 or visit our web site at www.greatswamp.org

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Permit #2
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