



River Currents

June 2003

Issue 27



GEHWA Educates Visitors at Stockton Water Watch Forum

On April 13th, Fred Akers and Belinda Irizarry gave presentations at the Stockton Water Watch 2nd Annual Environmental Education Forum. Stockton Water Watch is an on-campus student group that promotes awareness of environmental issues.

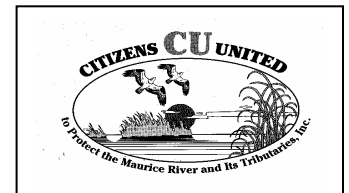
Belinda was there to pass along GEHWA's message through an interactive puppet show. With a set of fantastic animal puppets, a watershed "stage", and short carded scripts written for each animal, Belinda encourages children to step up to the stage and become an animal for a few minutes. As one of the animals, you tell the audience about yourself and what you need to flourish in nature. Of course, different animals have different threats to their existence, so a series of animal presentations educates and informs the audience and the performers about the various threats to wildlife and habitats.

Belinda has had a busy schedule this spring bringing the GEHWA puppet show into our local schools where it is always well received by children and adults. Everyone loves the beautiful puppets and wants to get into the act. If anyone is interested in having the show at his or her school, please have interested teachers contact Belinda.



GEHWA Members Welcome Jane Galetto

Jane Galetto, Citizens United to Protect the Maurice River and Its Tributaries, Inc, received a warm welcome from attendees at the GEHWA bi-monthly members' meeting on May 27th at the Fox Nature Center. Jane has been actively involved in resource protection for many years and was instrumental in getting the Maurice River designated into the National Wild and Scenic Rivers System in 1993. Attendees enjoyed seeing the Down Jersey video produced by Citizens United and their partners and were anxious to learn more about the Down Jersey Teachers Curriculum and other activities of this non-profit organization. Many thanks to Jane for sharing her evening with us.



NJDEP Fines Property Owner \$50,000 for Illegal Waterfront Development – And That’s Not All....

Immediately ceasing further construction activities on two waterfront lots in Upper Township, Cape May County, the New Jersey Department of Environmental Protection (NJDEP) fined a private landowner for the unauthorized development of a single family dwelling and septic field.

The unpermitted development occurred in specially regulated lands under the Coastal Area Facility Review Act (CAFRA), including a coastal high hazard area, an erosion hazard area, a barrier island corridor and an overwash area. The property and the illegal activities impacted 4,000 square feet of waterfront property.

According to Commissioner Bradley Campbell, the property owner “knowingly bypassed development permits that protect coastal natural resources and the safety of those who choose to reside along New Jersey’s shores. Unchecked waterfront development can destroy vital wildlife habitat, increase water pollution, and in some cases cause personal injury or the loss of property from coastal storms, erosion and flooding.”

In addition to the \$50,000 penalty for CAFRA violations, the order requires that the waterfront property owner submit to the NJDEP a CAFRA permit application for the new dwelling and submit

a restoration plan to remove the septic field and restore the site to its pre-disturbance condition. The plan must be approved by the NJDEP.

The CAFRA law regulates almost all development activities involved in residential, commercial, or industrial development, including construction, relocation, and enlargement of buildings or structures; and all related work, such as excavation, grading, shore protection structures, and site preparation within the coastal zone.

While this particular property is not located within the Great Egg Harbor River corridor, once again we are reminding waterfront property owners that they must contact the NJDEP and the US Army Corps of Engineers (USCOE) prior to undertaking any work. Contacting the NJDEP and USCOE first can save a lot of time, aggravation, and expense. Also...remember that the liability for a violation on your property for work performed without the benefit of a state and/or federal permit is transferred to the next property owner that purchases your property. Caveat Emptor!

Call the Land Use Regulator of the Day at NJDEP at (609) 292-8262 or the USCOE at (215) 656-6725 and ask how to proceed BEFORE you do the work!



Partners Join Forces to Gain Recognition

On April 11th a coalition representing all of the Partnership Wild and Scenic Rivers met with Fran Mainella, Director of the National Park Service (NPS) at her office in Washington, DC. The mission was to present our program accomplishments and to encourage her support for the implementation of full program funding for all the rivers at \$1.5 million. The Partnership Wild and Scenic Rivers Program is an intelligent and cost-effective way to conserve hundreds of miles of rivers and thousands of acres of riparian land by paying only a small fraction of the full cost. Our coalition was well received by Ms. Mainella and she was impressed with how we have been successful in leveraging partnership funding and achieving resource protection without federal ownership of property.



The Partnership Wild and Scenic Rivers program has been growing and currently includes the following rivers: Farmington River, CT; Great Egg Harbor River, NJ; Lamprey River, NH; Lower Delaware River, PA

& NJ; Maurice River, NJ; Sudbury, Assabet & Concord Rivers, MA; White Clay Creek, DE; and the Wekiva River, FL.



Canadian Geese Get Attention in Weymouth

Everyone who lives or even travels along the Great Egg Harbor River recognizes the abundance of Canadian Geese and their lingering effects. The geese no longer migrate and have become year-round residents much to the chagrin of area property owners. Once thought of as unique, the abundance of these birds that never seem to leave has become a nuisance. Some municipalities have tried all different techniques to thwart the Canadian Geese from taking permanent residence on lakes and waterways.

Responding to complaints, Weymouth Township tried to do something about the goose issue when local officials considered an ordinance that banned feeding of all wild animals. The ordinance generated considerable debate and a decision on the ordinance was eventually postponed. Some waterfront property owners were relieved and promised to curtail their goose-feeding activities.



Folsom on the Move...



● Folsom Receives A Grant for Stormwater Work

The Borough of Folsom received a \$52,440 federal 319(h) grant for stormwater cleaning and maintenance as part of non-point source pollution control. When the Watershed Management Area #15 project got underway with a call for “Action Now Projects” in 2001, Folsom was really on the stormwater ball when they wrote up a project request for financial assistance for stormdrain cleaning and maintenance to control storm water runoff and the pollution that can come with that from road salts, sediment, and other non-point source pollutants. This project was well written and fit in so well with the NJDEP’s federal Clean Water Act enforcement program, that the NJDEP decided that it qualified for federal funding instead of WMA-15 funds. The project received approval and is now being implemented.

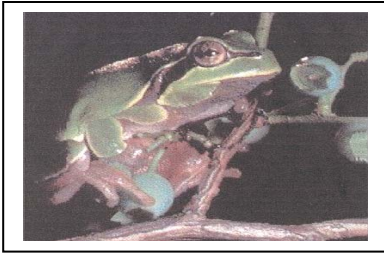
With the coming of the new state stormwater rules and municipal stormwater permits and stormwater management plans, Folsom is now well positioned to implement a major component of their stormwater management plan with much less financial impact than other local municipalities. This demonstrates sound management, planning, and initiative, and should serve as a positive example to other municipalities of how to achieve federal assistance to protect and improve local water quality.

● Pennypot Gets A Facelift from Folsom Residents

Folsom neighbors tired of looking at the trash and debris left behind by storms and litter bugs, organized a mini cleanup on May 17th. The focus of their attention was the Pennypot section of Folsom along with all of Eighth Street from Route 322 to Fifth Road. Approximately six large bags of mixed trash and recyclables were collected and picked up for disposal by the Borough of Folsom’s Department of Streets. GEHWA supplied the trash grabbers and the Folsom Environmental Commission supplied the gloves and other necessary items. Many thanks to Sue Chille who organized the event, Renee Rodio, Joel Spiegel, Mimi Vaccarella, Borough Councilman Gazzara and all the children who made a difference in their neighborhood.



Status of Pine Barrens Tree Frog Upgraded



The New Jersey Department of Environmental Protection (NJDEP) recently announced that the Pine Barrens Tree Frog will no longer be on the state's endangered species list. The frog's improved status as a threatened species indicates that it is thriving and its habitat is being protected. The successful protection of the Pine Barrens tree frog helps mark the 30th anniversary of the NJ Endangered Species Conservation Act and the creation of the DEP's Endangered and Nongame Species Program.

While their habitat is rare elsewhere, the million-acre Pinelands region of southern New Jersey is home to this special species that requires acidic water and favors Atlantic white cedar swamps that are carpeted with dense mats of sphagnum moss.



New Jersey and Delaware Join Forces to Protect the Delaware Bay Horseshoe Crab

The American horseshoe crab occupies a critical niche in both the ecology of the Delaware Bay and in human pharmacology. Each spring, as the crab comes ashore to spawn, its eggs provide food for hundreds of thousands of shorebirds flying north from South America to breeding grounds in the Arctic.



This winter, in response to an increasing decline in the Delaware Bay horseshoe crab population, the States of New Jersey and Delaware announced a joint Horseshoe Crab Management Plan that will reduce each state's annual harvest quota by half and prohibit all harvesting activities during the horseshoe crabs' prime spawning season from May 1, 2003 through June 7, 2003. Over the past three years, the concentration of horseshoe crab eggs on important shorebird feeding beaches in New Jersey has declined in some places by almost 50 percent. In 2002, on four out of five beaches in Delaware, the egg availability has declined between 35percent to over 93 percent. Consequently, the seasonal weight gains for Red Knots, a state endangered shorebird species most dependent on eggs available on the beach surface, have declined dramatically. The number of Red Knots reaching weights sufficient to make the trip to the Arctic has declined from 33,741 in 1998 to 5,376 in 2002.

In human medicine, the crab is bled to procure a compound that is used by the pharmaceutical industry to test intravenous drugs for dangerous bacteria. Current reports indicate that in addition to the estimated five to fifteen percent mortality caused by the biomedical industry during the crab bleeding process, another ten to fifteen percent of bled crabs are destroyed in the process of collecting, handling and shipping. The amount of crabs taken for the bleeding process on a coast-wide basis has increased from approximately 130,000 in 1989 to 300,000 today.

During the coming months and years, New Jersey and Delaware will be working with the biomedical industry to further protect horseshoe crab and shorebird populations. (Reprinted from the Spring 2003 issue of *Estuary News*)



FCC to Study Effects of Cell Towers on Migratory Birds

After years of allegations and complaints, the Federal Communications Commission (FCC) has finally agreed to work with the US Fish and Wildlife Service (USF&WS) to study why migratory birds fly into lighted communication towers. With over 100,000 towers in the US, the vast majority over 200', the USF&WS estimates that 5 to 50 million birds die each year as a result of these towers. The lights and guy wires required for towers over 200' appear to be the primary suspects for disorienting the birds resulting in their demise. The FCC's study of the effect of cell towers on the environment, migratory birds and historic sites will hopefully lead to better planning for the placement of communication towers in municipalities. The FCC intends to hire more staff, improve cooperation with industry, toughen enforcement of environmental rules and possibly change regulations.

The new Coastal Area Facilities Review Act (CAFRA) rules for Wild and Scenic Rivers, prohibit the placement of communication towers within the ¼ mile from the mean high water line in New Jersey rivers designated under the National Wild and Scenic Rivers Act. This provides considerable protection for both the Great Egg Harbor and Maurice National Scenic and Recreational Rivers in southern New Jersey.



Information of Interest

Storm Water Strategies CD-ROM Available

To help communities implement better storm water controls, the Natural Resources Defense Council (NRDC) recently released a CD-ROM version of its 1999 report *Storm Water Strategies: Community Responses to Runoff Pollution*. The new CD-ROM is very user friendly and includes updated case studies on storm water management issues (including new information on Low-Impact Development), Web Site links to storm water management leaders across the nation, and electronic navigational tools to locate information of particular interest to your watershed. For more information, visit the NRDC Web site at www.nrdc.org/publications, or call 212-727-2700.

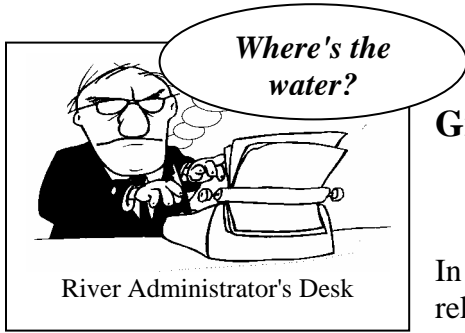
New Watershed Project Management Guide

The recently released *Watershed Project Management Guide* presents a four-phase approach to watershed management based on a collaborative process that responds to common needs and goals. The recommended process consists of a series of four basic phases: Assessment, Planning, Implementation, and Evaluation. The process can be used to meet load allocations required by

approved Total Maximum Daily Load (TMDL), goals of a source water protection plan, USDA programs (e.g., Environmental Quality Incentive Program), or Section 319 projects. To order, visit the web site <http://www.crcpress.com> or call 800-272-7737.

Federal Agencies Further Goal of No Net Loss of Wetlands

Last December the US Army Corps of Engineers and the Environmental Protection Agency, in conjunction with the Departments of Agriculture, Commerce, Interior and Transportation, released the National Wetlands Mitigation Action Plan. The action plan's 17 items will ensure effective, scientifically-based decisions about protecting and restoring wetlands and also expand access to information on these activities. Wetlands (e.g., marshes, bogs, and similar areas) are invaluable for ecosystem health, filtering drinking water supplies, retaining floodwaters, and supporting many types of wildlife. For a copy of the Plan, call (202) 564-9828 or visit the EPA wetlands web site at <http://www.epa.gov.owow/wetlands/>.



Ground Water Shortages: A Story of Net Loss, Shifting Base Lines & Misconceptions

By: Fred Akers

In many places in New Jersey, especially in the coastal plain, the public must rely on freshwater pumped up from the ground for drinking and other domestic uses. Since we cannot see or test it until it comes out of the pipe, how do we know how much we have, and whether it will be pure enough for us to use? As we plan for growth, smart or otherwise, we also need to ask whether there will be enough water for the future.

Currently the NJ Department of Environmental Protection (NJDEP) and the US Geological Survey (USGS) are struggling to employ sound science to answer all the questions, establish meaningful water budgets, and ensure the long-term survival of our groundwater supplies. This also means uncovering and correcting the mistakes of past planning.

In the past, as long as the rainfall exceeded total natural and human consumption, statewide drinking water supplies were thought to be sustainable. New Jersey's rainfall is fairly abundant at about 45 inches (114 cm) per year, and this amount greatly exceeds that which is consumed. Past wisdom accepted the existence of localized water shortages, by assuming that there would be water surpluses elsewhere, and that water could always be pumped from a region of surplus to one of deficit.

So everyone was building happily ever after -- until the ground water supply started going critical in parts of Burlington, Gloucester, and Cape May Counties, and other places in the state. Some wells went dry, and from others the water was starting to taste a little too salty. It was then discovered that in many places here in NJ we are pumping the water out of the ground far faster than it is being replaced or recharged. In fact, most groundwater aquifers used by the public have had declining water levels for many years. What happened to the water budget?

With the coming of Governor McGreevey and the Gibson Bill (which has funded a study to identify a sustainable water supply for Cape May County), the sun is beginning to shine on hydrologic science in our state. We are now being told by USGS hydrologists at public meetings, that the cleanest water that can be pumped with the biggest pumps without impacting the surface hydrology is so deep and so old that it cannot be recharged at anywhere close to the rate of its withdrawal. For example, the 800-foot Sands aquifer underneath Ocean, Atlantic, and Cape May Counties contains water that is 15,000 years old, and the hydrologic pressure in this aquifer, measured in vertical pressure head, has declined from about 20 feet above sea level in the 1890's to over 100 ft below sea level in some areas today. Pumping, and ocean discharging of sewage effluents, are causing a continual net loss of these prehistoric waters.

The New Jersey Coastal Plain is like a slanted layer cake of alternating layers of porous (water bearing) and non-porous (confining) soils, and the USGS is now endeavoring to age-date the different water layers to determine their rate of recharge. Even if the recharge in a given aquifer takes a mere 100 years, that may not be fast enough to sustain the existing demand, let alone accommodate more people and more consumptive uses.

Reservoirs and the surface aquifers will be looked to more and more as the best sources of water for human consumption, and to keep the local water budgets in balance, but there are already a myriad of problems that have diverted many big water suppliers to the lower, confined aquifers. Lower aquifers are drought resistant (until they dry up), they are protected from surface pollution sources, and they are not directly affected by high

percentages of local impervious surfaces. Their confining layers protect the surface water of ponds and streams and the surface aquifers from being sucked dry.

The current and growing focus on stormwater management and aquifer recharge will be extremely important for the future of our water supplies. But stormwater will not contribute to the lower, confined aquifers unless we pump it down, under pressure, or wait for a few hundred or thousand years for it to get there. In several of the critical water supply areas there were moratoriums on withdrawals, and whereas the water levels have begun to increase in response to the reduced pumpage, they are nowhere near their original levels. The base lines have shifted.

Water conservation is needed -- to save as much water as possible through efficient and intelligent use. There are many ways to implement conservation, and these will ultimately require a high level of cooperation among local, regional, and state jurisdictions. One major consequence of our water shortages is a clear and present danger to all the non-human animal, plant, and other species that constitute the natural ecology. We saw during the 2001-2002 drought how reservoir releases promised to rivers and streams were cut back. As reservoir and river waters are siphoned off for human consumption, discharged pollutants will become more concentrated. The budget decisions for water allocation between man and nature will become much more pressing, and nature will most likely be the loser.

As the Gibson study gets moving and other areas of the state begin serious consideration of long-term water supply, the general public needs to realize the importance of making decisions based on carrying capacity. As we conduct build-out analyses of our communities, we must change zoning densities if the water supply isn't there. If streams or surface aquifers are being polluted, we should add to the buffers and take other remedial steps. Now is the time to scrutinize our water budgets -- for our families and for our future.



Let It Flow - Permeable Pavements Prevent Water Runoff

By: Phoebe Hall

It happens every time it rains. Water runs down driveways and sidewalks, cascades across parking lots, courses through streets, all flowing toward the nearest gutter, retention pond or river. As the rain persists and reservoirs back up, homes, businesses and roads take up the slack. The result? Hydroplaning cars, flooded basements, and sometimes – as in the case of Europe last summer – staggering economic losses.

Most flooding, after rainstorms and snowmelts, could be avoided – if the water was allowed to seep into the ground as nature intended. But the ever-sprawling pavement of our increasingly urban and auto-dependent society blocks that natural absorption. And runoff doesn't just swamp our homes and streets. As rainwater sweeps across roads and driveways, it carries with it oil, fertilizers, soaps, pesticides, even bacteria-laden pet waste. It tears loose soil and silt, causing

erosion. All these contaminants wind up in storm drains, where they usually travel untreated into the nearest river or lake.

Polluted runoff has serious consequences for the health of our waterways, wildlife and ourselves. The Wisconsin Department of Natural Resources links it to habitat destruction, the death of fish and other aquatic creatures, diminished drinking water quality, and river and lake siltation. The US Global Change Research Program blames coastal runoff for beach closings, coral reef die-offs and “dead zones”, including the New Jersey-sized expanse choking out life in the Gulf of Mexico.

According to an estimate by Barbara Johnson of the Kansas State University Home Assessment System (Home*A*Syst), one inch of rain falling on an average home's 1,500 square feet of pavement produces approximately 900 gallons of runoff.

Fortunately, homeowners can take steps to reduce their property's impact. Permeable pavements allow water to drain through a driveway path or patio into the soil below. "Then, as the water moves down into the ground, many of the pollutants traveling in that runoff can be filtered out," explains Alyson McCann of the University of Rhode Island's Home*A*Syst. And as the filtered runoff enters the groundwater supply, she adds, it increases the amount of drinking water available.

Letting Water Flow --- Permeable pavements come in a wide variety of materials and prices, requiring different amounts of maintenance. Gravel, wood mulch and crushed seashells are cheap and easy to install, though McCann warns that they must be periodically raked back into place, and must be replaced altogether every few years. "But you also need to resurface a traditional driveway occasionally," she points out.

Reasonably hard surfaces can be created for a relatively low cost by putting down a bed of sand, adding a layer of pea gravel, and topping it with crushed limestone. Placing widely spaced bricks or concrete slabs, and filling in the gaps with sand or grass, is another simple solution. Paving blocks, such as Uni-Eco Stone, look like traditional cobblestones or bricks but have channels that funnel water in between each block into underlying sand and gravel.

For a truly green driveway, why not park on the grass? Several companies, such as Invisible Structures, make plastic grid systems that allow grass to grow through or to be planted on top. The grids (sometimes made of recycled materials) prevent erosion and bear the weight of vehicles so grass roots aren't crushed. Lattice-shaped paving

blocks made of stone or brick create a similar effect.

Porous asphalt and concrete look just like the real thing, but fine materials are left out of the manufacturing process, leaving spaces in the pavement through which water can pass. Porous asphalt also uses less tar (a petroleum product that can vaporize in the sun and pollute the air) than regular asphalt. Rebecca Winer of the Center for Watershed Protection (CWP) in Maryland warns, however, that these materials are quite costly and require regular maintenance to keep the surface free of clogs.

Permeable pavements cannot be used in all situations. CWP recommends against using them on soils with high clay content that would limit water absorption, or on sites that are close to the groundwater supply, which could be polluted if too little soil lies between the pavement and the water table. Some loser pavement materials would also limit wheelchair accessibility.

Installing a permeable driveway, walkway, or patio may be more expensive than traditional materials and may be more work. But as McCann puts it, "When you consider the cumulative environmental total of all homes, one home *does* make a difference." Contact: CWWP (410) 461-8323, www.cwp.org; Invisible Structures, www.grasspave.com; National Home*A*Syst (608) 262-0024, www.uwex.edu/homeasyst; Uni-Eco Stone, www.uni-groupusa.org.

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Date To Remember:

Tuesday, July 22nd

6-9PM GEHWA Pot Luck
Picnic & Evening Walk.

Meet at the Fox Nature
Center, Rte. 50 in Estell
Manor Park.

Calendar of Events

July 4th, Friday
Hammonton 4th of July Celebration
4PM – 9PM; Hammonton Lake Park

July 6th, Sunday (Raindate: 7/13)
Buena Vista Twp. Annual Independence Day Celebration; 11AM to Evening – Fireworks
Michael Debbi Park, Richland

July 22nd, Tuesday
GEHWA Membership Potluck Picnic & Evening Walk; 6PM – 9:00PM; Warren Fox Nature Center; Estell Manor Park; Call Belinda for details.

July 24-27th, Thursday to Sunday
Gloucester County 4-H Fair
All Day - 4-H Fairgrounds; Mullica Hill

August 2nd, Saturday
FantaSea Festival; 10AM – 4PM;
Veteran’s Bicentennial Park; Beach Haven, NJ
Alliance for a Living Ocean presents the third annual FantaSea Festival featuring a juried Arts & Crafts Show; Food Vendors, Contests, Touch Tank, Puppet Show, Kid’s Crafts and information tables.

- ** **Gloucester Co. Federation of Watersheds** – 4th Thursday of every month; 7PM; Scotland Run Nature Center
- ** **Great Egg Harbor NS&R River Council** – 3rd Wednesday of every month; 7PM; Fox Nature Center
- ** **Great Egg Harbor Watershed Association** – 4th Tuesday every other month; 7PM; Fox Nature Center; Estell Manor Park; Jan/Mar/May/July/Sep/Nov 2003

For more information on events and programs: Call (609) 567-4762; www.greategg.org or e-mail gehwa.gehwa@verizon.net.

REMEMBER – If you become aware of an environmental incident, call the NJDEP’s 24-hour, toll-free hotline which is **1-877-WARN-DEP**.

Telephone Numbers to Remember:

Great Egg Harbor Watershed Association
P. O. Box 900; Hammonton, NJ 08037
e-mail address: gehwa.gehwa@verizon.net
Internet address: www.greategg.org

Julie Akers, President (856) 697-6114
Belinda Irizarry, Coordinator; (609) 567-4762

Great Egg Harbor River Administrator
Fred Akers, (856)-697-6114; Akers@gowebway.com

National Park Service
Mary Vavra (215) 597-9175; mary_vavra@nps.gov

NJDEP Watershed Management Office
Adriana Calle (609) 777-0586

Atlantic County Department of Planning
Bob Lindaw (609) 645-5898

NJDEP Hotline - 1- 877-WARN DEP

US Army Corps of Engineers
(215) 656-6725

NJDEP Regulatory Office for Atlantic Co.
(609) 292-8262

NJDEP Enforcement Officer
Kevin Brown (732) 255-0787

Membership Information

Your membership assures our survival as a non-profit advocate for the Great Egg Harbor River and Watershed. Without you, we could not exist. Thanks for your support.

Name/Organization: _____

Street Address: _____

City, State, and Zip: _____

Phone Number: _____ e-mail address: _____

Annual Membership: Individual: \$7; Family: \$15; Supporting: \$20; Patron: \$50; Corporate \$100

_____ Check here if non-profit organization

Please mail this form along with your check to: Great Egg Harbor Watershed Association, P. O. Box 900
Hammonton, NJ 08037