



River Currents

August 2003

Issue 28

GEHWA MEMBERS ENJOY SUMMER ACTIVITIES



GEHWA Kids Take A Tour of the River

After two weather cancellations, the GEHWA Kids Tour left Somers Point on July 12th under sunny skies and without a hitch. There were an inexhaustible number of questions as kids traveled on the Duke O' Fluke under the capable hands of Captain Brooke Koneke. The focus of the GEHWA-sponsored river trip was to provide both an educational and entertaining experience for the children. Adults were relegated to the front of the boat where they were free to socialize with one another while the children were entertained with a scavenger hunt. Thanks to Belinda Irizarry, GEHWA's Education Coordinator, and Jason _____, of Alliance for a Living

Ocean, the children enjoyed activities that centered around the ecology of the river and, of course, they did not leave empty handed as their sacks were full of information, treats, and special prizes.

Education...Education...Education...

Belinda Irizarry provided education materials and a biodegradable free craft at Buena Vista Township's July celebration. After making all the crafters say "biodegradable" and listening to her explain its meaning, she helped them fill peat pots with dirt. The pots were then wrapped in pieces of biodegradable leaf trash bags made from corn. Add seed, a gift tag, and a bow made with biodegradable twine and kids left with a smile on their faces and the knowledge about how things grow and that nature supplies alternatives that can be used for all kinds of activities.



In addition to this event, GEHWA is represented at many environmental fairs throughout the year to inform people about the organization, the river, and the importance of the watershed. Belinda also travels to area schools with her traveling puppet show which was showcased in the June newsletter.

Fact

Colonial New Jerseyans celebrated their independence in a state with double the amount of wetlands that remain today.



GEHWA Pot Luck Picnic

Adults and children shared food, conversation and each other's company on Wednesday, July 22nd, at the Fox Nature Center. After a delicious meal, and lathered with enough insect repellent to ward off even the smallest of creatures, interested people took an evening walk along the boardwalk in Estell Manor Park. Hikers were treated to night sounds in an incredible environment and learned more about the park, its history and its inhabitants.

Steve Eisenhauer to be featured GEHWA Speaker in September

We are pleased to announce that GEHWA Trustee Steve Eisenhauer will offer us a special presentation for the September 23 membership meeting. Steve, who is the Assistant Director of Stewardship and Protection for the Natural Lands Trust, will present an aerial-view comparison of the Great Egg Harbor and Maurice Rivers: New Jersey's first two "wild and scenic" rivers. A slide show will describe the two rivers and suggest similarities and differences. Input from the audience will hopefully fill in some of the missing pieces of information, such as: why were diked farms so common on the Maurice River but relatively scarce along the Great egg Harbor River? Please join us for the 7pm meeting at the Warren Fox Nature Center.

SCIENCE AND HISTORY EVENT

The 20th annual meeting of the Geological Association of NJ will be held on October 10th and 11th, hosted by Richard Stockton College. The topic of the meeting will be: **Periglacial Features of Southern New Jersey and adjacent areas.** Dr. Hugh French from the University of Ottawa, and GEHWA Trustee Mark Demitroff, have authored papers on this subject and will lead a fieldtrip. For more details, go to: http://loki.stockton.edu/~hozikm/GANJ/ganj_xx.htm

NJ Facts

- New Jerseyans as recently as 1950 celebrated July 4th in a Garden State with double today's amount of farmland.
- Today, New Jersey converts an estimated 18,000 acres each year to development, with 10,000 of these acres being lost farmland.

Helpful Water Fact

Keep your pipes odor free! Once a month, pour one cup baking soda followed by one cup vinegar down the drain.



THE PINELANDS COMPREHENSIVE MANAGEMENT PLAN: WILL IT WORK TO PROTECT THE GREAT EGG HARBOR RIVER?

By: Fred Akers

Most folks know that the Pinelands here in New Jersey is a special place with lots of clean water and trees, and that about 20 years ago there were rules, regulations, and a management plan established to protect this globally unique place from being substantially degraded by “over development”. This plan created a system of zones to control development density, and the size of the zones in number of acres was primarily determined by the sensitivities of the adjacent forests, the risk of groundwater contamination by nitrogen from land uses, and the need for development.

Of course the protection of the many Pinelands rivers and streams was also an important consideration in the plan. The fact that the Great Egg Harbor River is one of the highest quality natural river systems on the East Coast, combined with the fact the river was in the Pinelands and already protected for future generations by the Pinelands Comprehensive Management Plan (CMP), the federal government promoted the designation of segments of the river and its tributaries as components of the National Wild and Scenic Rivers System in 1992.

So now that the Great Egg Harbor River has its own Comprehensive Management Plan, which incorporates by reference the Pinelands CMP, just how good are these plans for protecting the river, and who is ultimately responsible? Since New Jersey is fundamentally a “home rule” state, the primary agencies responsible for the implementation of both plans are the local municipalities, who have agreed to adopt the Pinelands zoning rules and be a partner to the protection of the Great Egg.

But what about growth and development in the Pinelands, economic vitality, civilization and progress? To accommodate these needs, the Pinelands Plan allowed for higher development densities in certain areas labeled Regional Growth Areas, and for the last 20 years these areas have received extensive development. They now face many of the serious problems and negative impacts of over-development and sprawl. Meanwhile, the Great Egg Harbor River flows through several of these Regional Growth Areas and now shares some of the negative impacts involved. In particular, non-point source pollution, excessive stormwater discharges, and decreases in groundwater recharge caused by impervious surfaces are reducing water quality and quantity.

Given these problems and challenges, the Pinelands Commission is working to continue its implementation of protection by formally reviewing their Comprehensive Management Plan’s vision, goals, and initiatives to guide future Pinelands protection efforts. The Commission has just completed its third Plan review in 20 years, and directed considerable focus on the critical issues in the Regional Growth Areas. Included in this just completed Plan review is this Regional Growth Area Vision: “Regional Growth Areas are areas of existing growth or lands immediately adjacent thereto that are capable of accommodating growth influences while protecting the essential character and environment of the Pinelands.”

I can think of no better way to protect the essential character and environment of the Pinelands in the Regional Growth Areas than to protect the Great Egg Harbor River, its Federal boundaries, and the recommended Local River Management Boundaries as established in the Great Egg Harbor River Management Plan. Active protection of Pinelands rivers and streams, wetlands and wetlands buffers, and water quality and quantity, will go a long way to protecting the essential character and environment of the Pinelands, especially in the

Regional Growth Areas.

The Great Egg Harbor Watershed Association and the National Park Service are committed to the long-term protection of all the natural resources of the Great Egg Harbor River. We encourage the Pinelands Commission to implement their very proactive and ambitious vision, goals, and initiatives to guide future Pinelands protection efforts. We encourage the local Municipalities to support the most protective zoning possible for the river. We look forward to our continued partnerships with the Commission and the local Municipalities to make the Pinelands Comprehensive Management a long-term success to protect the essential character of the Pinelands as well as the essential character of the Great Egg Harbor River.



shrimp.ccfhrb.noaa.gov/gif/phrag.jpg
Excerpted from the Nat'l Agricultural Library
for the National Invasive Species Council

***Phragmites*: A Tale of Two Strains**

By: Ann Faulds, PA Sea Grant and Kirstin Wakefield, PA
Coastal Zone Mgt. Program

(Reprinted with permission from the Spring 2003 issue of Estuary News)

In recent years, wildlife managers have villainized *Phragmites*, the common reed, as a fast invading exotic marsh grass. Once established, it was thought to render marshes barren of wildlife and plants. As a result, many restoration programs seeking to combat the aggressive invader and re-establish native cattails and *Spartina* grasses have relied on drastic, expensive and long-term projects. But with the discovery of North American strains of *Phragmites*, and scientific evidence supporting the nutritional value of *Phragmites* to Delaware Estuary finfish, many managers are rethinking their view of this costly, exotic invader.

The common reed, or *Phragmites* is a tall, handsome, perennial grass. Germinating in new locations from wind and waterborne seeds, it can spread quickly by sending out side shoots, or rhizomes. It is unusual among grasses in its ability to colonize a wide range of habitats, including fresh and brackish waters. It often forms dense colonies along the borders of lakes, ponds, and rivers. Broad environmental tolerance, combined with a propensity to crowd-out competitors, enables *Phragmites* to enjoy a cosmopolitan distribution throughout North American marshes.

Although the *Phragmites australis* found in North America is commonly considered a foreign species, fossil records indicate the reed has been present on the continent for more than 3,000 years. In fact, many Native American tribes gathered the plant stems for arrowshafts, cigarettes, flutes, whistles, pipe stems, matting and other purposes. By the 1800's, however, botanists were describing *Phragmites* as a rare or uncommon species. How could such rare species spread so aggressively in the 20th Century? Recent research is beginning to shed light on this question.

In a 2001 study, scientist Kristin Saltonstall reported that the recent, improved vigor of *Phragmites* is likely due to a "cryptic invasion" – a biological invasion that is difficult to distinguish because exotic strains so closely resemble native species. Saltonstall's DNA analyses corroborate that an introduced strain of *Phragmites* has displaced native strains and is expanding into regions previously devoid of *Phragmites*. Thus, it appears that the foreign, and not the native strains, possess the propensity to colonize wetlands historically uninhabited by *Phragmites*.

Also aiding *Phragmites* in its rapid march across America is the fact that the nonindigenous strain is also a superior competitor in disturbed habitats, ie, dredged, filled, or reconstructed wetlands. Rapid coastal population growth and associated changes in land use patterns have played a key role in range expansion, particularly in the northeastern United States.

So, in light of Saltonstall's discovery, is *Phragmites* really a worthless species to be removed at any cost? The answer to this question, which once seemed black and white, has become a lot more complicated. Only additional research and time will tell. In the meantime, managers must weight both sides of the equation: the costs and benefits of *Phragmites* removal.

Pro-removal Arguments

***Phragmites* is a threat to biodiversity that warrants drastic removal measures**

- ◆ *Phragmites* establishes dense monocultures, which displace a variety of active wetland grasses and plants.
- ◆ Dense *Phragmites* stands can alter marsh structure trapping sediment and filling-in the rivulets and puddles that are important nursery areas for fish and other small creatures.
- ◆ Native *Spartina* and cattail marshes have more habitat complexity and are richer in plant and animal species.
- ◆ *Phragmites* marshes are generally barren of plants and wildlife, particularly waterfowl.

Anti-removal Arguments

***Phragmites* marshes are valuable, productive ecosystems that are part of our native heritage. The effectiveness of removing *Phragmites* from wetlands is questionable.**

- ◆ Native *Phragmites* strains have been part of our North American plant heritage for thousands of years and should be protected.
- ◆ *Phragmites* decomposes to provide food particles for tiny animals, which in turn, become important food to support finfish. Moreover, the nutritional value of *Phragmites* and *Spartina* leaves is comparable.
- ◆ Marsh restoration efforts to remove *Phragmites* are costly and long-term. Even after prescribed burning or herbicide treatments, *Phragmites* may recover quickly and at a higher density.
- ◆ Since recent studies have shown that *Phragmites* marshes are not worthless and devoid of life, funds might be better spent implementing other restoration measures.

Controlling *Phragmites*

Habitat managers have tried many techniques to control *Phragmites* infestations. From mowing, to disking, to burning, to drowning, to chemical control – the list goes on and on. As a homeowner, what can you do to remove problematic *Phragmites* from your backyard? Below are several techniques that can be effective in small areas.

- ◆ **Chemical Control** – Glyphosate-based herbicides, like Rodeo, can be effective in managing *Phragmites* populations. They can be applied large-scale or as a spot treatment by hand or backpack sprayer. Although Rodeo is not selective in killing grasses and broad-leaved plants, it is virtually non-toxic to aquatic animals once it bonds to plants or soil. (Try to prevent spraying directly into waterways where it could be toxic to macroinvertebrates). Success of these herbicides depends highly on *Phragmites* growth stage, population size, and the absence of wind or rain that may dilute chemical concentrations. Rodeo has been shown to be more effective if sprayed two weeks after cutting or mowing. Before you spray, always consult the labels on your herbicide

products.

- ◆ Mechanical Control – Cutting *Phragmites* can help manage the size of the population, but timing is critical to minimize regrowth and stand density. Eradication generally requires annual cutbacks and shoots must be properly disposed to prevent sprouting in treated areas.
- ◆ Covering *Phragmites* stands with plastic sheeting is less labor intensive than cutting, but stands must first be mowed or burned to reduce plant biomass. To create a plastic barrier, secure a length of 6mm black plastic with stakes or sandbags. This will result in temperature increasing under the barrier, effectively killing surface growth.

You may also find that a combination of the above techniques is a more effective tool for eradication. But whichever method you choose for control, remember that frequent monitoring will help prevent re-invasions. With a little TLC, native vegetation will re-colonize from dormant seeds and tubers in the soil.

Conclusion

While more information is needed to help manage the common reed, a few prudent removal guidelines should be followed:

- * Because control in the first year of the invasion is often more feasible, it makes sense to control new invasions of *Phragmites* in newly created wetlands or wetlands that have suffered a soil disturbance. Older invasions should be decided on a case-by-case basis, comparing all the ways in which restoration dollars might be spent.
- * Also, mechanical control methods should be used whenever possible to avoid negative impacts to aquatic plants and animals.
- * Finally, with the virtual elimination of native *Phragmites* across New England, if new native stands are identified, they should be protected – Wait, protecting *Phragmites*? What’s the world coming to? Just remember, it’s not all bad!

If you are uncertain whether your *Phragmites* is native or invasive, Cornell University offers a free diagnostic service. Visit www.invasiveplants.net for more information. For a listing of the references used in researching this article, please visit www.pserie.psu.edu/seagrant/communication/communication.html

Pinelands Watch: Action in the Pinelands

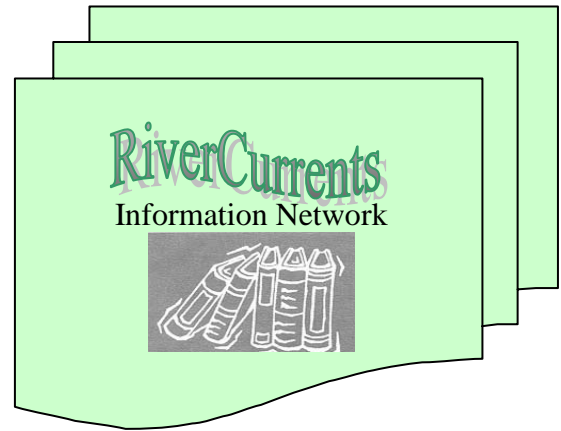
The Pinelands Preservation Alliance’s (PPA) Pinelands Watch project is a network of citizens who actively monitor their townships and help shape planning and development. The Pinelands Watch publication provides important details and insights about specific issues and high profile proposals.

A growing network of well-informed, active citizens is helping to ensure that development proposals get the kind of scrutiny they ought to get while they are still in the proposal stage. Vigilant, concerned citizens have the opportunity to shape the future of their towns if they get an early start. PPA can help. If you monitor development proposals in a Pinelands Township, join the Pinelands Watch network and keep PPA posted. Contact PPA at (609) 894-8000

Database on State Water Quality Standards and Designated uses

EPA is developing an online National Water Quality Standards Database (WQSDB) to improve public access to information about how waters were being protected and to empower the public to better understand how actions in their watershed can help or harm those waters. The first phase will allow users to access information on “designated uses”. These uses, which the state sets, describe the functions that each waterbody is intended to support (e.g. swimming, fishing, drinking water). The second phase of the WQSDB will add numeric “water quality criteria” representing the quality of water that supports particular uses. When completed, the WQSDB will allow access to maps and tables for all of the approximately 2.7 million surface waterbodies across the nation. You can visit the database at <http://www.epa.gov/wqsdatabase> or download fact sheets at

<http://www.epa.gov/wqsdatabase/demo/docs/wqsrep/pdf>. and <http://www.epa.gov/wqsdatabase/demo/docs/wqsdatabase.pdf>



NOAA Web Site Consolidates Funding Information

The National Oceanic and Atmospheric Administration’s Coastal Service Center site now offers coastal managers information on grant-funding opportunities provided by the Center and other relevant organizations. This site also provides links to many free resources, including articles, tutorials, and tips to help managers and staff through the grant-writing process. Visit the Coastal Service Center’s Web site at

<http://www.csc.noaa.gov/text/grant.html>.

Funding Available for Consensus-Based Environmental Decision-Making

Applications are now being accepted for The Laura Jane Musser Fund Environmental/Community Initiative, which encourages communities to use a consensus-based approach to environmental decision-making. The fund will consider requests that propose a process or initiative in a rural or non-urban community that develops a stewardship program through a consensus-based approach. Projects should preserve and manage a significant natural resource, or use a consensus-based approach to resolve an environmental issue or dispute. Proposals are due September 15, 2003. For more information, click on the following URL:

<http://www.lgean.org/html/whatsnew.cfm?id+615>

Searching for Funding, Have a Regulatory Question or Need Other Help?

Ask LGEAN. Ask LGEAN is a free resource designed to help local officials resolve difficult environmental questions. City and County officials can contact LGEAN via the Web site, a toll-free telephone hotline (877/TO-IGEAN) or via e-mail (lgean@icma.org). LGEAN answers questions about funding, regulation compliance, environmental liability, and all other aspects of environmental management. For more information, click of the following URL:

<http://www.lgean.org/html/asklgean.cfm>.

Protecting Riparian Corridors

Fact:

Every yard is in a watershed. A watershed is like a funnel. It catches water from everywhere on land and collects it in the waterbody at the bottom of the hill.

Experience and science tell us that a stable, balanced river – that is, one that is just wide enough, deep enough and long enough to move the right amount of water and gravel, generally will not erode its banks and change course, even in flood situations. However, if a river becomes ‘unbalanced’, then it will change course, slope, depth, or width, - or all four – until it becomes balanced again.

An important way to keep rivers from becoming unbalanced or to allow them to re-establish balance is to protect their ‘riparian corridors’ – the river channel, the banks on either side and the areas close to the river that carry excess water during storms and heavy rain.

Degraded riparian corridors increase the risk of damage from flooding to our communities – and it’s an expensive risk. Much of this damage occurs where rivers have been separated from their flood plains by some kind of development, or where rivers have been adjusting their length, depth or width because activities in the river or on the banks have caused a river to become unbalanced and destabilized.

The dollar cost of such damage may well be equaled by other economic losses including diminished recreation opportunities, impaired ecological functions, and long-term channel instability.

Since waterways and rivers don’t recognize state and municipal boundaries, addressing issues and fixing problems that affect our waters needs to cross political boundaries. It is critically important for each municipality to recognize that the decisions they make about their section of the river and watershed affect people downstream. Resolving problems requires a community, local, state and federal partnership that can work in natural watersheds to protect riparian corridors across political boundaries.

Until recently, river management has largely focused on water and how to contain or withstand its flow. Throughout North America river scientists and managers are now bringing the principle of river “stability” into the management of river corridors.

This has meant understanding that human activity near rivers must not only withstand the forces of running water but must avoid changing *the movement of sediment* in the river in order to remain secure.

Stream or river channels are a reflection of what goes into them (water, ice, sediment, and woody debris) and the valley type within which the stream is located. The shape of a river channel including its dimension (the width & depth), its pattern (or plan form) and its profile (or slope) is developed and maintained over time by the action of water, sediment and debris that drains from the surrounding area. This ‘channel forming flow’ is approximated by the average annual high water event, which, by virtue of its frequency, does the greatest amount of “work” on the channel and flood plain and transports the greatest volume of sediment over time.

Stable rivers are recognizable by their ability to carry water, sediment and debris, even during high water, without changes occurring in the depth, width or length of the channel. Human land use, especially within riparian corridors, that significantly alters the runoff patterns of water **and** sediment will trigger a channel adjustment process. When these processes change the relationship of the river with its flood plain (by aggrading or degrading) it becomes increasingly difficult to plan and very expensive to

maintain the

Tips for Conserving Water from the Hackensack Riverkeeper

of Natural Resources)

1. Water only when and where needed
2. Improve soil quality with compost for optimum water holding capacity
3. Use mulches around trees, bushes and shrubs
4. Plant low water demanding plants
5. Repair leaks in hoses and faucets
6. Collect rainwater, sump water, or water condensed by air conditioners for later use in the garden
7. Water early in the morning so little water will be lost to evaporation
8. Avoid sprinklers that spray a fine mist and watering while it's windy to reduce evaporation.

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

Calendar of Events

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.

August 20th and September 17th, Wednesdays

Great Egg Harbor NS&RR River Council

Meeting; 7PM - 9PM; Fox Nature Center; Estell Manor Park

August 26th, Tuesday

GEHWA Board Meeting; 7PM-9PM

Fox Nature Center; Estell Manor Park

August 28th, Thursday

Nighttime on the Beach; 8PM -9PM

Nature Center of Cape May

Join the staff of the Nature Center for a stroll on Cape

May beach to look for "nightlife". Meet at the Cape May

Migratory Bird Refuge (the Meadows) parking lot on Sunset Boulevard and bring a flashlight. There is a fee. Call (609) 898-8848 for information.

September 23rd, Tuesday

GEHWA Bi-monthly Members Meeting

7PM-9PM; Fox Nature Center; Estell Manor Park;

Featured Speaker: Steve Eisenhauer, Natural Lands Trust

October 12th; Sunday

Coast Day New Jersey - Cape May

Celebrate NJ's marine and coastal environment and all that it provides. You'll enjoy music, dock and ship tours, eco-tours and lots of "hands-on" family fun designed to help you learn more about New Jersey's 127-mile coastline. Meet scientists, researchers, educators, commercial fishermen and government agencies all on hand to tell you about their work and their programs. Best of all, you'll discover what you can do now to preserve and sustain our coastal environment for generations to come. For more information, call (732) 872-1300, ext. 22.

- ** **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.

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

