

RIVER RAPIDS

Quarterly Newsletter of the Delaware Riverkeeper® Network

Upcoming Events . . . Upcoming Events . . . Upcoming Events . . .



March 5 & 6

Schuylkill Watershed Congress
Montgomery County
Community College
Pottstown, PA

March 31

DRN's Annual Dinner
Hyatt Regency at Penn's Landing
Philadelphia, PA

May 7

DRN's Annual Native Plant Sale
Prallsville Mill
Stockton, NJ

For more news about Delaware Riverkeeper Network events, call 215-369-1188 or click on [Calendar](#) at www.delawariverkeeper.org

Looking at what 2005 may hold in store . . .

A letter from the Delaware Riverkeeper

Happy New Year to you all. I look ahead with great hopes and expectations for the future and for our beautiful river and watershed. Sadly, if we are to turn our dreams of the future into reality, we have our work cut out for us.

The Athos I oil spill is taking its toll. The River and tributaries have been inundated with some of the heaviest crude there is. The thick, tar like oil has contaminated waterways, portions of the River's bed, wetlands, sensitive riparian areas, and other important habitats. The Delaware Bay's populations of horseshoe crabs, waterfowl and other wildlife are suffering. Aquatic life from the bottom of the food chain all the way up to the bald eagles along the river has been harmed. There is much work to be done to address this catastrophe.

Whatever your politics, the likely agendas of our federal and state governments in 2005 raise major concerns and fears. The right of citizens to bring legal actions to enforce environmental laws, the cornerstone that underpins the work of our River Resources Law Clinic, is being readied for the chopping block. It is critically important that we successfully protect this fundamental right.

Key environmental laws, including the Clean Water Act, are being eyed for undermining. These attacks on our environmental laws won't necessarily come in the form of overt legislative changes. They will come through the back door, as has been happening for the past four years, through policy, interpretation, elimination of funding and executive orders. These maneuvers undermine not only environmental protections, but also protections for our communities, our health and our safety.

The Delaware Riverkeeper Network will need to grow to be ready to take on the many challenges, old and new, that lie ahead. The outpouring of concern that came in response to the Athos I oil spill was moving to me personally. I am proud and honored to have so many of you with us in our efforts to protect our communities, human and non-human alike.

I look forward to working with you in the coming year to help things change for the better. Preventing the Delaware deepening; achieving a ban of single-hulled vessels on the Delaware; securing a moratorium on horseshoe crab harvesting; putting and keeping teeth in regulatory protections. These are just a few of the issues we are working on. The list may be long, but we are making a difference.

Maya K. van Rossum
The Delaware Riverkeeper

RIVER RAPIDS

is published for members of the Delaware Riverkeeper Network

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Oil spill impacts are far-reaching

Maya K. van Rossum, the Delaware Riverkeeper

The evening of November 26, the day after Thanksgiving, as many reveled in and were recovering from visits with family and friends, the Delaware River was suffering its worst oil assault in decades. Venezuelan crude oil, among the heaviest of oils, was spewing into the River from the Athos I, a Greek tanker. As much as 473,500 gallons of oil may have spilled into the River.

As the oil tanker was maneuvering to come in to the dock, it hit a 15-foot curved hunk of rusting steel resting on the bottom of the River. The iron piping ripped open the bottom of the single-hulled tanker leaving two gashes in the hull: the first, 6-feet by 2 1/2-feet; the second, 2 1/2-feet by 1 1/2-feet. Crude oil began spilling out of the breached hull, quickly covering the River. Soon, birds, other wildlife, and important river and wetland habitats were coated and contaminated by the thick oil.



The listing Athos I. Photo: M. van Rossum.

Although agencies and hired clean-up personnel moved quickly to address the spill, damage was already being done. The oil was spreading, each day covering more of the River, flowing into and contaminating tributary streams and their sensitive habitats. In addition to the smell of oil, an air of hurt and harm hung heavy over riverside communities. Twenty, thirty, forty, fifty, sixty miles on its way down to the Bay and the ocean, it spread in the form of dense slugs of tar, small tar balls, sheen and oil.

Within the first 24 hours, the Delaware Riverkeeper Network, led by Delaware Riverkeeper Maya van Rossum, kicked into gear, speaking on the River's behalf to help the public learn what had happened and how they could help. van Rossum quickly called for a Natural Resources Damage Assessment that would hold the tanker's owners and operators responsible for the irreparable environmental harm being inflicted. This was quickly followed by calls to secure stronger regulations for protection of the River from future spills (a plan is now emerging) as well as for an extensive scientific study into the short-term and long-term environmental harms of the spill.

DRN organized more than 100 volunteers to help gather information on the environmental harm being inflicted on the River and its ecosystems. These volunteers helped determine areas in immediate need of protective measures, such as booms, identified areas where protective measures were failing and in need of repair, and located and reported injured wildlife in need of care.

Efforts by the tanker owners and operators to blame the US Army Corps of Engineers, the agency responsible for maintaining the Delaware River's main navigation channel, were challenged by van Rossum. Responsibility for an oil spill falls squarely on the shoulders of the tanker owners and operators who know that the life of a river involves debris of all shapes and sizes. The tanker owners and operators were responsible for making the management decisions that allowed this catastrophe to happen. Shipping companies are given the privilege of navigating the River with the understanding that they are responsible for preventing harm as well as for repairing damages that their operations cause.

Just two weeks out, 119 miles of shoreline had been impacted by the spill. Of the over 1,000 birds expected to be harmed by the spill, only 190 birds had been captured alive. An additional 106 birds were reported dead (*Note: The 1,000-bird estimate was based on a purported spill of 30,000 gallons. With as much as 473,500 gallons of oil unaccounted for, the number of birds affected by the spill is likely considerably higher*).

Each day, the US Coast Guard issues reports – numbers of workers on the ground, booms deployed, vessels employed, gallons of oil/water mix recovered, pounds of oily solids collected . . . but no matter how hard we all try to undo the damage, irreparable harm has been done, and continues to be inflicted, on the River, its ecosystems and human and nonhuman communities alike. When a spill occurs, no matter how successful the clean-up effort, there is harm that cannot be undone.

Much attention was focused on the spill's immediate impacts, on the suffering and dying critters of the river system. But the harm to our environment is more extensive. Important habitats have been infused with oil and will continue to re-introduce that oil and its toxins back into the River and the food chain for years to come. Sublethal effects, such as reduced growth rates, reduced reproductive success and increased susceptibility to disease among wildlife populations, are certain to come. Long-term health impacts to those living by the River are also a concern.

It now falls to us, the Riverkeeper, DRN, our members, volunteers and the community, to ensure that reparations are paid through the Natural Resources Damage Assessment process. These funds cannot undo the harm done, but they can fund work that will help support the River in its efforts to heal.

UPDATE on . . . Plan to Dump VX Waste in the River

Tracy Carluccio, Director, Special Projects

Concerned citizens have submitted over 400 letters to the Delaware Riverkeeper Network over the past 3 months (*excludes the many hundreds already submitted to the Army during their public process*). DRN sent this latest batch of letters to elected officials in NJ, PA, and DE that represent the Delaware River watershed to let them know that people are still fighting the proposal to bring VX nerve agent waste through Indiana, Ohio, Pennsylvania, and New Jersey for disposal at Dupont's Chambers Works Facility on the Delaware River in NJ.

We also made our elected representatives aware of information DRN submitted to the Centers for Disease Control and Prevention (CDC) and the US Environmental Protection Agency (EPA). These agencies are in the process of studying the proposed disposal plan at the request of NJ and DE Congressional legislators. We informed the agencies about a different technology that has already been used successfully to destroy VX at a US stockpile and can be used now to destroy VX on site at the Newport, IN, facility. This system is more

environmentally protective than the Army's plan and avoids transport of any chemical weapons material. We have called for a public review process of the forthcoming CDC/EPA reports.

The EPA answered our letter saying that they are studying the ecological effects of the Army's proposal to discharge the VX waste at Chambers Works and that a joint report will be issued with the CDC. The CDC also responded by letter advising that they are expecting to transmit their report on the proposed disposal plan to Congress in the near future. Both agencies state that there will be opportunity for public discussion of these reports.

Congress needs to continue to hear from the public about this plan, so we are continuing to collect letters and we need people who are willing to help get letters signed. If you are interested, please call our office at 215-369-1188.

An *Action Alert* and *VX Fact Sheet*, instructing you where to send your input on a crucial issue that will indelibly affect all life in this region and the transport regions, are available at www.delawareriverkeeper.org.

Thank You For Taking Action!

UPDATE on . . . Felix Dam Removal

The PA Department of Environmental Protection (PA DEP) has accepted and signed the permit it recently received from the US Army Corps of Engineers to remove the breached Felix Dams from the Schuylkill River. PA DEP began this permit application process over five years ago, shortly after Hurricane Floyd tore a 75-foot hole in the aging timber crib in 1999. The agency is now looking for the funds necessary for the actual dam removal work.

DRN is hopeful that monies will soon be made available to make these dam removals yet possible in 2005. For more information on why it is important to restore this reach of the river to a free-flowing condition, contact chari@delawareriverkeeper.org or call 610-469-6005.

Commentary: The River suffers many insults

A disaster, like the Athos I oil spill, triggers an urgent citizen response and often wakes us up to the vulnerability of the River. But we need to remember that every day, the Delaware River, its tributaries, and habitats are met with many assaults that threaten its health as well as the health and quality of life of both human and non-human inhabitants that rely on it for sustenance, shelter, and recreation.

Stormwater runoff, over-fishing, destruction of wetlands and riparian areas, planting of invasive plants, the quest for a perfect lawn, bio-accumulation of toxins, America's driving habits, the rollback of environmental regulations, sprawling

development, and other intentional human actions proven to be a detriment to the River are unfortunately common themes interwoven in our daily lives. These assaults have become routine and are not usually the focus of headline news; they do not get the concern and attention they deserve from the majority of people.

The Athos I oil spill has generated tremendous public concern and rightly so. In the event of oil or chemical spills, the Natural Resources Damage Assessment (NRDA) process lays out steps to repair and/or compensate for harm done. But, for the countless small, daily assaults that affect the River such as non-point source

Faith Zerbe, Monitoring Coordinator pollution, only limited procedures for reparations are available and the tools to stop destructive practices from occurring are often inadequate.

The Delaware Riverkeeper and the Delaware Riverkeeper Network were on the ground responding to the needs of the River as the Athos I began leaking oil and we will continue to be involved with the NRDA. But the Riverkeeper, DRN, our members and volunteers represent the River every day, working to enforce the laws that are in place, strengthening regulations, building watershed groups, and encouraging watershed residents to always keep the health of the River in mind.

Volunteer monitors respond to Athos I oil spill

Faith Zerbe, Monitoring Coordinator

The Delaware Riverkeeper Network's multi-faceted volunteer monitoring program has been in existence for over a decade. We rely on dedicated and trained volunteer monitors to help us on behalf of the River, so when the Athos I began leaking large amounts of Venezuelan crude from its damaged hull, we knew that a citizen monitoring initiative could serve as our eyes and ears for the River as it suffered the consequences of the spill.



Oiled containment boom. Photo: M. van Rossum.

DRN staff immediately went to work creating oil spill assessment protocols and datasheets, coordinating with public agencies, contacting local volunteer monitoring groups, developing Internet resources, and mobilizing and training concerned citizens interested in helping to document the harm to the River caused by the oil spill. Our priorities: 1) inspect clean-up measures and alert officials of areas in need of maintenance; 2) identify and report oiled wildlife; 3) track the extent and degree of contamination of oiling up the tidal tributaries of the Delaware; and 4) generate documentation to help support a thorough and comprehensive Natural Resource Damage Assessment for the River.

DRN recruited over 100 volunteer monitors now assigned to more than 40 tributary streams and 30 inland wildlife hotspots (areas where wildlife congregate) within

or near the spill impact zone. DRN is also working with Ducks Unlimited and other organizations to monitor riparian wetlands and beaches to track the dispersion of tar balls as far south as Cape May, NJ.

These volunteer monitors have been our eyes and ears over the last few months and have helped the River in so many ways. In the initial weeks of the spill, volunteers documented the effectiveness of clean-up operations, inspecting the conditions of absorbent and containment booms placed at the mouths of tributary streams and other sensitive locations. When booms were in need of attention, the Delaware Riverkeeper was able to use our volunteer data to alert the US Coast Guard to maintenance needs that would reduce the amount of oil moving into tidal tributaries.

Although booms were removed at the end of the year to allow for flushing of the system, our volunteers continue to track changes over time. Volunteers are documenting locations where oiled debris has been stranded along tributary shorelines at high tide to ensure clean-up crews reach these areas. Those with birding skills are monitoring inland wildlife hotspots located outside of the immediate spill zone that were used as refuges by



Oil near Little Mantua Creek. Photo: H. Ladner.



Oil and sheen on beach. Photo: M. van Rossum.

birds able to fly to cleaner locations. Volunteers visiting these areas to perform wildlife surveys have documented oiled birds and alerted the US Fish and Wildlife Service for rescue efforts. Volunteers are also visiting public access areas along tributary streams from the mouth to the head of tide to document the scope, degree, and persistence of oiling over time. DRN is using the data being gathered to compare with aerial flight data, to supplement agency field assessments, and to advocate for and help develop a thorough and extensive Natural Resource Damage Assessment that will hold the tanker owner and operators involved responsible for the irreparable harm being inflicted on the River.

Want to get involved with oil spill monitoring? It's not too late. Volunteers will continue to monitor the long-term persistence of the spill during the second phase of clean-up and as the Natural Resource Damage Assessment is developed. We are particularly in need of volunteers to help document the presence and extent of tar balls on Delaware and New Jersey beaches. More information about oil spill monitoring can be found at www.delawareriverkeeper.org. Email faith@delawareriverkeeper.org to be assigned to a location.

Background on Natural Resource Damage Assessment

Faith Zerbe, Monitoring Coordinator

FYI: Crude oil characteristics

The color, texture, volume and persistence of an oil slick are affected by the characteristics of the oil spilled. For example, brown oils appear brown; black oils appear black.

Heavy oils, such as the Venezuelan crude that spilled from the Athos I, can sink and contaminate riverbeds. This sunken oil can smother aquatic habitat and result in repeated re-oiling of cleaned shorelines.

Some crude oils will mix with water forming an emulsion that often looks like chocolate pudding. This oil and water mixture is thicker and stickier than the original oil. Over time the emulsion will break apart, due to wind and wave action, into smaller pieces referred to as tar balls, which can be very persistent in the marine environment and can travel hundreds of miles.

Oil products can produce a sheen that can appear silver/gray, rainbow or metallic. Oil sheen is most commonly observed during the later stages of a spill. Natural plant oils can also create a sheen but, when disturbed, plant oil sheen will break into fragments.

The impacts of the Athos I oil spill that are visible now represent only a small component of the long-term “not-so-visible inflictions” that will burden and pollute our River far into the future. But under regulations promulgated by the Oil Pollution Act (OPA) of 1990, the Natural Resource Damage Assessment (NRDA) process has developed into a legal tool that public agencies charged with protecting our natural resources, or trustees, can use to facilitate clean-up activities and secure compensation for damages from oil spills.

The goals of the NRDA process are to restore the damaged habitats and resources to the condition they would have been had there been no release of the hazardous substance and/or compensate for damages by requiring the implementation of restoration projects within the watershed, but not necessarily in areas directly impacted by the spill. The NRDA process also compensates the public for its loss of recreational use and enjoyment of the resources impacted. Polluters are required by law to pay for these assessments, studies and restoration projects.

The four basic steps of the NRDA process are:

1. Pre-assessment – Trustees conduct initial screening studies to determine if they have justification to pursue a NRDA based on the injury inflicted.
2. Injury determination and quantification – Trustees determine the type, extent and degree of injury to the resources, including the loss of services provided by the natural resources.
3. Damage valuation – Trustees translate the injuries to an amount of money or set of activities designed to compensate for injuries caused by the incident.
4. Restoration – Trustees use resources recovered for injuries to implement restoration projects.

The NRDA process also solicits public input at different points in time in this process, which often takes several years from start to finish.

For more information about the development of the Athos I Natural Resource Damage Assessment, log on to www.delawariverkeeper.org or call our Washington Crossing office at 215-369-1188.

Free Technical Assistance Available to PA Watershed Groups

Does your watershed group need help developing a volunteer monitoring program to answer questions about the health of your watershed? Do you need help analyzing or presenting existing data you have collected to improve your local watershed? Could your group benefit from a presentation about a specific watershed topic? These are just a few ways that the **Consortium for Scientific Assistance to Watersheds (C-SAW)** could help your group. C-SAW is comprised of a team of specialists that can provide eligible watershed groups or local project sponsors with technical assistance, free of charge.

The Delaware Riverkeeper Network is one of eight C-SAW partners and in this capacity we have assisted over 20 watershed groups in the Delaware River watershed over the past few years. Statewide, C-SAW partners have assisted over 60 groups. The C-SAW Program is made possible through a grant from the Pennsylvania Department of Environmental Protection’s (PA DEP) Growing Greener Program. The service is available at no cost to eligible groups.

Visit <http://pa.water.usgs.gov/csaw/> for more information about C-SAW.

Data Management Workshop

C-SAW will also be sponsoring a **Data Management Workshop** this spring (*tentatively set for April*) to help watershed groups with volunteer monitoring programs to analyze, interpret, present and use collected data to achieve and support positive actions for watersheds.

We encourage those who are collecting data to send one to two representatives from your group to this free workshop. For more information, please contact faith@delawariverkeeper.org.

The Delaware Riverkeeper Network invites you to . . . *Our Annual Dinner*

Thursday, March 31st, 2005
The Hyatt Regency at Penn's Landing
201 South Columbus Boulevard
Philadelphia, PA

5:30 p.m., Cocktails
7:00 p.m., Dinner
Door Prizes & Silent Auction

Admission

Guests: \$200
Members: \$150
Non-profit/Agency Guests: \$150



Good friends!



Great food!

Please make your reservation by Thursday, March 17, 2005. Checks should be made payable to the Delaware Riverkeeper Network or call 215-369-1188 to bill payment to your VISA or MasterCard.

All proceeds from our Annual Dinner directly benefit the River, its tributary streams, and the communities that depend upon and appreciate these vital natural resources.

Help sponsor this very special event

Tim White, Development Director

When the Delaware Riverkeeper Network holds its **Annual Dinner** at the **Hyatt Regency at Penn's Landing in Philadelphia** on **Thursday, March 31, 2005**, over 150 professionals from around the region will be present to celebrate the Delaware River and the work being done on its behalf.

We invite your agency, company or organization to help sponsor this very special event. We offer sponsorship opportunities through which you will not only make an important contribution for the protection of the Delaware River, but also receive wide-ranging recognition for your support and meet with important public officials.

Sponsors will be recognized in mailings and notices to over 7,000 individuals, organizations, businesses and agencies throughout the Delaware Valley as well as on all event materials. Sponsors will also receive prominent recognition on our web page, in program materials and signage at the Annual Dinner.

Consider sponsoring:

- The event reception, \$5,000
- The dinner wine, \$2,500
- The event program, \$2,000
- A table for 10, \$2,000
- The table centerpieces, \$1,000
- The attendee gifts, \$1,000

Or consider sponsoring or providing a silent auction item.

If you are interested in becoming a sponsor of this special event to honor the Delaware River, contact Development Director Tim White by phone, 215-369-1188, or by email, dinner@delawareriverkeeper.org.



Door Prizes & Silent Auction!



Help celebrate the River & our work on its behalf.

Mark your calendars!

Tracy Carluccio
Director, Special Projects



Swamp milkweed,
Asclepias incarnata

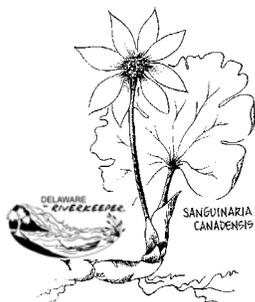
The Delaware Riverkeeper Network's **Native Plant Sale** will be held **Saturday, May 7**, from **9:00 AM to 1:00 PM** at **Prallsville Mills** on Route 29 in **Stockton, NJ**.

Even if temperatures are dropping and snow is in the air, this is a great time to begin planning for your garden. Before you know it, days will be getting longer and warmer and spring planting will be upon us. Avoid crowded garden centers this spring; join us at our annual Native Plant Sale where you will find the best in native plant species

for your garden at affordable prices.

Herbaceous plants, ferns, grasses, shrubs and trees -- all from regional nurseries -- will be available. Our Riparian Restoration staff will be on hand to offer expert advice on choosing, planting and growing native species. New this year will be a selection of plants chosen by DRN staff for two habitat enhancement projects that you can establish in your own backyard: native plants for birds and butterflies, and a rain garden.

Also, consider volunteering at this year's plant sale. This is a great opportunity to increase your understanding of how native plants benefit the environment. For more information, call 215-369-1188.



DRN staffer named to Highlands Council

Maya K. van Rossum,
the Delaware Riverkeeper

Tracy Carluccio, our Director of Special Projects, has been appointed by the Governor of New Jersey to the Highlands Water Protection and Planning Council. The Highlands Council is mandated to carry out the Highlands Act, a State law passed in 2004 with support from more than two-thirds of New Jersey's legislature. The Council will prepare a plan for land use and water resource protection that will preserve the vast Highlands geographic province (800,000 acres of forest, streams, and hard rock geology) in the northern portion of the state with a goal of protecting the State's water supply and ecological features.

Carluccio, a resident of Hunterdon County, NJ, will serve with 14 other members of the Council to prepare and implement the plan. "I look forward to the challenge of crafting a dynamic plan that will effectively protect all of the State's Highlands, a large portion of which drains to the Delaware River," said Carluccio. She added, "In order to safeguard our water supply, we must ensure watershed protection and restoration through land use stewardship that respects and promotes healthy ecosystems."

Congratulations, Tracy, on this appointment that recognizes your long-standing commitment to the protection of the Delaware River, its tributaries and habitats.

The Delaware Riverkeeper® Network

on the web at www.delawariverkeeper.org

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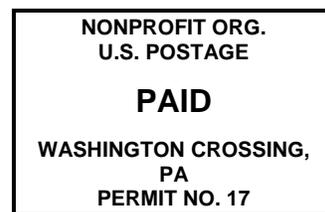
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Delaware Riverkeeper Network
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Don't miss . . . **The Schuylkill Watershed Congress**
Saturday, March 5, 2005
Montgomery County Community College
Pottstown, Pennsylvania
with watershed tours on Sunday, March 6th, 2005

The Schuylkill Watershed Congress, developed for those seeking the latest information on proven techniques for watershed management, promotes effective environmental problem solving and fosters hands-on involvement in the protection, restoration and enhancement of our waterways. Although focused on the Schuylkill River watershed, the Congress draws participants and presenters from throughout the Schuylkill Watershed as well as the rest of Pennsylvania, Maryland, and New Jersey. Join us as a representative of your local stream.

The 2005 Congress features a keynote address by Thomas H. Cahill, Principal Environmental Engineer and President, Cahill Associates, 20 concurrent sessions covering a broad range of topics, poster sessions, displays, door prizes, and a networking reception.

Who should attend the Congress? Stream monitoring and restoration volunteers, municipal officials, conservation professionals, educators, college students, landowners, and concerned citizens.

Register by Friday, February 18, 2005, to qualify for the \$40 Early Registration Fee. After February 18th, the Registration Fee increases to \$50 per person. *Scholarships are available from the League of Women Voters of PA WREN Project.*

Registration materials can be downloaded from our website, www.delawariverkeeper.org. **Please note: We are unable to accept registrations online at this time.** For more information, call the Delaware Riverkeeper Network's Schuylkill Office at 610-469-6005.

What are people saying about the Schuylkill Watershed Congress?

"Thanks for putting together a great program . . . I really enjoyed my first Schuylkill Watershed Congress and learned a lot . . . I thought it was extremely well organized, and I enjoyed all of the sessions I attended . . . Congratulations on another spectacular Congress! I came away with a lot of helpful and useful information . . . The Congress was excellent! I heard everyone comment how quickly the day went. I felt that way too. The presentations were so interesting time flew by!"