

Getting Real About Growing Threats to Clean Water



We need to face up to some major new threats to our rivers and drinking water, or fifty years' worth of hard-won clean water victories may end up down the drain.

There's no denying it: things have gotten pretty dire on America's waterways. In January, Charleston, West Virginia had to scramble to find drinking water after chemical storage tanks that hadn't been properly inspected in decades leaked into the Elk River. Three weeks later, thirty-five million gallons of coal ash gushed from shoddy earthen containment pools, fouling the Dan River in North Carolina. A few weeks after that, 31,000 gal-

lons of crude oil spewed from a crippled barge closing 65 miles of the Mississippi River — the tenth big spill in the past year linked to the recent boom in crude oil shipments by rail, boat and pipeline.

Think New York's safe from oil spills, leaking chemical tanks and the like? Not by a long shot. Forty times more crude oil is being shipped down the Hudson today than just four years ago, creating what the National Transportation Safety Board calls an "unacceptable public risk." New York's wastewater treatment system is "in crisis" due to deep cuts in spending on infrastructure, according to the state Department of Environmental Conservation [DEC]. Sadly, DEC knows a thing or two about funding crises, as its own staff has been sliced by a third since 1990. At DEC's office in the Upper Hudson, enforcement is down by over 40%, just since 2009.

Given this parade of horribles, it's a good thing Riverkeeper has nearly five decades of experience fighting for clean water. What we've learned over the years is to concentrate on three key strategies to protect your drinking water and restore your waterways:

Make It Personal – If government won't answer the call for clean water, New Yorkers need to take action, themselves. In the past year, Riverkeeper helped activate public pressure against poorly considered plans for hydrofracking, importing crude oil from Canadian tar sands, and converting salt water from the Hudson into drinking water to meet a "need" that doesn't exist. All three of these problematic projects are now on hold, because thousands — sometimes even hundreds of thousands — of New Yorkers made their voices heard.

Back It Up In Court – Riverkeeper prefers collaboration but sometimes the only way to get results is to sue. From the upper Hudson to Brooklyn's Gowanus Canal, we've held unrepentant polluters accountable through civil suits, criminal indictments and federal settlements. That goes for government too: when New York inexplicably deregulated medium-sized factory dairy farms [a move they'd rejected as "neither credible nor effective" only months earlier], we did what we had to do: we went to court to restore proper safeguards.

Get Creative – We can't just organize and litigate our way out of the threats to our rivers. We also need to innovate. After cuts decimated government water quality sampling programs, Riverkeeper started taking its own samples, isolating pollution hotspots and helping to spur over \$160 million in new spending for clean water this year. We've also signed on to "ENVISION," an exciting new program developed by Harvard University and Riverkeeper board member Paul Zofnass, which assures that public infrastructure investments maximize not just environmental goals but social and economic objectives as well.

The Hudson was little more than a glorified sewer in 1966, when Riverkeeper began its fight for clean water. We've come too far and the stakes are too high to turn back now. That's why you can count on Riverkeeper to stay on the job, until New York's drinking water is 100% safe and the Hudson River once again teems with life, throughout its long journey from the Adirondacks to the sea.

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Contact Missy Falkenberg at ext. 229.

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@HudsonRiverkeeper



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Visit

www.riverkeeper.org/get-involved/take-action to stay informed about issues and special events, and to take action.

Contact Us

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Our Mission

Riverkeeper's mission is to protect the environmental, recreational and commercial integrity of the Hudson River and its tributaries, and to safeguard the drinking water of nine million New York City and Hudson Valley residents.



Cover Photo By: John Lipscomb



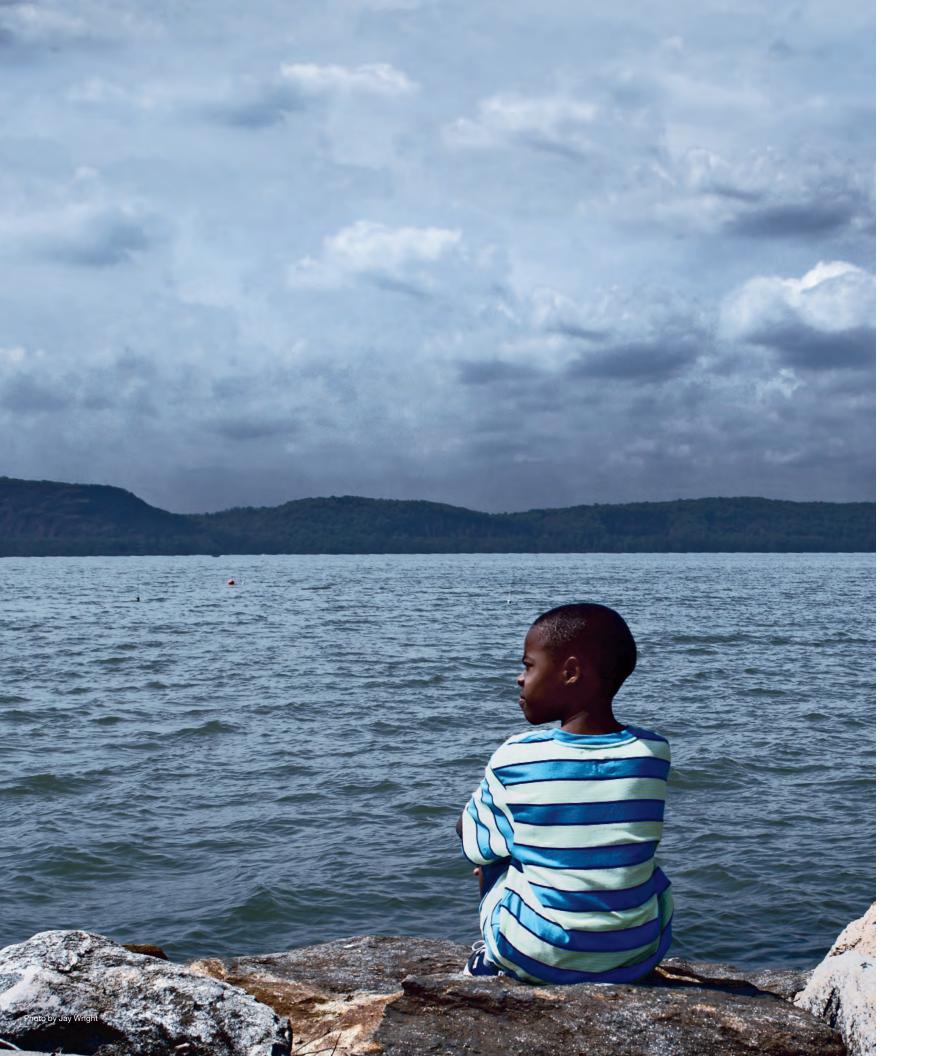
















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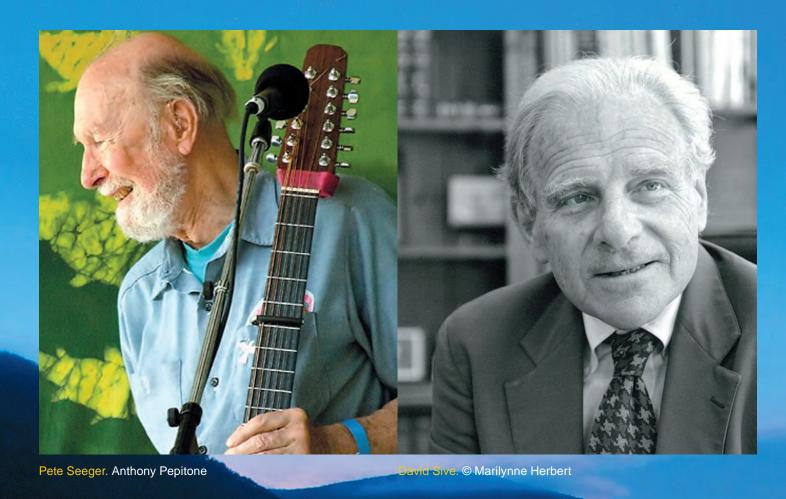


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Riverkeeper Tribute to Environmental Trailblazers



This past year marked the passing of Pete Seeger and David Sive, two of the environmental movement's most important voices.

Pete Seeger played a significant part in shaping the future of the Hudson River.

He took a stand to reclaim New York's most magnificent natural resource when

most people were indifferent about the environmental assaults going on around them. He raised awareness and built a movement, and we are forever grateful. "Pete will go on inspiring those who endeavor to heal us humans and our one lonely planet, long after we say our final goodbyes to the man himself. We promise to carry on his work and make the most of the gifts he left us."

- Paul Gallay, President and Hudson Riverkeeper

While fewer recognize David Sive's name, his impact on environmental law, and the Hudson River, is monumental. David's seminal work on the historic Storm King case established the concepts of citizen standing and environmental injury in American jurisprudence. Without David's great efforts to establish these rights, Riverkeeper would not have been able to carry on his legacy of fighting to protect the Hudson over the past 48 years.

It is said that David Sive carried a copy of Thoreau's Walden with him when he went to war in Europe as a young man. Riverkeeper offers these words from Thoreau in his memory:

"Live in each season as it passes; breathe the air, drink the drink, taste the fruit, and resign yourself to the influence of the earth." – *Henry David Thoreau, Walden*









4/20/13

In April, as preliminary work began on the proposed new two-span Tappan Zee bridge, a dead sturgeon washed up on the beach in Nyack. It's tail was severed. A significant cause of death of Sturgeon is from propeller strikes. I saw five sturgeon which turned up dead within a few miles north and south of the TZB construction in 2013. State said cause of death was unknown.



6/10/13

Two beavers showed up right next to my slip in Catskill after sunset. They chowed down on the shoreline vegetation – reminded me of a cartoon rabbit eating a carrot – and then rolled around in the shallows next to each other for a while. I wonder what they could have been up to?



6/10/13

We supported a video crew filming DEC staff tagging Shortnose Sturgeon in lower Haverstraw Bay. These beautiful fish, and their much larger Atlantic Sturgeon cousins, were once super abundant but, due to overfishing and other factors, they are now on the Endangered Species List. We have to do better.



7/14/13

We took a film crew to Indian Point to interview a onetime IP security guard who has blown the whistle on lax security at the nuke plant - guards are allowed to watch movies on duty, nap, stuff like that. In more than 50% of the "mock" attack drills against the plant the attackers win. The Naval Militia boat. which was nowhere to be seen during the first few hours we were there, finally showed up and hung around in the background. The plant is essentially unprotected.



7/21/13

One of our two science partners, Dr. Greg
O'Mullan, taking a swim off
the Fletcher as we patrol
and sample north past
Saugerties. We had dry
weather during this run and
our historical data show
that this area is okay during
dry weather. Do we trust
our sampling results? I
guess we do.



8/6/13

We found this combined sewer overflow discharging in dry weather during a routine monthly patrol of the Gowanus Canal. We reported it to NY City DEP and their investigation turned up a food preparation business with an illicit sewer hookup. A Notice of Violation was issued, the connection removed. A small case, but still worthwhile - you often hear that the River was degraded "by a thousand cuts" so then we'll heal it with a thousand cures. It always pays to patrol.



8/9/13

Dredging started at the TZB construction site on 8/1. The contractor was pausing and holding full clamshells over the River to let contaminated sediment and water escape before swinging over into the spoil barge - a clear violation of their permit. I got lots more video and stills during subsequent days. We were told that we didn't understand dredging - the pauses were necessary. However, after 9/25, when Riverkeeper filed a Notice of Intent to Sue, the practice immediately ended. Maybe we do understand.



8/26/13

We patrolled Newtown Creek with officials including Deputy Administrator, Bob Perciasepe, second in command at EPA. On every patrol with regulators I plead that habitat restoration be included as Newtown Creek is "restored" - it was a super productive salt marsh before it was anything used by man. Bob was all over it! It's great that he's on the job here - maybe we'll see marshes rebuilt in Newtown Creek - some salt marsh in the heart of the City.



The image quality is poor but this was the highpoint of 2013 for me. I was out well before dawn, trying to get photos of the dredging operations at the TZB construction site and an Osprey landed on the stern frame. How rare is it when Wildness comes to visit? We looked at each other in silence for a minute and then off it went to fish.

9/3/13



9/29/13

Some early fall mornings are strikingly beautiful. Cold air over warm water forms sea smoke and confuses the line between sky and River. Southbound from Kingston around Esopus Meadows Light.

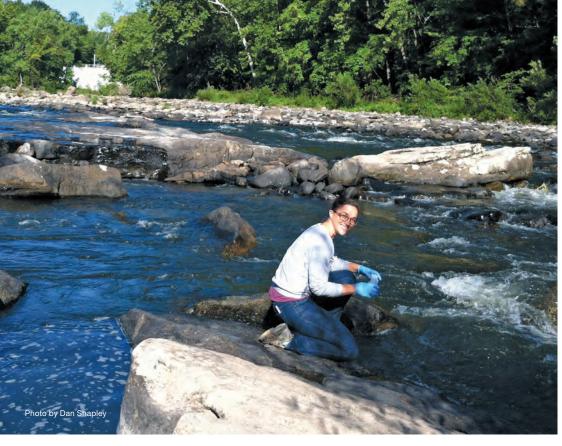
Patrol Boat Log

A report from the river by Riverkeeper's eyes on the water

Water Quality and Boat Program Director John Lipscomb

Photos by John Lipscomb

Visit the Riverkeeper Boat Blog:www.riverkeeper.org/ blog/patrol



Riverkeeper Water Quality Associate Jennifer Epstein samples the water on the Rondout Creek near High Falls.

How's the Water Where You Live?

Riverkeeper empowers an army of citizen scientists to test—and clean—the water in Hudson River tributaries. By Dan Shapley

efore Riverkeeper started testing the Hudson River and its tributaries, there was scant access to information that directly spoke to the critical question: Is the water safe?

Now—thanks to the work of an army of Hudson Valley residents taking part in one of the region's most influential citizen science projects—people can visit riverkeeper.org and see how often water is safe for swimming at more than a hundred beaches, fishing spots and boat launches on the Hudson River and seven tributaries.

Most would assume that the rivers and creeks that meander through picturesque farmland, wooded slopes and a constellation of small communities are clean compared to the Hudson River, which shares its shoreline with major cities, is invariably murky, and suffers from its reputation as the nation's largest Superfund site.

But if your question is, "Is it safe to swim?" then the type of pollution that matters most is sewage. And the voluminous Hudson fares better than its tributaries. Far better, according to our ongoing Hudson River water quality study, which began in 2006. The seven tributaries we test failed to meet EPA guidelines for safe swimming 73 percent of the times we sampled in 2012 and 2013. In the same time period, the Hudson's failure rate was 15 percent. Beach failure rates nationwide were 7 percent.

EPA guidelines for safe swimming are based on counts of Enterococcus in the water. Entero, as it is known, is a group of bacteria that isn't necessarily harmful, but indicates that the water is contaminated with untreated human or animal wastes. Where people contact Entero, they may contact disease-causing pathogens, and are at higher risk of getting sick.

Every year millions of Americans are sickened from simply swimming or taking part in other water recreation. Many waterborne illnesses are not recorded because skin rashes, irritated eyes and stomach "bugs" are often misdiagnosed, untreated or unreported.

Federal law requires water quality testing only at certain public beaches. But just as every rock outcrop, beach or boat anchorage on the Hudson River becomes a de facto beach in the summertime, its tributaries, too, become community swimming holes, boat launches and fishing retreats. Riverkeeper provides the best source of information about the safety of these waters.

In 2013, Riverkeeper's citizen scientists tested 84 locations on 165 miles of these seven tributaries: The Sparkill Creek in Rockland County; the Pocantico River in Westchester County; the Wallkill River in Orange and Ulster counties; the Rondout and Esopus Creeks and the Sawyer Kill in Ulster County; and the Catskill Creek in Greene County.

Generally speaking, tributary water fails to meet safe-swimming guidelines more often than the Hudson itself, and rainfall tends to increase both the failure rate and the degree of failure. Some tributaries, like the Wallkill and Sparkill, fail much more frequently than they pass; some, like the Esopus and Catskill, show far less fecal pollution overall.

The sources of contamination vary by community, and may include problems in our sewers, including pipe, pump station or wastewater treatment plant failures; septic system failures; as well as overflows of sewage that result from rain in at least nine Hudson River Estuary communities whose sewage and stormwater runoff share the same pipes (known as "combined sewer systems").

In other words, some of the problem with our infrastructure is a legacy of how it was built, and some is the result of maintenance too long deferred. The Department of Environmental Conservation has labeled the gap in funding

for wastewater infrastructure a "crisis" and estimated the cost of needed upgrades at \$36 billion over 20 years.

Riverkeeper's data is now being used by state officials to identify areas where infrastructure investments can yield the greatest water quality improvements. It may also be used to designate certain tributaries, or segments of tributaries, as "impaired," opening up avenues for improvement under the federal Clean Water Act. And the data is driving changes at the local level, as communities see that in most cases local pollution problems have local solutions. (See Stopping Sewage Pollution, page 10.)

Contamination may also come from animals—whether a flock of geese or a herd of dairy cows. Knowing the source of pollution is essential to identifying the right remedy.

In 2014, Riverkeeper will pilot a testing technique using optical brighteners—an ingredient in most laundry detergents—to begin to distinguish human from animal waste streams. The project is paid for by the Hudson River Improvement Fund. The Fund also paid for significant improvements to our patrol boat, which serves as the mobile lab that makes this citizen science project possible, and will pay for a website expansion that will include water quality data from partner sampling groups in the region.

Significant funding for the program comes from many other individuals, foundations, as well as the New England Interstate Water Pollution Control Commission and the HSBC Water Programme.

"HSBC is a proud supporter of Riverkeeper's Hudson River Water Quality Program, which seeks to restore the Hudson River to fishable and swimmable status, the standard prescribed in the U.S. Clean Water Act," said Ray Johnson, HSBC Vice President Community Investment. "The engagement of individuals and stakeholders through funding support from the HSBC Water Programme will continue to create citizen science leaders who assist in water quality testing and monitoring in waterways surrounding New York City."

"Riverkeeper and our citizen scientists are arming ourselves with the most powerful weapon against water pollution: Data," said Tracy Brown, Riverkeeper's Water Quality Advocate. "We're committed to tracking down and stopping the pollution that makes our water unsafe for human contact."

Visit

www.riverkeeper.org/water-quality to learn about water quality of the Hudson River and its tributaries.



Citizen scientists Barbara Restaino and David Munford sample the water of the Rondout Creek near the Route 209 bridge in Napanoch, NY.

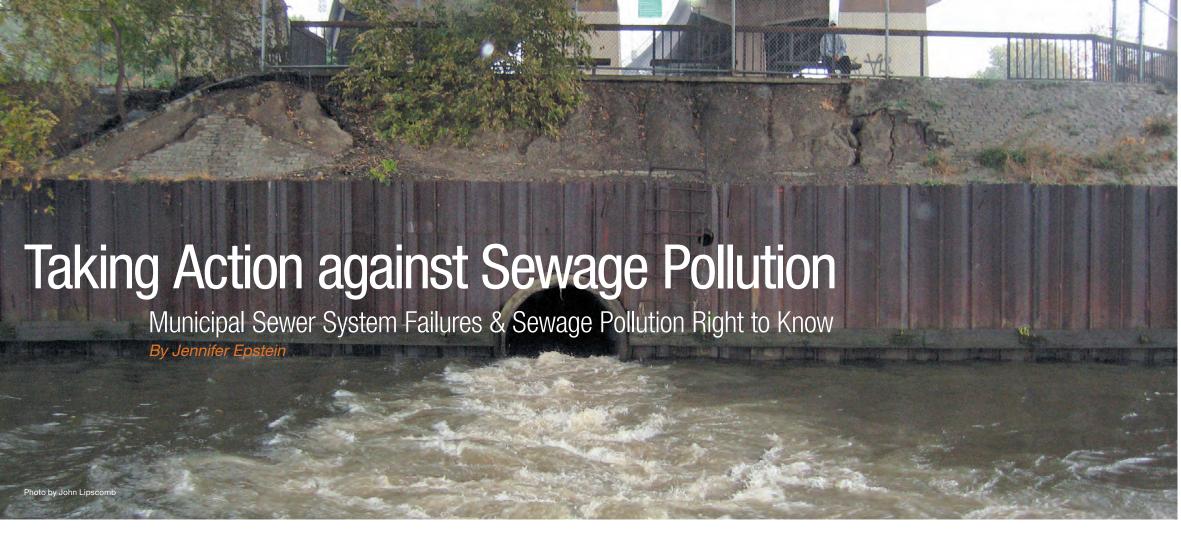


Stu Dorris, a member of the Rochester Environmental Conservation Commission, tests the water of the Rondout Creek near the Port Ben Road bridge in the Town of Wawarsing, NY.



Liz Loguidice of Cornell Cooperative Extension-Greene County samples the water in the Catskill Creek.

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ewage treatment systems vary among Hudson River communities, but the results of Riverkeeper's water quality monitoring program show that sewage contamination is a widespread problem throughout the Valley.

In 2012, Riverkeeper worked to pass the Sewage Pollution Right to Know (SPRTK) law to help raise public awareness of sewage releases. In May 2013, the law went into effect and Department of Environmental Conservation (DEC) began compiling and publishing sewage discharge reports from across New York State. (Download the latest report at www.dec.ny.gov/chemical/90315.html)

A quick survey of the reports shows that wet weather caused about 65 percent of sewage releases. This comes as little surprise, since Riverkeeper's monitoring results show the link between rainfall and fecal contamination at many sites.

The state discharge reports also contain valuable—though incomplete—information about the volume and frequency of sewage releases from various sources. The reports reveal that manholes release frequent, low-volume discharges,

while pump station failures, though less common, release much larger volumes of sewage.

However, only 17 percent of discharge reports to date have included the required reporting on the volume of sewage released. This information is critical to evaluating the public health risk posed by sewage releases. Riverkeeper has worked with DEC to redesign its report forms so that sewage system operators can provide more accurate reports.

Another outcome of the SPRTK is that DEC has begun mapping NY State's wastewater infrastructure. In the past, sewage collection systems were unmapped and not subject to state oversight because they are not permitted to discharge. The new maps and data will become critical tools for municipalities and the state to prioritize funding for inspections, repairs and upgrades.

Though we are pleased that SPRTK is shedding light on New York's sewage pollution problems, there is still room for improvement. DEC must implement a public notification system that includes all discharges—not just accidental spills from separate sewer systems but also the routine, permitted, sewage discharges from

combined sewer systems (known as "CSOs") that account for the vast majority of raw sewage polluting our waterways. At the time of publication, Riverkeeper is in ongoing conversations with DEC about full integration of CSOs into the public notification system.

Other Sources of Sewage Pollution

Sewage pollution isn't always as visible as a burst manhole or a gushing outfall. Throughout the Hudson Valley, a maze of underground pipes moves wastewater from our homes and businesses to treatment plants. This aging system is prone to hidden damage from freeze/thaw cycles and plant roots, and it has a multitude of connections where stormwater and wastewater can cross systems. Damage can result in underground sewage leaks that find their way into our groundwater and/or surface water.

Failing septic fields can also contaminate our streams and groundwater. From the data collected on tributaries by Riverkeeper's citizen science partners, we know that waterways may look clear and pristine while still harboring high levels of fecal contamination. So what can each of us do to reduce sewage pollution in our community?



Liz LoGiudice of the Catskill Creek Watershed Awareness Project sampling the Catskill Creek.

Actions You Can Take

Conserve water

Every drop that goes down the drain has to get to and through the treatment plant, adding to the burden of operating and maintaining the sewer system. If you live in a combined sewer system community (to find out, visit www.river-keeper.org/campaigns/stop-polluters/sewage-contamination/cso/), consider waiting to run the water and flush the toilet until after rainy weather has passed. This reduces the amount of water entering the system and lowers the chance that a CSOwill occur.

Watch what you send down the drain

According to SPRTK reports, blockages were a cause of over 120 sewage releases since last May. Some things shouldn't be going down the drain. Don't pour grease down the kitchen sink, and don't flush baby wipes, diapers, paper towels or personal hygiene products.

Maintain your septic system

Homeowners with septic systems may unknowingly pollute by failing to maintain their systems. Regular inspection and pumping are necessary to keep septic systems in working order. Living microorganisms power these systems, so it is important not to pour toxic substances, like paints and some cleaning products, down the drain. (EPA has more information at www.epa. gov/owm/septic/pubs/homeowner_guide_long.pdf). Properly operating and maintaining your septic system will ensure that your household doesn't contaminate your local stream or groundwater.

Become a citizen sampler

Documenting the timing and severity of fecal contamination is the first step toward a solution. Riverkeeper partners with concerned citizens in dozens of communities to test for the presence of fecal contamination. Start sampling with Riverkeeper, or start a program on your local waterway if one doesn't exist yet. **Contact** Water Quality Program Associate Jennifer Epstein at jepstein@riverkeeper.org for information.

Be a watchdog

Do you live near a pump station, outfall pipe or sewer manhole, or pass by one regularly? If so, keep an eye on it, especially during wet weather, when high flow or power disruptions can cause breakdowns. Generally speaking, dry weather discharges from outfall pipes are red flags. If you see an outfall flowing in dry weather, report it.

What should you do if you suspect a sewage problem?

 Take pictures or shoot video to document the occurrence. Get a combination of wide-angle shots to establish context and close-ups to show detail.

- Contact Riverkeeper's Watchdog Hotline at 800-21-RIVER x231, or fill out a pollution report form at www.riverkeeper.org (follow the "Contact Us" link).
- Report problems directly to DEC via their 24 Hour Hotline at 877-457-5680.
- If you catch someone in the act of dumping or polluting, call 911.

Ask for monitoring and notification

Contact your elected officials and let them know that you want them to monitor for fecal-indicating bacteria, and that you want them to use this information to develop predictive models to protect public health. Encourage your local media outlets to sign up for sewage discharge notifications from DEC and to share any local discharges with the public – to sign up email overflow@gw.dec. state.nv.us or call 518-402-8233.

Organize a stream walk

Stream walks are one way for communities to locate dry weather overflows, illegal sewer hookups and contaminated stormwater outfalls. It's a good idea to contact your town or county first to see if they have maps of your waterway with outfall types and locations recorded. You can use these maps to check each outfall pipe for suspicious flows (i.e. water with an odor or an unusual color), and to mark the location of pipes that are not on the map. If you live in a suburban or urban community you may be part of the Municipal Separate Storm Sewer System (MS4) permitting program, which provides guidelines for identifying and addressing water pollution problems.

Local planning can support clean water

Communities can assess the impact their current land use, developments plans and wastewater infrastructure have on their local water quality. Many communities in the Hudson Valley are taking a close look at their stormwater runoff and flooding patterns and investing in green infrastructure projects to reduce harmful runoff. Citizens in communities that suffer from chronic failures in their wastewater systems can educate their elected officials and support funding to make the necessary repairs and upgrades.

Unlike potholes, water quality problems are not always visible or well understood. Once people are educated about failures in their wastewater or stormwater systems, they are usually more than willing to address those problems in the name of clean, safe water.

Facing the Real Risks from New

York's Crude Oil "Virtual Pipeline"



iverkeeper is confronting the gravest threat to the Hudson River in a generation, one that threatens the billions of dollars in investments we've made in the river's restoration over the past half-century: The transport of up to 6.3 billion gallons of crude oil per year on an accident-prone "virtual pipeline" made up of train cars, barges and ships.

This ad hoc, virtual pipeline—as it is called by Global Partners LP, one of the key companies responsible for creating it—snakes thousands of miles to refineries on both coasts. The crude oil originates from the Bakken oil fields of North Dakota, where fracking produces an explosive light crude, and Alberta, Canada, where mining extracts a thick, heavy oil the consistency of tar. The New York State portion of this virtual pipeline stretches through Western and Northern New York to Albany, and down the Hudson—threatening the Hudson River and many of its tributaries.

Each type of oil and means of transport carries proven risks—risks that are different from and greater than those posed by the transport of refined petroleum products, like home heating fuel.

The risks have been vividly demonstrated by a series of damaging and even deadly train derailments, including the loss of 47 lives in Lac-Megantic, Quebec. New York State has seen at least four oil train derailments in the span of just three months.

We also witnessed the grounding of the first Hudson River tanker carrying crude oil, the Stena Primorsk, just six miles out of the Port of Albany in December 2012. A double hull prevented a spill of the nearly 12 million gallons it held—about as much as was spilled during the Exxon Valdez disaster. But double hulls do not stop spills in the event of collisions, as witnessed most recently in the Mississippi River and Galveston Bay.

"This new surge of crude oil shipments presents an unprecedented threat," said Paul Gallay, President and Hudson Riverkeeper. "A spill could negate all the progress we've made to clean up PCBs and other toxic wastes, which has made the river safer for swimming and has opened the Hudson to the public."

Riverkeeper's multifaceted campaign on crude oil aims to:

• Prevent the transportation of heavy grades

crude oil, including tar sands oil from Alberta, Canada, on the Hudson River, by preventing the construction of boilers at Global Partners LP oil terminals in Albany and New Windsor used to facilitate the transfer of oil from railcar to river vessel:

- Convince the Department of Environmental Conservation to reconsider permits granted with little public input and no comprehensive review of environmental impacts, allowing Global Partners and Buckeye Partners LP to transfer up to 2.8 billion gallons of crude oil from train to river barge and ship in the Port of Albany;
- Advocate for a federal moratorium on crude oil transport in New York State;
- Advocate for specific rail safety improvements, including a ban on the use of faulty DOT-111 railcars for the transport of crude oil; and,
- Advocate for specific river transport safety improvements, including the updating and testing of regional spill response plans to prepare for a "worst case" spill of heavy crude oil, which has a tar-like consistency and can sink,

rather than float, leaving 95% of oil spilled in the river even after a successful spill response.

"I've been patrolling the Hudson for 13 years, and I've never seen a threat of this magnitude," Patrol Boat Capt. John Lipscomb said. "A spill of heavy crude would be like paving part the river bottom with tar. It could be absolutely devastating for bottom feeders like sturgeon, or shallow water spawning fish like shad. As it is, several species of Hudson River fish are surviving at a fraction of their historic populations."

The trains cross "irreplaceable habitats" in tributaries like the Esopus and Rondout creeks, and hug the river shoreline for miles in Ulster, Orange and Rockland counties between West Park and Haverstraw.

About 250,000 people draw drinking water from the Hudson River, and hundreds of thousands more drink from water sources in Rockland County that could be at risk from a train derailment.

Billions of dollars invested in restoration of our federally designated National Heritage River, and economic sectors like tourism and real estate rely on attractive shorelines. Even some heavy industry relies on clean water drawn from the Hudson.

In addition to the 2.8 billion gallons per year transported by river vessel from Albany, two trains per day carry another 2.2 billion or more gallons of crude oil per year along the Hudson River and through Hudson Valley communities, including the cities of Albany, Kingston and Newburgh. Each train is more than a mile long and hauls 100 to 120 black tanker cars. Another 1.3 billion gallons of crude per year could be transported by rail to New Windsor and transferred to river barge, if Global Partners wins approval for permits to expand its oil terminals there.

"The problem we're facing is that with the tremendous and increasing volume of crude oil being transported through the Hudson Valley, a spill is inevitable. It's not a question of if, but when a catastrophic spill that we are unprepared for will occur," said Kate Hudson, Riverkeeper's Watershed Program Director.

Railway workers have called the trains loaded with Bakken crude "bomb trains" because of the explosive fires that resulted after derailments.

U.S. National Transportation Safety Board, the National Association of Railroads and many others have criticized the tanker cars used to transport crude oil for being dangerous because of their thin, puncture-prone lining.

At least 10 derailments in the U.S. and Canada since 2008 have resulted in more than 3 million gallons of spilled crude oil.

Echoing many of Riverkeeper's calls to action, political leaders are championing improvements to rail and tanker car safety and crude oil testing requirements. Federal and state authorities are moving to study and improve spill response plans. But there remain huge gaps in our ability to respond to spills, particularly of heavy crude and especially in the upper stretches of the Hudson River estuary.

"Preventing a spill has to be our first priority," said Phillip Musegaas, Riverkeeper's Hudson River Program Director. "Until we can be sure that crude oil transport by rail and river vessel can be done without putting our communities and river at risk, we will continue to seek a moratorium on the transportation of crude oil in New York State."



47 people died and several square blocks were leveled in Lac-Megantic, Quebec, in July 2013 after the derailment of a train laden with Bakken crude oil. That train was destined for a New Brunswick refinery that is also the destination for some of the oil traveling through the Hudson Valley. Photo by Sureté du Québec via Wikimedia Commons.



Oil-soaked wetlands in Aliceville, Ala., following a November 2013 spill of Bakken crude oil following a train derailment. Photo by John Wathen, Hurricane Creekkeeper.



Riverkeeper launched our crude oil campaign, using #NotOnMyWatch on social media, to ensure that we prevent damage from crude oil in our river and communities. Photo by Michael Neil O'Donnell / www.michaelneilodonnell.com

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n the wake of an unconscionable decline in spending on New York State Department of Environmental Conservation (DEC) programs and staff including a 30 percent cut to the agency's water quality program, citizens have continued to take a stand in their communities and have been partnering with Riverkeeper to make game-changing strides in tackling some of the biggest threats to the Hudson River and our drinking water.

'Albany Pool' communities help shape plan for fishable, swimmable waters in Capital District

In January 2014, the DEC released a long-awaited, \$136 million plan for projects that will reduce sewage pollution and bring the 'Albany Pool' communities in the Capital District into compliance with the federal Clean Water Act and state water quality standards by 2028. Riverkeeper participated in the development of this Long Term Control Plan (LTCP), representing the interests of the Hudson River and the public. When the first draft plan was released in 2011, Riverkeeper rejected it for not including meaningful reductions to the combined sewage overflows (CSOs) that dump 1.2 billion gallons of raw sewage and stormwater into the Albany Pool stretch of the Hudson each year, often rendering it unsafe for swimming, boating and fishing. With citizen support, we lobbied hard for the inclusion of significant strategies to address the CSO problem and were finally able to celebrate a vastly improved final plan that DEC negotiated with the Albany Pool communities, marking the turning point for the day when this section of the Hudson is fishable and swimmable again.

Stakeholders take a stand and the Lower Esopus gets much-needed, high-level help

Since the Fall of 2010, Riverkeeper has joined with Lower Esopus community groups and elected representatives to mount a campaign to stop New York City's turbid, muddy water releases from its Ashokan Reservoir into the Lower Esopus Creek. On October 24, 2013, Senator Charles Schumer (D-N.Y.) echoed our call for action to identify and implement solutions to avoid the discharge of turbid waters into the Creek. Senator Schumer asked that the Environmental Protection Agency (EPA) dedicate a panel of experts to work with New York City Department of Environmental Protection and DEC and impacted communities to develop action alternatives. Riverkeeper applauds the senator for bringing attention to the critical need for an independent review of alternatives to New York City's use of the Lower Esopus as a dumping ground for muddy water from its reservoir. Riverkeeper has asked the New York State Department of Health to include such a requirement in its Filtration Avoidance Determination that will affect the City's management of the Lower Esopus through 2017.

Riverkeeper will also be actively engaged in an examination of alternatives that will be a part of DEC's environmental review of this practice over

Watchdog tip leads to sewer repairs, and a new **Hudson River trail**

An anonymous citizen watchdog tip led to Riverkeeper filing two Notices of Intent to Sue in 2010 for Clean Water Act violations against the City of Beacon, New York over raw sewage cascading into Fishkill Creek. The discharge came from a manhole at a juncture of two sewage pipes and befouled Madam Brett Park, bubbling up through slats of an otherwise scenic walkway.

Three years later in March 2013, the City of Beacon reached an agreement with the Attorney General's office to fix ongoing leaks in their municipal sewage system. The City of Beacon was required to repair and replace the faulty sewer lines and ordered to invest in an environmental benefit project -\$225,000 towards a new connector trail linking the park to Denning's Point and the Klara Sauer Trail on the Hudsonside of the train tracks.

Since then, not only has the sewer problem been repaired but the park is now connected with the Hudson River waterfront by the Dave Miller Connector Trail, named for a distinguished resident and supporter of recreational opportunities in Beacon. The trail formally opened with a ribboncutting in November, 2013.

Citizen identifies sewage spill in Kingston that leads to investment in infrastructure

For five years, Kingston, New York resident Rob Ferris had reported repeated sewage spills into the little tributary of the tidal Rondout Creek, the Twaalfskill, which runs through his back yard. In July, 2013, after returning home from vacation to the familiar stench of sewage, he not only called the City again, but also Riverkeeper. We sampled the discharge from the pipe and downstream and found that it had fecal-indicating bacteria counts more than 1,000 times the safe swimming and primary contact levels as defined by EPA. Riverkeeper reported the findings to the press and notified the City of Kingston that it was in violation of the Sewage Right to Know law. These actions led to the failing pipe being repaired and helped catalyze some potentially pioneering investments in sewage infrastructure in the community. This case highlights the power of the public, water quality sampling and Sewage Right to Know legislation. These things together led to Kingston accepting its sewage infrastructure problem and seeking funding to improve it. Rob Ferris has reported no problems since Kingston stepped up to repair the problem.



What Winning By Dan Shapley

here are few things as important as drinking water, and advocates in Rockland County residents can claim hard-won credit for ensuring that their drinking water will be supplied from sound, sustainable sources.

Their fight isn't over, but with the help of Riverkeeper and Scenic Hudson, the Rockland Water Coalition has stalled plans by United Water New York to build a costly and wasteful desalination plant. Instead, plans are coalescing for a task force to explore water conservation, reservoir management and other sustainable, affordable methods to ensure residents have enough quality drinking water for decades

The emergent success of this campaign is emblematic of environmental activism at its best: The residents of a community fight back against a bad idea, and produce far better ideas through an inclusive dialog.

For years, the momentum to build a desalination plant made it seem almost inevitable.

United Water New York, one subsidiary of an international company, already provides water for nearly 300,000 people in Rockland and a small portion of Orange County. A decade ago, a drought prompted water use restrictions. and the Public Service Commission ultimately ordered United Water to develop new longterm strategies for supplying drinking water.

United Water's solution, an industrial facility to treat the brackish water of the Hudson River's Haverstraw Bay was the wrong choice by every metric, save perhaps United Water's bottom line.

Desalination is among the most energy intensive and costly ways to treat drinking water, and it's primarily used in desert or island communities where rainfall is scarce—not in water-rich regions like New York. In addition to the steep cost to ratepayers, people expressed

LOOKS LIKE

wide-ranging concerns, including about quality, given the proximity of the water intakes to Indian Point nuclear power plant, which leaks radioactivity to groundwater and the Hudson; and about quantity, given recent studies that proved United Water had significantly under-estimated the amount of water available from existing supplies.

The Rockland Water Coalition—a diverse group made up of local and regional citizens groups, elected leaders and others led by a small, dedicated band of citizsens—worked tirelessly to get these facts out. They won wide-ranging endorsements of their position, from the editorial page of the Journal News to resolutions from municipalities throughout the county.

They called on Riverkeeper and Scenic Hudson to help, and we answered the call, with advice on strategy, substantive comments critiquing United Water's proposal written by the Pace University Environmental Law Clinic, and support on communications, advocacy and organizational capacity.

Their effort was rewarded in August 2013, when the Public Service Commission announced it would reconsider the need for United Water's proposed desalination plant. Thousands packed hearings on the PSC decision in October, a meeting with the governor's office followed in January 2014. The next step is the creation of a task force made up of United Water, elected

leaders and citizens, tasked with choosing the best, most sustainable path forward.

"The community rose up as one, and it's achieving real results," said Paul Gallay, President and Hudson Riverkeeper. "We are inspired by the grassroots, we support the grassroots, and together we are going to win this one."

For more information, visit riverkeeper.org or sustainablerockland.org.

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Fracking Waste

Getting Fracking Waste Off our Roads and out of our Landfills and Treatment Facilities

By Misti Duvall and Leah Rae



iverkeeper is working to protect
New Yorkers from the dangers of
improper reuse and disposal of
waste from hydraulic fracturing
("fracking"). While the State's de
facto moratorium on high-volume
fracking continues, New Yorkers
are currently at risk from reuse

and disposal methods that include spraying lowvolume fracking waste on roads and disposing of Pennsylvania's fracking waste in landfills and wastewater treatment plants in New York unequipped to handle it. Riverkeeper is working with local advocates and concerned residents to arm communities against these threats.

Riverkeeper's research in 2013 helped inform communities statewide about the use of contaminated and potentially toxic fracking

wastewater for de-icing, dust control and road stabilization. The waste, called produced water or production brine, is generated by conventional, low-volume fracking methods that are currently permitted in New York. The brine, contaminated with high levels of chlorides, heavy metals and organic compounds, comes up with the natural gas extracted from those wells.

The state approves the spreading of these wastes by issuing so-called "Beneficial Use Determinations" (BUDS), which legally transform these waste products into a non-waste. But many local communities, armed with information provided by Riverkeeper and other advocates, are deciding for themselves what's beneficial — or not.

Riverkeeper obtained documents from the state Department of Environmental Conservation

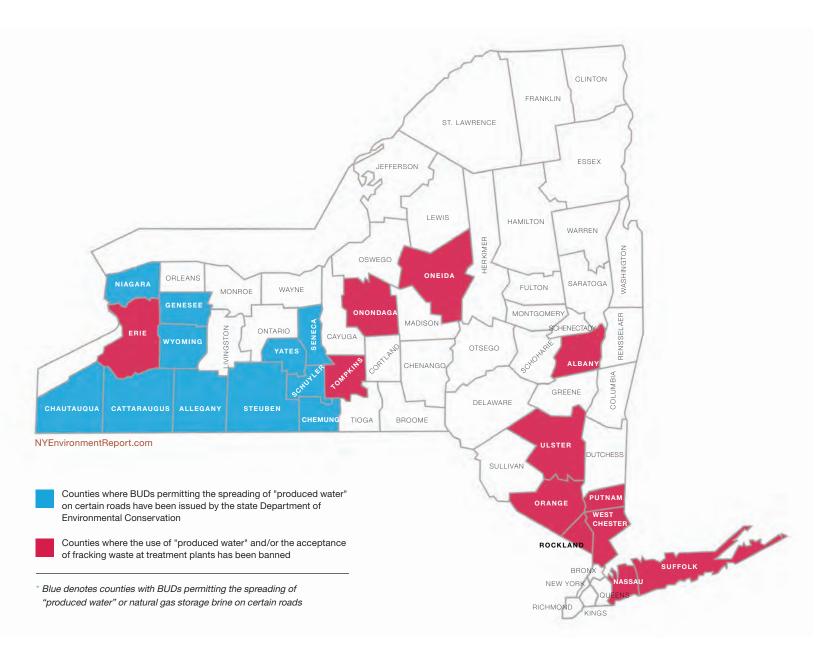
(DEC) — which revealed that waste from fracked natural gas wells was approved for road-spreading in portions of twelve counties in Western New York over a two-year period. BUDS were issued which allowed fracking brine to be spread in at least 23 municipalities in seven counties. Finally, the New York State Department of Transportation received permission to spread such waste on roads in five counties in Western New York.

What's the harm in all this?

Ultimately, our water is placed at risk. Fracking waste can contain a number of harmful pollutants: concentrated salts, chemicals, metals and organic compounds. For example, benzene one of the contaminants that can be present in fracking waste - is a carcinogen that has been linked to blood disorders such as anemia. When this waste is used on roads, it can run off and contaminate streams and aquifers that feed drinking-water supplies. Riverkeeper's work to provide documentation of these threats on its website - informing activists, residents and decision-makers about the risks of using these materials - made clear the need for action at the local level. Residents learned, from the hundreds of pages of records that Riverkeeper obtained, in what locations the use of materials has been authorized, the types of brine allowed in various communities, the contaminants involved, and the lack of sufficient testing to assure protection of the environment.

Fracking wastes may be cheap to obtain – and that's surely a draw for cashstrapped municipalities. But they can be costly to the environment and our natural resources.

As a result, over the last year, Riverkeeper supported four Hudson Valley counties – Putnam, Rockland, Orange, and Albany – in enacting legislation banning the improper reuse and/or disposal of fracking waste, after assisting Westchester in passing similar legislation in 2012.



"We were able to use that law as a template," said Susan Van Dolsen of Westchester for Change, who advocated for the 2012 ban and has since assisted groups in other communities.

Riverkeeper's legal expertise, along with the documents we obtained on DEC's beneficial use determinations, provide key resources for a broad coalition of health-based, environmental and citizens' groups that came together to push for bans. "It's been an effective team effort and we are continuing to work together to empower more municipalities to pass frack waste bans," Van Dolsen said.

At this point, at least 12 counties in all, along with dozens of municipalities, have enacted similar bans across the state.

In addition to raising awareness about the use of fracking waste on roads, Riverkeeper is helping to inform the public about the risks of waste being shipped from high-volume fracking

operations in Pennsylvania to some New York landfills. Since 2011, more than 300,000 tons of Pennsylvania fracking waste has been sent to New York landfills for disposal. That's a serious concern: waste coming from Pennsylvania's Marcellus Shale can contain a number of contaminants, including troubling levels of naturally occurring radioactive materials.

Water that percolates through those land-fills – the leachate – has reportedly been taken to nearby wastewater treatment facilities that aren't designed to handle the contaminants in fracking waste.

New York's Health Department continues to study the health impacts that would result from allowing high-volume fracking. But for those of us who are concerned about fracking and its health risks to which we are currently being exposed through New York's handling of fracking waste, this is anything but a time out.

Because of this ongoing threat, we continue to press for a statewide ban on the improper reuse and disposal of fracking waste in New York State. State Senator Terry Gipson has proposed such a ban, which Riverkeeper is actively supporting. We also continue to support the passage of local bans at the county and municipal levels.

For more information on fracking waste, contaminants and local bans, visit riverkeeper.org.

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Riverkeeper Responds to Newest Threats to Our Most Precious Resource

By Mike Dulong, Misti Duvall and Tina Posterli

ew Yorkers are fortunate to have some of the finest tap water in the world. This drinking water comes from the Catskill, Delaware and Croton watersheds that feed three upstate reservoir systems that are the source of New York City's drinking water supply, providing up to 1.5 billion gallons of unfiltered drinking water to over nine million New Yorkers daily.

Riverkeeper played a critical role in the first broad-based watershed protection agreement in 1997, and continues to be one of the primary watchdogs enforcing compliance with the agreement on the part of all signers, including the New York City Department of Environmental Protection, in the City's two major watershed regions located east and west of the Hudson River. Our watershed work encompasses the enforcement of environmental laws; monitoring sprawl development in the watershed; working with communities and government on proactive programs to achieve long-term protection of the NYC Watershed, while ensuring that the environment and economies of communities both in and outside the watershed are not impacted by watershed operations; advocating for stronger watershed protection policies on a local, state and federal level; and encouraging New Yorkers to choose tap water over bottled water.

The Hudson River watershed is one of the most ecologically diverse watersheds in the world, with landscapes ranging from tidal wetlands in the estuary portion of the Mid-Hudson to the forested landscape of the Adirondacks. It drains approximately 13,400 square miles and encompasses 11 major sub-watersheds and five states: New York, Vermont, Massachusetts, Connecticut, and New Jersey. Ninety-three percent of the Hudson River watershed lies in New York State. Twenty-five percent of the Hudson River basin is used for agriculture, 60 percent is forested, and millions of people rely on it for their drinking water supply including the 100,000 whose drinking water comes directly from the Hudson River

There is a number of unprecedented new challenges that threaten the future quality of our drinking water. Following are highlights of the most pressing issues facing the New York City and Hudson River watersheds and how Riverkeeper is working to protect them.

Threats from the Commercial Development Boom

After the financial crash in 2008, few, if any, new development proposals in either of the watersheds were moving forward until recently. The

projects range from resort hotels, to shopping centers, to residential developments. Many of these projects are in the sensitive East-of-Hudson New York City watershed, where reservoirs are already phosphorus-impaired. Riverkeeper is actively participating in the review of these projects as they move forward and advocating for stronger water quality controls and/or modified project designs that won't add pollutants to our water supply.

Impervious surfaces associated with development can increase runoff and carry pollutants into waters that supply drinking water, and encroachment and destruction of wetlands can harm water quality because wetlands help remove pollutants from water before it reaches waterways and reservoirs.

Expansion of Natural Gas Pipelines

Two new pipeline projects proposed to transport natural gas could also adversely impact the New York City and Hudson River watersheds:

If constructed, the Constitution Pipeline could cause severe environmental impacts, including significant alteration of the rural landscape and potential harm to wildlife and human health. Of immediate concern to Riverkeeper are the negative impacts the proposed pipeline would have

on water quality, including the quality of drinking water supplies in the project area. The preferred pipeline route goes through the Hudson River watershed, crossing Schoharie Creek, a tributary of the Mohawk River. We are also concerned that building the pipeline through the Marcellus and Utica shale formations in New York could incentivize future hydraulic fracturing (fracking) along the pipeline route. Finally, we seek to ensure that a proposed alternative pipeline route that would cut through the New York City drinking water supply watershed is officially taken off the table.

Riverkeeper is actively examining and commenting on the project, which is in the early stages of Federal Energy Regulatory Commision review.

The AIM Project involves the replacement and expansion of approximately 37 miles of existing pipeline, the upgrade of existing compressor and metering and regulating (M&R) stations and three new M&R stations in New York, Connecticut, Rhode Island and Massachusetts.

Riverkeeper is concerned about potential impacts during construction and operation such as, pollutant run-off into nearby waterways and destruction of wetlands in the New York City watershed. The AIM Project also involves a new, .7 mile crossing of the Hudson River by drilling under the riverbed.

Riverkeeper is active in examining and commenting on the project, which is in the very early stages of FERC review.



Contamination from Concentrated Animal Feeding Operations (CAFOs)

In 2013, the New York State Department of Environmental Conservation (DEC) acted to deregulate industrial-sized dairy farms with 200–299 cows. DEC's rulemaking has rolled back clean water protection standards to allow medium size dairy production facilities to operate without a permit, in clear violation of both federal and state law, with the likely result that untreated cow manure and other pollutants

will run off into Hudson River tributaries. Cow manure can contaminate drinking water and transmit disease-causing bacteria and parasites. In July 2013, Riverkeeper led a coalition of environmental groups to file a lawsuit against DEC challenging the rulemaking. The groups are co-represented in the lawsuit, which is now scheduled to be argued before the Supreme Court of Albany County on May 16, 2014, by Pace Law School's Environmental Litigation Clinic and Earthjustice.

The Dominoes Start to Fall for Indian Point By Deborah Brancato, Abigail Jones and

By Deborah Brancato, Abigail Jones and Leah Rae

Riverkeeper has carefully stacked up the arguments for a future without the Indian Point nuclear power plant – and the dominoes are starting to fall.

After another year of legal proceedings before the New York State Department of Environmental Conservation (DEC), plant owner Entergy has all but lost its battle for a critical water quality certification. Without that certification, the company cannot win new 20-year licenses from the federal government, and would have to close its two Indian Point reactors.

Riverkeeper is powering through a multifaceted campaign to shutter the aging, poorly maintained plant, while staying focused on solutions that will provide cleaner, renewable sources of energy once the plant is no longer operating. Here's a summary of our progress.

Domino 1: The Proof is in – Entergy Has Offered No Viable Solution for Stopping its Hudson River Fish Kills

Indian Point destroys massive amounts of fish and other aquatic life when they are sucked into cooling water intakes – an effect known as "entrainment." Since its founding as a fishermen's organization nearly 50 years ago, Riverkeeper has fought to require a closed-cycle cooling system that virtually eliminates the use of Hudson River water as the way to comply with the Clean Water Act mandate to use the "best technology available" to reduce environmental damage.

Instead, Entergy proposed installing 144 "cylindrical wedgewire screens"—enormous, cage-like structures on the river bottom. The proposal benefits the company by being cheaper than closed-cycle cooling, but is at best only half as effective at reducing fish kills.

The DEC long ago rejected Entergy's screens proposal for failing to comply with the Clean Water Act and interfering with designated best usages of the Hudson River for fishing and recreation, and wildlife habitat and survival. And, in successive rounds of DEC hearings related to Entergy's proposal in October 2011, August 2012 and again just last summer in July 2013, the folly of its plan could not be denied.

Riverkeeper's fisheries biologist Dr. Peter Henderson has testified how these screens fail to achieve anywhere near the reductions in entrainment that could be seen with closed-cycle cooling, let alone those reductions required by DEC and the Clean Water Act. Our expert also testified that the installation and operation of the screens would disturb about five acres of important habitat and permanently damage the aquatic ecosystem in front of Indian Point.

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What's more, testimony from Entergy showed that the company does not even own or have legal access to the river bottom needed to build the screens. Without ownership of the property or access to it, Entergy has no right to build the structures.

Over the three years of hearings and in our final, 300-plus page post-hearing briefing on the issue, Riverkeeper showed the screens could not be built — and would be ineffective even if built. Simply put, Entergy's proposal is dead in the water.

Domino 2: Proving Indian Point Could Virtually Stop Killing Fish - But Just Isn't Willing To

As hearings continue, Riverkeeper, together with Scenic Hudson and the Natural Resources Defense Council, is supporting DEC's strong case that closed-cycle cooling is the best technology available for Indian Point – one that could eliminate upwards of 97 percent of damage to the river from Indian Point's cooling water systems; a technology DEC required Entergy to install in 2003.

In support of DEC, Riverkeeper has a team of experts who will offer evidence that closed-cycle

cooling will comply with air quality regulations and will not compromise the reliability of the New York State electric system. The evidence will confirm what Riverkeeper has been advocating for years: closed-cycle cooling is critical and necessary to protect the sensitive and ecologically significant aquatic habitats of the Hudson River.

With closed-cycle cooling being firmly established as "best technology available" for Indian Point by this summer, and after a few more hearings on additional issues in 2014, Riverkeeper could put to rest over 10 years of litigation before the DEC by the end of this year.

Domino 3: Entergy's Energy Bluff is Now Moot

Despite all the evidence stacked against it, Entergy and its PR machine never give up. They would continue to have the public believe that Indian Point is an indispensable provider of electricity to the region. But the company's position is falling apart under mounting evidence: We've got better options.

Synapse Energy Economics, commissioned by Riverkeeper and the Natural Resources Defense Council, set out a roadmap for replacing Indian Point's power in their 2011 and 2012 reports. A diverse portfolio of renewable energy sources, efficiency measures, conservation and transmission upgrades can move us forward without Indian Point. And the case keeps getting stronger. New York State is actively preparing for a post-Indian Point power grid. A contingency plan, developed by Con Edison at the request

of the state Public Service Commission (PSC), prepares for an Indian Point closure in 2016. A November 4, 2013 PSC order has already approved transmission upgrades and other projects that will ensure a reliable electric grid.

Most recently, a new report by Synapse offered to support Riverkeeper's efforts in the State hearings, confirms that electric reliability can be assured, should Indian Point go offline as of 2016.

Time to call Entergy's bluff, once and for all.

Domino 4: Coastal Consistency Certification is All But Impossible

In order to receive renewed licenses, Entergy needs to sell another unlikely story: that its operations are consistent with New York coastal policies that prioritize the safeguarding of habitats, protection of fish and wildlife from hazardous waste, and the protection and expansion of recreational uses on the Hudson River.

The daily slaughter of aquatic life by hot-water discharges from Indian Point contributes to the decline of important Hudson River fish species. Radiological contamination from accidental hazardous releases has been leaking into the river for years, and will continue to do so for decades, if not centuries.

The coastal policies specifically call for the safe storage of hazardous wastes. At Indian Point, 1,500 metric tons of spent nuclear fuel is already stored on site, and another 1,000 metric tons can be expected if the plant is relicensed.

In 2013, Riverkeeper submitted comments to the New York Department of State documenting the myriad reasons why Indian Point violates New York's coastal zone policies – and fails to meet the conditions for a required "consistency certification."

A decision on the Coastal Consistency Certification is expected by December 2014. Without this certification, Entergy's relicensing bid before the NRC will topple.

Looking Ahead

All signs point to victory. Among those endorsing the shutdown of Indian Point over the last year was none other than Gregory Jaczko, former chairman of the NRC.

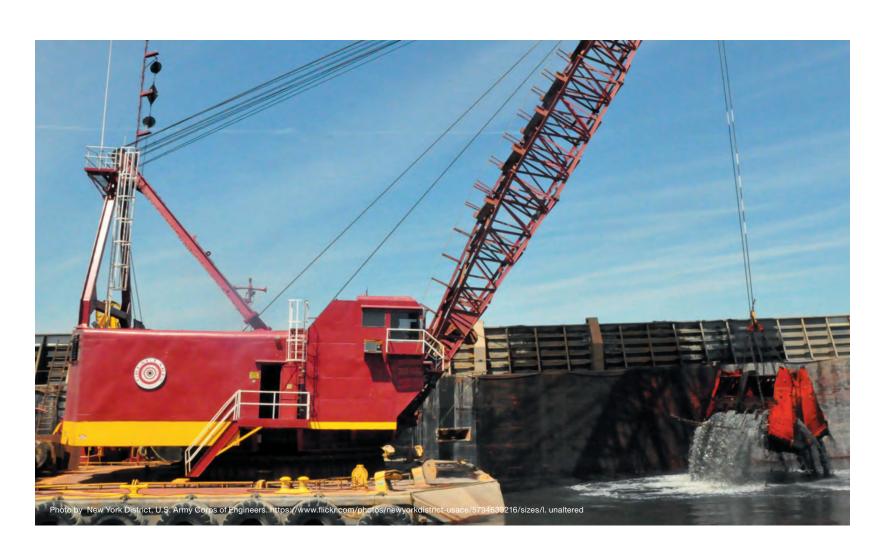
"Clearly there is a potential for severe accidents at the plant. Those accidents have the potential to contaminate areas beyond Westchester County."

"Ultimately, time and effort would be better spent working out a way to shut down Indian Point," he said at a panel discussion moderated by Riverkeeper's President Paul Gallay on the lessons of the Fukushima nuclear disaster in Japan.

Riverkeeper is committed to ensuring that happens so that New York can finally move on to a better, healthier future for us and our river.

BY TINA POSTERLI

TO REMEDIATION



Three Historic Superfund Sites Turn a Corner

General Electric PCBs

2014 marks the penultimate season of remediation dredging by General Electric (GE), but the company's liability for decades of pollution is far from absolved. GE is now looking down the barrel of costly liability under a Natural Resources Damages Assessment (NRDA), in which a Superfund party must pay to fund natural resource restoration. The NRDA can either be accomplished after site remediation is completed

or concurrently with the cleanup efforts. There are many benefits to voluntarily addressing NRDA obligations at the same time that cleanups are underway, and doing so is an emerging trend for polluters.

GE is ducking liability by stating that it considers this second, hugely important phase to be covered by the remediation it's already done. However, Riverkeeper, our partner groups and federal NRDA Trustees have not been fooled by

GE's misleading statements and familiar tactics to skirt accountability and are calling for the company to clean up the approximately 136 acres of highly contaminated hot spots that will remain in the river after its remediation is complete, almost half of which are located in the navigation channel. Failure to address these hot spots under the NRDA now is likely to lead to a decade or more of litigation and will hinder the recovery of the river and the economic development of river-side communities.



City of New York and the New York State DEC to embrace the plan and join with the Gowanus community as we work to reclaim the Canal. As a member of the Community Advisory Group for the Gowanus Canal (CAG), Riverkeeper is also pleased with the EPA's active engagement with the community thus far, and we encourage the agency to continue in this vein once the cleanup begins. This historic cleanup can only succeed if the passionate supporters of the Gowanus are fully involved from the day of listing to the day the last load of toxic sediment is removed from the Canal.

Riverkeeper has a long history of advocating for a cleanup of the Gowanus Canal and has actively been involved with the Superfund site since the Canal was nominated for inclusion on the National Priorities List in 2009. We look forward to continuing our work with the CAG and EPA as the cleanup is designed and implemented.

Village of Hastings on track to reclaim its waterfront

New York State Department of Environmental Conservation (DEC) announced in January 2014 it had reached an agreement with the Atlantic Richfield Company (ARCO), formerly Anaconda Wire & Cable, on a consent order to begin cleaning up contaminated sediment at the site and in the Hudson River.

The agreement is the culmination of a long battle that began shortly after Riverkeeper was founded as the Hudson River Fishermen's Association (HRFA). In 1969, HRFA started investigating Anaconda Wire and Copper Company for a history of dumping oil and solvents into the river and collected a \$200,000 penalty from the company in 1973.

In 2003, Riverkeeper, ARCO and the Village of Hastings signed a settlement agreement, resolving a lawsuit filed by Riverkeeper in 1994 against ARCO. The agreement required the company to remediate some of the shoreline and the site itself, but not offshore contamination in the

Hudson. Since then, Riverkeeper, the Village of Hastings and Scenic Hudson have been working with BP/ARCO to broaden the cleanup plan to include the portion of the Hudson contaminated with PCBs from the site. With the signing of this consent order, the final stage of cleanup planning for this historic riverfront site is at last underway. If all goes well, the site will be remediated in six years, and the Village of Hastings can reclaim its waterfront for the future.

Milestone cleanup agreement for the Gowanus

The Environmental Protection Agency (EPA) released its much-awaited cleanup plan for the Gowanus Canal in September 2013, requiring both the remediation of historical industrial pollution and reduction in sewer overflows.

Riverkeeper commended the EPA for developing a plan that recognizes that the full range of environmental insults levied against this unique waterway must be brought to an end. We have long advocated for a robust plan to halt toxic combined sewer overflows and other upland source discharges, and continue to urge the



Combating Sewage in our Waterways and Preparing for the Next Superstorm

By Phillip Musegaas

ew York City continued to be a hotbed of activity for Riverkeeper when it comes to reducing sewage pollution into the Hudson River and Harbor, and increasing climate resiliency measures in the aftermath of Hurricane Sandy in 2012.

When it comes to sewage pollution, the City has the dubious distinction of leading the state in combined sewer overflow discharges (CSOs), about 30 billion gallons a year into the Hudson, Harlem and East River and NY Harbor, causing continuing degradation of water quality and inhibiting the public from fully recreating in the City's waterways. The good news is that under Mayor Bloomberg, the City finally laid out a road map for making real reductions in CSO pollution using both "Green" and "Grey" infrastructure.

Examples of green infrastructure include green roofs, permeable pavement and street tree bioswales, all of which treat stormwater as a resource instead of a waste, not to mention greening urban neighborhoods so they are cooler and more livable. Grev infrastructure refers to traditional engineering fixes, like upgrading pump stations and building enormous underground storage tanks to hold the untreated sewage and stormwater until the storm passes, and it's pumped to the sewage treatment plant instead of being diverted out into our waterways. The green approach is much more cost effective than the grey, but doesn't always reduce the sewage volumes as much as needed to really improve water quality. A hybrid approach of using both green and grey will be most beneficial to achieving real long term benefits in water quality.

2013 saw City planners continue their good work on their formal Green Infrastructure Plan, including plans for more than 60 bioswales in neighborhoods in Brooklyn, Queens and the

Bronx, and a neighborhood scale pilot bioswale project in East New York. They also began the public outreach process for the Long Term Control Plans (LTCPs) that spell out the infrastructure improvements that will reduce pollution over the next 15-20 years. The first LTCPs of 2014 were released for areas in Jamaica Bay and the Bronx, with plans for Flushing Bay and Gowanus Canal due in 2015. Riverkeeper is actively working independently and as a founding member of the SWIM Coalition to increase our engagement in these communities and comment on these plans, to make sure that the City's work to reduce this chronic pollution problem is done equitably across the five boroughs. All New Yorkers deserve clean waterways, and underserved communities may require our help to make sure this happens.

Expanding green infrastructure projects around the city has the ancillary benefit of helping to mitigate flooding during severe storm events, and is one element of Mayor Bloomberg's response to Hurricane Sandy, which caused widespread damage throughout New York City and compelled a radical re-examination of the City's ability to weather severe storms and the inevitable sea level rise that is symptomatic of global climate change. Riverkeeper joined Advisory Committees for two key task forces convened by Bloomberg after Sandy struck: the Special Initiative for Rebuilding and Resiliency (SIRR), which developed citywide recommendations for improving the resiliency of wastewater, energy and transport infrastructure across the City, and the Open Industrial Uses Study, which is focused on "open industrial uses" like metal scrapyards, concrete companies and asphalt plants, where storm surge and flooding could most easily spread toxic industrial materials into adjacent waterways and neighborhoods.

Riverkeeper is concerned about proposals to build movable tide gates across the mouths of Newtown Creek, Gowanus Canal and Jamaica Inlet that would be closed in advance of a major storm to deflect floodwaters away from vulnerable communities. These are massive, expensive engineering projects which may have unintended impacts on the marine environment in the Harbor, and may not achieve the flood protection envisioned by the City. Plans for these tide gates have not moved past the feasibility planning stage, but Riverkeeper is keeping a close eye on them to ensure that Mayor de Blasio explores other alternatives, such as restoring offshore ovster reefs and rebuilding existing waterfronts to better mitigate severe storms.

These post – Sandy plans represent a new chapter in City planning and environmental regulation, one that recognizes the grave challenge that climate change and sea level rise poses to the future livability of New York, and seeks solutions based on both hard engineering like seawalls and hardened infrastructure and reliance on natural systems like tidal wetlands, soft shorelines, oyster reefs and green infrastructure to help us live with rising waters. For New York to thrive, we need an adaptive, resilient approach, not a fortress mentality that focuses entirely on keeping floodwaters out. Mayor Bloomberg's SIRR plan is a very promising start, but much work remains for Mayor de Blasio's administration, in order to carry out these plans and keep the focus on sustainable solutions that will green the City and protect against future climate impacts.

Riverkeeper is committed to working with Mayor de Blasio to reduce sewage pollution in the City's waterways and transform New York into a green, climate resilient global city that embraces, not repels the incredibly diverse and valuable waterways surrounding it.





Envision Rating System to Provide Framework for Evaluating Infrastructure Sustainability

Riverkeeper continues the fight for a resilient New York by promoting the Envision Rating System. What LEED did for green buildings, Envision will do for green infrastructure; this rating system will provide a holistic framework for evaluating the sustainability of infrastructure.

Since joining forces with Envision's creators, the Zofnass Program for Sustainable Infrastructure at Harvard University and the Institute for Sustainable Infrastructure, Riverkeeper has been advocating for the use of Envision as we rebuild New York.

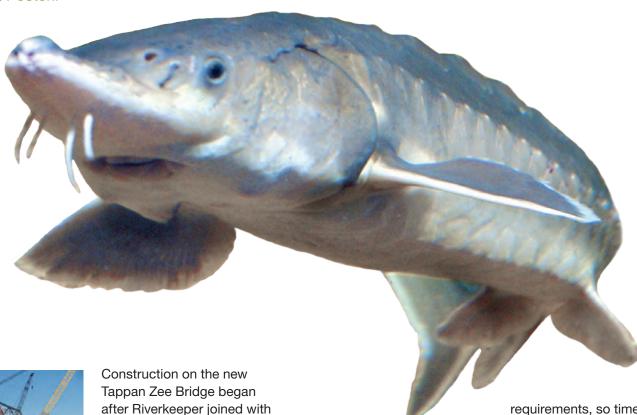
We have recently introduced New York City's Department of Environmental Protection (DEP) to the Zofnass Program for Sustainable Infrastructure at Harvard University, and as a result, DEP plans to use Envision internally on all new projects. Riverkeeper applauds this move, and hopes to have an Envision certified Platinum infrastructure project in New York.

THE TAPPAN ZEE BRIDGE PROJECT

Protecting the River from the Impacts of Construction

Dredging Season Ends but Concerns Continue

By Tina Posterli





partner Scenic Hudson in a settlement agreement with New York State on a stricter construction permit, but concerns about the project's impact on the Hudson

River remain. Riverkeeper formally threatened to sue the State in September 2013 over poor dredging practices and inadequate monitoring of endangered species. In response, the State cleaned up its act on dredging, but is struggling to develop an in-river monitoring system to check on endangered Atlantic Sturgeon during construction. Riverkeeper has made it clear that the current system is not protective enough, and likely doesn't comply with federal permit

requirements, so time is running out for the State to remedy this gap in environmental protection before we take further legal action.

Riverkeeper has been an ardent watchdog of the project since it was pushed forward in 2012 and as steward of the Hudson, laid out specific recommendations that would ensure the river is protected and state resources are allocated to compensate for any unavoidable damage done during construction. Together with Scenic Hudson, we will continue to ensure that the new Tappan Zee Bridge is built in a way that safeguards our river while providing local communities with the modern infrastructure they need



Riverkeeper staff and volunteers marked Swimmable Water Action Day in 2014 on the Hudson River at

How Do YOU Support A Healthy Hudson?

In February 1966, it was a small group of citizens with diverse backgrounds—scientists and fishermen, as well as a prison quard, a photographer, an orthodontist and a grave digger—who gathered together around an aquarium in Robert Boyle's living room in Croton and decided they wouldn't leave the job of cleaning the Hudson to someone else.

Nearly 50 years after those seeds were sown for the group that became Riverkeeper, we are looking for new ways to harness the creativity and dedication of the diverse set of people who love the river. Today, our supporters can contribute in more ways than ever before, thanks to Riverkeeper's programs to support membership,

outreach, volunteerism, citizen science and advocacy, thanks in large part to generous funding in 2013 and 2014 from Board Member David Kowitz and the Insurance Industry Charitable Foundation. Read on for a look at the ways people contribute, and ask yourself, "How can I support a healthy river?"

How You Can Make a Difference

COMMUNITY SERVICE

More than 1,400 people volunteered for the 2013 Riverkeeper Sweep, removing 38 tons of trash from the shoreline and planting 300 trees in more than 70 communities between New York City and Albany.

CITIZEN SCIENCE

Riverkeeper works with dozens of community partners throughout the Hudson River watershed to take nearly 1,0000 samples per year on seven tributaries of the Hudson River, expanding our landmark study of Hudson River water quality, and providing the most comprehensive publicly available information on where and when it is safe to swim.

RIVERKEEPER VOLUNTEERS AND AMBASSADORS

In 2013, volunteers devoted more than 7,000 hours of service, valued at more than \$200,000. Riverkeeper Ambassadors are our most engaged volunteers. They represent Riverkeeper at outreach events or speaking engagements—more than 45 in 2013 alone—or devote essential professional services to the organization, including in 2013, GIS mapping, legal research, graphics design, IT support, photography and videography

ADVOCATES

What's the difference between signing a petition and taking action with Riverkeeper? Riverkeeper's action alerts are strategically timed, worded and targeted, so that they make a real difference. In 2013, Riverkeeper engaged citizens to take more than 10.000 individual actions, more than 90% of them online

CORPORATE AND EMPLOYEE ENGAGEMENT

More than 110 employees were engaged in seven service projects in 2013, thanks to Riverkeeper's new corporate engagement program, which helps companies that support Riverkeeper meet social responsibility and volunteerism goals. Riverkeeper also works with EarthShare New York so that employers can empower their employees to donate to environmental causes during annual giving campaigns.

To discuss citizen science opportunities, contact Jennifer Epstein, Water Quality Associate, at jepstein@riverkeeper.org or 914-478-4501 x248.

To discuss all other volunteer opportunities, contact Dana Gulley, Community Outreach and Volunteer Coordinator, at dgulley@riverkeeper. org or 914-478-4501 x222.

Photo by vastateparksstaff. https://www.flickr.com/photos/vastateparksstaff/8263546875/sizes/l. unalterec



Students from the Kipp Middle School were among the volunteers at the 2013 Riverkeeper Sweep at Inwood's North Cove on the Harlem River. Photo by James D'Addio.

Riverkeeper Sweep Doubles Its Impact



Neighbors came together to clean up the shoreline at Hastings-on-Hudson. Photo by Haven Colgate.

During our annual day of service for the Hudson River estuary in 2013, more than 1,400 volunteers removed 38 tons of shoreline trash and planted 300 trees in more than 70 communities between Albany and New York City—a doubling of our impact in the event's second year.

Our biggest projects, like the 2013 cleanup at Inwood's North Cove on the Harlem River, have lasting impact. There, 80 people removed nearly six tons of trash from a neglected cove whose restoration James Cataldi has championed as a signature project for his Manhattan Wetlands and Wildlife Association. The Sweep helped bring attention to Cataldi's efforts, solidifying connections to community members and elected officials, and helping to ensure that the cove doesn't become a dumping ground again.

The event not only inspires that kind of connection and service to one's community, but year-round civic engagement, as we use the Sweep as a vehicle to meet new volunteers, members and activists to support our mission.

It is also emerging as a self-sustaining event and a promising fundraiser for the organization, as more sponsors donate money and engage their employees in volunteer service. The Riverkeeper Sweep is the signature New York event in the Waterkeeper Alliance's SPLASH Series, presented nationally by Toyota and designed to connect people to their local waters. Sponsors in 2013 included Paragon Sports, Sprout Watches, EILEEN FISHER, Pleasant Valley Stone, Mother Earth's Storehouse, Greenhouse, New York Kayak Company, 1-800 GOT JUNK? New City, Whole Foods Markets, LF USA, Metal Container Corp., and Joe and Daryl Boren.

Finally, the Sweep strengthens our bonds to communities, and the constellation of organizations with an interest in the water, ranging from breweries in our river cities and Metro-North Railroad to boat clubs and town-level conservation advisory committees.

For information about the Riverkeeper Sweep visit, www.riverkeeper.org/sweep.

Fishermen's Ball Embraces Grassroots



Lyle Lovett; Cheryl Hines; Robert F. Kennedy, Jr.; Kerry Kennedy; Mark Ruffalo and Paul Gallay at the 2013 Fishermen's Ball. Photo by Ann Billingsley.

Actor Mark Ruffalo, the recipient of Riverkeeper's Big Fish Award at the 2013 Fishermen's Ball, embodies much of the spirit of the moment. With his Water Defense group, he's fighting unsafe fracking in his back yard, the Catskills of New York, which are the headwaters for major Hudson River tributaries and the New York City drinking water supply. And with the Solutions Project, he's helping to create a roadmap for clean energy production in New York State and beyond. Ruffalo embraced the grassroots spirit of the night, marked symbolically by guests wearing blue jeans, by thanking the many advocates for clean energy in the audience.

Guests included Riverkeeper board members, activists and scientists, filmmakers, artists, and actors, including Maggie Gyllenhaal, Cheryl Hines, Yoko Ono and Glenn Close, who opened the evening.

A lively performance by Lyle Lovett, including—of course—his classic rendition of "If I Had a Boat," rounded out a festive evening that served both to celebrate the grassroots and raise over \$1 million for the cause of protecting the Hudson River and our drinking water.



A volunteer in Poughkeepsie walks along the Hudson River. Photo by Jay Wright.

EcoSalon: Greening Post-Sandy New York

One year after Superstorm Sandy left its wake of destruction in New York City, Riverkeeper gathered a panel of professionals who are engaged in the challenge of building a more resilient city. Our fifth EcoSalon event, "Greening Post-Sandy New York," brought the perspectives of architects, planners and environmentalists, and shared a sense of hope that New York can serve as a model for smart, sustainable development.

The panel spoke in a room at the Hearst Tower, a LEED-platinum green building overlooking the city and its waterways. Ambassador John Negroponte moderated the discussion that included Riverkeeper President Paul Gallay; Steven Cohen, executive director of Columbia University's Earth Institute; architect Kim Yao and Susan Leeds of the New York City Energy Efficiency Corporation.

"Unfortunately Sandy is far from the worst storm we'll see," Gallay said. "This is really testing the mettle of New York City. We have a tremendous amount of talent in this city and this region, we have a tremendous amount of will and resolve. If we apply it in this case, I think we're going to end up on the good side of the next storm."

Sponsors for the event included Greenwood Energy, Hearst Corporation, The Durst Organization, Ironshore, NYCEEC, Macy's and Bloomingdale's, Dr. Howard Rubin, Joe Boren, Tangent Energy Solutions, Inc., and Zofnass Program for Sustainable Infrastructure at Harvard University.



Paul, Board member Camilo Patrignani and Advisory Board member Richard Zimmerman. Photo by Virginia Hunter.

With Gratitude and Appreciation

Riverkeeper gratefully acknowledges the generous contributions from individuals, foundations, and corporations. Space limitations and eco-wise production standards allow us to present donors of \$250 and greater in this presentation. This listing reflects contributions received between July 1st, 2012 and June 30th, 2013. We are grateful to all of our members and supporters.

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Financials

BALANCE SHEET FISCAL YEAR 2013 vs FISCAL YEAR 2012

ASSESTS	FY'13	FY'12
Cash and Cash equivalents	507,237	986,509
Pledges receivables	674,810	262,062
Reimbursement receivables	0	525,000
Property and Equipment (net)	105,043	109,400
Prepaid expenses and deposits	13,659	20,751
Total Assets	1,300,749	1,903,722
Contributions and pledges receivables, net of current portion	75,000	0
LIABILITIES		
Accounts payable	137,954	625,638
Total Liabilities	137,954	625,638
NET ASSETS	A CONTRACT VALUE	
Unrestricted	1,087,975	1,228,084
Temporarily restricted	150,000	50,000
Total Net Assets	1,237,975	1,278,084
TOTAL LIABILITIES and NET ASSETS	1,375,749	1,903,722
STATEMENT OF FINANCIAL POSITION FISCAL YEAR 2013 vs FISCAL	YEAR 2012	
SUPPORT AND REVENUE	FY'13	FY'12
Contributions	2,546,188	2,052,002
Special Events	943,367	1,047,573
Donated legal services	704,415	536,095
Other revenue	4,219	3,376
Legal Settlements	0	0
Cost reimbursements	57,376	557,916
Total Support and Revenue	4,255,565	4,196,962
EXPENSES		
Program services	3,830,716	3,807,101
Management	103,692	85,959
Fundraising	361,446	401,988
Total Expenses	4,295,854	4,295,048
Surplus/ Increase in Net Assets	(40,289)	(98,086)

Outstanding Contributions 22013

Riverkeeper works with hundreds of members who volunteer each vear. Here, with thanks, are a few standout examples from 2013:



AMY DECAMP

A member since 2007, Amy deCamp attends events as a Riverkeeper Ambassador and assists with administrative tasks. She also used her expertise in landscape design to work gardening magic on the traffic island in front of Riverkeeper's office in Ossining, beautifying it with native flowers, ferns and grasses.

SUZIE ROSS

A member since 2011, Suzie Ross puts her professional research skills to work for our Development team, attends events as a Riverkeeper Ambassador, volunteers at the Fishermen's Ball and works tirelessly to keep Riverkeeper connected to our home community in Ossining.

JOHN KOBLINSKY

A member since 2012, John Koblinsky has contributed in more ways than there's room to print, including: representing Riverkeeper as an Ambassador at outreach events, organizing and volunteering at shoreline cleanups, organized a happy hour for other Ambassadors and worked through his employer, MetLife, to support Riverkeeper volunteer programs.

BEN SAUTER

An attorney and a member since 2013, Ben Sauter not only contributed time for a legal memo to support the Close Indian Point campaign, but also set up a promotional campaign with GrowNYC to promote the Riverkeeper Sweep, gathered petition signatures in support of a robust Sewage Pollution Right to Know law during our Swimmable Waters Action Day in 2013, attended our EcoSalon on "Greening Post-Sandy New York," and has started working with his wife Tina to bring Riverkeeper's message to her elementary school.

MARY ANDREWS

A member since 2005, Mary Andrews not only co-organized a Sweep cleanup at Turkey Point State Forest in Ulster County, but she has allowed Riverkeeper to attend many outreach events in the mid-Hudson Valley as our most dedicated Ambassador in the region.

LENA GOLZE DESMOND

An attorney, Lena Golze Desmond, has twice volunteered her time to research pressing issues to assist Riverkeeper's legal team. Her research contributed to blockbuster revelations about the New York communities that had received permission to spread gas drilling wastes as a de-icing agent on their roads, and her timely research helped our attorneys understand the regulatory landscape for crude oil transportation as we launched our campaign to protect the river from this new threat.

- 3 Projects in New York City's watershed influenced by Riverkeeper's advocacy in support of drinking water protection and sustainable development
- 7 Laws enacted with Riverkeeper assistance
- 22 Environmental violations resolved, plus ongoing hazardous waste cleanups
- 36 Government permits and regulations influenced
- 72 Communities served by the Riverkeeper Sweep, day of service for the Hudson River
- 500 Acres of wilderness designated in the Catskill Mountains to preserve drinking water quality
- · 948 Number of water samples tested from the Hudson River estuary and seven tributaries
- 3,500 Miles patrolled by the R. lan Fletcher
- 6,801 Hours given to Riverkeeper by volunteers
- 10,223 Actions taken online by Riverkeeper members and supporters
- 275,000 New York homes to be powered by clean energy alternatives to Indian Point under new permits

With Thanks

Riverkeeper welcomed four new board members in 2013 and early 2014. Camilo Patrignani is Head of Americas at Libra Group. Kristie Pellecchia is a director at BNP Paribas. David Reilly is the Technology Infrastructure executive for Global Technology & Operations at Bank of America. Leslie Williams is the founder of The Perennial Chef and a board member of The Food and Environment Reporting Network.

We said goodbye in 2013 to board members Renee Rockefeller and Fred Tanne, and in 2014 to the incomparable George Hornig, who has been one of Riverkeeper's most dedicated and active board members and a steadfast supporter for 15 years. The Board of Directors and staff deeply appreciate George's commitment and his role in strengthening Riverkeeper.

In 2013 and 2014 Riverkeeper also welcomed new advisory board members Irvine Flinn, Ed Moran, Eric Nevin and S. Mackintosh Pulsifer; and Junior Council member Michael Jacobs.

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Riverkeeper On The Map





passage of frack waste bans



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Getting in touch

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Get Involved! Visit Riverkeeper.org today



Volunteers, along with Riverkeeper, Metro North and Zero to Go, cleaned up Travis Cove on Peekskill's waterfront, in September 2013.