

Governor Visits New Shenandoah Riverkeeper



Governor Kaine discusses Shenandoah fish health.

Jeff Kelble had been the Shenandoah Riverkeeper for two weeks when Virginia Governor Timothy Kaine, US Senator Russ Potts, and Secretary of Natural Resource Preston Bryant flew from Richmond to hold a meeting at his bed and breakfast. The Governor wanted to be briefed on the status of the ongoing fish kills on the Shenandoah River, and he wanted to hear from citizens who had personally been affected by the river's problems. Evidently Jeff's story rang true: man runs fishing guide service on the Shenandoah, businessman buys old house in Shenandoah Valley and renovates for two years to open B&B to cater to fishermen, fish kills occur, man's dreams dashed. Jeff has served on the Virginia Fish Kill Task Force since its inception, originally as a fishing guide but now as the Shenandoah Riverkeeper. The Fish Kill Task Force is composed of State environment and game officials, Shenandoah Valley non-profit conservation groups, federal fish pathology experts, federal water chemistry experts,

university scientists and Jeff. Out of the task force has come several studies to determine why Shenandoah fish were forming lesions and dying. The studies have been underway since April and the task force is scheduled to run out of money at the end of the summer. This is why the Governor's help is needed.

Jeff reports that the meeting was strong and that the Governor had very good answers to his three questions. The Governor agreed with Jeff that the fish kills and the river's health are a state issue. The Governor informed Jeff that his next step is to look at his discretionary funds as well as to meet with Preston Bryant to find money to continue with the

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Another Victory for Potomac

West Virginia makes Public Service Sewer District pay \$2.1 million, with \$2 million going towards environmental projects to clean up the sewer problems in eight different location, and credited PRK's as the catalyst for these changes. In a past "compliance sweep" of polluters, Potomac Riverkeeper noticed that the Berkeley County, West Virginia Public Service Sewer District had continuous violations that started in 2002 at its Opequon/Hedgesville and Inwood Wastewater Treatment Facilities. Pollution included a monthly concentration of fecal coliform that is four times the permitted amount. Additionally, they were missing their biochemical oxygen demand (BOD) numbers, which decreases the amount of dissolved oxygen in the water and threatens the respiration process of fish.

We sent the plant a notice saying that if they didn't correct the problems within 60 days, we would take them to court to make sure the problems would be corrected. Within the 60 day period, the state of West Virginia stepped in and created its own enforcement action. The judge's consent order that was signed by all parties in late April of this year stated that the district must have all upgrades finished and in place at the Inwood Facility by May, 2008, and submit a complete plan to the State and Court for the Opequon/Hedgesville facility by the end of the year.

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Potomac Riverkeeper's Corner

Algae and Bacteria

There is one recorded human death and many cases of sickness from people being in water that has blue-green algae. In most of these cases, the person jumped or fell into the green slime and then either inhaled or ingested the algae. Three years ago in Wisconsin, some teenagers jumped into a pond on a golf course to cool off. The pond had algae in it. One died and three became very sick.

The type of algae that closed Colonial Beach and nearly five miles of the Potomac's shore two years ago was different than the Wisconsin golf pond algae. However, it is also considered toxic. The death of thousands of fish in the area last June may yet be linked to algae problems. Large animals like dairy cows have died from liver failure from drinking water with this type of algae in it.

A second problem occurring here has also had more fatal consequences in other parts of our country. A few months ago in Honolulu, during excessive rainfall a sewer overflow released 48 million gallons of untreated sewage into the canal next to Waikiki Beach. This sewage release caused bacteria levels 60 times what is considered acceptable and forced the closing of Hawaii's best known beach. Unfortunately, a man fell into the harbor close to the canal and died one week later from bacterial infections. Two of the bacteria were flesh-eating and would have caused the loss of his legs and an arm had he not died of massive organ failure.

On May 19th of this year, 17 million gallons of untreated sewage were dumped into the Potomac in Washington, DC due to multiple errors. The EPA spokesperson said this was not as much as is spilled during "a major wet weather event" when the storm sewers dump raw sewage and storm water directly into the Anacostia, Potomac, and Rock Creek.

Why and How

Now that I have your attention, I'll say that most of our watershed is safe to enjoy most of the time. However, problems with algae and bacteria do occur. In both of the above cases, what started these dangerous situations was pollution. Blue-green algae appear where nitrogen and phosphorous pollution are great. This "nutrient pollution" occurs in agricultural areas from excess



fertilizer and animal feedlot runoff. In urban areas it occurs from excess lawn fertilizer runoff and sewage treatment plant problems. Dangerous bacteria proliferate where sewage isn't treated properly and can occur anywhere, but is worse in urban areas.

The Solution

The written goal of the 1972 Clean Water Act was to have all our waters fishable and swimmable by 1982 and pollution free by 1985. Can you imagine how clean the waters of our nation would be today if for the last twenty-one years the Clean Water Act's goals had been met? However, the Clean Water Act has been and continues to be under attack from polluters and friends of polluters, and without a strong and enforceable law, our water pollution problems will increase.

Please write your two Senators and Representative in Congress (www.thomas.gov/links) and let them know you are against all attempts at weakening the Clean Water Act. Tell them you want them to support all our waters being fishable and swimmable with plenty of safe drinking water for all. Finally, please let us know the type of reply you receive. We will share it with others.

Ed Merrifield

Governor Visits Our New Shenandoah Riverkeeper, *continued from page 1*

work that has begun. The Governor supports Jeff's initiative to try to fix the river's health and take action, even if the Fish Kill Task Force has not determined or agreed what may be causing the decline of healthy fish.

Two weeks ago, Jeff was approved by the Waterkeeper Alliance to become the first Shenandoah Riverkeeper. Jeff has worked hard to transition from operating a fishing guide service to fixing a broken river. Since January, Jeff has been busy with Virginia's Fish Kill Task Force, press interviews, fish sampling and fish kill watch duty, on-the-water fish reproduction surveys, USGS' habitat and geology mapping of the South Fork Shenandoah, collaborating with other Shenandoah Conservation Organizations, documenting riverbank tampering and degradation like tree cutting bulldozing and sewerage spills, working to enforce the Clean Water Act Laws regarding industry and municipal sewer treatment facilities, investigating the smallmouth's intersex issue, enforcing sediment and erosion control in developments, participating in the strengthening of Page County's water ordinances, and forming and fostering Riverwatchers.

Perhaps Jeff's greatest concern has been the ongoing nature of the fish kills which have occurred for the third year, only this year they were not limited to mature smallmouth bass and redbreast. Northern hogsuckers are now dying. Along this same stretch of river, the immature smallmouth bass and redbreast sunfish emerged from the winter in very poor health: low weight, lesions and elevated immune response. Until now, the Main Stem Shenandoah had largely been missed by these fish kills but this year changed that. Though we don't know the cause of the fish kills, it pushes us to be truly vigilant in our fight for water quality. We don't want to miss one single opportunity to bring improvement to this beautiful river system. Let's not forget that the Shenandoah River is the largest tributary of the Potomac, contributing about 25% of its flow. Improvements we can gain in the Shenandoah Valley will ultimately mean a cleaner Potomac River, better drinking water for the DC metropolitan area, and a healthier Chesapeake Bay.



Adam VanGrack, PRK Riverwatcher, kayaks in Mather Gorge

Riverwatchers

PRK will be holding its annual **Riverwatcher Training Sessions** in the fall. PRK relies on its members and volunteers to help be the eyes and ears of the Potomac, and alert the appropriate authorities when pollution happens. If you spot pollution, please call (301) POTOMAC

Please continue to check our website, www.potomacriverkeeper.org under the Volunteer page to obtain exact dates. If you are interested in becoming a Riverwatcher and attending the training session, please contact our office at 202.222.0707 or email us at keeper@potomacriverkeeper.org.

The goal of the training sessions is to educate monitors on how to recognize pollution, who to report it to, and how to keep us informed. This year we are honored to have the Coast Guard assist us during these training sessions.

PRK as Prosecutors

by Rena Steinzor (Board Member)

All of the major environmental laws have provisions that allow the ordinary, average person to speak truth to power by bringing a court action challenging behavior that violates the legal requirements. Unlike many other environmental organizations, the concept of a Riverkeeper, as well as the growing Waterkeeper movement, was formed to take full advantage of the law's potential.

Potomac Riverkeeper (PRK) has three pro bono law firms working for it at the moment. The environmental clinics at the Georgetown Law Center, University of Maryland School of Law, and Widener Law School have all devoted a significant chunk of their resources to representing PRK. Ed Merrifield, our Potomac Riverkeeper and Executive Director, says he expects to add a fourth firm, from the newly opened clinic at the University of Virginia School of Law. Law clinics enroll second and third year law students in small courses of no more than 10 or 12 students that are supervised by an experienced attorney. (For the sake of full disclosure, I should admit that I was the director of the University of Maryland clinic before I became a member of the board. My successor, Kerry Rodgers, still represents PRK).

PRK's lawyers typically file two different kinds of suits. One is designed to force companies or public entities (for example, sewage treatment plants) to clean up practices that dump too much pollution into the water. Unfortunately, the Clean Water Act (CWA), despite its idealistic goal of "zero discharge" by 1985, is being implemented today to permit a wide variety of industrial facilities to discharge effluent (watered waste) into the Potomac and its tributaries. Discharges that exceed allowed limits are far more common than people suspect.

The second type of lawsuit involves challenging the government when it is not doing a good enough job protecting the environment. Sometimes Riverkeepers sue the federal Environmental Protection Agency (EPA) and sometimes they sue the relevant state. Such lawsuits generally seek broader relief than the first kind, and are harder to win in court because the government defends them vigorously.

PRK's most ambitious lawsuit seeking such comprehensive relief involved EPA's approval of Maryland's Total Maximum Daily Load (TMDL) program. The CWA requires every discharger to have a permit setting limits on the amount of waste it can dump in a river. When water quality drops in a segment of the river, the state is required to declare the segment "impaired," meaning it no longer is clean enough to serve its "designated uses" (for example, drinking, swimming, or fishing). Or, in other words, TMDLs are designed to serve as the CWA's "safety net," limiting the discharge of sewage and industrial waste to rivers, lakes, and streams when the cumulative load of such pollution is more than a waterbody can sustain.

When PRK filed its lawsuit, the Maryland Department of the Environment (MDE) had identified 659 "water quality limited" – or impaired – portions of a river, creek, lake, or stream in Maryland over a 12 year period. But the state had completed only 132, or a rate around 19 per year. At the rate the state was going, PRK said in its lawsuit, it would take until 2038 to finish the job, even assuming no new impaired waters were listed.

Unfortunately, federal district court judge Robert Bennett was more impressed by Maryland's fervent promises to clean up its act than it was by PRK's arguments that the agency cannot be trusted to finish the job on time. PRK went out of its way to explain to the court that while MDE officials were doing their best, they had insufficient resources to keep up a sufficiently rapid pace. The judge threw the case out of court, and PRK decided not to appeal, instead determining to return to its position of monitoring Maryland's performance carefully to make sure that if it does not keep its word, PRK can go back to court.

As environmental agencies lose funding at a growing rate, lawsuits like these become among the most important catalysts for governors, state legislators, Congress, and the president to reinvest in their crucial missions. PRK knows that it is better to have brought attention to the problem, fought the fight and lost than to sit by while companies and agencies break the law.

What is Being Fed to Our Cattle Affects Our Fish

What we do on the land affects our water, and this could not be any truer than the case of what we feed our cattle is ultimately ending up in our fish. To beef up our beef, U.S. cattle ranchers treat their livestock with a synthetic anabolic steroid, trenbolone acetate. This growth-promoting hormone ends up in our waters either through farm wastewater discharges into the water or direct deposit of cattle waste into the streams when cattle are permitted to wade in the water. According to Science News (June 24, 2006), in April, the Environmental Protection Agency scientists reported finding traces of this steroid used as a supplement for cattle in an Ohio stream. The scientist discovered female fish developing masculine traits when coming into contact with this steroid ingested by the cows. When a certain toxic level of this steroid enters the aquatic ecosystem, female fish egg production terminates and the females' heads develop bumps, a trait normally only seen in male fish.

In our own watershed, fish kills are occurring in the Shenandoah and upper Potomac. Scientists are discovering male fish with the development of immature ovaries growing on their testes. Scientist cannot explain exactly why intersex fish are occurring, but are developing theories. Livestock waste containing hormones are entering our water and may be linked to the bizarre intersex fish. Though the intersex fish are safe to eat, this condition leads scientists to believe that these fish are extremely stressed and susceptible to diseases and infections. Jeff Kelble, the Shenandoah Riverkeeper, has joined other concerned scientists on the Virginia Fish Kill Tasks Force and hopes to find answers and solutions to the fish health crisis.



Who to Call When You Spot Pollution - Dial 301-POTOMAC

If you see pollution in the Potomac or its tributaries:

First call one of the numbers below, and then call Potomac Riverkeeper at **301-POTOMAC**, or email to keeper@potomacriverkeeper.org

Types of pollution: fish kills, algae blooms, hazardous materials and oil spills, public sewer breaks/overflows, sediment/dirt discharge, wetland impacts, etc

District of Columbia:

Sewer Leaks - WASA hotline at 202.612.3400 – have nearest street and cross street ready

Sediment/Dirt entering a storm drain from a construction site or a cement truck washing into street or storm drain, etc., call 202.535.2240 – DC Watershed Protection and Compliance Branch

Oil/Hazardous Substances, call 202.724.9216 – DC Water Quality Division

After hours, weekends, and holidays, call the Mayor's hotline: 202.727.3636

Maryland Department of the Environment (MDE): All Pollution, call 1.800.633.6101

West Virginia Department of Natural Resources (DNR): All Pollution, call 1.800.642.3074

Pennsylvania Department of Environmental Protection (DEP): All Pollution, call 1.866.255.5158

Virginia Department of Environmental Quality (DEQ): All Pollution, regular business hours, call:

Northern Regional Office at 703.583.3800

Piedmont (Middle VA) Regional Office at 804.527.5020

Tidewater (Southern VA) Regional Office at 757.518.2000

After hours, holidays, and weekends, call 804.897.6500 – the Department of Emergency Management

What's New at Potomac Riverkeeper?

PRK Welcomes Two New Staffers



Jeff Kelble began work as the Shenandoah Manager of Potomac Riverkeeper at the turn of the new year. Jeff had owned and run a fishing guide business

on the Shenandoah River for seven years but the Shenandoah River has so many pollution issues that the fish he used to guide for are nearly gone. Last fall, Ed Merrifield approached Jeff to ask if he would consider trying to become the first Shenandoah Riverkeeper. Jeff decided it was time he stop standing on the sidelines while one of the most beautiful rivers in the country spiraled into decay. We submitted our application for the Riverkeeper title, and Jeff was approved by the Waterkeeper Alliance to become the Shenandoah Riverkeeper in June of 2006. Please stay tuned, we promise to update Potomac Riverkeeper membership of our progress in the Shenandoah Valley.

PRK welcomes its newest staff member in Development and Programs, Kate Bollie. Kate joined PRK at the end of January. She has previous Riverkeeper experience and has



worked with other non-profit environmental organizations, along with interning with the U.S. Fish & Wildlife Service and NOAA Fisheries. She completed her M.A. in Natural Resources in 2004 at the United Nation's University for Peace in Costa Rica. She also holds an M.A. in International Affairs from American University, which brought her here to DC. She has previously researched water quality issues, wastewater treatment facilities, agricultural impacts on watersheds, environmental policies and wildlife sampling. She now resides in Bethesda, Maryland and looks forward to learning how to whitewater kayak on the Potomac.

Potomac Riverkeeper Acquires New Boat

We now have the ability for increased monitoring and patrols on the tidal portion of the Potomac. A new Parker 2120 is now in the water at the James Creek Marina on the waterfront of Washington, DC. Thanks to help from all our funders, but especially to grants from the Norcross Foundation, the Henry Foundation, and a very low interest loan from the Keith Campbell Foundation, PRK now has a solid, all-weather platform to do its work from the District to the Chesapeake. With the purchase of this boat, Potomac Riverkeeper can continue to expand its Healthy Rivers = Healthy Communities Program in the lower Potomac Watershed and raise river awareness. Also, with the help of strong supporters at our Annual Spring Gala, we were able to raise funds to purchase high-tech water quality electronic monitoring equipment to outfit the boat. The instruments will be able to test for everything from numbers relating to the "dead zone" in the Potomac to sewage overflow issues. Thank you again to all of our funders and members who have helped us reach this goal of increasing PRK's presence and ability to monitor water quality.



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Thanks to all that helped to sponsor, contributed and attended our Annual Spring Event! You helped us surpass our goal and raise \$20,000!



Left: View from Potomac Boat Club's Porch. Above: PRK members in the main room of the Boat Club.

YES, I want the Potomac River to be safe and clean! Enclosed is my tax-deductible membership gift to help Potomac Riverkeeper protect and restore the Potomac River.

\$35 Regular \$50 Family \$100 \$250 \$500 Other _____

Name _____

Address _____

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Please make checks payable to **Potomac Riverkeeper**. Thank you!

1717 Massachusetts Avenue, NW • Suite 600 • Washington, DC 20036

Do you know someone who should be a member? Please pass this newsletter on and urge them to join!



Our Mission: *To protect and restore water quality in the Potomac River and its tributaries, from its headwaters in West Virginia to the Chesapeake Bay, through citizen action, advocacy, and enforcement.*

Phone: 202-222-0707 • Fax: 202-783-0444 • Email: keeper@potomacriverkeeper.org

Stop the Presses!

BOYCE, VA—Potomac Riverkeeper/Shenandoah Riverkeeper announced it plans to sue a Virginia wastewater treatment facility for egregious violations of federal and commonwealth laws on waste disposal.

The treatment facility, owned by Sheaffer International, has dumped 100,000 pounds of phosphorous into the North Fork of the Shenandoah River in 2005—roughly 740 percent more than the law currently allows. Sheaffer also exceeded limits placed on nitrogen by about 35 percent.

“In 2000, the EPA and bay states committed to substantially decrease nitrogen and phosphorous pollution in the bay by 2010,” says the Potomac Riverkeeper. “Since then, total nitrogen and phosphorous pollution loads have continued to go up, creating dead zones in our rivers and the bay, and suffocating marine life.”

Excess nitrogen and phosphorous pollution rob the water of oxygen fish and aquatic life need, giving rise to algae blooms, cloudy water and smothering aquatic vegetation. The increased chemical presence in the North Fork has led to fish kills of up to 80 percent of adult smallmouth bass and sunfish in recent years.

Potomac Riverkeeper/Shenandoah Riverkeeper, along with lawyers from the Waterkeeper Alliance, submitted a mandatory 60-day warning of their intention to sue, giving Sheaffer time to prepare a defense or eradicate the problem. Sheaffer is currently in violation of the Clean Water Act, Resource Conservation and Recovery Act and Virginia Law for failure to properly treat highly concentrated waste from two poultry processing plants in Virginia. The treatment facility had promised waste from the processing plants would be diverted to crop irrigation systems, but this has not happened and the waste instead is draining directly into the North Fork.

“It’s got the potential to be the best waste treatment system in the valley,” says Jeff Kelble, the Shenandoah Riverkeeper.

The problem transcends the valley, however, because of the problems posed to fish and human populations downstream. The North Fork flows into the Shenandoah River, then into the Potomac River and finally into Chesapeake Bay. The EPA says as much as 50 percent of Sheaffer’s nitrogen and 67 percent of its phosphorous make it into the bay alone, leaving the amounts left in the Potomac and Shenandoah at staggering percentages.

Please visit www.potomacriverkeeper.org to learn about how you can help solve this problem.



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