

CLEAN WATER  STRONG COMMUNITIES

WATERKEEPER

SUMMER 2004

The Bush
time machine

Hogwashed!

Fish: a
danger to
your health?



The
Origins
of a
Movement
Waterkeepers
Around
the World

PREMIERE ISSUE

Welcome Letter



The Waterkeeper movement began on New York's Hudson River in 1966 when commercial and recreational fishermen united to save the river from industrial polluters. In 1983, they hired the first full-time Hudson Riverkeeper to patrol the river, restore its once abundant fisheries and lead citizen-based enforcement of environmental laws. The early successes of Hudson Riverkeeper spurred an explosive growth of similar grassroots programs across the globe.

Today, Waterkeeper Alliance is among the world's fastest growing environmental movements, made up of 120 organizations, employing 301 full-time and 118 part time environmental activists, attorneys and scientists. In addition, over 23,000 individuals devote an inspiring 220,000 volunteer hours each year to support Waterkeeper advocacy and on-the-water efforts to protect 67,000 miles of rivers and shorelines throughout North and South America, Europe and Australia.

Waterkeeper Alliance's proudest accomplishment is the depth and breadth of our member organizations and the unity of their vision. Since our inception, the Alliance has worked diligently to promote the Waterkeeper model of environmental advocacy and draw wider attention to the serious threats facing the world's water resources.

Welcome to the inaugural issue of *Waterkeeper Magazine*, the official publication of Waterkeeper Alliance.

What sets us apart is the fact that the men and women who comprise the Alliance take personal responsibility for the river, lake, stream, bay or inlet they represent. They are courageous and dedicated. The range of their individual experiences and involvement give the Alliance a uniquely informed perspective, and because we see things happening before anyone else does, we're the first to speak out and stand up against threats to the world's water resources and the rights of people and communities to enjoy them.

This issue of *Waterkeeper Magazine* highlights the horrific impacts of industrialized factory farming, an industry that has destroyed the family farmer and countless local waterways. Future issues will update you on other local and national issues affecting our fisheries, beaches, lakes and streams. Our global commons are under attack from big business and greedy politicians – fat cats who use political clout to escape the discipline of the free market. Waterkeeper Alliance intends to change that.

Please join us as we fight for clean water and strong communities. Or, volunteer with your local Waterkeeper. Odds are there is one near you, and if there isn't, consider starting your own. Remember, it was local labor organizers who won the labor movement, local preachers who won the civil rights movement, and it will be grassroots organizers who will win our environmental rights.

Robert F. Kennedy Jr.
President

Steven Fleischli
Executive Director

Q. What can I do to protect the environment?

A. You should join both a local environmental group and a national group. Environmental laws are being eviscerated on Capitol Hill and you can help stop that. Integrating environmental ethics into our daily lives is an important battle for our cause. But, the war isn't going to be won that way. The biggest battle is taking place on Capitol Hill and it's not going to be won unless we can field an army to deal with the hordes of lobbyists hired by big, polluting industries. For example, buying a car that gets 40 miles to the gallon is important, but it's not going to change anything. The only way to change things is to have a law that says you can't build a car in this country and you can't sell a car in this country unless it gets 40 miles to the gallon. Every time I go to Capitol Hill to plead for better environmental standards, there have already been 10 industrial lobbyists trying to influence our congressmen. Those lobbyists have private jets, expensive suits and big donations. The thousands of Waterkeeper Alliance members and their votes are the only ammunition I have.

Q. When did industrial hog farming become a problem and how does it affect the environment?

A. About 15 years ago a North Carolina State Senator invented a new way of producing pork, which was instead of producing it on farms using animal husbandry and agriculture, he began producing them in warehouses or factories as an industrial product. He went into business – his name was Wendell Murphy and he went into business with Smithfield Slaughterhouses, and they created this new industry where they can shoehorn up to 100,000 hogs into tiny buildings, into tiny cages, where they don't move around their entire lives and where they produce prodigious amounts of waste. A hog produces ten times the amount of waste as a human being. So, one of these factories with 100,000 hogs in it can produce as much waste as a city of a million people. Whereas a city would have to treat that sewage before dumping it into the water or onto the land, these facilities, this industry, has devised ways of locating in rural states where they can easily dominate the state political landscapes and disabling the enforcement agencies. And they have been permitted, as a result of that, in states like North Carolina and Iowa and elsewhere, to simply dump this waste onto the fields or into the waterways.

Q: How can we redirect the focus of the national labs (Los Alamos and Sandia among others) to bear on the many problems that come with our petroleum economy?

A: Petroleum is at the root of so many of this nation's problems: the war in Iraq, health impacts on our children, water and air pollution, to name a few. Until the American public is given a true choice – with hybrid cars, fuel cells, solar – we will continue to be held hostage by the oil industry. It is incumbent on the scientific community to embrace moving forward technologically and for us as citizens to choose elected officials that will ensure federal funding to do it. We must stop subsidizing the greed and destruction of the oil industry.

WATERKEEPER

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M A G A Z I N E



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NEWS

Billions of fish thankful for court's ruling

A recent court decision should help protect billions of fish that live in waterways near American power plants. After a decade of litigation, the court ordered the EPA to strengthen regulations limiting plants' impacts on aquatic species and rejected the industry's challenges to the rules.

Environmental groups, led by Riverkeeper, sued the EPA in 1993 to compel the agency to issue national regulations for cooling water use. Nearly a decade later, the EPA issued inadequate protections for new power plants, resulting in the most recent court challenge.

A single power plant using outdated technology can kill a million adult fish in just a few weeks, and suck in billions of smaller fish and shellfish in a year. The largest power plants in the country draw from rivers and estuaries up to three billion gallons of water a day each for cooling purposes, wreaking ecological havoc on the waterways.

"This is a tremendous victory for our nation's waters and one that will protect billions of fish from the needless slaughter by power plants," said Reed Super, Riverkeeper senior attorney and lead attorney for the environmental coalition in the litigation, which included Waterkeeper Alliance. "EPA recognized, and the federal court has now confirmed, that virtually every new plant can and must install closed-cycle cooling technology to protect aquatic organisms."



A three-judge panel ruled the Environmental Protection Agency exceeded its authority by allowing industrial facilities to choose restoration of aquatic resources in lieu of installing technology to prevent fish kills. In a major victory for environmentalists, the court upheld EPA's regulation mandating closed-cycle cooling as the national minimum technology for new power plants and factories, while striking down a provision that would have sanctioned inferior technology and attempts to replace damaged resources.



Photo: Terri Gartland

"In essence, the court has said that industry must make every effort to stop killing fish in the first instance," said Steve Fleischi, executive director of Waterkeeper Alliance. "It is not enough to kill the fish and then claim you are going to put equivalent quantities back into a waterway through other means such as habitat restoration or fish restocking programs."

In granting the environmental petition in part, the court stated: "we find that the EPA exceeded its authority by allowing compliance with [Clean Water Act] section 316(b) through restoration methods, and we remand that aspect of the rule."

The court also upheld EPA's decision not to require dry cooling as the national minimum technology standard for all new plants, while confirming that states may require dry cooling

consistent with their authority to set standards stricter (but not less strict) than the federal minimum.

The court also upheld a provision in the regulation allowing other fish-protection technologies, but clarified that such technologies must be as effective as closed-cycle cooling in reducing impingement and entrainment. In addition, the court upheld the regulation's variance provision, which EPA made available to permit applicants only in certain narrow and limited circumstances.

The court rejected all eight claims against the regulation asserted by the electric generating and manufacturing industries.

"This effectively marks the end of once-through cooling at new facilities," said Hudson Riverkeeper Alex Matthiessen. "We're extremely pleased that the court prohibited the use of restoration measures as a ruse to avoid installing state-of-the-art technology."

Freshwater fish are contaminated with levels of mercury

Americans were told years ago of the benefits of including more fish and seafood in their diets. However, because so many fish are now tainted with mercury, the FDA and EPA just recently released new guidelines warning consumers that eating too much (or in some cases any amount) of a good thing just might be dangerous to your health.

Twenty-eight states in the country have statewide fish advisories, because many species of freshwater fish are contaminated with levels of mercury so high that they're dangerous to eat. Forty-five states have advisories against regularly eating at least some types of fish.

Mercury is absurdly poisonous – a single teaspoon can poison a 50-acre lake. People exposed to mercury face a grim inventory of terrible diseases including neurological damage, kidney, liver failure and fatal heart diseases. Mercury has been linked to cancer, autism, dyslexia, blindness and uncontrolled aggression. Tiny exposures to pregnant women can cause mental retardation and permanent IQ loss in their children.

A study from the Centers for Disease Control and Prevention (CDC) indicated that one of every 12 American women of child-bearing age have unsafe mercury levels in their flesh, organs, blood and breast milk, putting more than 630,000 American

children born each year at high risk for these diseases.

Prompted by a lawsuit filed by California's Attorney General, several state grocery chains - including Safeway, Whole Foods and Trader Joe's - have now begun to post advisories in their fresh fish sections warning women and children of the potential dangers posed by fish consumption.

The principal source of mercury contamination in America are the 1,100 coal burning power plants that spew roughly 50



tons of mercury into the air. They poison our nation's lakes, rivers and streams. They foul our water and food supply and they endanger our health. These antiquated power plants threaten the health and welfare of millions of Americans.

Yet, the Bush administration has gutted proposed regulations to reduce these emissions by 90 percent by the year 2010. In addition, they have tried to ensure that the American public remains unaware of the dire impacts of mercury contamination.

The government's new guidelines suggest that women and young children should only eat 12 ounces of fish or shellfish a week. However, the government goes on to suggest that they never eat shark, swordfish, king mackerel or tilefish because they contain such high levels of mercury. The advisory also recommends that they eat only six ounces of canned albacore tuna a week because it has more mercury than canned light tuna. News continues on pg 36.

Want to be heard?

If you feel strongly about the issues raised in *Waterkeeper Magazine*, make your voice heard. Visit

www.waterkeeper.org

to take action or to get involved with your local Waterkeeper program.



CAUTION



By Robert F. Kennedy Jr.



George W. Bush seems to be trying to take us all the way back to the Dark Ages by undermining the very principles of our environmental rights, which civilized nations have always recognized. Ancient Rome's Code of Justinian guaranteed the use to all citizens of the "public trust" or commons—those shared resources that cannot be reduced to private property—the air, flowing water, public lands, wandering animals, fisheries, wetlands and aquifers.

When Roman law broke down in Europe during the Dark Ages, feudal kings began to privatize the commons. In the early thirteenth century, when King John also attempted to sell off England's fisheries and erect navigational tolls on the Thames, his subjects rose up and confronted him at Runnymede, forcing him to sign the Magna Carta, which includes provisions guaranteeing the rights of free access to fisheries and waters.

Clean-air laws in England, passed in the fourteenth century, made it a capital offense to burn coal in London, and violators were executed for the crime. These "public trust" rights to unspoiled air, water and wildlife descended to the people of the United States following the American Revolution. Until 1870, a factory releasing even small amounts of smoke onto public or private property was operating illegally.

But during the Gilded Age, when the corporate robber barons captured the political and judicial systems, those rights were stolen from the American people. As the Industrial Revolution morphed into the postwar industrial boom, Americans found them-

selves paying a high price for the resulting pollution. The wake-up call came in the late sixties, when Lake Erie was declared dead and Cleveland's Cuyahoga River exploded in colossal infernos.

In 1970, more than 20 million Americans took to the streets protesting the state of the environment on the first Earth Day. Whether they knew it or not, they were demanding a return of ancient rights.

During the next few years, Congress passed twenty-eight major environmental statutes, including the Clean Air Act, the

The Bush Time Machine

Clean Water Act and the Endangered Species Act, and it created the Environmental Protection Agency to apply and enforce these new laws. Polluters would be held accountable; those planning to use the commons would have to compile environmen-

tal-impact statements and hold public hearings; citizens were given the power to prosecute environmental crimes. Right-to-know and toxic-inventory laws made government and industry more transparent on the local level and our nation more democratic. Even the most vulnerable Americans could now participate in the dialogue that determines the destinies of their communities.

Earth Day caught polluters off guard. But in the next 30 years, they mounted an increasingly sophisticated and aggressive counterattack to undermine these laws. The Bush administration is a culmination of their three-decade campaign.



Origins of a Movement

..... **The Hudson River** was an environmental tragedy in the 1960s. Industries dumped raw sewage and toxic sludge into the river, killing many of the fish species. However, while things seemed at their bleakest, a change was underfoot. Robert H. Boyle brought the Riverkeeper idea from England to America in the 1960s when he wrote a book about the Hudson River, describing the need for someone to protect and defend the river he loved. Then, he set out to make this concept a reality.



Photo: William Abranowicz

In 1983, the Hudson River Fishermen's Association (a group Boyle founded in 1966) hired John Cronin, a former commercial fisherman and congressional aide, to patrol the Hudson full time. Riverkeeper was thus born as a privately-funded non-governmental organization led by a full-time public advocate for the river. Riverkeeper was and remains the public's investigator, scientist, lawyer, lobbyist and public relations agent for the River.

However, Riverkeeper does not work alone. They rely on a network of local fishermen, environmental experts, other environmental groups, watchdog volunteers and the legal system to stop organizations as powerful as Exxon and General Electric from polluting the Hudson. Their partners are the fishermen and concerned citizens who keep Riverkeeper informed of suspicious activity on the river. They use the Clean Water Act, which empowers private citizens to act as enforcement agents and public advocates, to collect evidence and file lawsuits against polluters. This hands-on "blue-collar environmentalism" is central to Riverkeeper's operations and philosophy.

In 1984, attorney Robert F. Kennedy Jr. joined Riverkeeper, becoming its chief prosecuting attorney in 1993. Along with Karl Coplan, he co-directs the Pace Environmental Litigation Clinic, where 10 students and two professors do nothing but prosecute Hudson River polluters. To date, Riverkeeper and its network of cit-

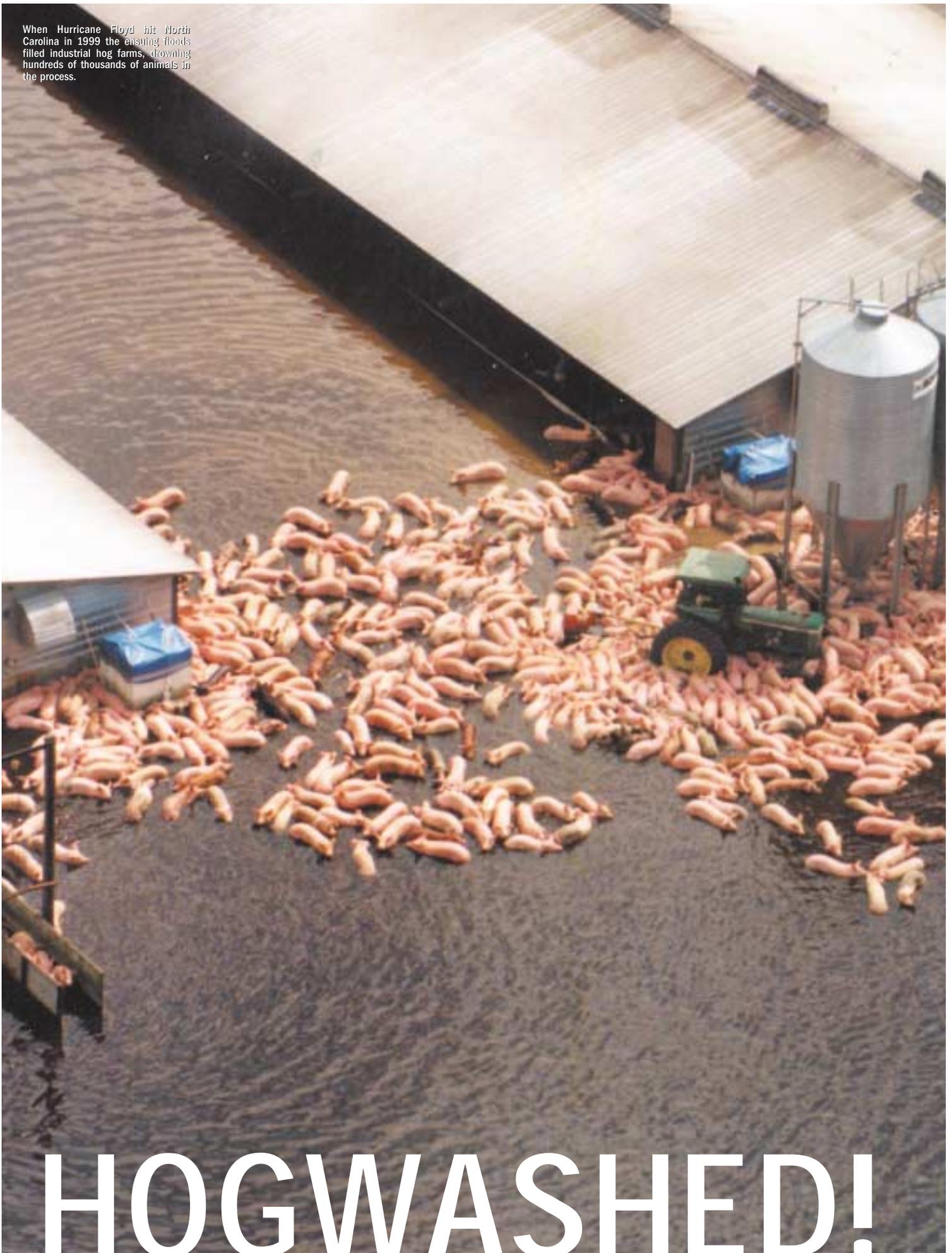
izens have prosecuted over 300 environmental lawbreakers.

The Hudson River has come a long way since Robert Boyle wrote his book in the 1960s. Back then, the river was considered an open sewer. Today, it is the only large river in the North Atlantic that retains strong spawning stocks of its entire collection of historical migratory species. These fish support recreational and commercial fisheries along the Atlantic coast worth hundreds of millions of dollars.

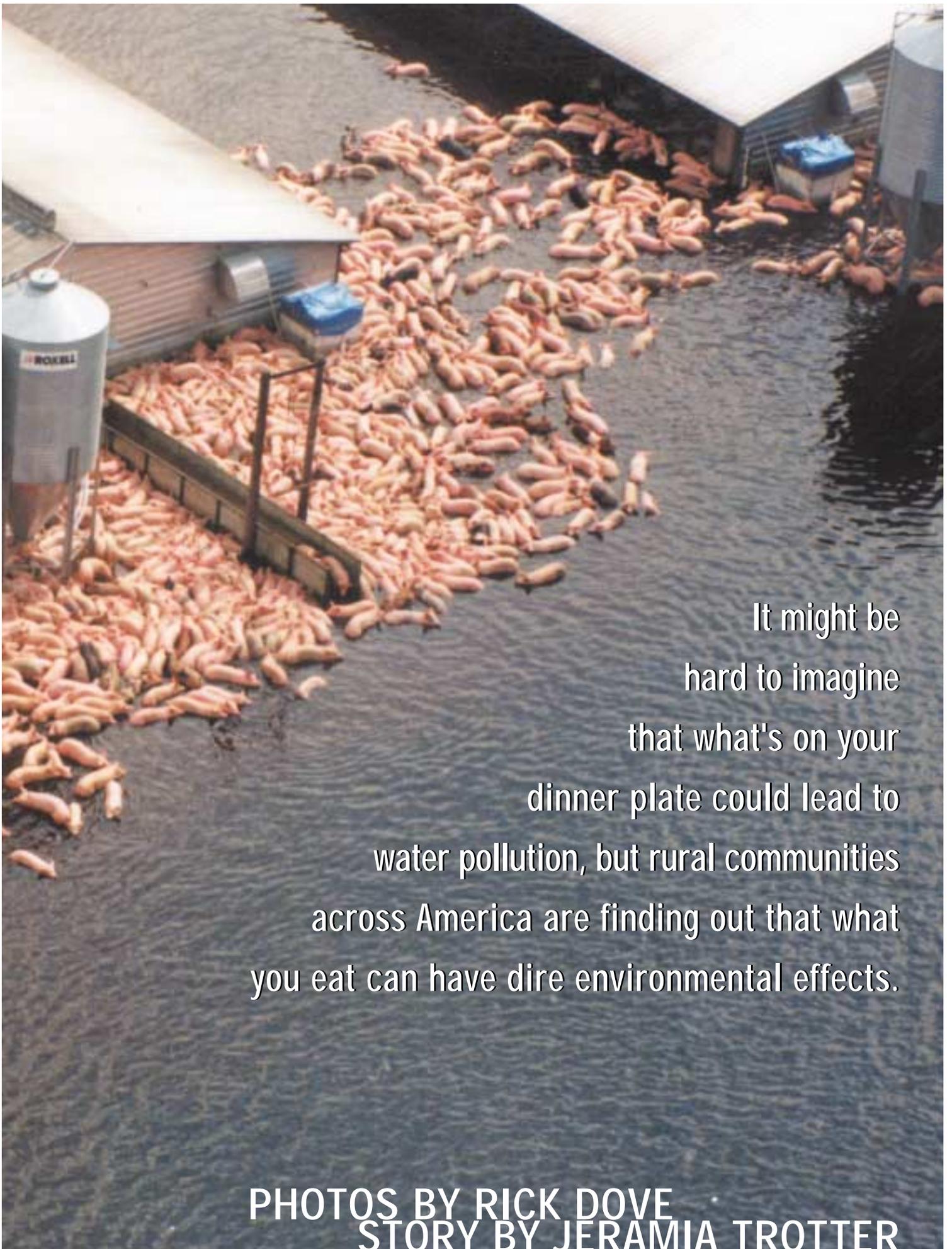
The impact of Riverkeeper extends beyond the Hudson River. The organization is a shining example of people defending their homes and their natural environment. The message—spoken and unspoken—is that everyone has the right to do the same. There are over 117 Waterkeeper programs across the country, from Cook Inlet in Alaska to the Chattahoochee River in Georgia; from Casco Bay in Maine to San Diego Bay in California. Waterkeeper programs outside the U.S. include Waterkeepers for Lake Ontario, the Nicoya in Costa Rica, and the Pettitcodiac in New Brunswick.

Riverkeeper has succeeded, grown, and spawned dozens of new Waterkeeper organizations because it is based one of the fundamental principles of a free society. The Waterkeeper movement is an environmental neighborhood watch program, a citizen's patrol to protect the nation's waters. As long as people care about the places in which they live, there will be popular support for Riverkeeper and its progeny.

When Hurricane Floyd hit North Carolina in 1999 the ensuing floods filled industrial hog farms, drowning hundreds of thousands of animals in the process.



HOGWASHED!



It might be
hard to imagine
that what's on your
dinner plate could lead to
water pollution, but rural communities
across America are finding out that what
you eat can have dire environmental effects.

PHOTOS BY RICK DOVE
STORY BY JERAMIA TROTTER



There are about 2,500 industrial hog farms in North Carolina, and the largest ones can house **50,000** animals.

CAFOs aren't anything like what most people imagine when they think of a farm. The barns are the size of football fields. The animals aren't let outside and lagoons are acres-big cesspools, filled with urine and feces.

The state of North Carolina is home to about 10 million hogs. That's approximately 200 hogs per square mile, if they were distributed evenly across the state. But they're not. There are about 2,500 industrial hog farms in North Carolina, and the largest ones can house 50,000 animals. This high concentration of hogs is the cause of a massive environmental crisis threatening the state's waterways.

In 1987, after Rick Dove retired from the Marine Corps, he set up a commercial fishing business on North Carolina's Neuse River. The Neuse and four other rivers drain into two large sounds called the Albemarle and Pamlico. Ninety percent of the ocean fish we eat depend on these sounds for their survival.

"I went and followed a childhood dream and became a commercial fisherman," Dove said. "I had a seafood store. I had three boats and crews on the boats – we were fishing mostly the river – we had like 600 crab pots in the water, 200 out. We had thousands of yards of gill net."

Dove's business did well for the first two years, but then the fish started to die. Historically, there have always been small fish kills in the waterways that wind through the state's coastal plain. These were always attributed to hypoxia, a lack of oxygen in the water. What Dove saw was different though. The numbers of dead fish were unusually large.

Dove saw "fish by the millions, and I mean by the millions, mixed species, all mixed together – which is unusual – in two inches of water, struggling to get enough oxygen to make it through the night."

The low oxygen levels were caused by excessive amounts of nutrients in the water. The overabundance of nutrients caused algae to flourish unnaturally. The algae photosynthesized sunlight during the day, pumping lots of oxygen into the water. But when the sun went down, the algae started using that oxygen. There simply wasn't enough to go around at nighttime. Both fishermen and scientists knew this, but they didn't know what was causing the nutrient imbalance.

At about the same time, Dove also started to see bloody lesions on the skin of dead fish. At first, just a few fish had these lesions, but the numbers of affected fish grew. Soon Dove and other fishermen were getting the lesions too, although, at the time they didn't connect their sores with the fish. By 1990, there were so many dead fish that he left the river and closed his fishing business.

"I didn't feel safe eating the seafood anymore and if I couldn't eat it, I didn't want to take it to the market any longer," Dove said.

The next year the Neuse River suffered the greatest fish kill in North Carolina's history. More than a billion fish died in October and November and they were all covered in lesions. There were so many dead fish in one area that a bulldozer was called in to bury them.

Scientists eventually attributed the fish's open sores to a toxic dinoflagellate named *Pfiesteria piscicida*. This single-cell organism has occurred naturally for thousands of years, according to the Center for Applied Aquatic Ecology at North Carolina State University. It normally lives on the sediment at the bottom of waterways and feeds on animals of a similar size. However, if a large school of fish stops to feed near *Pfiesteria*, the tiny animals can become voracious predators.

A chemical in fish secretions and excrement triggers a change in *Pfiesteria*. The dinoflagellates swim towards the fish and release a toxin into the water. The toxin makes fish lethargic and destroys their skin cells causing bleeding wounds. Then *Pfiesteria* eats the blood and skin cells of the dying fish. The scientific community knew this, but it didn't know what could cause *Pfiesteria* to become so deadly, so quickly.

Several years before *Pfiesteria* and hypoxia started killing huge numbers of fish, North Carolina was the birthplace of an idea that revolutionized hog farming.

The pig was one of the first domesticated animals. Originally, limited farming techniques required people to herd pigs. They rooted and foraged for food much as they had in the wild. Agricultural advancements eventually enabled people to raise grain for their animals, allowing farmers to give up herding and start keeping their pigs in pens. Pigs were penned and raised in much the same way for thousands of years, but a hog farmer named Wendell Murphy changed things.

Hog cholera first struck farmyards across Ohio and Indiana in 1833. The effects were devastating. In 1913, 10 percent of the country's pigs died from the disease. In the early 1960s, the illness cost farmers about \$50 million a year. Infected herds were quarantined. Animals that would have been on their way to market were kept locked on the farm instead. The situation became so desperate that in October 1972, as the illness swept through the south and Midwest, the Secretary of Agriculture declared a hog cholera emergency.

In 1973, Wendell Murphy needed a way to insulate his business from the costs of hog cholera. He developed a technique that

revolutionized hog farming. He bought pigs and paid other farmers to raise them. Contract farming meant that Murphy would have pigs for sell even if his own farm was under quarantine. In return, the farmers received compensation that helped protect them from downward turns in the hog market. The hogs were raised on dirt lots at first, but then Murphy started putting his pigs inside giant buildings and installed machines to feed them. The modern hog factory was invented.

Wendell Murphy's company, Murphy Farms, became one of the country's most successful pork producers. Smithfield Farms Inc., a Virginia-based company, bought Murphy Farms in 2000. Today, the company is the world's largest pork producer. Smithfield controls about seven million hogs on its 1,600 North Carolina farms. They also raise pigs in nine other states and Brazil, Mexico and Poland (for more on the company's operations in Poland, see page 30, *Smithfield Tries to Silence RFK Jr.*).

The meat aisle in most American grocery stores is the same: the labels on sausages, luncheon meats and bacon show smiling farmers in overalls and straw hats or images of rolling hills and red barns. You're not shown a Concentrated Animal Feeding Operation. CAFO, as they're called, is the industry's technical term for cramming thousands of animals into one building.

The conditions inside a CAFO aren't anything like what you might find on their products' labels. Hogs, communal animals by nature, are kept alone in tiny crates; many can't even turn around. Scores of hogs suffer from skeletal deformities or broken legs because of their cramped pens. Most of them never see sunlight or breathe fresh air.

"It's just inhumane the way they're treated," said Don Webb, a former industrial hog farmer who now heads the Alliance for a Responsible Swine Industry. "I don't believe in animal rights, but I do believe in animal welfare and anytime we mistreat animals, I don't believe that there's much to be said for us."

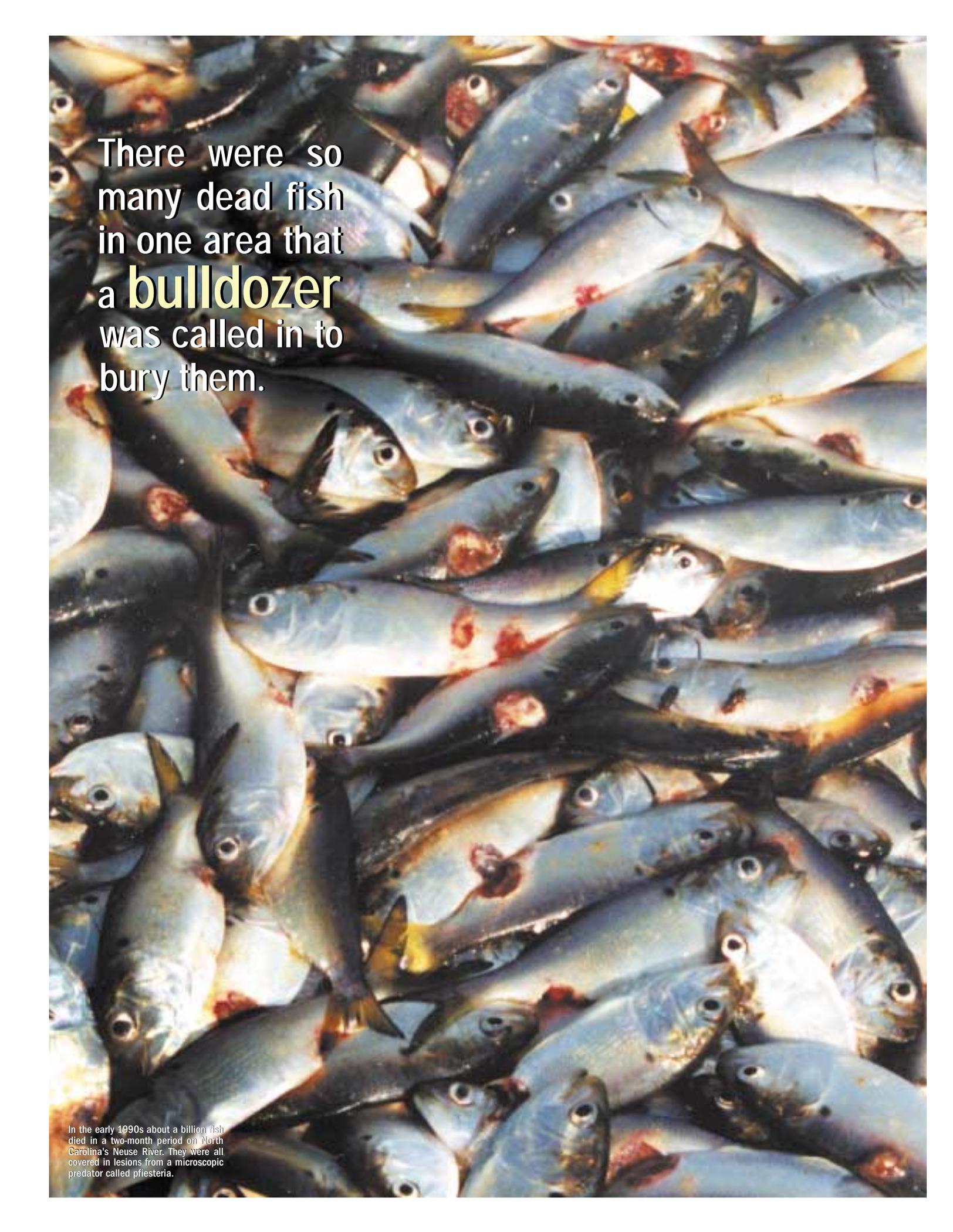
The animals live in such poor conditions that they're fed an overwhelming diet of antibiotics to keep them alive. Seventy percent of antibiotics in this country go to factory farm animals

HOG ECONOMICS 101

- The number of hog farms declined by nearly 80% from 1950 and 1980. The average number of hogs produced per farm increased six-fold.
- There were 2.1 million hog farmers in 1950. There were less than 100,000 hog farms at the end of 1999.
- In 1950, 2.1 million US farmers sold hogs. Average sales were 31 hogs per farm.
- By the close of 1999, only 98,460 US farms sold hogs. Average sales were around 1,100 market hogs per farm.
- 105 farms, with more than 50,000 hogs each, accounted for 40% of the U.S. hog industry.
- The four largest operations accounted for nearly 20% of U.S. hog production.

From "The Price We Pay for Corporate Hogs"



A large, dense pile of dead fish, likely blue crabs, covering the entire frame. Many of the fish have visible red, bloody lesions on their bodies, particularly around the head and mid-section. The fish are piled together, creating a chaotic and somber scene.

There were so many dead fish in one area that a **bulldozer** was called in to bury them.

In the early 1990s about a billion fish died in a two-month period on North Carolina's Neuse River. They were all covered in lesions from a microscopic predator called *pfisteria*.



for subtherapeutic uses, says the Union of Concerned Scientists, a group combating the misuse of science and technology. That's 25 million pounds of antibiotics for uses other than fighting illness, compared to the roughly three million pounds humans consume. The USDA estimates that even with daily doses of penicillin, tetracycline and other important human drugs, 20 percent of factory farm animals die before they reach the slaughterhouse.

Industrial hog farms are one of the leading causes of the massive environmental crisis threatening North Carolina's waterways. This crisis can be traced back to two simple factors: metabolism and population density. A hog, on an average day, produces about four pounds of feces and urine, about 10 times that of a person. Their waste drops through slats in the floor, flows through a pipeline and ends up untreated in giant outdoor lagoons. There are somewhere between 3,000 and 4,000 of these lagoons in North Carolina, America's second leading hog producer.

The state of Missouri found that in 1995 industrial hog farms in the northern part of the state produced five times the amount of waste as Kansas City, which has a population of around 435,000. The problem in North Carolina is much worse. Based on hog waste production figures from a study by Dr. Mark Sobsey, of the University of North Carolina, the state's hogs produce more feces and urine daily than the combined populations of North Carolina, California, New York, Texas, Pennsylvania, New Hampshire and North Dakota.

"Years ago we figured out that you can't have a city just dumping its waste into our rivers and streams," said Dove, who now serves as Waterkeeper Alliance's southeast representative. "These hog factories are essentially doing that. If you put people or other animals in concentrated numbers, you know that you've got to put in a high-tech wastewater treatment plant. They don't do that."

CAFO pollution of water is especially acute in North Carolina. The vast majority of the state's industrial hog farms are located in a fragile, flat area called the coastal plain. It starts just near Fayetteville and stretches to the coast.

Millions of gallons of waste sit in multi-acre lagoons until it's sprayed onto feed crops for fertilizer. The waste is supposed to be applied at "agronomic rates" that allow the manure to be absorbed. However, these rates are based on average rainfall. That's a problem says Dove.

"When you get rainfall above average this system begins to break down and if you get a fairly high above average the whole system fails," Dove said. "The problem there is common sense. In order to get average, you have to be above average half the time. There isn't anything anybody can do to make this hog waste disposal system work. That's the bottom line."

The area's high water table also makes it relatively easy for pig waste to seep through lagoons and into groundwater. Often, the waste finds its way into rural wells, contaminating drinking water.

The waste oozing into the state's water system is rich in nitrogen and phosphorous. Both are nutrients crucial to life, but elevated levels wreak havoc on aquatic species. Not only are nutrient imbalances causing the state's algae blooms, Dr. JoAnn M. Burkholder, one of the scientists who discovered *Pfiesteria*, also linked nitrification to the organisms' increased fish-killing.

"We knew that both of the things that were the major cause of our fish kills were coming from nutrients," said Dove. "The next step was to find out where the significant discharges of nutrients



DO MORE!

1 . Shop Sustainable.

- ✓ Buy food grown by sustainable farmers.
- ✓ Shop at your local farmers market or join a farmers' co-op (or "CSA").
- ✓ Urge your grocer to stock sustainable products.

2 . Know Your Food.

Ask questions:

- ✓ Where did the food come from—did a factory farm or a family farm raise it? Is the produce in season?
- ✓ Is the food locally grown?
- ✓ Were pesticides, chemical fertilizers, hormones, or antibiotics used in growing it?
- ✓ Was it grown using sustainable procedures that are good for the air, soil, water, and community?

3 . Have it Your Way.

- ✓ Tell your grocery stores and restaurants that you want them to carry foods raised from family farmers.
- ✓ Food grown locally by family farmers tastes better, and is fresher.
- ✓ It also reduces environmental and economic costs associated with transporting food thousands of miles.

4 . Share the News.

- ✓ Educating friends and neighbors is a critical step towards building a local family farm based food system.
- ✓ Organize a neighborhood gathering and invite a family farmer.
- ✓ Ask schools, office cafeterias, colleges, hospitals, and nursing homes to buy from local farmers.

5 . Plant a Garden.

- ✓ Experience the joy of eating food you've grown yourself.
- ✓ Involve your kids. Teach them about real food, and factory food.

were. What we found out was that considering all the sources for nutrient discharges, the hog producers and the animal industry were the largest."

Normally, the state's water pollution comes one drop at a time, but sometimes it comes in torrents. During the summer of 1995, an eight-acre lagoon at Oceanview Farms spilled its contents. Twenty-five million gallons of feces and urine flooded roads and fields and inundated rural homes neighboring the farm. The sewage ended up entering the New River.

The answer to the problem seems simple; require CAFO operators to build wastewater treatment plants. However, the industry claims that building those plants is prohibitively expensive. And for the last 20 years or so, when North Carolina's hog factories have spoken to the legislature they've been talking mostly to friends. More than 75 percent of the legislature received money from hog producers in 1999, according to Democracy South.

Wendell Murphy served 10 years in the state's General Assembly and according to a series of Pulitzer Prize winning articles published by the Raleigh, N.C., *News and Observer* he did a lot to help the swine industry. The articles highlight nine laws that Murphy supported and in some cases helped sponsor. They did a variety of things including exempting the hog factories from county zoning regulations, sales and gas taxes and inspection fees.

"They can all be bought as far as I'm concerned," said Webb.

Hurricane Floyd hit the state in 1999 and the USDA estimates that the ensuing floods killed hundreds of thousands of hogs. The floods also flushed out the coastal plain's waterways though and moved the collected nutrients from the rivers and into the Albemarle and Pamlico sounds. Then the state went through a two-year drought, limiting the amount of waste that could find its way into the water.

"By the year 2002, things in the river were looking pretty good," said Dove. "A lot of the fish had started coming back. The crabs were looking good. So, everybody was starting to get encouraged."

Then last year the state suffered through heavy rains and suddenly the situation didn't look so good anymore.

"All of our problems came back and we lost four million fish last year," Dove said. "Probably a lot more than that, but four million got documented and many of those had sores on them again."

FOLLOW THESE LINKS



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www.neuseriver.com
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www.sustainableagriculture.org
www.sierraclub.org/factoryfarms
www.nrdc.org/water/pollution/nspills.asp
www.iatp.org

To sustainable food

www.eatwellguide.org/

Find connections to sustainable food in your neighborhood.

www.sustainabletable.org

A premiere resource with guides to local suppliers and great information.

www.farmtotable.org

For those who live near New York City.

www.thefoodalliance.org

A regional guide to sustainable food in the Northwest and Midwest.

SMITHFIELD TRIES TO SILENCE RFK JR.

Company Sues for Libel in Poland

Smithfield Foods Inc. and its subsidiaries filed a lawsuit in Poland accusing Waterkeeper Alliance President Robert F. Kennedy Jr. of libel. Kennedy has vowed to fight against this or any attempt to silence criticism of the company's factory farming practices around the world.

Kennedy has been working with family farmers in Poland to resist Smithfield's plans to create a legal monopoly for itself in that country. According to Kennedy, Smithfield Farms' scheme would diminish or end family hog farming in Poland and replace it with the same "dangerous, inhumane, and polluting practices that have characterized its operations in the U.S. and elsewhere." Smithfield is the largest producer of industrial pork in the United States.

"This lawsuit is a transparent ploy to get around the First Amendment and free speech protections we enjoy here at home by reaching across an ocean to file suit," said Daniel Estrin, Waterkeeper Alliance attorney.

Estrin explained that Kennedy's statements are non-defamatory in the United States where truth is always a defense to libel. Knowing that its lawsuit would not survive First Amendment scrutiny in American courts, Smithfield Foods chose to hide behind one of its foreign subsidiaries and attempt to censor Kennedy from abroad, he said.

THIS LAWSUIT IS A TRANSPARENT PLOY TO GET AROUND THE FIRST AMENDMENT AND FREE SPEECH PROTECTIONS WE ENJOY HERE AT HOME BY REACHING ACROSS AN OCEAN TO FILE SUIT.

"Mr. Kennedy's efforts in Poland are intended to save the Polish people and Polish family farmers from the catastrophic pollution, social cost, and economic devastation that this industry has imposed on the people and environment in North Carolina," said Steve Fleischli, Waterkeeper Alliance executive director.

According to Kennedy and others, Smithfield's hog factories are chronic lawbreakers, and its style of industrial pork production has destroyed family farms and rural communities, polluted the rivers of North Carolina, and treated millions of farm animals with unspeakable cruelty. The system that Smithfield seeks to export to Poland is under a moratorium in North Carolina where Smithfield helped invent it.

Kennedy said that "despite Smithfield's efforts at intimidation," he will continue to speak out against a company whose methods are "cruel, filthy, dangerous, and destructive of the world's rivers, air, groundwater and communities."

In addition to his work with the Waterkeeper Alliance, Kennedy is also a senior attorney for NRDC (Natural Resources Defense Council), one of many groups involved in the battle against factory farming.





Saving Grand Canyon Once and For All

Forty years ago, an enormous public outcry stopped the construction of two major dams that would have inundated Grand Canyon National Park. The famed Colorado River and its unique desert ecosystem would be preserved-or so it was thought.

However, a less noticeable, but lethal blow had already been delivered. On Jan. 23, 1963, the United States Bureau of Reclamation began filling a reservoir behind the 700 foot-high, Glen Canyon Dam upstream from Grand Canyon National Park. Immediately Glen Canyon Dam unleashed a current of devastation on the park. Four decades and numerous violations of federal laws later, the dam has nearly destroyed all the native habitat of Grand Canyon's famed river corridor.

Ninety-five percent of the sediment and nutrients that should flow into Grand Canyon's riverine ecosystem are trapped behind Glen Canyon Dam. The loss of sediment is eroding recreational beaches, reducing sandbar habitat for native fish, disturbing pre-historic cultural sites and gives an advantage to predators, like exotic trout species, that hunt-by-sight. It's also reduced the input of woody debris that should be providing carbon for a healthy food web. In contrast, the sediment behind the dam is filling Lake Powell and has already plugged 100 miles of canyons with thick, weed infested mud flats.

Seasonal water temperatures that previously fluctuated from freezing to 80 degrees now range from 47 to 50 degrees. The lack of warm water prevents the trigger necessary for native fish reproduction, but gives a reproductive advantage to non-native fish

species. These non-native fish not only compete for available food, but also feed on the few young native fish that manage to hatch.

Natural flows, which fluctuated seasonally from 3,000 to 90,000 cubic feet per second (cfs), can now fluctuate daily and are restricted to only 8,000 to 20,000 cfs. This has been devastating to the Grand Canyon's unique desert ecosystem. Native fish, like the razorback sucker, depended on high, natural flows to spawn. Without these flows, the species has become extirpated in the Grand Canyon. In fact, of the eight native Colorado River fish, four have died out and two are struggling for survival. At least twenty-four alien fish species now thrive in the artificial environment.

Fish haven't been the only animals to suffer though. Of the 50 to 100 native insect species (nobody counted before the dam) that once formed the food base of the Grand Canyon, none remain in the Colorado River today. They have been replaced by twenty-five families of alien invertebrate species, including the New Zealand mudsnail and the Asian tapeworm.

In 2001, Living Rivers' Colorado Riverkeeper began to draw public attention to the failure of federal efforts to reverse the impact Glen Canyon Dam has had on the Grand Canyon's river ecosystem. The group has built a nationwide coalition to demand major changes in the operation of this program. It has assembled a network of scientists to aid in formulating these strategies, as well as legal experts to prepare for litigation should these strategies not be acted upon.

Eyes on the water

An oil spill from The Dalles Dam in January wouldn't have received much attention were it not for the actions taken by Columbia Riverkeeper Greg deBruler and CRK attorney Brent Foster. Reported as a 75-gallon spill for several days, the magnitude of the spill was not the only error in the response by the Army Corps of Engineers. When CRK discovered ribbons of oil across the entire river at Hood River the morning following the spill, they immediately jumped into action. They contacted the Corps and were out on the river investigating by afternoon. Most alarming was that the spill was first found early morning and it was dusk (seven hours later) before any containment booms were put out on the river. By then, the oil was already flowing downstream, well past the booms.

The spill turned out to be over 1,300 gallons of oil containing polychlorinated biphenyls, or PCBs. Because of its cancer-causing properties, PCBs were banned in 1978. All dams were supposed to remove the old PCB oil, but even after the oil is drained, residual contamination is still present. Although the immediate damage to fish and wildlife appears to be limited (186 dead shad), the long-term consequences of any more PCB releases to the Columbia are yet to be known.

"It could have been a lot worse," said Mark MacIntyre of the Environmental Protection Agency, but added, "Anything above zero is too much."

Once the toxin gets into the water it enters the food chain through fish. In 2001, a three-year study by the National Marine Fisheries Service found alarming levels of PCBs in Columbia River salmon from previous spills. The same study found that bald eagles nesting along parts of the Columbia River were producing half as many young as other eagles in Washington and Oregon. Sturgeon in the Bonneville Pool contain too high of a PCB content to be safely eaten according to EPA studies.

The good to come out of this event is that, under scrutiny, the Corps set up an independent panel to evaluate the response and seems to have taken the findings seriously. The panel found the spill resulted from "poorly maintained equipment, lax inspections and faulty planning." The panel also said that the corps' initial underestimates of the quantity of escap-

ing oil "delayed and hindered" efforts to contain the spill. The Corps held a public meeting in Hood River recently and promised that in the future, should another spill occur, they will use the largest possible amount released instead of the smallest to allow for an adequate response. CRK has submitted a list of recommended changes including the need for oil containment booms to be kept at each dam and better employee training.

Mosquito control – out of control

Mosquito drainage ditches dug during a Depression era work program are degrading the wetlands of Long Island. Originally dug to encourage the draining of standing water to reduce mosquito populations, they have since proved to be ineffective. What the ditches are doing, however, is draining stormwater run-off from our homes, our streets, our sewers and our industries into the bays at a rate that prevents natural absorption and filtration. Even more egregious, eastern Long Island's Department of Public Works insists on re-trenching the ditches, rather than allow for the natural filling in process. This re-trenching is done by mammoth machines that kill wildlife, including wintering spotted turtles (a species of Special Concern in New York) in the Napeague marsh. Furthermore, this trenching degrades wildlife habitats and permanently scars the wetland terrain.

Fortunately, New York's state government has legislative stop-gaps in place: The State Environmental Quality Review Act (SEQRA) prohibits activities that have been determined to have the potential to adversely affect the environment until a comprehensive Environmental Impact Study (EIS) is performed. The Peconic Estuary Program (PEP) – a division of the federal government's National Estuary Program - explicitly recommends not re-opening the mosquito ditches that nature has filled in.

Despite blatant SEQRA violations and despite Peconic Estuary Program recommendations, Suffolk County officials continue to sanction the spraying and ditching activities that destroy living resources and degrade habitats and water quality. In response, Peconic Baykeeper has filed an injunction in New York State Supreme Court requesting legal intervention by halting any further ditching until the merits of a previously filed lawsuit, which also challenges the spraying of lethal and sublethal insecticides in the aquatic environment, are ruled on.

Milwaukee's rivers at risk

The Milwaukee Metropolitan Sewerage District's (MMSD's) practice of mixing partially treated sewage with untreated sewage poses significant health threats for the city of Milwaukee, according to data released as part of a national report by the Natural Resources Defense Council, Friends of Milwaukee's Rivers and the Lake Michigan Federation. The groups have said this practice represents a departure from current treatment standards, which require full treatment for sewage except in emergency conditions such as hurricanes, and would violate the Clean Water Act. The Bush administration recently introduced a proposal that would legalize blending.

In Milwaukee, data obtained from the city's public health department show spikes in the levels of waterborne parasites - Cryptosporidium and Giardia -- and bacteria from monitored sewage treatment bypasses occurring in May and December 2003. Cryptosporidium is the parasite responsible for the disease outbreak in the city in 1993 that killed 54 people and sickened thousands more. According to analysis of the Milwaukee data by Joan Rose, a microbiologist at Michigan State University and an expert on waterborne illness, the risk of contracting giardiasis from untreated parasites in blended wastewater is 1000 times higher than from fully treated wastewater.

"In Milwaukee, a spokesperson for the sewage district belittled our concerns about blended sewage, saying that we were imagining 'boogeymen' in the water. Thanks to this national report and the monitoring of the Milwaukee Health Department we know the names of those boogeymen - Cryptosporidium and Giardia," says Lynn Broaddus, executive director of Friends of Milwaukee's Rivers.

"We now know blending is not the benign practice it's been made out to be. Its time for the State to protect the citizens of Milwaukee from further risks by imposing stricter standards for when MMSD is allowed to blend, including requiring Deep Tunnel capacity to be more fully utilized" says Laurel O'Sullivan, staff counsel for Lake Michigan Federation. "In addition, the State should develop protective water quality criteria and make this type of information more readily available to the public so they can choose whether they really want to risk a day at the beach after blending occurs."

"Waterborne disease outbreaks are on the rise across the country," said Michele Merkel of the Environmental Integrity Project (EIP) which co-authored the report. "Most often, Americans get diarrhea, skin rashes or respiratory infections, but waterborne illness can threaten the lives of seniors, young children, cancer patients, and others with impaired immune systems. Now is the time to boost funding to protect Americans, not cut it."

The report, "Swimming in Sewage," features seven case studies from around the country that illustrate how exposure to sewage pollution has killed or seriously injured people and harmed local economies. The case studies are from California, Florida, Indiana, Michigan, Ohio, Wisconsin and Washington, D.C.

"We have a looming public health crisis on our hands that will take billions of dollars to fix," said Nancy Stoner, director of NRDC's Clean Water Project. "Fortunately we do have the technological know-how to deal with this sewage problem. What we don't have is political will. In fact, President Bush's new budget proposal dramatically slashes funding for wastewater infrastructure. At nearly \$500 million, it's his biggest cut for any environmental program, and it's indefensible."

Stoner added that the result of the proposed federal cut would be more beach closings, more polluted drinking water supplies, and more waterborne disease, which now sickens nearly 8 million Americans every year.



Photo: Basil Seggos

Waterkeepers Around the World



Remember, it was local labor organizers who won the labor movement, local preachers who won the civil rights movement, and it will be grassroots organizers who will win our environmental rights.

Robert F. Kennedy Jr.

Australia

Georges Riverkeeper helped stop a proposed clay mining development in the pristine upper catchments of the river and lobbied Council to intervene in illegal clearing of foreshore bushland. The organization also secured more funding from CDS Stormwater Technologies and was invited to present on the Georges Riverkeeper initiative at Australia's major river symposium, Riverfestival, which received a high level of community support and interest from groups across Australia.

Waterkeepers Australia recently incorporated as a non-profit organization in Australia with a Board of Directors made up of environmental advocates, and is about to incubate at least six local Waterkeeper programs throughout the country that should be approved, licensed and operational by summer. Greg Hunt, an environmental educator who worked on a water project as director of education with the Museum of Victoria, has been appointed national coordinator.

Bolivia

Choqueyapu Riverkeeper is working in La Paz, Bolivia's capitol, to educate families on the importance of clean water and ways in which citizens can advocate that government to protect their natural resources.

Canada

Bow Riverkeeper, in Alberta, introduced over 40 new committed volunteers to their watershed through educational canoe trips and scientific monitoring on the Bow River during summer 2003. The number of community stewards willing to speak up for watershed protection is increasing rapidly and Bow Riverkeeper will educate more than 100 citizens on the river this summer about ecological integrity and democratic processes.

In his very first case after the launch of the **Fundy Baykeeper** program, Baykeeper David Thompson succeeded in having a stop work order issued against a company constructing aquaculture cages on top of a barrier beach and within the restricted buffer zone around a sensitive salt marsh. The company was in violation of the provincial watercourse alteration regulation and the Crown Lands Act.

Lake Ontario Waterkeeper recently launched its Clean Water Workshop, an innovative, grassroots program to create access for the public to environmental law processes in Ontario. In its first year, the Workshop has trained 15 law students, supporting nine different municipalities and forced remediation of some of the watershed's



most contaminated sites.

Under pressure from **Georgian Baykeeper**, Ontario Ministry of Environment has installed ozone and particulate monitors on the coast of Georgian Bay at Parry Sound. In 2002, ozone readings at Parry Sound exceeded those in Toronto and most of the rest of Ontario on 41 days out of 75 days. EPA modeling shows that the source is transboundary air pollution likely from large coal fired plants in Ohio, Michigan and Indiana.

While patrolling its waterway, the **Petitcodiac Riverkeeper** uncovered violations from a leaking dump in the city of Moncton that led to the criminal prosecutions of the municipality, fines and a commitment for site cleanup. It is the first time that Environment Canada (the country's equivalent of EPA) has pressed charges based on evidence provided by a local environment group in Canada. The city pled guilty.

Colombia

Cartegena Baykeeper has mapped and identified the major polluters around the Bay of Cartegena to the Canal Del Dique and continues to proceed in its efforts despite civil unrest.

Czech Republic

After the Czech Republic suffered terrible floods in 1997 and 2002, new dams were planned in the Morava River basin. **Morava Riverkeeper** worked on ecologically sound alternatives for the flood control project (without the dams) and the organization has been invited to work on the final version of flood control measures.

England

Thames Riverkeeper continues to coordinate a Millennium Project in partnership with the Probation Service's Community Service Units, which involves over 200 offenders working one day each week to improve riverside environments and correct anti-social behavior amongst this constituency.

London Canalkeeper operates and manages a river cleanup boat called the Taranchewer, which is the first boat of its kind in the UK and is likely to be imitated elsewhere in the country. It is specially designed with a front-mounted conveyer that scoops floating litter off the water surface. Over the past 18 months, the Taranchewer has hauled out over 100 tons of rubbish from the London Canal.



Photo: Terri Garland

Mexico

The Surf Industry Manufacturer's Association honored Wildcoast and **Baja California Coastkeeper** Director, Serge Dedina, with the "Environmental of the Year" award for 2003 at the Waterman's Ball fundraiser event in August. Serge received the award for his work protecting the Baja coast from resort development.

Condé Nast Traveler honored Javier Villavicencio of **Punta Abreojos Coastkeeper** with its 2003 "Environmental" award for his role in stopping the proposed Mitsubishi salt project proposed for San Ignacio Lagoon and his role in halting the black market trade of endangered sea turtles in Mexico. Javier, a fisherman with a sixth-grade education, was honored with a standing ovation at a ceremony at New York City's Guggenheim Museum.

United States Alabama

Black Warrior Riverkeeper sued Sloss Industries, owned by Tampa-based Jim Walters Industries, for illegally dumping excessive amounts of cyanide into Five Mile Creek, an impaired tributary of the Black Warrior. The recently signed consent decree represents one of the largest settlements in Alabama's environmental enforcement history. Among other remediation, Sloss will have to remedy their cyanide problem, donate approximately 350 acres of land for a park in this tributary's headwaters and plant 25,000 trees on the riparian property.

Choctawhatchee Riverkeeper monthly water quality monitoring is ongoing at 30 sites. Reporting of violations of stormwater construction permits has led to several enforcement actions with more pending. The Riverkeeper serves on the Choctawhatchee-Pea and Yellow Rivers Clean Water Partnership Steering Committee and its subcommittee for basin management plan development.

Hurricane Creekkeeper, which recently received its non-profit status, has been working successfully with Tuscaloosa, Ala., to pass a proactive stormwater ordinance. The group also sent notices of intent to sue for illegal sewage spills in the Tuscaloosa area.

While Mobile Baykeeper continues to make progress on its Water Quality Monitoring and Discharge Monitoring Reports Database, Air Quality Study and mercury reduction campaigns, the organization has turned its sights on the placement of a Liquefied Natural Gas terminal in Mobile Bay. This facility could negatively affect area residents and commercial and recreational fishers by closing the bay and threatening the safety of the surrounding area.

Alaska

Cook Inlet Keeper litigated to stop the newest offshore oil platform in Cook Inlet from discharging toxic drilling wastes into the area's rich fisheries.

California

California Coastkeeper Alliance finished coordinating the second year of the Regional Kelp Restoration Project, a partnership with the National Oceanic and Atmospheric Association. Most Waterkeeper organizations in Southern California are took part in the project, which includes growing kelp in their laboratory, outplanting the kelp with volunteer divers and educating students about kelp ecosystems.

Deltakeeper (a project of Waterkeepers Northern California) eliminated waivers for dairies and led the state to begin developing a tough dairy permit. They also secured the nation's first regulatory program for 7,000,000 acres of irrigated agriculture. Deltakeeper won a precedent-setting dissolved oxygen TMDL on the San Joaquin River. Advocacy also resulted in a tough pesticide TMDL for the Sacramento and Feather rivers.

Orange County Coastkeeper caused the Regional Water Board to review and revise the county's stormwater permit and the drainage area master plan; successfully litigated against two polluters; produced the first issue of a quarterly environmental education magazine aimed at adults and developed a Regional Water Board Order establishing, for the first time in the state, standards for placement and maintenance of vessel pump-out facilities.

Petaluma Riverkeeper (a project of Waterkeepers Northern California) led advocacy efforts to facilitate the city of Petaluma's acquisition of important tidal wetlands along the Petaluma River. The new Petaluma Wetlands Preserve will use constructed "polishing wetlands" to cleanse water from the city's wastewater treatment plant and establish a key wildlife sanctuary. As part of the project, the city plans to create a nature preserve and educational center.

Russian Riverkeeper succeeded in delaying plans to lower flows in a misguided effort to restore three Endangered Species Act listed salmonids. Delay allows water quality testing on nutrient conditions by Russian Riverkeeper that are missing from the low-flow proposal that could have demonstrated lower flows will likely harm endangered fish. Russian Riverkeeper is also fighting against plans to relocate the largest sewage outfall to a point above water supply intakes for 600,000 residents.

San Diego Baykeeper lodged a consent decree with the U.S. District Court in a case against the Department of Defense to remedy chronic sewage spill and treatment problems at the Camp Pendleton Marine Corps Base. After months of negotiations, an agreement was reached that requires Camp Pendleton to implement a strict sewage spill prevention and response program and build a state of the art wastewater treatment facility to replace four antiquated facilities.

San Francisco Baykeeper (a project of Waterkeepers Northern California) won a key victory against Cargill, Inc. the country's largest privately held corporation. The ruling forces the company to stop illegally dumping waste in an adjacent National Wildlife Refuge. The



ruling also establishes that waters adjacent to navigable waterways should be protected by Clean Water Act regulations. Baykeeper also won a court victory imposing strict stormwater controls for new developments throughout the San Francisco Bay Area.

San Luis Obispo Coastkeeper, a program of Environment in the Public Interest, is dedicated to protecting public trust resources in California's "Middle Kingdom." The SLO Coastkeeper patrol area, ranging from Northern Santa Barbara County, through San Luis Obispo and Southern Monterey County, includes some of the most spectacular coastline and interior watersheds in the world. Current SLO Coastkeeper action seeks increased watershed protection in the upper Salinas River and along the Big Sur Coast.

Santa Barbara Channelkeeper's recently settled a lawsuit against Halaco Engineering, a smelting company, which for years has been one of the worst industrial polluters on the coast. Halaco agreed to every major cleanup demand in the lawsuit. In addition, Channelkeeper's volunteer-based monitoring programs continue to engage the public through collecting monthly water quality data at 27 sites, monitoring marine habitat, and restoring eelgrass (a sensitive and ecologically important marine plant) to an offshore island.

Santa Monica Baykeeper helped create rules to eliminate sum-



mer beach closures in Santa Monica Bay, a waterway visited by more than 45 million people a year, as well as to eliminate trash in local rivers. After years of debate and various lawsuits, the city of Los Angeles agreed to implement the standards. The city and county have committed \$168 million toward stormwater-related trash reduction efforts.

Ventura Coastkeeper successfully halted a water softening company's illegal discharge to San Buenventura State Beach and discovered excessive bacteria levels in a Port Hueneme creek, which has led to relining of sewage pipes and replacement of storm drain pipes. VCK participates on Calleguas Creek Watershed Management Plan Steering Committee, helping to establish TMDL standards for the watershed. VCK is also monitoring the vast and ever-increasing use of toxic chemicals in Ventura County agriculture.

Waterkeepers Northern California secured an important statewide victory in efforts to reform the state's Department of Pesticide Regulation. Waterkeepers submitted comments and scientific evidence of environmental harm by two particularly bad actors – diazinon and chlorpyrifos. DPR responded with new restrictions on how the two pesticides can be used.

Colorado

Alamosa Riverkeeper, with the state of Colorado and the federal government, helped to establish the Alamosa River Foundation as a direct result of a \$27,750,000.00 settlement with Robert Friedland. Five million dollars is earmarked for the restoration of the Alamosa River watershed. A restoration master plan is being developed to prioritize the needs of the river.

Connecticut

Soundkeeper's recent settlement with New York City regarding violations of the nitrogen parameters in the city's State Pollution Discharge Elimination System permits established a \$4 million fund to improve wetlands and to find methods to reduce other sources of nitrogen pollution. Soundkeeper has recently restored two degrad-

ed salt marsh environments in the Bronx, New York. This year, Soundkeeper will begin a third salt marsh restoration in New York City.

District of Columbia

Potomac Riverkeeper's first enforcement actions were successful. A gun club polluting a creek with lead closed their gates and has hired Riverkeeper's suggested expert to create a cleanup plan. Also, West Virginia filed an enforcement action against a sewage treatment plant after Potomac Riverkeeper threatened a lawsuit. Potomac Riverkeeper, with attorneys from the University of Maryland's Environmental Law Clinic, also created a 26 page report on problems with Maryland's Total Maximum Daily Load Program.

Florida

Apalachicola Bay & Riverkeeper (ABARK) is leading Florida Stakeholder actions supporting on-going interstate litigation in federal courts to combat upstream diversions by the city of Atlanta and to secure an equitable distribution of the freshwater flows in the Apalachicola River and Bay. ABARK is also leading a coalition of NGOs in Clean Water Action alternatives to withdrawing state certification from Corps of Engineers dredging that has degraded large portions of the Apalachicola floodplain and habitat.

Indian Riverkeeper has brought together environmentalists, anglers and property owners to fight the discharge of billions of gallons per day of pollution from Big Sugar into the estuary. The Martin County Commission has voted to join Indian Riverkeeper in challenging the Corps of Engineers for their disregard of the health of one of the most diverse estuaries in North America, the Indian River Lagoon.

Pensacola Gulf Coastkeeper (PGC) reached a settlement with Jefferson Smurfit Container plant in Brewton, Ala., in an effort to clean up their discharge into the Conecuh River, which flows into the Escambia River in Florida. PGC also has been the environment group leader in the efforts to prohibit the construction of a dam on Yellow River in Northwest Florida.

Responding to calls from local citizens about construction site runoff, the **St. Johns Riverkeeper** in Jacksonville has asked Mayor John Peyton to assemble a task force to tackle one of Duval County's most significant environmental problems: sediment runoff. The Riverkeeper has asked Peyton to lead an effort that will result in a countywide plan of action to protect Duval County's waterways from the impacts of development.

Georgia

The negotiated settlement of **Altamaha Riverkeeper's** appeal of the discharge permit for Rayonier Performance Fibers has resulted in a bold, new effort to reduce effluent color and odor from the 55 million gallons of wastewater it discharges daily into the Altamaha



River. In partnership with Novozymes, Rayonier has begun testing a biological treatment process to assess its ability to reduce color and odor at the plant.

Canoochee Riverkeeper alerted the public and government officials to the land application of septic tank waste trucked from metro-Atlanta and worked to institute a local ordinance to regulate this potentially dangerous waste. The company at issue received a notice of violation from the Georgia Environmental Protection Division because of the work.

The water war between Georgia, Alabama and Florida is back in federal court. Downstream stakeholders, including **Chattahoochee Riverkeeper**, filed a legal brief opposing Georgia's attempt to increase upstream withdrawals to provide for metro-Atlanta's unfettered growth. In retribution, Georgia's governor immediately rescinded support for a requested \$1 million EPA watershed protection grant for the downstream basin.

The Coosa River Basin Initiative, home of **Coosa Riverkeeper**, has written legislative alerts to our membership to oppose SB 460, the Georgia "Streamside Buffer Destruction Act," which would allow businesses to destroy the vegetal buffers of streams that provide water for headwaters. CRBI also helped eliminate water transfers from the Coosa River Basin to metro-Atlanta. They also educated our membership on the relation between water quantity and quality.

Upper Chattahoochee Riverkeeper challenged a state permit allowing the discharge of 40 million gallons per day of treated sewage into a recreational lake that is also a water supply source. A judge ruled that the state had failed to appropriately apply federal anti-degradation provisions that say high quality waters cannot be degraded unless it is shown to be "necessary"; however, an appeals court reversed this decision. The case is now before the state supreme court.

Savannah Riverkeeper recently forced the city of Rincon to begin work on a new sewage treatment facility; presently is in Georgia Environmental Protection Division-facilitated negotiation with Weyerhaeuser on improvements to its NPDES permit; was awarded the Red Flag award by the Georgia EPD for water monitoring activities; and accepted the donation of its first boat.

Kansas

Friends of the Kaw, home of the **Kansas Riverkeeper**, helped develop three new public access points along the Kansas River in 2003, helping to promote river recreation and river. Friends of the Kaw, along with three other environmental groups, also filed suit against the EPA for not enforcing the Clean Water Act by not ruling on proposed Kansas water quality regulations in a timely manner.



Maine

A well-attended, informational citizen's forum on cruise ship discharges hosted by Friends of Casco Bay/**Casco Baykeeper** in the fall of 2002 led to the introduction in 2003 of two bills to the Maine State Legislature. As a result of its local leadership, FOCB was asked to join with environmental advocates from around the country to develop a national strategy to stop cruise ship pollution.

Maryland

Assateague Coastkeeper conducted a focused survey of bathymetry and ecological productivity in Howard's Cove, Ocean City. The survey provided critical information to prevent the installation of a potentially harmful floating dock in shallow, productive waters adjacent to a new condominium building and marsh.

A **Patapsco Riverkeeper** investigation of a decades-old fuel oil leak contaminating a trout fishery produced an EPA clean-up. Worker and resident complaints of illicit dumping, buried toxic wastes and air that "burned" led to their first 60-day notice. The plant closed after a "suspicious fire," removing a notorious source of upriver pollution. Also, the group's mercury TMDL challenge has caused a redesign of the EPA's U.S. East Coast air deposition model.

Severn Riverkeeper, plus volunteers, including 22 specially selected science teachers, completed a "living shoreline" restoration project to demonstrate that marshes with specially placed stone are as effective as environmentally destructive bulkheads and traditional riprap for erosion control in the Chesapeake Bay. This "living shoreline" survived Hurricane Isabel and protected the shoreline better than many bulkheads.

The South River continues to lose many of its spawning finfish, oyster beds, underwater grasses and shoreline buffers. South River Federation, home of the **South Riverkeeper** program, has planted more than five million oysters (grown by oyster gardeners) on seven oyster reefs that it constructed in partnership with CBF and DNR and

University of Maryland. The Federation has also restored approximately 3,500 linear feet of fringe marsh and shoreline.

Massachusetts

Tim Gray, **Housatonic Riverkeeper** and executive director of the Housatonic River Initiative, has been given ex-officio status on the Natural Resource Damages (NRD) Trustee Council for the Housatonic River. The trustee council will develop and implement a restoration plan for the Housatonic River using the \$25 million NRD settlement from General Electric PCB contamination. This money is in addition to the clean up money, which has been estimated at \$500 - \$700 million.

After the April 2003 Bouchard-120 Oil Spill, The Coalition for Buzzards Bay (home of the **Buzzards Baykeeper**) was at the center of the cleanup effort. The organization coordinated training for hundreds of volunteers to work in wildlife rehabilitation and other aspects of oil spill response, conducted shoreline assessments and advocated for cleanup of critical areas. The Coalition has subsequently taken the lead to protect Buzzards Bay from future spills by creating oil spill-prevention legislation.

Michigan

Detroit Riverkeeper is working closely with local Detroit watershed groups in developing their Watershed Plans. Their program is educating local citizens on issues related to storm drain runoff. They are also working to develop a "Riverwatch" program to train volunteers to observe and report pollution spills and occurrences and are working to develop a statewide "Citizen's Monitoring Corps" under the direction of the governor's office and the Michigan Department of Environmental Quality.

The Watershed Center (home to **Grand Traverse Baykeeper**) recently received a \$99,150 grant from the Great Lakes Commission Soil Erosion and Sedimentation program for restoration of the upper reaches of Kid's Creek, a significant and impaired urban tributary to Grand Traverse Bay.

In its first year, **Muskegon Riverkeeper** actively opposed Nestlé's (a.k.a. Ice Mountain, locally) mining of the waters from nearby aquifers. The group helped convince Consumer Power to participate with West Michigan Environmental Action Council, the University of Georgia, Michigan State University and the Riverkeeper in a collaborative program to save the few, remaining sturgeon indigenous to Muskegon River. They also undertook legal actions against the sewage treatment plant in White Cloud, Mich., for violations.

New Jersey

Hackensack Riverkeeper has introduced over 100,000 people to the river and marshes of the Meadowlands. Working with the Division of Criminal Justice, they shut down Columbia Terminals Inc. in 2002, forcing the polluter to pay over \$1.5 million in fines and

restitution. They received an NJDEP Environmental Excellence Award in 2003 but their greatest victory was the state's adoption of a Meadowlands Master Plan, setting the stage for the creation of the Meadowlands Estuary Preserve.

NY/NJ Baykeeper, Sen. Lautenberg, NJDEP Commissioner Campbell and Rep. Pallone announced the acquisition of 68 acres of marsh and forested wetlands adjacent to Cheesquake State Park. Baykeeper secured federal funding for the acquisition. This success comes because of Baykeeper's advocacy and threat of legal action against a developer who had filled wetlands. Baykeeper works throughout the Hudson/Raritan Estuary to acquire and restore critical habitat for the use of wildlife and millions of NYC area residents.

New York

Erie Canalkeeper succeeded in getting three Fortune 500 companies to move forward with a large-scale cleanup and removal of a PCB contaminated pipe from a residential storm sewer system. They have commented on and overseen remediation and removal of over 4,000 tons of contaminated sediment from a local tributary.

Lake George Waterkeeper is currently pursuing an Article 78 suit against the fastest developing municipality with the Lake George basin for failure to properly administer their stormwater management regulations. The Waterkeeper is a member of the New York State Department of Health Onsite Wastewater Treatment System Advisory Committee to update existing statewide standards for septic systems.

Peconic Baykeeper compelled Suffolk County to perform a comprehensive Environmental Impact Study which will examine the adverse effects mosquito control practices are having on Long Island's estuarine waters.

In a tremendous victory for **Riverkeeper**, the Hudson River, and residents of Hastings-on-Hudson, the Atlantic Richfield Co. (ARCO) agreed to a massive cleanup of its PCB-laden waterfront property. The agreement, reached after nearly two years of negotiations, settled Riverkeeper's nine-year-old lawsuit against the California energy company and cleared the way for the return of the waterfront property to village residents after decades of industrial abuse.

The **Upper St. Lawrence Riverkeeper** helped stop the Army Corps of Engineers from starting a feasibility study focused on re-engineering the St. Lawrence River and the Great Lakes to accommodate super-sized commercial vessels. The active support of the state's Senators and Governor helped stop the incredibly ill conceived and destructive plan. The Corps was forced to retreat from the expansion idea and focus instead on the existing dimensions of the navigation system as it currently exists.

North Carolina

Catawba Riverkeeper testified at a hearing for a Wal-Mart Supercenter in Belmont, N.C. They publicized violations at existing



regional stores. Store personnel fixed the problems and began to protect nearby storm drains from runoff from toxic pesticides, and they won environmental conditions in the permit. Also, they achieved revocation of a permit for an operating sewage treatment plant. The state agency was faulted for its lack of due diligence in issuing the original permit.

RiverLink's **French Broad Riverkeeper** has created an interactive watershed mapping system (www.riverlink.org). The site enables citizens explore the watershed's history, determine proximity of waste discharge sites to public swimming and boating areas and find regulations that can assist in protecting human and environmental health. Also, volunteers have already identified and rectified domestic waste discharges, sediment loadings and developed action teams to address impaired streams and collect data which they can upload to the website.

The New River Foundation (home of **New Riverkeeper**) received a grant of \$15,000 from Wildlife Trust. This money will be put towards a "bio-remediation" project using bivalves (oysters, clams and ribbed mussels) to filter pollutants out of contaminated waters.

The North Carolina Coastal Federation (NCCF), sponsors of the **Cape Lookout, Cape Fear, and Cape Hatteras Coastkeepers**, won a case brought by the Southern Environmental Law Center (SELC) on behalf of the state's Shellfish Growers Association and NCCF. In an important decision that affirms federal protection of wetlands, a federal judge ruled that the development company acted illegally when it ditched and drained over 200 acres of wetlands in Onslow County, N.C., without a permit.

The **Pamlico-Tar River Foundation** and **Pamlico-Tar Riverkeeper** was successful in their request for reclassification of 14 miles of Swift Creek in the upper Tar watershed to Outstanding Resource Waters (ORW). This reclassification will mean greater protection to the designated 14 miles plus the upper two-thirds of its watershed. Swift Creek is an ecological treasure in North Carolina, home to 13 different species of freshwater mussels, including the endemic and federally listed endangered Tar-River spiny mussel.



Upper Neuse Riverkeeper challenged the permits of the upper Neuse basin's 10 most chronic violators – including Raleigh's Waste Water and Water Treatment plants, after uncovering in 2002 one of the worst municipal environmental problems in the state's history. Some of the problems included multiple sludge bypasses into the Neuse River, 1,000 acres of contaminated ground water that is leaching into the Neuse River and private wells and 20 other violations or problems previously unidentified.

Ohio

Clinton StreamKeepers monitors water quality of streams in Clinton County, Ohio, encouraging the Airborne Express facility near Wilmington to institute a reclamation program to reduce water pollution from deicing compounds used on aircraft. StreamKeepers was instrumental in developing statewide and countywide laws and policy relating to industrial limestone mining and farmland preservation. StreamKeepers co-sponsored the appearance of Robert F. Kennedy, Jr., who spoke to a crowd of more than 1,200 in October 2003.

Oregon

Tualatin Riverkeepers, with Audubon Society of Portland, produced a 25-minute documentary, *Ribbons of Green*, an organizing tool that will be shown on cable channels to support our campaign for protection of stream corridors, wetlands and upland forest habitat. Over 80,000 acres have been identified as significant regional natural resources within the Portland metropolitan urban landscape and a final decision on the level of protection is expected in December.

Willamette Riverkeeper was instrumental in securing \$12 million from the EPA to finish cleanup of the McCormick and Baxter Superfund site, a heinous site along the Portland Harbor that has river sediments inundated with creosote (containing PAH, dioxin and other toxins). While this site is in the middle of another massive Superfund site, it is critical to paving the way for a full cleanup of the river's Portland Harbor Superfund site.

Pennsylvania

Allegheny Riverkeeper recently filed for 501(c)(3) status and has created an advisory board. The group also launched a campaign to end river mining in Pennsylvania and continue to work on stormwater/sewage pollution, partnering with two other organizations to demonstrate ecological stormwater management projects.

Allegheny Riverkeeper is in the process of setting up monitoring groups composed of paddlers, fishermen, boaters and others along the lower Allegheny River.

Delaware Riverkeeper Network worked in New Jersey to get far-reaching stormwater regulations adopted and continues to work with Pennsylvania. DRN's Law Clinic helped defeat a water diversion that would have ruined the Brandywine Creek while promoting sprawl development and a clinic permit appeal protected wetlands and an endangered species of tree from being plowed over. Additional protections were won for the Delaware Bay's horseshoe crab, being harvested to extinction, but that fight is not over.

Upper Susquehanna Riverkeeper hosted the First Annual Earth Day Every Day Event in October. Six projects were undertaken in the Fallbrook area of Tioga County, which is heavily affected by coal mining and acid mine drainage. Participating with the Riverkeeper were 200 Mansfield University athletes, local Boy Scouts and Sea Scouts, Tioga River Watershed Reclamation Projects Inc. and Bureau of Forestry members. Mansfield University Marketing students are working on a website, promotion and education package.

Mountain Watershed Association, (MWA) home of the **Youghiogheny Riverkeeper** in Southwestern Pennsylvania continues its struggle to keep the state Department of Environmental Protection from issuing a permit to New Enterprise Stone and Lime Co. to quarry the headwaters of Indian Creek, a tributary to the Youghiogheny. The proposal would degrade the headwaters, recharge areas and the watershed. MWA also is implementing its restoration plan to address mine discharges throughout the Indian Creek Watershed.

Rhode Island

In August, **Narragansett Baykeeper** led Rhode Island's response to the state's largest ever fish kill event. Algae blooms caused by wastewater inputs consumed all the dissolved oxygen in a cove called Greenwich Bay, killing over one million fish in a single day. Baykeeper John Torgan helped to organize and facilitate a public meeting where Gov. Don Carcieri and other elected officials pledged to improve sewage treatment at the state's major plants.

Utah

Great Salt Lakekeeper, through its sponsoring organization Great Salt Lake Audubon, successfully intervened to support Utah in a lawsuit against a coalition of private landowners claiming ownership to 17,000 acres of sovereign lands underneath Utah Lake.

Privatization of these submerged public lands would jeopardize some of the state's most productive wetlands.

Vermont

Conservation Law Foundation's **Lake Champlain Lakekeeper** has forced the states of New York and Vermont to crack down on water pollution permits, which will keep over 520,000 pounds of pollution out of Lake Champlain each year. In addition, the Lakekeeper has pushed Vermont to finally implement the Lake Champlain Phosphorus TMDL, a plan to reduce phosphorus levels in the lake.

Virginia

The **Blackwater/Nottoway Riverkeeper** Program (BNRP) started its own Eco-Cruise tours of the Blackwater and Nottoway Rivers. The BNRP also served on International Papers' "Innovations Program" to help find better methods of controlling pollution. The BNRP will serve on the DEQ advisory board this year to find solutions to the recent discovery of mercury in the Blackwater. The BNRP also hosted The Blackwater Watershed Forum on April 1st to discover a plan of action for the mercury problem.

The **James Riverkeeper** is working closely with the Maritime Administration on the removal of a potential environmental time bomb, the nearly 100 vessel James River Reserve Fleet, some of which date back to World War II. On Oct. 6, the first two ships departed the James River for the United Kingdom to be scrapped at an environmentally certified yard with two more scheduled to depart soon.

Virginia Eastern Shorekeeper is working with local government, residents and the aquaculture industry to resolve potential conflicts between aquaculturists and increased residential development. The recently hired Virginia Eastern Shorekeeper is monitoring human impacts on restored oyster reefs, eel grass beds and other sensitive areas on the Atlantic coastal bays and Chesapeake Bay in Virginia. Restoration and protection of these sensitive natural habitats are critical to the ecological and economic health of this rural coastal area.

Washington

Columbia Riverkeeper successfully stopped illegal shipments of plutonium waste to the Hanford Nuclear Site in Southeast Washington by suing the U.S. Department of Energy.

The **Commencement Baykeeper** and Citizens for a Healthy Bay received a Co-Star award from the Tacoma-Pierce County Health Department for their dedication to helping marinas reduce their production of hazardous waste. Along with the Puget Soundkeeper Alliance, they also are challenging state stormwater legislation that would allow standard mixing zones. They successfully challenged a wood treatment facility's NPDES permit. The facility now has to cover its copper, chromium, arsenic and pentachlorophenol treated wood products.



RE Sources, home of the **North Sound Baykeeper**, has prevailed in its court case against the Army Corps of Engineers and BP, on the grounds that a dock expansion violated NEPA and the Magnuson Amendment. The North Sound Baykeeper also expanded its citizen patrol program by teaming with People for Lake Whatcom, training volunteers to spot and report stormwater violations.

The Washington State Pollution Control Hearings Board ruled in favor of **Puget Soundkeeper Alliance** on its second appeal of the Industrial Stormwater General Permit. The permit's "check-the-box" mixing zone strategy and endless compliance schedule were remanded to the Department of Ecology.

Wisconsin

In the first year of the **Lake Superior Waterkeeper**, The Lake Superior Alliance has organized patrol, monitoring, and outreach activities covering key communities and significant unincorporated areas on the US and Canadian Lake Superior coast. The group has organized a volunteer program to review all U.S. discharge permits and identify polluters; established a Lake Superior Defense Fund; opened and staffed their office in Ashland, Wis., and established a Bi-National legal committee.

Friends of Milwaukee's Rivers (home to the **Milwaukee Riverkeeper**) continues its lawsuit against the Milwaukee Metropolitan Sewerage District for over one billion gallons of illegally dumped raw sewage, to challenge the EPA's proposed blending policy, and to educate the public about health risks associated with raw sewage. Other Riverkeeper projects include a river corridor outreach/education project, river clean ups, Underwood Creek restoration and a storm drain marking project.

..... **Clint Clemens** is a photographer and commercial director. His first commercial photography job was for Pan American Airlines; the job took him to 27 different countries. His work has also been used by Harley Davidson, Levis and Porsche. After living in Los Angeles and Boston, he's back in his native Rhode Island where he runs his business out of an old lighthouse. In addition to this photograph, Clint provided us with the cover image.

