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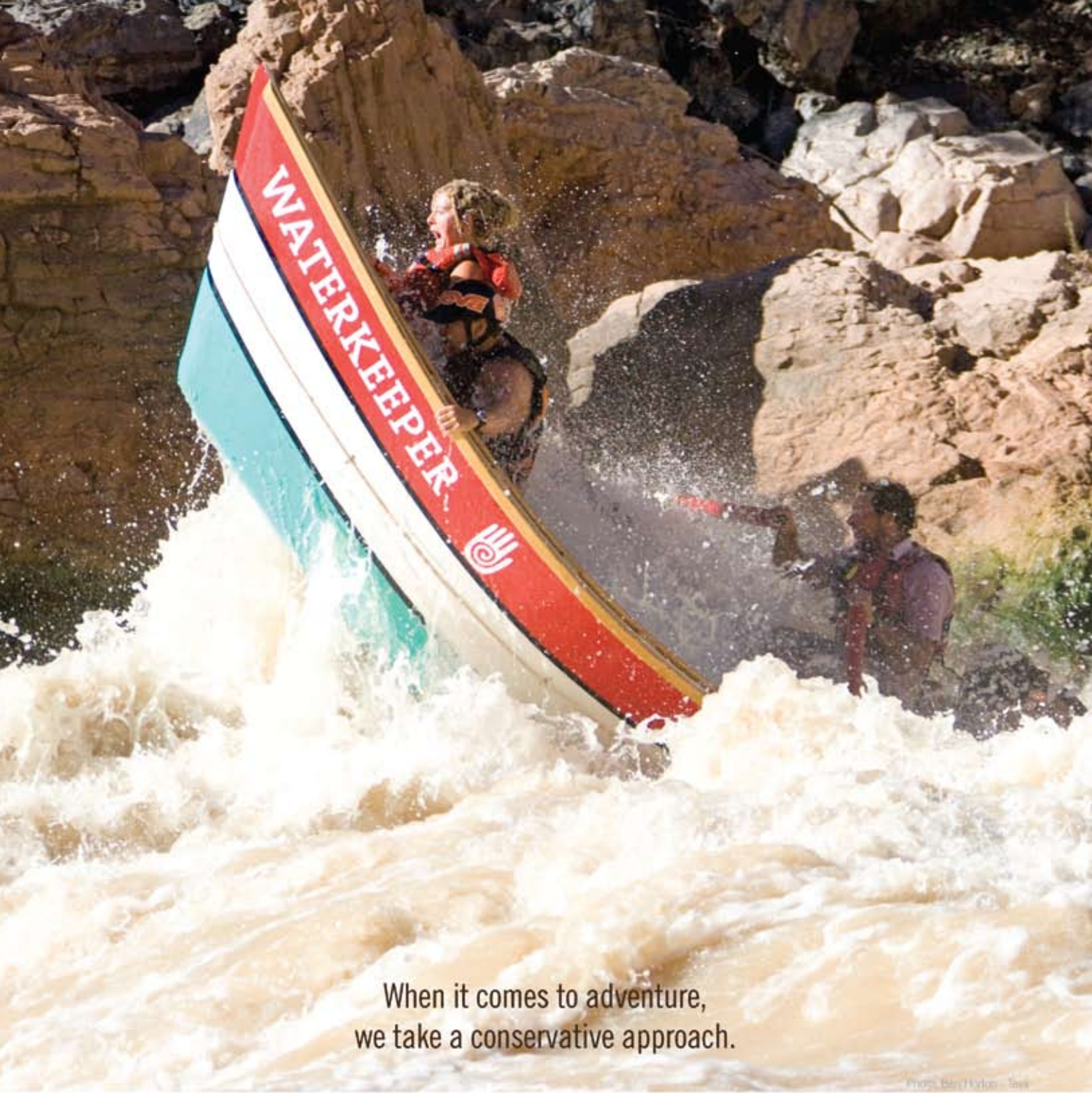
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Letter from the Chairman

Robert F. Kennedy, Jr.



A Bill of Rights for Clean Water

The protection of our shared environment has long been among government's most fundamental responsibilities. Ancient Rome's Code of Justinian, one of the first efforts at constitutional governance, guaranteed to all citizens the use of the "public trust" or "commons" — those shared resources that cannot be reduced to private property, including the air, water, forests and fisheries.

Throughout Western history, the first acts of tyrants have invariably included efforts to deliver public-trust assets into private hands. During the Dark Ages, when Roman law broke down in England, King John attempted to sell off the country's fisheries, place navigational tolls on England's rivers, and seize its woodlands and game animals. Enraged at that theft of public trust assets, England's people confronted John at Runnymede in 1215, forcing him to sign the Magna Carta. That seminal democratic document included a powerful articulation of the principle that the commons of water, fisheries and woodland were not commodities to be bartered away by a prince, but the rightful property of all citizens.

These public-trust rights passed to the people of the United States following the American Revolution. Each state constitution recognized the rights of every citizen to use the commons, but never in a manner to injure its use and enjoyment by others. The early conservation movement enacted laws to protect fish, wildlife, shorelines, lakes and rivers, and created our first national parks and secured vast tracts of land against exploitation and abuse.

As late as 1913, the U.S. Supreme Court declared that it was "inconceivable that public-trust assets could slip into private hands." Indeed the best measure of how a democracy succeeds is how it safeguards the shared assets as trustee for all citizens, rich and poor. Does it maintain the commons in the hands of the people or does it allow public trust assets to be privatized in the hands of the wealthy and powerful?

During the Gilded Age of corporate feudalism, naked power brokering by industrial robber barons persuaded courts and legislatures to weaken public trust rights and allow the theft of clean air and water and public lands from the American people.

As the Industrial Revolution gave way to the post-World War II industrial boom, Americans found themselves paying a high price for the resulting pollution.

The wake-up call came in the late 1960s, when scientists declared Lake Erie dead, Cleveland's Cuyahoga River caught fire and radioactive strontium 90 appeared in the breast milk of mothers across North America and in the most remote corners of the globe.

On the first Earth Day in 1970, the accumulation of such insults drove 20 million Americans to the streets in the largest public demonstration in U.S. history. Motivated by that stunning display of grassroots power, Republicans and Democrats working together created the Environmental Protection Agency and passed 28 major laws over the next decade to protect our air, water, endangered species, wetlands, food and public lands.

Those statutes included the Clean Air Act, the Clean Water Act and the Endan-

gered Species Act, which were all designed to reassert the ancient public trust rights that had eroded since the industrial revolution.

By making government and industry more transparent on the local level and giving the public a voice in allocation of the commons, those laws strengthened our democracy. Powerful corporate polluters would finally be held accountable for privatizing the commonwealth — those planning to use the commons would have to disclose the environmental impacts of their project and submit to public hearings; new laws gave citizens the power to prosecute environmental crimes. Even the most vulnerable Americans could participate in the decisions that determined the future of their communities.

The passage of these statutes marked the return of these centuries-old rights of the commons to every American. The victory was short-lived, however. Earth Day 1970, and the popular citizen's movement it helped spark, may have caught polluters and their indentured servants in our political system off guard, but over the next 30 years, they mounted an increasingly sophisticated and aggressive counterattack to undermine the new laws.

The culmination of that three-decade-long campaign is the shamefully successful war that the Bush administration has waged on environmental protections so that polluters might once again plunder the commonwealth.

Today, corporate polluters and their money have infiltrated every level of our political system. Lobbyists for polluters now run most of the regulatory agencies charged

with protecting Americans from pollution. Among other things, White House policies have drastically diminished federal controls of mercury, which now contaminates most American fishes, weakened controls on storm water and sewage pollution, agricultural waste and mountaintop mining, and subverted wetlands protection. These roll-backs have encouraged the destruction and pollution of thousands of miles of rivers and streams, beaches and other waterways.

Waterkeepers across America have stepped into the vacuum created by government's abdication of its role as public trustee.

This issue of *Waterkeeper* is devoted largely to presenting a comprehensive plan for resurrecting our legal safeguards and restoring America's ailing rivers, lakes, streams and wetlands.

These recommendations are based on the *U.S. Blueprint for Clean Water*, a comprehensive report — the first of its kind — that Waterkeepers across the globe helped to create. The Blueprint and the stories in this issue summon Americans to mobilize as they did in the 1970s, to reassert public control over our nation's water resources and to demand that government stand with the people against the big polluters and their political allies who conspire in the destruction of these resources.

Environmental injury threatens all of our national values. It undermines the rule of law, threatens our public health and national security, promotes corporate rather than local control and shatters the democratic concept of stewardship of our shared resources. It shows contempt for America's historical ties to wilderness and the American traditions of responsibility, resourcefulness and commitment to community. That same pollution is both immoral and un-American. Our battle is a battle for the wellspring of our national values, for the idea of community, and for all the things that make us proud of our country.

Waterkeeper is, above all, a law enforcement movement. We put teeth back into environmental regulations. Law enforcement does not just punish law breakers or force polluters to stop polluting. It moves the milestones of public morality, stigmatizes lawbreakers as bad citizens, and helps restore the moral order. Mothers Against Drunk Driving (M.A.D.D.), another grassroots advocacy group, successfully demonstrated those critical functions of law enforcement during the 1980s.

Back then, drunk driving was illegal in every state, but the law was seldom vigorously enforced and police officers only occasionally arrested the intoxicated driver. Oftentimes, they simply told the drunk to "pull over and sleep it off." Society winked at the practice. Roadside stores sold cup holders to make it easier for a driver to drink beer and drive.

Because the law wasn't taken seriously, tens of thousands of Americans died in drunk driving accidents. A grassroots law enforcement effort by M.A.D.D. changed everything.

M.A.D.D. helped establish zero tolerance of drunk driving as a national law enforcement standard and put teeth into laws already on the books. Strict enforcement quickly changed the public tolerance for drunk driving.

Environmental injury threatens all of our national values. It undermines the rule of law, threatens our public health and national security, promotes corporate rather than local control and shatters the democratic concept of stewardship of our shared resources.

Most young Americans no longer consider drunk driving something to wink at or joke about. They will tell you, in so many words, that people who drink and drive are not just breaking the law — they are sociopaths. That moral stigma has made our streets safer for all Americans.

In the United States, corporate CEOs whose companies pollute are seldom stigmatized socially. They are feted at banquets and continue to appear on social rosters and podiums with politicians. The anemic fines imposed on polluters are seen as a cost of doing business. Companies like Exxon, the Southern Company, Massey Coal, Doe Run and Smithfield Foods routinely violate state and federal laws. And yet, in nearly every instance, they not only escape serious punishment, colleagues applaud them for their business cunning. Outside the United States, a different attitude prevails. In European

countries, where environmental laws are strictly enforced, company owners caught polluting become social pariahs.

Right now, we need leaders in Washington who will stop pandering to criminals and once again make government stand for the rule of law. We must force our politicians and business leaders to place the public good over private gain, principle over politics, conscience over expediency.

One of my favorite defenses of the rule of law appears in Robert Bolt's great play *A Man for All Seasons*, which chronicles the public choices and private struggle of the great English jurist and Catholic saint, Thomas More.

At one point, More argues for the primacy of the law and principled action in the governance of human affairs. When his wife and relatives try to convince him to arrest the man who will later perjure himself in More's trial for high treason and doom More to beheading, More refuses, arguing that the man has broken no law.

"Father, that man's bad!" More's daughter says.

"There's no law against that!" More replies, adding that he has the right to his freedom "if he were the Devil himself, until he broke the law!"

"So, now you give the Devil the benefit of law!" More's future son-in-law, Hugh Roper, says.

"Yes!" More replies. "What would you do? Cut a great road through the law to get after the Devil?"

"Yes, I'd cut down every law in England to do that!" Roper says.

"Oh?" More asks. "And when the last law was down, and the Devil turned 'round on you, where would you hide, Roper, the laws all being flat? This country is planted thick with laws, from coast to coast, Man's laws, not God's! And if you cut them down ... do you really think you could stand upright in the winds that would blow then? ... God help the people whose statesmen walk your road."

Over these last eight years, the President and his appointees have recklessly clear cut the forests of hard-won and carefully written laws and regulations that protect the American landscapes, air, wildlife and waterways.

With the nation now ready to embark on a new path with a new leader, we need to put behind us a lawless age and begin the complex and difficult task of restoring the rules that safeguard the public trust and our national treasures devastated by plunder. **W**



ON THE COVER

From New York's Hudson River to San Francisco Bay, the health of America's waterways are at a crisis stage. Waterkeepers from across the globe have a plan to save them.

Photo: Gordon Fearey

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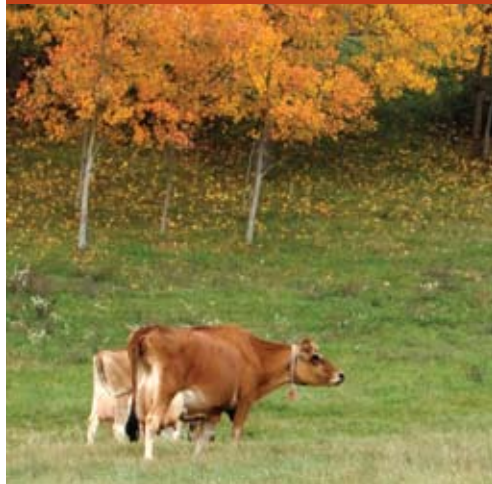
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Waterkeepers are investigators, scientists, educators, lawyers and advocates. We take responsibility for protecting your waterways — enforcing environmental laws and standing up for your right to clean water.

Waterkeeper Alliance is a powerful coalition of more than 180 local Waterkeeper Programs — Riverkeeper, Baykeeper, Coastkeeper and other grassroots Waterkeeper organizations connected into a unified international force for environmental protection.



Teaching how the health of the community is inextricably linked to the health of the bay, Hann Baykeeper Mouhmadou Diol conducts a workshop with the youth of Hann Village. Based in Senegal, Hann Baykeeper is Africa's first Waterkeeper program.



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Phoenix, AZ Arizona Science Center
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Marbles Kids Museum
Science Museum of Virginia
Esquire IMAX Theatre
Reuben H Fleet Science Center
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Shreveport, LA Sci-Port Discovery Center
St. Augustine, FL World Golf Village
Tampa, FL Museum of Science & Industry
Tempe, AZ IMAX Theatre Arizona Mills
Edmonton, Alberta Telus World of Science
Hull, Ottawa Canadian Museum of Civilization
Montreal, Quebec Old Port
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IMAX Theatre Arizona Mills
Telus World of Science
Canadian Museum of Civilization
Old Port
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Biodiesel Settlement Protects Two Endangered Species

After nearly a year in United States District Court, Black Warrior Riverkeeper and Alabama Biodiesel have reached a settlement that requires the biodiesel producer to cease illegal discharges of oil and grease, obtain a pollution permit mandated by the Clean Water Act, and pay \$27,500 for a Supplemental Environmental Project (SEP) in the Black Warrior River watershed.

The settlement benefits Jefferson County's Tapawingo/Penny Springs, habitat of the federally endangered Vermilion and Watercress Darters, as well as a pristine tributary of Turkey Creek and a major tributary of the Black Warrior River's Locust Fork. Both endangered species live only in the Black Warrior watershed.

Freshwater Land Trust, an Alabama non-profit land conservation organization, will receive Alabama Biodiesel's SEP payment and lead the restoration project. Black Warrior Riverkeeper is pleased that the entire payment will permanently contribute to ecologically vital improvements in the Black Warrior watershed.



Like the Watercress Darter, the Vermilion Darter (above) is an endangered species found only in the Black Warrior watershed. Both fish live in Tapawingo/Penny Springs, which this settlement will help restore.

PATRICK O'NEIL; SOURCE: FISHES OF ALABAMA



Riverkeeper Victory in New Brunswick, Canada

Forty years after a causeway choked the Petitcodiac River, a historic milestone has been reached in the battle to save the cherished watercourse.

Work to restore the Petitcodiac River will begin this fall with \$20 million in funding from the province over the next two years, allowing for the opening of the causeway gates and unobstructed fish passage in the river system in 2010, Premier Shawn Graham announced on July 7.

Petitcodiac Riverkeeper's legal action against the federal and provincial governments was instrumental in securing a start to the project. However, the Province will need funding from the federal government to complete the three-phase project. Petitcodiac Riverkeeper Tim Van Hinte says that there is much work to be done because the federal government continues to ignore river restoration and refuses to pay its fair share of project costs.

Russian Riverkeeper Signs Stormwater Settlement

In 2003, Russian Riverkeeper in California documented a major non-stormwater discharge of sediment-laden water from Redwood Empire Sawmill to Oat Valley Creek, a tributary to the Russian River that acts as a spawning area for Steelhead trout, as well as fowl breeding and habitat areas.

Russian Riverkeeper continued to monitor the sawmill and documented discharges of zinc, oxygen-demanding substances and other pollutants to Oat Valley Creek that robbed it of oxygen necessary for the survival of the fish population.

Russian Riverkeeper initiated an enforcement action against Redwood Empire Sawmill and recently entered into a consent decree with the sawmill to require the development and implementation of pollution control measures, which will result in a major reduction of pollutants entering Oat Valley Creek and the Russian River.

Russian Riverkeeper also secured \$35,000 to fund a mitigation project and an expert to work with the sawmill to monitor the effectiveness of pollution control measures and the water quality of the creek.

Legal Victory Sends Message in Ongoing Ballast Water Debate

Every year, ships discharge billions of gallons of ballast water containing non-native, invasive species into U.S. bays, estuaries and the Great Lakes. The ships take up ballast water at the ports of origin for stabilization and then discharge the water as they approach U.S. ports, a practice that the Environmental Protection Agency (EPA) has refused to regulate under the Clean Water Act.

In 1999, San Francisco Baykeeper and other environmental groups petitioned EPA to overturn its rule exempting vessel discharges from the Clean Water Act. The district court's decision required EPA to regulate discharges from all vessels by Sept. 30, 2008. Almost a decade later — on July 23, 2008 — the Ninth Circuit affirmed the district court's holding that EPA's exemption was beyond EPA's powers.

This ruling is likely final since EPA is not expected to appeal, giving a needed boost to environmental and water quality advocates on this issue. However, the shipping industry has already shifted lobbying efforts to the legislature to preserve their exemption for ballast water discharges.

The fate of several bills in the House and the Senate remain unknown, threatening to undermine the legal victory. San Francisco Baykeeper continues to work with a broad coalition of environmental groups and Waterkeepers across the country to oppose bills that stand to undo a decade of legal advocacy.

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{{ Ripples }}



The 2006 grounding of the oil tanker Seabulk Pride was a wake-up call, highlighting the need to get additional safeguards in place.

INLETKEEPER

Cook Inletkeeper Helps Spur Tug Escorts for Alaskan Oil Tankers

The ice, tides, currents and winds in Alaska's Cook Inlet pose some of the gravest navigational hazards in the world. After many years of Inletkeeper advocacy — and in the wake of a grounded oil tanker in 2006 — Tesoro Alaska formally christened the new high-powered tug Vigilant for use in Cook Inlet this past spring.

Inletkeeper has played an active role in pressing for high-powered tugs and other safeguards in Cook Inlet. It has worked with the Cook Inlet Regional Citizens Advisory Council to draft resolutions calling for strong action, and played a central role highlighting problems around the 2006 Seabulk Pride grounding.

But it has been a long haul. In 1993, CIRCAC commissioned a study from a shipping safety expert who found Cook Inlet to be one of the most unsafe moorages in the Western hemisphere. Yet, despite

repeated attempts to install tugs and additional safeguards, industry routinely fought the proposals and the Coast Guard regularly gave in.

The addition of a high-powered tug is a huge asset for navigational safety in Cook Inlet, says Cook Inletkeeper Bob Shavelson. "But it's also critical for the Coast Guard to finalize a national rule mandating tug escorts not only in Cook Inlet, but other locations where conditions are especially dangerous."



CIRCAC

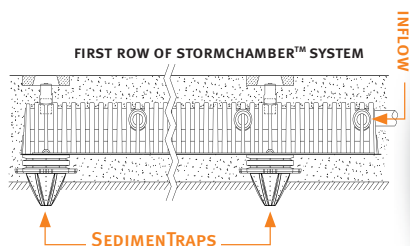
The tug Vigilant's twin z-drive engines can rotate 360 degrees to provide optimal escort and assist capabilities, and are rated up to a maximum of 6,772 horsepower.



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Ripples

After five years of fighting to protect the bay from future oil spills, Buzzards Baykeeper recently announced a victory in its battle: oil spill prevention measures for Buzzards Bay.

hulled oil barges have a tugboat escort as well as an experienced local pilot on board while transiting the bay. Buzzards Bay Coalition drafted the new legislation, which was filed by Sen. Mark C. Montigny of New Bedford and Rep. John F. Quinn of Dartmouth in January 2007, and successfully lobbied for its passage.

"In five years of work on this issue, this is the most important bill passed in either the state or federal government to protect Buzzards Bay from oil spills," says Coalition President

and Buzzards Baykeeper Mark Rasmussen. "It puts in place two things we all knew were the most important to prevent spills like the one that fouled our Bay in 2003: an escort tug and an experienced marine pilot on every oil barge."

Navigational risks abound in Buzzards Bay, given its shallow mean depth of 36 feet, and the rocky ledges and reefs that flank the channels. Local pilots and tug escorts can effectively warn oil barges of navigational hazards and immediately respond to navigational accidents.



Oil blankets the shoreline of Buzzards Bay after the Bouchard oil spill in 2003.

Music lovers in tune with Hudson River Piermont Pier cleanup

In July, a group of volunteers collected 25 bags of trash in two hours at Piermont Pier in Piermont, N.Y. Local residents signed up for the event in hopes of winning two tickets to musician Jack Johnson's All Points West Music Festival in August. Riverkeeper hosted the project in partnership with Teva and Keep Rockland Beautiful.

Volunteers from Potomac Riverkeeper joined staff and volunteers from REI of Fairfax to clean up the Bull Run-Occoquan Trail in April. The site was one of nearly 300 registered under the Alice Ferguson Foundation's 20th Annual Potomac River Watershed Clean Up. So far, volunteers have collected more than 144 tons of trash, 99,000 recyclable containers and 10,000 plastic bags.

Volunteers came out in full force and completed multiple cleanup projects throughout the Hackensack watershed. Five river cleanups resulted in 1,500 hours of work that netted 40 square yards of trash in Overpeck Park as well as huge dumpsters filled with river debris in River Edge. For the third year in a row, Panasonic employees collected trash from Sawmill Creek, while volunteers replaced a pathway of stone that slowed stormwater into Coles Brook.



This spring, volunteers turned out in force to clean up the Hackensack watershed.

PLASTIC BAGS COLLECTED AT THE POTOMAC RIVER CLEAN UP

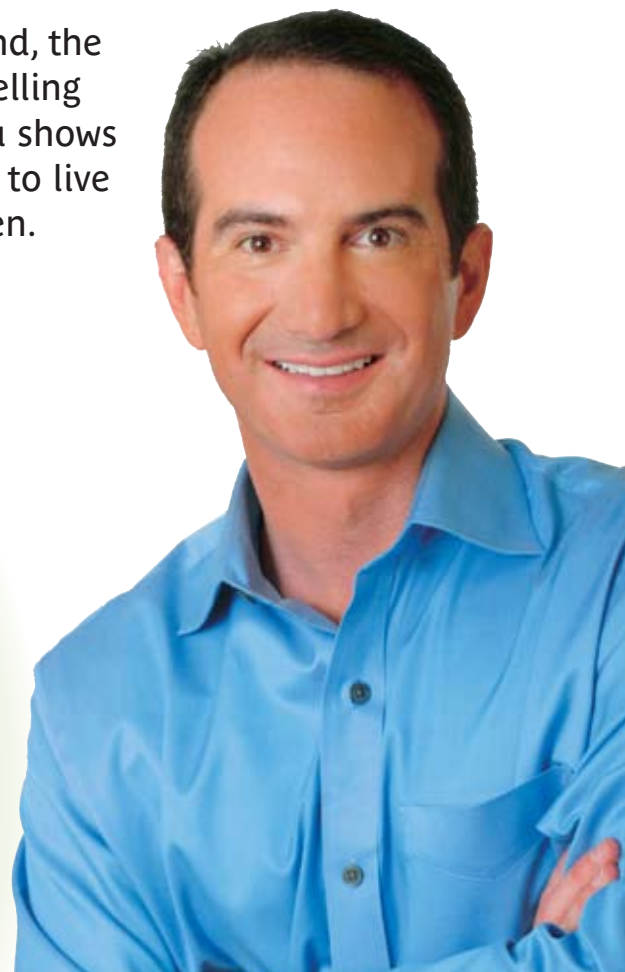
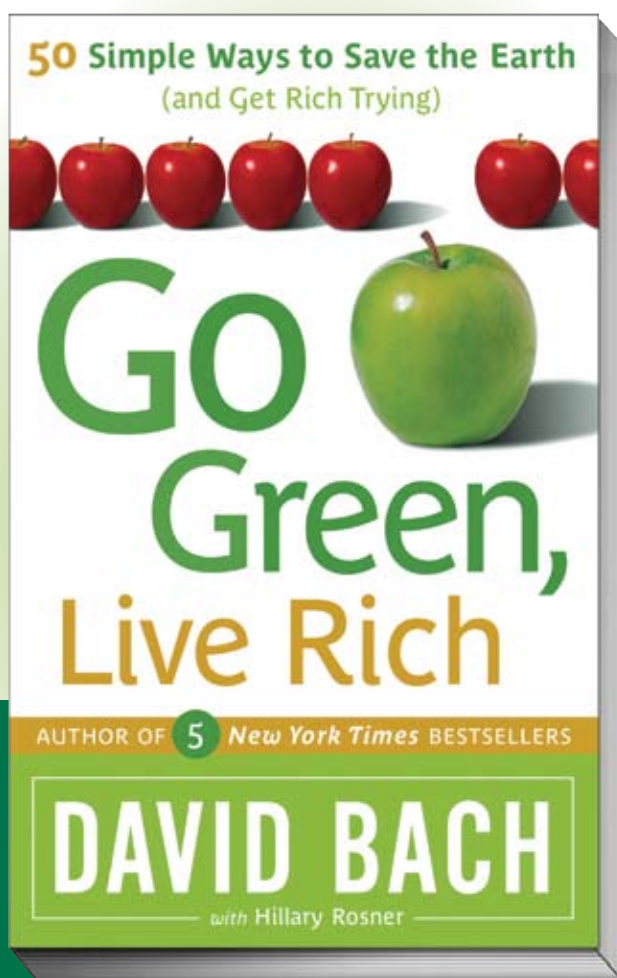
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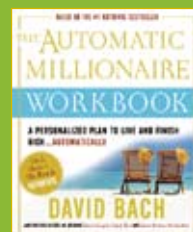
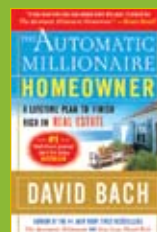
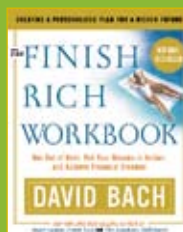
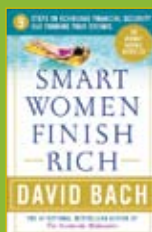
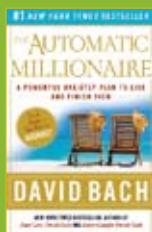
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St. Johns Riverkeeper and NFL's Jacksonville Jaguars Team Up

J. Wayne and Delores Barr Weaver, owners of the National Football League's Jacksonville Jaguars in Florida, have awarded a challenge grant of up to \$150,000 to St. Johns Riverkeeper. The matching gift will help the organization raise awareness about threats to the health of the St. Johns and to legally challenge plans in central Florida to withdraw millions of gallons a day from the river.

The Weavers will donate \$1 for every \$2 that St. Johns Riverkeeper raises for its St. Johns River Awareness and Legal Fund up to \$150,000. According to St. Johns Riverkeeper Neil Armingeon, “the incredible generosity and support of the Weavers will enable us to raise the funds and acquire the resources necessary to defend and protect the health of the St. Johns River.”

As a result of years of poor planning, uncontrolled growth and wasteful water-use practices, Central Florida communities are reaching the limits of their groundwater resources. Many of these communities are looking to the St. Johns River and Ocklawaha River (a major tributary of the St. Johns) to solve their water supply problems.

Santa Barbara Channelkeeper Identifies and Eliminates Sewage Discharge

While monitoring a stretch of Cieneguitas Creek on the outskirts of Santa Barbara, Calif. in late March, Santa Barbara Channelkeeper identified a suspicious discharge coming from an outfall located in an underground section of the creek. The outfall smelled like raw sewage and was flowing intermittently.

Channelkeeper notified the city of Santa Barbara and accompanied city staff on an inspection that revealed what appeared to be toilet paper in the drain. Further investigation showed that the drain came from a medical clinic on upper State Street.

Concerned, the city worked with the clinic to conduct a



BEN PITTERLE, SANTA BARBARA CHANNEL-KEEPER

series of tests to identify the source of the discharge. A camera was sent up the pipe to visually inspect for sewer connections. The pipe led to a rooftop drain, but the camera was unable to access the vertical

section of pipe. Since this didn't explain the strong sewage odor or the presence of toilet paper, the city flushed dye through the clinic's sewer system. Meanwhile, a sampling detected elevated concentrations of *E. coli* in the discharge.

The dye tests eventually revealed that the drain was directly connected to a bathroom inside the clinic. The drain was not identified on any of the building plans and had likely been discharging raw sewage to the creek since the building was last remodeled.

The clinic has since shut down the bathroom and is now working to remove the sewer drain connection to the creek.

\$150,000

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Lower Delaware Granted Special Protection Waters Designation

In response to a petition filed by the Delaware Riverkeeper Network, the Delaware River Basin Commission (DRBC) voted unanimously in July to designate the Lower Delaware River from the Water Gap to Trenton as Special Protection Waters.

According to Delaware Riverkeeper Maya van Rossum, while there was a last-minute effort to derail the effort, the seven years of advocacy, community organizing, and scientific and legal debate led the way to designation and the protection needed

for the Lower Delaware to stay
clean for all to use.

The Delaware Riverkeeper Network petitioned DRBC to designate the river and tributary segments as Special Protection Waters in April 2001. The commission collected five years of water quality data for the Lower Delaware and tributary streams, which documented that the river has exceptional water quality and was therefore eligible for the Special Protection Waters designation.

The Special Protection program encourages using non-

discharge alternatives for point sources of pollution, requires the use of best demonstrable technology for new or expanding pollution discharges that do go to the river, and requires creation of nonpoint source pollution control plans for covered facilities.

"This is our region's version of the Outstanding Natural Resource Waters program," says van Rossum. "Strong regulations backed by strong implementation are critical, and never to be lost in the milieu of politics and money."



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LATINO AMERICA:

Un movimiento llegando a su plena realización

Por Francisco Ollervides, Coordinador del Campo

Latino America se distingue por su riqueza cultural y en materia de biodiversidad, pero trágicamente el patrimonio natural y cultural de esta región también enfrenta los más grandes retos a sus cuencas hidrográficas y las comunidades que dependen de ellas.

Al acercarnos al decimo aniversario de la Alianza Waterkeeper, parece oportuno reflejar en lo que esta década ha significado para la abocacia hacia las cuencas hidrográficas en Latino America.

El primer programa Latino Americano de Waterkeeper emergió en 1999 en un remoto pueblo pesquero conocido como Punta Abreojos, en Baja California Sur. Encabezados por un pescador de langosta, Javier Villavicencio, como *Punta Abreojos Coastkeeper* ayudaron a detener un gran proyecto de desarrollo costero destinado a la extracción de sal propuesto por la corporación Mitsubishi y que significaba una seria amenaza a las áreas de pesca de esta región.

En el 2001, el segundo programa Waterkeeper, *Vieques Coastkeeper*, fue creado en Puerto Rico como parte de los esfuerzos de la Alianza Waterkeeper por detener de una vez por todas el uso que la Marina de los EE.UU. ha tenido durante varias décadas de la isla de Vieques como una zona de practica de bombardeo y que había resultado en el vertido y acumulación de grandes cantidades de sustancias toxicas en las aguas alrededor de esta bella isla.

El liderazgo Latino Americano dentro de la Alianza Waterkeeper provino de visionarios como Erick Bozzi y Fernando Rey, quienes co-fundaron *Cartagena Baykeeper* en esa histórica ciudad amurallada de la costa Atlántica de Colombia. En la actualidad, este programa es dirigido por la abogada Elizabeth Ramírez. El pasado mes de junio, con ayuda de estudiantes de los departamentos de Derecho y Química de la Universidad Libre, este

programa presento su primera demanda—en contra de varias dependencias municipales por los problemas crónicos que trae la deficiente recolección de basura en esta ciudad. Estas tácticas las desarrollo Ramírez tras intercambios y consultas con miembros de programas Waterkeeper en los EE.UU.

En 2003, Danitza Defillippis formo *Choqueyapu Riverkeeper* en Bolivia. En 2007, cuando Evo Morales ordeno la creación de una nueva Constitución para su país, Defillippis, una abogada ambiental, fue parte de este esfuerzo y tuvo un papel clave en la elaboración de provisiones para los estándares de calidad del agua en este documento.

El plan estratégico de cinco años de la Alianza Waterkeeper formulado en 2005, dio pauta a la dirección de esta región cuando la mesa directiva de la Alianza mostró interés en promover crecimiento sustentable en las regiones

LATIN AMERICA:

A Movement Comes of Age

By Francisco Ollervides, Senior Field Coordinator

Latin America is noted for its wealth of cultures and biodiversity, but, tragically, that cultural and natural heritage is matched today by the enormity of threats to the region's watersheds and the communities that depend on them. As the Waterkeeper Alliance approaches its 10th anniversary, it seems an opportune moment to reflect on what this decade has meant for watershed advocacy in Latin America.

The first Latin American Waterkeeper program emerged in 1999 in a remote Mexican fishing village, Punta Abreojos, in Baja California Sur. Headed by a local lobsterman, Javier Villavicencio, Punta

Abreojos Coastkeeper helped halt the development of a major coastal salt extraction project by the Mitsubishi Corporation that posed a serious threat to the area's fishing grounds.

In 2001, the second Waterkeeper program, Vieques Coastkeeper, was created in Puerto Rico as part of Waterkeeper Alliance's efforts to put an end to the U.S. Navy's decades-long use of the island of Vieques as a firing range, which had resulted in the dumping of massive amounts of toxic substances in the waters surrounding that beautiful island.

Waterkeeper Alliance's Latin American leadership came from visionaries

such as Erick Bozzi and Fernando Rey, who co-founded Cartagena Baykeeper in that historic walled city on Colombia's Atlantic coast. Currently, this program is led by Elizabeth Ramirez, an attorney. This past June, with the help of students from the law school and chemistry department at the Universidad Libre, Cartagena Baykeeper filed its first class-action suit—against several municipal agencies for chronic problems with the city's garbage collection. It was a tactic Ramirez developed after extensive consultations with members of Waterkeeper programs in the United States.

In 2003, Danitza Defillippis formed



JASON HOUSTON

de Amazonía y México. Ese año, Julio Solis y un servidor creamos el segundo programa de la península de Baja California, *Magdalena Baykeeper*. Julio ha sido instrumental en las campañas de conservación de tortugas marinas así como el éxito reciente en contra de un proyecto de desarrollo turístico mal planeado, denominado Magdalena Secret. El mismo año, Henry Pedraza se convirtió en el *Colombian Amazonia Waterkeeper*, y el lucha contra la contaminación de mercurio en la extrac-

ción áurea en la región controlada por la guerrilla en Puerto Inirida.

En 2006, Luis Lugo se convirtió en *Meta Riverkeeper* en Colombia y Peter Paterson en *La Paz Coastkeeper* en Baja California Sur, México. Peter y grupos ambientalistas locales hicieron una petición a el gobierno por la preservación de Baladra, una playa publica y tesoro local frente a las presiones de un mega-desarrollo. La presión pública forzó al gobierno municipal a que modificara su postura y declarara a Balandra como área natu-

ral protegida para la gente de La Paz. El también continúa su lucha contra el crecimiento ilegal e irresponsable de desarrollo costero en una área conocida como El Mogote.

Las discusiones comenzaron a progresar hacia la creación regional de una Alianza Latino Americana. En ese momento un servidor fui contratado como coordinador de campo para así apoyar y conectar los ocho programas de esta región. En 2007, *México Valley Waterkeeper* se unió al movimiento a través de los esfuerzos de Pedro Moctezuma y Elaine Burns. Este programa ha adoptado la misión de salvaguardar las fuentes de agua potable de más de 20 millones de habitantes en y alrededor de la Ciudad de México. Ese mismo año German García Duran y Fundacion Río Urbano establecieron *Bogota Riverkeeper* para proteger esta poblada cuenca en esta capital Colombiana. Héctor Flores de Nucleo de Afirmacion del Saber Andino también empezó el *Ramis Riverkeeper* en Perú. Este río es la principal fuente de agua del Lago Titicaca. Héctor y su equipo están combatiendo la contaminación causada por operaciones mineras así como defender los derechos y el patrimonio de los grupos indígenas Aymara y Quechua.

Choqueyapu Riverkeeper in Bolivia. In 2007, when Evo Morales ordered a new Constitution to be drafted for that country, Defillippis, an environmental lawyer, was part of the effort and played a key role in writing provisions that set the bar higher for water quality standards.

Waterkeeper Alliance's five-year Strategic Plan of 2005 guided this region as the Alliance's board set its sights on promoting sustainable growth in the Amazon region and Mexico. That year, Julio Solis and I created Baja California's second program, *Magdalena Baykeeper*. Julio has been a leading force in sea turtle conservation campaigns and recently defeated an ill-planned tourism development project known as *Magdalena Secret*. That same year, Henry Pedraza became *Colombian Amazonia Waterkeeper*, leading the fight against mercury contamination during the extraction of gold in the guerrilla-controlled region of Port Inirida.

In 2006, Luis Lugo became the *Meta*

Riverkeeper in Colombia and Peter Paterson became *La Paz Coastkeeper* in Baja California Sur, Mexico. Peter and local environmental groups petitioned the government to protect Balandra, a public beach and a local treasure, from large-scale development. The public pressure forced the municipal government to modify their stance and declare Balandra a protected natural area for the people of La Paz. He continues to fight irresponsible and illegal coastal development in an area referred to as El Mogote.

Discussions soon progressed toward creating a regional Latin American Alliance. At that same time, I was hired as senior field coordinator to support and connect the region's eight programs. In 2007, *Mexico Valley Waterkeeper* joined our movement through the efforts of Pedro Moctezuma and Elaine Burns. This program has taken on the mission of safeguarding the sources of drinking water for more than 20 million inhabit-

ants in and around Mexico City. In the same year, *Bogota Riverkeeper* was established by German Garcia Duran and Fundacion Rio Urbano to protect the most populous watershed in Colombia's capital region. Hector Flores from Nucleo de Afirmacion del Saber Andino also started *Ramis Riverkeeper* in Peru. This river is the principal source of water to Lake Titicaca. Hector and his team are combating pollution caused by mining operations and advocating for the rights and heritage of the indigenous Aymara and Quechuas peoples.

In 2008, five new programs joined the Alliance. Juan Carlos Quevedo formed *Jordan Riverkeeper* in Colombia. Sergio Mattos Fonseca organized Brazil's first program—the *Guanabara Baykeeper*, which is working on mangrove protection and restoration in this Brazilian bay. *Parana Waterkeeper*, created by Jorge Capato from Fundacion PROTEGER and his team in Argentina, is coordinating a large

En 2008 cinco nuevos programas se unieron a la Alianza. Juan Carlos Quevedo formo *Jordan Riverkeeper* en Colombia. Sergio Mattos Fonseca organizo el primer programa en Brasil—*Guanabara Baykeeper*, y están trabajando por proteger los manglares y restaurar esta bahía brasileña. *Paraná Waterkeeper*, fue creado por Jorge Cappato de Fundación PROTEGER y su equipo en Argentina. Ellos coordinan una gran red de pescadores que se han organizado para proteger este extenso sistema de humedales. Joshua Berry de Save the Waves Coalition y Fernanda Pinochet de Fiscalía del Medio Ambiente formaron *Maule Coastkeeper* en Chile para enfrentar los problemas de contaminación de industrias como celulosas de papel que están afectando las pescas artesanales locales.



(Left to right) Steve Fleischli, Erick Bozzi, Robert Kennedy, Jr. and Fernando Rey played key roles in establishing the Latin American Waterkeeper movement.

network of fishermen who have organized to protect an extensive wetland system. And Save the Waves Coalition's Joshua Berry and Fiscalía del Medio Ambiente's Fernanda Pinochet formed *Maule Coastkeeper* in Chile to deal with the effects of pollution from industries such as paper mills on local artisanal fisheries.

Los Cabos Coastkeeper represents the latest addition as another Baja California Sur program in Mexico. Martha Moctezuma, Francisco Alcocer and Mathew Parr are fighting for public access to beaches and providing critically important input into regulations on the growth and operation of desalinization plants in the area.

Finalmente, *Los Cabos Coastkeeper* representa la última adición de un programa en Baja California Sur, México. Martha Moctezuma, Francisco Alcocer y Mathew Parr están luchando por el acceso público a sus playas, así como proveyendo importantes comentarios a la reglamentación en el crecimiento y operación de plantas desalinizadoras en esta área.

Estos son algunos ejemplos de como los programas *Waterkeeper* están contribuyendo a una diferencia en Latino America. Quizás aun más importante a estos logros individuales

— ha sido su participación y creación de precedentes en decisiones legales y sus éxitos demandando a los responsables de mantener el agua limpia—así moldeando una nueva cultura de conservación salvaguardando estos derechos en sus respectivos países.

El éxito de estos programas no pudo haber sido posible sin el apoyo de ciertos individuos claves. Terry O' Day, quien dirige *Environment Now*, junto con Jill Gravender y Liz Crosse, han provisto soporte constante a los programas *Latino Americanos* emergentes. Asistencia legal ha sido facilitada por Carla García, Fernando Ochoa de DAN, y Pablo Uribe de CEMDA, así

como consejos operacionales y estratégicos del co-fundador de *Propeninsula*, Chris Pesenti.

Con esta firme fundación que estos 17 programas han cimentado, el movimiento *Latino Americano Waterkeeper* ahora entra una fase aun más prometedora. Numerosas conferencias y reuniones sub-regionales se han planeado a través de la región con la meta de establecerse con una mayor presencia aun más coherente. Conforme continuamos desarrollando fuerte enlaces con Centro y Suramérica, tenemos confianza de que nuestro próximo plan estratégico resultara en crecimiento y fortalecimiento de programas *Waterkeeper* en muchos más países *Latino Americanos*.

Francisco Ollervides es el coordinador de campo de la Alianza Waterkeeper. El co-fundó Magdalena Baykeeper en 2005. Obtuvo su Maestría y Doctorado en ciencias con énfasis en bio-acústica de mamíferos marinos en la Universidad de Texas A&M en el Departamento de Vida Silvestre y Pesquerías. **W**

These are just a few examples of how *Waterkeeper* programs are making a difference in Latin America. Perhaps even more important than their individual accomplishments is the way — through their participation in landmark court decisions and their successes in demanding accountability for clean water — they are shaping a new culture of conservation and stewardship in their respective countries.

The success of these programs could not have been possible without the support of several key individuals. Terry O'Day, who leads *Environment Now*, Jill Gravender and Liz Crosse have provided consistent support for emerging *Latin American* programs. Legal assistance has been available through Carla Garcia, Fernando Ochoa from DAN, and Pablo Uribe from CEMDA, along with operational and strategic advice from Chris Pesenti, co-founder of *Propeninsula*.

With the firm foundation that these 17 programs have built, *Latin America's*

Waterkeeper movement is now entering an even more promising phase. Numerous conferences and sub-regional meetings are being planned throughout the region with the goal of establishing an even more vocal and cohesive presence. As we continue developing stronger ties in Central and South America, we are confident that our next strategic plan will see a growth and strengthening of *Waterkeeper* programs in many more *Latin American* countries.

Francisco Ollervides is the senior field coordinator at Waterkeeper Alliance. He co-founded Magdalena Baykeeper in 2005. He has a doctoral degree in Science, with a focus on marine mammal bioacoustics, from Texas A&M University. **W**

PROGRAMA PARANÁ WATERKEEPER:

un punto de apoyo para la Alianza Waterkeeper en el Cono Sur

By Julieta Peteán, Guardian del Paraná

El río Paraná es el segundo más grande de Sudamérica después del Amazonas. Más de 300 especies de peces atribuyen a su rica biodiversidad.

Desde sus orígenes en Patanál en Brasil hasta su delta Atlántica en Argentina, el Paraná, provee agua dulce, pesca y otras formas de sustento a más de siete millones de personas- comunidades ribereñas y pueblos indígenas, además de centros urbanos pequeños, medianos y grandes incluyendo Santa Fe, donde se ubica el Programa Paraná Waterkeeper.

A lo largo de más de 1200 kilómetros este complejo sistema de humedales juega un rol esencial para la regulación de los ciclos hidrológicos, climáticos y ecológicos. Hoy enfrenta muchas amenazas. La

construcción de represas como Yacyretá e Itaipú ha reducido el flujo del río drásticamente. El dragado para hidrovías y la sobre pesca industrial a reducido las poblaciones de peces.

Otras amenazas a la calidad del agua se deben a la expansión de la frontera agrícola para la soja y otros monocultivos. El uso de agroquímicos se une al vertido de drenaje sin tratamiento ni regulación y los efluentes industriales en zonas urbanas de esta cuenca.

En colaboración con Fundación PROTEGER que alberga el programa Paraná Waterkeeper y es una de las principales organizaciones ambientalistas en Argentina, así como REDEPESCA, una red de pescadores artesanales que articula



The Paraná River, a precious source of fresh water and an important fishery for millions of Latin Americans, is threatened by dam construction and industrial fishing operations.

PARANÁ WATERKEEPER:

A Leading Voice for Water in the Southern Cone

By Julieta Peteán, Paraná Waterkeeper

The Paraná River is the second longest river in South America, after the Amazon, with more than 300 fish species making up its rich biodiversity. As it meanders from its headwaters in Brazil's Pantanal region to its Atlantic delta in Argentina, the Paraná provides fresh water, fishing and other forms of sustenance to more than seven million people — from indigenous and traditional riverside communities to small, medium and large urban centers, including Santa Fe, where Paraná Waterkeeper is located.

Broad and slow moving for much of its 800-mile course, the Paraná's complex wet-

lands system plays a crucial role in the regulation of hydrologic, climatic and ecological cycles. Today it faces a host of threats. Construction of dams, such as the Yacyretá and Itaipú, has reduced the river's flow drastically. Dredging for shipping has diminished fish stocks, which are also being ravaged by industrial fishing operations.

Other threats to the river's water quality include the expansion of large-scale soybean and other monocrop farming enterprises, with an increase in the use of chemical fertilizers, and the unregulated dumping of sewage and industrial waste in many urban areas.

In collaboration with Fundación PROTEGER, Paraná Waterkeeper's parent organization and one of Argentina's foremost environmental groups, and REDEPESCA — a network of more than 20 fishermen's association in Argentina's five northeastern provinces — Paraná Waterkeeper has been tirelessly working to advance Waterkeeper Alliance's advocacy model in Argentina and the neighboring countries of the Southern Cone. In collaboration with environmental rights specialists and the support of Waterkeeper Alliance, we have begun negotiations with local law schools to develop an environmental law clinic in

unos 20 asociaciones pesqueras en cinco provincias al noreste de Argentina, este programa, trabaja arduamente para avanzar el modelo de abogacía Waterkeeper aquí y en los países vecinos del Cono Sur. En colaboración con especialistas en derecho ambiental y con el apoyo de la Alianza Waterkeeper se están iniciando negociaciones para crear una clínica legal en defensa de la cuenca del Paraná dando a la región una voz para el agua, los ríos, los humedales y la pesca.

Con énfasis en el manejo sustentable de los recursos naturales, el programa Paraná Waterkeeper ha desarrollado los siguientes proyectos:

Un plan de manejo de pesquerías en el Sitio Ramsar Jaaukanigás, un importante humedal al norte de Santa Fe. Este proyecto reúne a pescadores artesanales, comerciales y deportivos, ONGs, científicos, dirigentes sociales e intendentes municipales.

Un diagnóstico preliminar y mapeo de las principales amenazas de degradación del ecosistema fluvial del Paraná. Incluiamos un plan de monitoreo permanente de la calidad de agua y de la pesca, con la participación activa de las comunidades costeras y científicos. **W**

the Paraná watershed that will be the region's leading voice for water, rivers, wetlands and fishing.

Emphasizing the sustainable management of natural resources, Paraná Waterkeeper is also developing the following projects:

A management plan for fisheries at the Ramsar-protected Jaaukanigás wetlands just north of Santa Fe province. The project is bringing together artisanal, commercial and sport fishermen, NGOs, scientists, social leaders and municipal authorities.

Preliminary diagnosis and mapping of the main sources of contamination and degradation to the fluvial ecosystem of the Middle Paraná. A permanent water quality and fish monitoring plan has already begun with the active participation of riverside communities and scientists. **W**

Orígenes, Logros y Perspectivas del Programa GUARDAGUAS DEL RÍO BOGOTÁ

Por Germán García-Durán, Guardaguas del Río Bogotá

Guardaguas del Río Bogotá es un programa dentro de la Fundación Río Urbano, entidad sin ánimo de lucro creada en el 2003 con el objetivo de promover la conservación y buen manejo de cuencas hidrográficas. Aunque la Fundación tiene su sede en Bogotá, Colombia, cuenta con capítulos en otras ciudades de dicho país y en Panamá, Guatemala, Argentina y Kenia. Tomando en cuenta la coincidencia de criterios entre la Fundación Río Urbano y la Alianza Waterkeeper, la Fundación inició preparativos para crear

el Programa Guardaguas del Río Bogotá y afiliarlo a la Alianza Waterkeeper.

El Río Bogotá, es el más importante de Colombia, donde se encuentra Bogotá, la capital del país, urbe con más de 7 millones de habitantes. El área de influencia de este programa es toda la cuenca del río desde su nacimiento hasta su desembocadura en el Río Magdalena. El área de la cuenca es de 6.000 km² y la longitud del Río Bogotá es de 380 km. Adicionalmente, en la cuenca se encuentran varios embalses para regular los caudales con

A New Voice for Colombia's BOGOTÁ RIVER

By Germán García-Durán, Bogotá Riverkeeper

The Bogotá River is the most important waterway in Colombia, serving the capital city and its more than seven million inhabitants. The river basin covers 6,000 square kilometers (3,700 square meters) with lengths measuring 380km (235m). It includes several reservoirs that regulate water levels and supply water for human consumption, irrigation and power generation.

Among these reservoirs, the Sisga, Neusa and Tominé enjoy favorable environmental conditions. The Muña, however, next to the town of Sibate,

which has 30,000 inhabitants, suffers high levels of pollution. In the past, this reservoir had recreational uses. Today, it is exclusively used for power generation, resulting in highly polluted waters that cause serious environmental and public health problems.

Bogotá Riverkeeper was officially launched in November 2007 under the auspices of the Río Urbano Foundation, a nonprofit group founded in 2003 that works to protect and manage waterways in Colombia, as well as in Panamá, Guatemala, Argentina and Kenya. Key to the creation of Bogotá Riverkeeper

fines de aprovisionamiento de agua para consumo, riego de hortalizas y generación de energía eléctrica. De estos embalses, el Sisga, el Neusa y Tominé se encuentran en buen estado ambiental. Sin embargo, el Muña, situado junto a la población de Sibaté, de 30.000 habitantes, acusa un alto grado de contaminación debido a que se le alimenta con aguas del Río Bogotá en el punto donde este acusa mayor contaminación. Este embalse se usa exclusivamente para generación de energía eléctrica, aunque en el pasado también fue recreacional, pero hoy en día, debido a su alta contaminación, es fuente de graves problemas ambientales y de afectación de la salud pública.

El Programa Guardaguas del Río Bogotá, fue lanzado oficialmente en noviembre de 2007 durante la visita de los señores Murray Fisher y Fernando Rey como mentores. En ese tiempo ha ejercido una permanente presión sobre las autoridades y empresas privadas que por negligencia o acción directa son responsables de la alta

contaminación de la cuenca. El Programa se inició con la publicación de la carta abierta “Al Oído de Juan Lozano: Claridad sobre el Río Bogotá” dirigida al Ministro de Ambiente, Vivienda y Desarrollo Territorial de Colombia, Juan Lozano Ramírez, en la cual se le hacen cuestionamientos y precisiones en relación con las políticas gubernamentales para la recuperación del río, que a nuestro juicio no son adecuadas y están postergando cada vez más las verdaderas soluciones. La carta fue ampliamente distribuida y se encuentra publicada en nuestro portal de Internet: www.riourbano.org.

Durante el lanzamiento de este programa se organizó el Foro “Políticas para el Río Bogotá y sus Afluentes –Énfasis en Resultados–” que contó con más de 150 participantes de origen tanto gubernamental como privado. Nos hemos sumado con entusiasmo al Referendo por el Agua, promovido por ECOFONDO, organización que agrupa a más de 100 ONG’s nacionales, y que busca que el ac-

ceso al agua sea un derecho fundamental, que se garantice un mínimo vital gratuito para los hogares pobres colombianos, que los servicios públicos de acueducto y alcantarillado no se privaticen y que se garantice la efectiva conservación del medio ambiente para que haya agua abundante y limpia. También estamos preparando una demanda relacionada con el lamentable estado ambiental del Embalse del Muña.

Nuestro programa está organizando para noviembre de este año el Foro “Qué Hacer para Recuperar los Humedales, Pequeños Ríos y Quebradas de Bogotá”. Con este evento se celebran los cinco años de la Fundación Río Urbano y el año de trabajo del Guardaguas del Río Bogotá. Finalmente, el Guardaguas del Río Bogotá está promoviendo la creación en Cúcuta, Colombia, en la frontera con Venezuela, un programa de Guardaguas del Río Pamplonita, y como parte de este proceso organiza el “Primer Congreso Internacional sobre Cuencas Hidrográficas en Zonas de Frontera” que se realizará en dicha ciudad en mayo de 2009. [W](#)



was the similar approaches shared by Río Urbano and Waterkeeper Alliance. From its inception, the Riverkeeper program has consistently pressured officials and private enterprises responsible for high pollution levels, through direct action or negligence, in the river basin.

The program’s first order of business was to publish an open letter addressed to Juan Lozano Ramírez, Minister of the Environment, Housing and Soil Development of Colombia, challenging the government’s policies for river recovery, stating that they were inadequate and would only delay true solutions. Largely distributed throughout the area, it can be found online at www.riourbano.org.

During the program’s launch, we also organized a forum to bring out into the open the politics that play a central role in the Bogotá River’s present condition



and its future, gathering more than 150 individuals from government and private entities. We have enthusiastically joined the water referendum promoted by ECOFONDO, an organization that groups more than 100 national nongovernmental organizations. The referendum aims to establish water as a fundamental right, guarantee free water to Colombia’s poorest households, keep public utilities such as aqueducts and sewer systems out of private areas, and achieve efficient protection of the environment to secure abundant and clean water. We are also preparing a lawsuit in relation to the deplorable environmental conditions of the Muña Reservoir.

In November, Bogotá Riverkeeper is holding a forum on “What to Do to Recover Wetlands, Small Rivers and Creeks in Bogotá.” This event will celebrate five years

of the Río Urbano Foundation, as well as Bogotá Riverkeeper’s first year of work.

Bogotá Riverkeeper is supporting the creation of a riverkeeper program for the Pamplonita River in Cúcuta, Colombia, located on the Venezuelan border. We are also organizing the First International Congress on River Basins in Border Areas, which will be held in Cúcuta in May 2009. [W](#)

Abordaje a la crisis del agua EN EL VALLE DE MÉXICO

By Pedro Moctezuma, Guardian Valle de México

Sobresaltadas, las garzas emprenden vuelo ante el grupo de diversos hombres y mujeres que se desliza entre las chinampas, o jardines flotantes, de Tlahuac, en la frontera este de la Ciudad de México. Bajo la antiquísima vigilancia de los volcanes, estos canales son parte de los últimos vestigios vivientes del sistema original de manejo de agua del Valle de México. La tripulación a bordo de la tradicional trajinera incluye miembros de Waterkeeper (Guardianes del Agua) del Valle de México, representantes de grupos ciudadanos, y organizaciones de base, así como funcionarios de estado local. Su misión: regenerar los canales y ríos, y recuperar los acuíferos sobreexplotados.

En 2008, año del cuarto centenario del túnel de Nochistongo, la ciudad y sus 20 millones de habitantes vacilan al borde del

desastre. El nivel oficial de extracción en los acuíferos del Valle de México es 300% mayor que la tasa de recarga; en la actualidad, los niveles acuíferos se encuentran entre 450 y 650 pies (140-200m) bajo tierra; y la ciudad misma continúa hundándose entre 6 y 16 pulgadas (15-40cm) por año. Hoy día, el canal de drenaje de agua servida se halla casi 30 pies (9m) por encima de la ciudad, y el sistema de agua pluvial transporta agua servida durante todo el año. El túnel se ha obstruido, y los funcionarios federales han anunciado un inminente y vasto desastre por inundación. Actualmente, el costo total de bombeo diario es de USD4 millones, para lo que se utiliza energía eléctrica generada en un 60% por petróleo, en un país cuyas reservas se calcula durarán ocho años más. El paradigma de traer por tubo y desechar con agua ha alcanzado su límite de sustentabilidad.

Las crisis profundas exigen soluciones profundas. Los Guardianes del Agua (Waterkeeper del Valle de México) se preparan para estar a la altura del desafío. Durante los últimos años, el proyecto “universidad-comunidad” ha documentado las prácticas tradicionales de manejo de agua en la región, y organizado campañas de limpieza de río. La iniciativa se ha centrado en la construcción de una administración y responsabilidad compartidas, en pos de un ambiente ribereño más limpio. Otras actividades han incluido el desarrollo de plantas de tratamiento de agua con bajo costo, y bajo consumo de energía (biodigestores y humedales artificiales), que pueden ser construidas y administradas por grupos locales; y la promoción de la agricultura orgánica y el ecoturismo. Los maizales amenazados por la expansión urbana han sido transforma-

Water Crisis in the VALLEY OF MEXICO

By Pedro Moctezuma, Mexico Valley Waterkeeper

Startled herons take wing as a boat carrying a diverse group of men and women glides among the chinampas, or floating gardens, of Tlahuac on the eastern border of Mexico City. Under the age-old vigilance of the volcanoes, these canals are among the last remnants of the original system of water management in the Valley of Mexico developed by the Aztecs before the Spanish colonization.

The crew aboard the traditional trajinera includes staff from the Mexico Valley Waterkeeper, representatives of citizen's groups and grassroots organizations, as well as local government officials. Their mission: to find a way to regenerate canals and rivers, and recover the overexploited aquifer.

This year marks the 400th anniversary of the Nochistongo tunnel, built to drain the valley's lakes and prevent flooding in Mexico City. Today, it continues to drain the aquifer below Mexico City, which, with its 20 million inhabitants, teeters on the brink of disaster. The official level of extraction from the Mexico Valley's aquifers is 300 percent greater than the rate of recharge; aquifer levels are between 450 and 650 feet underground; and the city continues to sink between 6 and 16 inches a year. The drainage canal stands almost 30 feet above the city, and the stormwater system carries sewage water year round.

With the tunnel clogged, federal officials have announced that a major flooding disaster is imminent. The total cost of pumping is now \$4 million a day, using

electrical power that is 60 percent petroleum generated in a country whose oil reserves are estimated to last another eight years. The pipe-in and flush-out paradigm has reached its limit of sustainability.

Profound crises demand profound solutions. Mexico Valley Waterkeeper plans to meet the challenge.

Over the last few years, Mexico Valley Waterkeeper has been documenting regional water-management practices and has organized river cleanup campaigns. Its aim is to share stewardship and responsibility for a cleaner river environment. It has developed low-cost, low-energy water treatment plants (biodigestors and artificial wetlands) that can be built and managed by local communities, and promoted organic agriculture and ecot-

dos en huertos frutales; y una floreciente red de proyectos de ecoturismo con base comunitaria está desplazando la tala ilegal de los bosques de abeto y pino de los volcanes Iztaccíhuatl y Popocatepetl.

Como parte de este esfuerzo hacia el manejo integrado del agua en el Valle de México, el 29 de febrero de 2008 se inauguró el Centro para la Sustentabilidad “Incalli Ixcahuicopa.” Este consiste en dos campus para la investigación y capacitación en el manejo del agua, 3 acres (1,2ha) para agroecología, y 110 acres (44,5ha) para silvicultura y biodiversidad. Los guardianes también crearon un sistema de monitoreo de calidad del agua en puntos estratégicos de los tres ríos de la región, basado en técnicas desarrolladas por World Water Watch.

Durante el último año, los Guardianes y la Universidad Autónoma Metropolitana han trabajado con los gobiernos federal, estatal y local, en la organización de 13 comités de interesados: usuarios de agua doméstica, agrícola, ganadera, industrial, servicios y múltiples; así también comités representantes de escuelas, universidades, proyectos de ecoturismo, emprendimientos comunitarios “verdes,” grupos de tier-

ras de bosque comunitarias, organizaciones cívicas, y pequeños granjeros.

Estos esfuerzos han llevado a impulsar el Consejo de la Cuenca de Agua, establecido el 7 de agosto de 2008, en reconocimiento del hecho de que para transformar el modelo actual de manejo de agua del Valle de México, se requerirán estrategias a nivel macro. Esta nueva etapa de trabajo exige que la universidad y los activistas comunitarios comiencen a colaborar con aquellos que desempeñan una función estratégica en el camino de retorno a un manejo sustentable del agua. Esta etapa presente quizá sea la más difícil de todas. La planificación del manejo de una cuenca de agua debe desarrollarse y llevarse a cabo, mediante un proceso de construcción de consenso que involucre a cada interesado, y que se funda en el reconocimiento común de que el agua es un recurso que debe sostenerse conjuntamente, y que juntos debemos aprender a manejar sustentablemente.

Guardianes del Agua ha iniciado estrategias legales, proporcionando asistencia técnica y jurídica a comunidades locales para presentarse en tres causas en tribunales federales, contra los proyec-

tos de urbanización que ponen en riesgo la región y sus servicios ambientales. En la primera causa se resolvió con una decisión sin precedentes de detener la construcción de 3.500 unidades habitacionales sobre el área de recarga del acuífero. Durante el Ordenamiento Ecológico de 2007, Guardianes del Agua individualizó un proyecto irregular de 23.000 viviendas, en áreas naturales protegidas. Por medio de acciones cívicas, este proyecto ha sido interrumpido.

En los años venideros, este proceso tomará fuerzas desde las comunidades locales, al igual que la sabiduría e inspiración de miembros de otros programas dentro de la Alianza Waterkeeper. **W**



Towering over Mexico City is the Iztaccíhuatl volcano. Its snowmelt is crucial to the Valley of Mexico watershed.

ourism. In addition, cornfields threatened by urban sprawl have been turned into fruit orchards, and a budding network of community-based ecotourism projects is displacing illegal logging from the fir and pine forests of the Iztaccíhuatl and Popocatepetl volcanoes.

As part of the effort for integrated water management in the Mexico Valley, the Incalli Ixcahuicopa Center for Sustainability, where Mexico Valley Waterkeeper is now headquartered, was inaugurated last February. It consists of two campuses: one for research and training in water management and agroecology, the other in forestry and biodiversity. Mexico Valley Waterkeeper also created a water-quality monitoring system at strategic points along the region's three rivers, based on techniques developed by World Water Watch.

Over the last year, Mexico Valley Waterkeeper and the Universidad Autónoma Metropolitana have worked with federal, state and local governments to organize stakeholders' committees of

domestic, agricultural, animal husbandry, industrial, service and multiple water users, as well as committees representing schools, universities, ecotourism projects, “green” community businesses, forest community land groups, civic organizations and small farmers. These efforts have led to the creation of the Water Basin Council, which was installed in August to promote an approach to water management in the Valley of Mexico that balances ever increasing demand with the urgent need to replenish the aquifer. This new stage of work requires that university and community activists collaborate with others who have a strategic role to play in the road back to sustainable water management.

The present stage is perhaps the most difficult of all. Water basin management plans must be developed and carried out in a consensus-building process, which involves every stakeholder and is founded on the joint recognition that water is a commonly held resource that we must learn to manage sustainably together.

Mexico Valley Waterkeeper has initiated litigation strategies, providing technical and legal assistance to local communities in filing three suits in federal court against urbanization projects that put the region and its environmental services at risk. The first suit was resolved with an unprecedented decision to halt construction of 3,500 housing units in the aquifer recharge area. In 2007, an investigation by Mexico Valley Waterkeeper uncovered plans for a housing project of several thousand units in a protected natural area. Through civic pressures, the project has been brought to a standstill.

Over the coming years, Mexico Valley Waterkeeper's efforts will draw strength from local communities as well as the wisdom and inspiration of other member programs within Waterkeeper Alliance. **W**

We CHOOSE OUR FUTURE NOW*



JASON HUSTON

*a blueprint for clean water



JASON HOUSTON



As the 2008 presidential election approaches, the most environmentally damaging presidency in American history nears its end. Instead of environmental protection, the Bush administration repeatedly affirmed its loyalty to industrial polluters by issuing rules that undercut environmental law and underfunded federal environmental programs to the detriment of our nation's waters, air and forests.

Waterkeeper Alliance's Blueprint for Clean Water offers remedies to past policy decisions and proposes a new way for the federal government to strengthen environmental protection in all areas relating to water. What follows are our Top 10 priorities for the new administration, as chosen by local Waterkeepers, to protect and restore America's waterways.

ISSUE #1

Restore Protection

Water has no regard for political boundaries or human law. While some waters may be geographically or politically isolated, there are virtually no waters that are hydrologically or ecologically isolated — a nexus almost always exists. The destruction or pollution of any part of the aquatic system creates a ripple effect, damaging the integrity of the entire ecosystem.

Wetlands, intermittent streams, mudflats, prairie potholes and other sensitive waterways are vital to the overall health of America's natural resources, as well as to public health and safety. These waterbodies control flooding, recharge groundwater, filter pollutants, serve as breeding safe havens and migratory overstops for amphibians and birds, and provide crucial habitat for rare species of vegetation.

Yet, the Bush administration has actively sought the destruction and development of the nation's waters. Vital federal protection began to deteriorate in 2001 with a Supreme Court case called *Solid Waste Agency of Northern Cooke County (SWANCC) v. U.S. Army Corps of Engineers*, followed by the 2006 *Rapanos-Carabell* decision. These cases call into question exactly which waterways are safeguarded by the Clean Water Act.

It's estimated that 60 percent of U.S. creeks, rivers, streams and tens of millions of acres of wetlands and other sensitive waterbodies have lost federal protection in the last few years. These waterways are now subject to unfettered development, industrial discharges, damage from agricultural withdrawals and stormwater pollution.

In New York State alone, thousands of small but hydrologically significant wetlands are now vulnerable without federal or state protection, yet many are of major importance to New York City's drinking water supplies. In western states like Arizona, upward of 95 percent of all waterways, commonly known as intermittent streams, are at risk.

River Run Dry

By Tom Ford, Santa Monica Baykeeper

Rivers don't flow straight on flat coastal plains — they love to wiggle and twist. At one time, the Los Angeles River meandered through the coastal plain of Southern California, occasionally sharing a delta with Ballona Creek and the San Gabriel River. Wetlands and springs flowed from the mountains that frame Los Angeles, draining into the river and sustaining diverse ecological communities, native peoples and early European settlements.

The Los Angeles River today, however, runs in a nearly straight line for 51 miles, from its headwaters in the San Fernando Valley to the Long Beach coast, thanks to a concrete trough built by the Army Corps of Engineers. Complete with concrete banks and a concrete bottom, its banks support a wonderful diversity of graffiti rather than natural wildlife. Still, it is one of the city's most familiar locales because of its use in countless Hollywood movie car chases.

The river has had a tough run of luck over the years, but recently it seemed poised for a comeback thanks to plans to restore some of its natural features by building parks on its banks and efforts to clear it of trash, bacteria and heavy metals. Things seemed to be moving in the right direction.

Then, last spring, the U.S. Army Corps of Engineers issued a jurisdictional determination that only a few miles at the mouth of the river was a Traditional Navigable Water (TNW) deserving of federal protection under the Clean Water Act. This narrow designation meant that dry creeks that connect to the river along the "non-navigable" sections would not be protected. Rather, they could be filled, poisoned or dredged with no recourse.

Santa Monica Baykeeper and a number of other groups responded to this determination, which potentially spelled disaster not only for the river, but also for the hundreds of creeks, streams and rivers of the arid Southwest that share seasonal flows and dry spells.

Within days of the announcement, Santa Monica Baykeeper and a loose coalition of local and national organizations and community activists collected newspaper articles and photographs and conducted interviews to build our collective case. We hoped to persuade the Corps of Engineers that all 51 miles of the Los Angeles River was, and is, a Traditional Navigable Water. Elected officials from the U.S. House of Representatives, the State



The banks of the Los Angeles River feature colorful graffiti rather than natural wildlife.

TOM ANDREWS

of California and the City of Los Angeles also collaborated to apply pressure through the press and political channels.

Nearly three months later, on June 4, the Corps announced that the Sepulveda Basin, in the upper reaches of the Los Angeles River, is also a Traditional Navigable Water of the United States and protected by the Clean Water Act. A minor victory, perhaps, but certainly an important step in the right direction.

In the following weeks, our focus shifted to the Environmental Protection Agency, which has the authority to challenge the Corp's findings. Near the end of July, we were informed that after a review the Corps had determined that six tributaries of the Los Angeles River were considered "navigable waters."

In August, the EPA sent a letter to the Corps stating that the EPA would exercise its authority and make the final decision on the Los Angeles River at EPA headquarters in Washington in close coordination with EPA Region 9 and the Army Corps. Pressure brought to bear by the Santa Monica Baykeeper and a number of other groups and agencies was central to the EPA's intervention.

The EPA has not yet made a final decision, and so the fate of the Los Angeles River is still uncertain. One thing is certain, however: As Santa Mon-

ica Baykeeper, it's my job to continue to fight to create a transparent process and preserve federal protections for the Los Angeles River and every one of its tributaries.

RECENT ROLLBACKS



The Bush administration has eviscerated the "no net loss" wetlands policies.

President George H.W. Bush instituted a "no net loss" wetlands policy in 1989, which was expanded by President Bill Clinton to a goal of a net increase of 100,000 acres of wetlands per year by 2005. However, under the latest Bush administration, the U.S. Army Corps of Engineers now allows minor improvements to existing wetlands rather than the previous acre-by-acre replacement policy.



The EPA and USACE allow solid waste to fill our rivers, streams, lakes and wetlands.

In 2002, EPA and the Corps of Engineers reversed a longstanding prohibition of using solid waste as fill material in U.S. waters. The reversal was initially made to legalize the corps' authorization of valley fills associated with mountaintop removal coal mining in Appalachia. EPA and the corps have now extended the rule to allow additional waste fills by other industries.



Funding cuts and policy initiatives are failing to protect critical habitat for America's endangered species.

Numerous Bush administration initiatives and budget cuts have led to the loss of habitat critical to the survival of endangered and threatened species. This not only diminishes the quality and quantity of our nation's water resources, but also threatens biodiversity.

ISSUE #2

Enforcement

Enforcement is a cornerstone of environmental protection. One of its fundamental goals is to achieve widespread compliance with environmental laws and regulations.

However, according to EPA's own data, more than one in four of the largest polluting facilities in America are in regular violation of the Clean Water Act. And, while state and federal Clean Water Act permit programs are falling short in their performance, available resources for enforcement programs are growing scarcer.

Overall, Clean Water Act enforcement programs have been significantly harmed by shrinking funding and now face major gaps between program needs and resources. Clean water activists know that states can't adequately address enforcement issues without the federal EPA.

The drop in EPA's enforcement activity began immediately after President Bush took office and has only worsened over time. The administration effectively dismantled EPA's prior enforcement initiative against the electric utility industry by rewriting Clean Air Act regulations that formed the basis of existing enforcement cases and by abandoning its investigations of violations at other plants.

Similarly, EPA staff was directed to stop investigations of air pollution problems at factory farms because of political capture of EPA by the agricultural industry. As a result of this type of interference with enforcement initiatives, several high-level EPA officials resigned.

The Bush administration and its political allies have undermined EPA enforcement efforts in a number of ways by decreasing enforcement resources, politicizing the enforcement program, and decreasing levels of enforcement activity. As a result, polluters have been less likely to face court actions, be subject to criminal investigation, or pay civil or criminal penalties.

Newtown Creek: Heart of Darkness

**By Craig Michaels,
Hudson Riverkeeper Investigator**

Like many polluted streams and rivers around the world, New York City's Newtown Creek was, until recently, an all-but-forgotten waterway. Over a century of rampant industrial use and environmental neglect turned this three-and-a-half mile-long Hudson River tributary into a toxic wasteland.

Hudson Riverkeeper's former chief investigator Basil Seggos once described a patrol up Newtown Creek as an environmentalist's journey into the heart of darkness. Oil tank farms, coal gasification plants, solvent reprocessing facilities, copper smelting sites, cement companies and abandoned factories still occupy the creek's shorelines, their history telling the tale of the abused waterway. A 17-million-gallon ExxonMobil oil spill, nearly 3 billion gallons of untreated raw sewage a year and the liquid cement waste from several concrete plants are but a few of the pollution issues still plaguing the creek and the working-class neighborhoods of Brooklyn and Queens that surround it.

Looming large in the foreground of Newtown Creek's constant contamination is the blight most visible to the naked eye: oil.

First uncovered by the U.S. Coast Guard in 1978, the oil spill in Greenpoint, Brooklyn, and Newtown Creek is one of the largest known spills in North America. The estimated 17 million gallons of petroleum — 50 percent larger than the infamous Exxon Valdez oil spill in 1989 — has seeped into Newtown Creek and 55 acres of surrounding communities for decades.

Attributed to an underground explosion in 1950 at a Standard Oil terminal (now ExxonMobil), the oil plume was essentially ignored by public officials until 1990 when New York state entered into a consent order with ExxonMobil. Akin to an out-of-court settlement, this order required only a rudimentary cleanup and did not establish any benchmarks for progress nor levied any fines against the oil giant.

The impacts of this spill are devastating. The local aquifer has been destroyed. Fifty-five acres of land cannot be developed and petroleum has settled under more than 100 homes on three residential blocks. The effect on aquatic life in Newtown Creek and around New York Harbor has been se-

vere, with pollution from the creek flowing in and out with the tide, transported around New York Harbor to Long Island Sound, and, in all likelihood, infiltrating the food chain harbor-wide.

In May 2004, Hudson Riverkeeper and local residents filed a citizen suit in federal district court against ExxonMobil for Clean Water Act and Resource Conservation and Recovery Act violations stemming from the spill. That case is presently in discovery, being handled by the staff and students of the Pace Environmental Litigation Clinic.

Following Riverkeeper's lead, a lawsuit against ExxonMobil was filed in the fall of 2004 by Brooklyn Borough President Marty Markowitz and New York City Council members David Yassky (D-Brooklyn) and Eric Gioia (D-Queens). In 2005, two private law firms filed separate mass tort cases in state court against ExxonMobil and other companies. More than 500 local residents are plaintiffs in that suit and both cases were filed in part based on soil gas testing that Hudson Riverkeeper conducted in July 2005.

To date, ExxonMobil has removed about 6.5 of the 9.5 million gallons of oil already pulled from the ground, but at least 8 million gallons remain. Additionally, state environmental officials have discovered a series of underground solvent plumes, most likely the result of widespread use of chemicals to clean metals and textiles. This pollution appears to be connected to a series of metal finishing shops, dry cleaners and possibly former petroleum refineries. Due to harmful levels of air pollution, dozens of homes and businesses remain at risk.

In 2003, Hudson Riverkeeper and New York City Councilman David Yassky co-founded the Newtown Creek Alliance, a collection of citizen groups and elected officials dedicated to protecting and restoring the creek.

Hudson Riverkeeper's work on Newtown Creek exemplifies how the Waterkeeper brand of hard-hitting environmental enforcement can powerfully affect the environmental and political landscape of a contaminated community. Thanks to years of investigation and litigation that helped uncover a previously hidden environmental disaster, Newtown Creek is now getting the attention it deserves, and local residents are well positioned to accept nothing less than a full and comprehensive cleanup of what should be a swimmable and fishable waterway in the heart of one of the greatest cities in the world.



John Lipscomb, patrol boat captain for Hudson Riverkeeper, takes a sample to test the polluted waters of Newtown Creek.

RECENT ROLLBACKS



Funding cutbacks. According to the Government Accountability Office, enforcement funding to EPA regions decreased 8 percent and regional offices reduced enforcement staff by about 5 percent to address shortages between 1997 and 2002. In 2003, the White House targeted more than 200 enforcement jobs from elimination, according to a report by respected law professors Christopher Schroeder and Rena Steinzor.



Enforcement workforce shell game. EPA has weakened the enforcement workforce by keeping fully funded staff positions vacant, resulting in a loss of critical expertise in some programs. EPA has also converted enforcement positions to non-enforcement functions, including cutting 30 positions from environmental enforcement, to transfer resources to "counterterrorism" in fiscal year 2002.



Reduced enforcement activity. Between 2002 and 2006, there have been significant decreases in EPA enforcement activity and in the number of penalties and fines collected from polluters. The Environmental Integrity Project reports that case files, civil penalties, criminal fines and criminal investigations have all experienced decreases.



Weakened water program. Hundreds of Clean Water Act enforcement cases have either been dropped or made lower priorities due to recent Supreme Court decisions questioning whether certain rivers, streams, wetlands and other waters remain protected from pollution by the Clean Water Act.

ISSUE #3

Stormwater Runoff

In urban areas, stormwater runoff from highways, roads, sidewalks, parking lots and related infrastructure is the primary source of water pollution.

Rain isn't the problem. The pollution that rainwater picks up as it runs over manmade surfaces is what closes our beaches and poisons our drinking water. Surges of stormwater that are channeled directly into our waterways through storm drains also change the timing, volume and energy of water flowing into receiving waters, which increases erosion and leads to serious ecological destruction of in-stream habitat.

Fortunately, there are tools available that can prevent or reduce polluted runoff. Resources range from physical structures — something as simple as a hay bale used to block sediment from leaving a construction site, or as complicated as a filter to remove petroleum from water — to practices like picking up after your dog on a walk or your town's street-sweeping program.

One very important way to reduce the impact of stormwater pollution is in the way we design our urban and suburban environments. Instead of simply creating enormous amounts of impervious surface, there are ways to incorporate stormwater management into the design of any project, essentially stopping or reducing the problem before it starts.

Environmental site design (ESD) involves practices that reduce stormwater generation and maximize capture and retention of rainwater. Mimicking or supporting natural hydrologic processes including infiltration, filtration and evapotranspiration through the use of healthy soils, vegetation and design of the human environment retains the stormwater. The focus of ESD is to prevent stormwater generation and contamination before it can occur, diminishing the need for expensive treatment and restoration later.

The good news is that preventing polluted stormwater runoff is well within the grasp of every community in the United States.

Puget Sound: Stormwater v. Salmon

By Sue Joerger, Puget Soundkeeper

The ultimate indicator of the health of Puget Sound is the marine life living there. According to the Puget Sound Action Team's "State of the Sound 2007," the health of Puget Sound's marine population is "troubling." Forty-three species, including orcas, salmon, groundfish, pinto abalone and marine birds, are either at risk, threatened or endangered with extinction.

One reason for the decline is untreated stormwater runoff, a limiting factor in the recovery of three Puget-Sound salmon species listed under the Endangered Species Act: Puget Sound steelhead, Hood Canal summer-run chum and Puget Sound Chinook. In addition, many shellfish harvesting areas are closed because of stormwater pollution.

Because of their impact on salmon, copper and zinc are the primary metals of concern in industrial and municipal stormwater. Copper interferes with fish sensory systems related to predator avoidance, juvenile growth and migratory success. Zinc alters behavior, blood and serum chemistry, impaired reproduction and reduced growth.

In a recent letter to the EPA, National Marine Fisheries Service in Seattle reported that salmon experience adverse effects at 2 micrograms per liter of dissolved copper and 5.6 micrograms per liter of dissolved zinc. A recent study estimates that 84 percent of zinc samples and 95 percent of copper samples taken from Puget Sound exceed water-quality criteria.

The state Department of Ecology regulates stormwater runoff from primary sources in the Puget Sound Basin through eight stormwater general permits. The department issues general permits to broad categories of stormwater dischargers rather than customized individual permits because of the large number of stormwater polluters. More than 6,000 businesses; the Washington State Department of Transportation; Snohomish, King, Pierce and Clark counties; as well as the cities of Seattle, Tacoma and 85 smaller jurisdictions are regulated under these permits.

Stormwater regulation has been Puget Soundkeeper's No. 1 priority since 2000. Since then, we have appealed every stormwater general permit issued by the Department of Ecology — often several times.



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Fish and marine birds are either at risk, threatened or endangered with extinction due to untreated stormwater runoff draining into Puget Sound.

In a recent victory, the Pollution Control Hearings Board remanded the Phase I Municipal Stormwater General Permit to the Department of Ecology to require cities and counties around Puget Sound to reduce stormwater runoff by using low-impact development. The board concluded that the permit's focus on traditional engineered stormwater management facilities like detention ponds was inadequate to protect Puget Sound. It also ruled that the Phase I permit failed to require that the municipalities control stormwater discharges to the maximum extent practicable and did not require application of all known, available and reasonable methods to prevent and control pollution because it failed to require more extensive use of low-impact development techniques.

The Department of Ecology estimates that only 10 percent of Industrial Stormwater General Permit holders are in full compliance with the permit. Puget Soundkeeper has reviewed Industrial General Stormwater Permit compliance by all 728 permit holders in Puget Sound and has prioritized its enforcement activities based on this review. The focus has been on ensuring that high metals dischargers of zinc, copper and lead are in compliance with the terms of the permit.

After having its attorneys review 284 permit files, Soundkeeper sent 60-day notices of intent to sue under the Clean Water Act to an unprecedented 67 permit violators in the past 22 months. Each case includes at least one settlement meeting, a site visit and the identification of mitigation projects. To date, Soundkeeper has settled 38 cases to

bring permit holders into compliance and raised \$831,000 in penalty money to pay for third-party environmental projects.

RECENT ROLLBACKS

➔ **EPA deliberately chose not to issue limits to reduce stormwater pollution from construction and development sites.** Fortunately, Waterkeeper Alliance and NRDC challenged this determination and won. A federal court in California ordered EPA to issue regulations for controlling construction stormwater by December 2009. Still, EPA is caving in to building industry pressures and rejecting this critical opportunity to adopt alternative stormwater prevention and control practices.

➔ **EPA issued a replacement for its expired Construction Stormwater General Permit.** EPA's permit applies in the five states and is the model for permits in other states. Unfortunately, it perpetuates a failed approach to stormwater control, undercuts better programs in more progressive states, and fails to keep our waters clear of muddy runoff from construction sites.

➔ **Stormwater discharges became exempt from NPDES.** Effective June 12, 2006, stormwater discharges associated with oil and gas exploration, production, processing, treatment operations and transmission facilities became exempt from the NPDES permitting program. This exemption allows the oil and gas industry to pollute our nation's water resources with no controls or consequences.

➔ **EPA failed to adopt a more protective approach in its reissued MSGP.** This fall, EPA issued a new Industrial Stormwater Multi-sector General Permit (MSGP). Instead of adopting a more protective approach, EPA gave these industries carte blanche to write their own permits, rolled back monitoring and omitted measures to ensure that these discharges don't violate water quality standards.

ISSUE #4

Sewage

American sewage treatment and conveyance facilities are antiquated. In some U.S. cities, the sewage infrastructure is more than 100 years old and unable to meet the demand of the population it serves.

The result? Every time it rains, sewage pours into America's waterways from sewage system infrastructure leaks and overflows. EPA estimates that every year, more than 850 billion gallons of sewage are released into American rivers, lakes and coastal waters.

Combined sewer overflows account for the vast majority of untreated sewage that winds up in our waterways each year. A combined sewer system (CSS) is a single system for the collection and treatment of both sewage and stormwater. When it rains, this sewage and rainwater overwhelms either the conveyance system or the treatment facility, causing sewage to be intentionally diverted or to literally overflow. This mixture of sewage and stormwater then finds its way into America's waterways, bringing with it massive amounts of bacteria and chemicals that cause an array of diseases.

Sewage contains nutrients, total suspended solids, oxygen-depleting compounds, pathogens, toxins and trash. All of these can wreak havoc on our waterways, from causing massive algal blooms and dead zones, to impairing the respiratory function of aquatic creatures. High pathogen counts result in drinking-water advisories, beach closures and shellfish advisories.

Sewage also contains antibiotics, hormones, steroids, and human and veterinary drugs. Exposure to these pollutants can seriously affect human health, including creating abnormal physiological processes, reproductive impairments, increased incidence of cancer and antibiotic-resistant bacteria.

By eliminating raw sewage discharges and overflows, upgrading treatment standards, rehabilitating leaky systems, developing new systems designs, and providing the necessary funding to implement them, America's sanitation systems can finally be brought into the 21st century.

Strange Brew: What's Lurking in Milwaukee's Waterways

By Cheryl Nenn, Milwaukee Riverkeeper

While the beaches of Lake Michigan remain a focal point of summer recreation for residents and visitors from throughout the Midwest, the Milwaukee River and its tributaries have a rich history of swimming schools and boating clubs serving people from Milwaukee to Chicago.

Although residents continue to swim and fish in our local rivers, they do so despite local safety and fish consumption warnings. In addition, as public pools and recreational facilities close due to budget cutbacks — and rising gas prices make it difficult for local families to travel to the Northwoods, a favorite destination for Wisconsinites — access to our local rivers for swimming, boating and fishing is becoming more and more of an imperative.

Milwaukee Riverkeeper serves as the local voice, investigator, lawyer, educator and scientist for our waterways. It's our job to demand clean rivers and lakes for our local communities. As such, Milwaukee Riverkeeper is involved in several lawsuits addressing illegal sewage dumping into our local rivers and Lake Michigan that threaten both water quality and public health.

Sewage overflows, however, are only part of the picture. In Milwaukee, wastewater treatment facilities and conveyance pipes are antiquated — over 100 years old in many cases — and failing. Broken sewage and stormwater pipes are also a major source of pollution in our waterways, as is stormwater runoff, which carries pollutants from the land into our waterways after it rains.

Many municipalities don't have funding to identify potential problem areas, and only a small portion of the sewage system collector pipes can be surveyed each year. Milwaukee Riverkeeper is addressing these problems with more than 80 volunteer monitors testing water in our watersheds, especially in areas where there is little or no information because the responsible agencies and municipalities are simply not testing.

We have also started a stormwater pipe or "out-fall" testing program to detect pipes that are only supposed to be sending rain and snowmelt to our waters but instead are sending sewage and other



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pollutants. We have identified an 8-mile stretch on one of our rivers that has shown bacteria levels 10 to 100 times higher than expected from stormwater runoff alone, indicating failing pipes.

Bacterial loading has increased over the last several decades in many areas, and recent studies have shown higher detection rates of pathogenic organisms associated with fecal matter such as salmonella and cryptosporidium. We are currently working with Dr. Sandra McClellan, a scientist from the University of Wisconsin-Milwaukee Great Lakes Water Institute, to test for *E. coli* bacteria and to determine whether or not the bacteria is from humans or wildlife. By doing this, we hope to help agencies and municipalities prioritize funding where failing pipes are contributing large amounts of bacteria and other pollutants to our waterways.

Unfortunately, detecting pollution and infrastructure problems doesn't mean these problems will be fixed. Cuts to the already underfunded State Revolving Fund (SRF) — an important resource in assisting municipalities with maintenance programs and improvement projects — have diminished many communities' abilities to prevent sewage pollution. The Bush administration has cut this fund continually during the last eight years, slashing more than \$1.4 billion from the fund. It is estimated that we will have to invest \$200 billion to \$500 billion in our national water-distribution and wastewater-collection-and-treatment infrastructure in the next 10 years.

The next President must show leadership and commitment to addressing this looming crisis either by drastically increasing the SRF budget or investing substantial new sources of funding, such as a proposed Clean Water Trust Fund to pay for critical infrastructure improvements. Local and state governments must also prioritize sewage and water system upgrades in their annual budgets.

Protecting our rivers from sewage pollution will require upgrading regulations that control sew-

age discharges and mandate proper operation and maintenance of our sewage collection and treatment assets. We will also need to invest in developing and implementing new systems to treat our wastewater more naturally and to reuse/recycle our wastewater.

Although we face enormous challenges to cleaning up our waterways, with political will, strong leadership and good science, we will prevail to returning our rivers to swimmable and fishable and, dare I say, drinkable again!

The EPA estimates more than 850 billion gallons of sewage are released into America's waters every year. Raw sewage damages rivers, lakes and coastal waters and exposes wildlife and humans to disease causing agents.

RECENT ROLLBACKS



In 2003, the Bush administration proposed a policy allowing blending, the discharge of partially treated wastewater mixed with treated wastewater during storm events.

Blending results in the discharge of inadequately treated pathogen-laden sewage into our waterways, where it can spread waterborne disease. This practice provides a permanent "escape clause," allowing treatment plants to bypass wastewater treatment and avoid permanent solutions to protect our waterways and public health. While the 2003 proposal was shelved after public outrage, EPA is still considering allowing the use of blending as a "solution" to our sewage problems.



The Bush administration shelved a regulation that would have controlled raw sewage discharges and required public notification when sewage overflows do occur.

The proposed Capacity Assurance, Management, Operation and Maintenance (CMOM) regulations would have required sanitary sewer collection system operators to: (1) provide adequate capacity to convey wet weather flows, (2) properly manage a sanitary sewer system, and (3) perform adequate operation and system maintenance to eliminate sanitary sewer overflows (SSOs).



Slashes to the already underfunded State Revolving Fund (SRF) have diminished communities' abilities to prevent sewage

pollution. This highly successful program has provided approximately 17,000 low-interest loans to eligible communities since 1987. However, the Bush administration has drastically cut nearly \$1.4 billion from the SRF, cutting the 2008 budget to less than \$700 million.

ISSUE #5

Mercury

Coal-fired power plants are the single largest source of airborne mercury in the country, spewing nearly 50 tons of this deadly poison into the air and into our local watersheds each year. Several studies have shown that as much as 70 percent of these toxic emissions are ending up in local waterways and fish. Only 1/70th of a teaspoon of mercury is needed to contaminate a 25-acre lake to the point where fish are unsafe to eat.

Waterways across the nation are under siege. According to the latest EPA data, there are presently 3,080 fish advisories for mercury across 48 states, one territory and two tribal lands, covering 14,177,175 lake acres and 882,963 river miles. Twenty-three states have issued statewide fish advisories due to mercury in freshwater lakes, rivers or both, while 12 states have statewide advisories due to mercury in their coastal waters.

Mercury from coal-burning power plants is also having a devastating impact on the health of our communities. The federal Centers for Diseases Control once estimated that as many as 630,000 children were being born each year with unsafe levels of mercury in their blood. EPA recently lowered this number of at-risk children to 410,000, based on supposedly improved information on the amount of mercury in women's blood. Either way, the numbers are frightening.

The truth is, people shouldn't have to stop eating fish because of pollution. Rather, industry should stop polluting our waterways.

NC Riverkeepers Push Dirty Coal Plant off the Cliffside

By Donna Lisenby, Watauga Riverkeeper

Last March, North Carolina Riverkeeper programs and the Waterkeeper Alliance took legal action against a proposal by Duke Energy to build a new coal-fired power plant at Cliffside, N.C.

Many people understand how coal-fired facilities contribute carbon and other air pollutants to global warming. Less is known about how terribly toxic these plants are to waterways.

The United States has 1,100 coal-fired power plants that release nearly 50 tons of mercury into the air every year, accounting for more than 40 percent of airborne mercury emissions in the nation. Coal-fired plants are the largest source of anthropogenic, or human-caused, mercury air emissions in the United States.

Mercury is deposited into the ground or directly into waterbodies as fallout from the air emissions of coal-fired power plants. It can be washed from the land and carried to rivers, streams and lakes by stormwater. When elemental mercury lands in water, it is transformed to methylmercury, the most toxic form of mercury, by microorganisms found in water and sediment.

Small aquatic organisms consume mercury as they feed. Then larger animals eat them, with the mercury accumulating at each step. This is called bioaccumulation. Fish that are higher in the food chain — such as largemouth bass, swordfish and tuna — have much higher mercury concentrations than fish that are lower on the food chain. Organic mercury concentrations can be more than 1,000 times greater in the fish than in the surrounding water. Humans become exposed when they eat fish that are contaminated with mercury.

Babies are exposed to mercury from their mothers' blood in the womb, as well as from breast milk. High levels of mercury in developing fetuses and young children can irrevocably effect their neurological development leading to developmental delays and learning disabilities. Mercury poisoning can also cause lung, kidney, heart and immune-system damage.

An estimated 8 percent of women of child-bearing age have unsafe levels of mercury. Based on data from the Centers for Disease Control, the North Carolina Department of Health and Human



Services recently estimated that “at least 13,677 children per year” are born in North Carolina with blood mercury levels that place them at risk for lifelong learning disabilities, fine motor and attention deficits, and lowered IQ.

It is clear beyond any shadow of a doubt that North Carolina waterways are already heavily overburdened with mercury contamination. Mercury impaired more acres of water in North Carolina lakes than any other source including chlorophyll, turbidity, high pH, dioxin, nutrients, low pH and aquatic weeds. Partial testing of less than 60 percent of North Carolina waters by the Department of Environment and Natural Resources determined that 1,000 miles of North Carolina rivers plus an additional 29,522 acres of freshwater lakes, reservoirs and impoundments are impaired by mercury.

Rather than sit idly by and watch while other groups who focus on air and global warming issues challenged the absurdity of the Cliffside coal plant, North Carolina Riverkeepers saw an opportunity to protect their waterways and communities from toxic mercury while bringing the entire North Carolina Riverkeeper fleet into the battle against global warming.

In March, we appealed the Cliffside Coal Plant permit as did several other environmental groups in North Carolina. But while the other groups focused primarily on a traditional challenge based

on the Clean Air Act, Waterkeeper Alliance’s legal team, led by Senior Attorney Scott Edwards, appealed the permit using the Clean Water Act, arguing that emissions from the plant would contribute substantially to the further degradation of North Carolina’s waterways in clear violation of Clean Water Act standards.

If Waterkeeper Alliance and the North Carolina Riverkeepers are successful pioneering this exciting new approach, which calls into question the Alice-in-Wonderland logic that treats the Clean Air Act and Clean Water Act as totally separate, then we will have opened a new front in the battle against coal-fired power plants and global warming.

RECENT ROLLBACKS



The Bush EPA has steadfastly refused to properly control mercury emissions as mandated by the Clean Air Act.

In fact, the Bush administration attempted to sidestep strict mercury controls proposed by the Clinton administration and instead invoked an anemic cap and trade regulation policy. In doing so, EPA went so far as to remove coal-fired plants from the Clean Air Act’s section 112(c) list, which lists sources of pollution that require regulation because of the health threat they pose.

ISSUE #6

Diversions

When addressing the problem of strained water resources, people usually consider water quality first. Unfortunately, water quantity is often overlooked.

Water quantity is often defined in terms of instream flow — the amount of water flowing in a river or stream at a given time. Without enough clean water in an aquatic system, a river or lake can no longer provide habitat for species or a reliable supply of water for human consumption.

Whether on the Great Lakes, in the Southeast, or the Southwest, shrinking water levels in rivers and lakes are becoming an increasing problem. States are challenging other states for access to water. Regional droughts are making the situation worse.

Meanwhile, our waterways are under growing pressure to provide many different services, such as drinking water supply, navigation, wastewater treatment, agricultural irrigation, recreation, hydropower and industrial uses. In order to accommodate all of these competing uses and to continue to maintain ecosystems that are not degraded to the point of collapse, we must adopt a balanced approach to ensure that enough water remains in our rivers, lakes and streams.

Tipping Point for the Apalachicola

By Dan Tonsmeire, Apalachicola Riverkeeper

The Apalachicola River and Bay in the Florida Panhandle boast the greatest biodiversity of any river system and the highest productivity of any estuary in North America. The Apalachicola system has been designated a Biosphere Reserve by the United Nations, a National Estuarine Research Reserve by the National Oceanic and Atmospheric Administration, a Biological Hotspot by the The Nature Conservancy and a Florida Emerald Coast BioGem by NRDC. And yet, the lack of adequate federal and state policy on instream flow has left the Apalachicola's future hanging in the balance. Endangered mussels and sturgeon are threatened as are the livelihoods of commercial fishermen whose families have worked on the river and bay for generations.

These facts have proven of little consequence to Georgia state officials and the U.S. Army Corps of Engineers who continue efforts to take more water out of the Apalachicola-Chattahoochee-Flint (ACF) river system, which drains 19,600 square miles down 890 miles of three major rivers, through three states from the Smokey Mountains to the Gulf of Mexico.

Even more is at stake. The Flint River suffers withdrawals for agricultural irrigation that can reduce side streams to a trickle. Proposals for federal water supply dams on the Flint will destroy habitat, threaten fish and unwind the cultural heritage of many Georgians. Threats to the continued health of the system also occur along a section of the Chattahoochee River, protected as a National Scenic Recreation Area. The 100-mile reach suffers water quality hits from flow reductions designed by the state and enabled by the Corps to hold water in an upstream reservoir for water supply.

Three Riverkeeper organizations are working together to protect these rivers for present and future generations. The Upper Chattahoochee Riverkeeper leads the fight in north Georgia for water conservation to reduce use and maintain adequate instream flow. The newly formed Flint Riverkeeper is setting up to battle dams that powerful interests in north Georgia want on the Flint. Apalachicola Riverkeeper is working with Florida Rep. Allen Boyd and Sen. Bill Nelson, who are leading the entire Florida delegation sponsoring legislation that



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will fund a National Research Council study of instream-flow needs on the ACF system and establish a reasonable estimate for the ACF. The study's findings could then be the basis for precedent-setting federal legislation to protect instream-flow needs not just for the Apalachicola but for rivers across America. At the heart of all the effort is sustaining flows for healthy rivers.

Determining an accurate measure of instream-flow quantities that will sustain a healthy river is critical to establishing a defensible position. Whether in litigation or negotiation, sound science must back demand for instream flows. Determining flow needs on the Apalachicola, which fluctuates between 5,000 and 300,000 cubic feet per second with wide variations annually and seasonally, can be complex. We could lose this whole system as we know it and that weighs heavy on me.

Apalachicola Riverkeeper worked with experts to develop estimates of water flow before the four federally funded dams on the Chattahoochee River were built to serve as a baseline in an environmental impact statement. Rainfall and flows were analyzed in the post-dam period for the drought period, disproving claims that the reservoirs have enhanced post-dam low flows.

Researchers say that the Apalachicola is at a tipping point. The floodplain lost more than 4 million trees and hundreds of miles of fish habitat in dried-up sloughs because too much water is being taken from the ACF system to sustain the Apalachicola River and Bay. As a result, this year's commercial seafood harvest was a fraction of past years, threatening the economic lifeblood of local communities.

Georgia has passed a water plan that relies on outdated measurements that protect only the lowest portion of the flow regime. Florida has documented impacts from reduced flows, but declined to develop instream flow needs.

Right now the best and, perhaps, the last hope is that a timely Congressional act will sustain the Apalachicola. Without action, the whole river system as we know it — one of America's truly great natural treasures — could be lost.

Apalachicola Bay is one of the richest remaining oyster grounds in America. Its stocks, however, are being destroyed due to increased salinity caused by reduced water flow in the Apalachicola River.

RECENT ROLLBACKS



EPA recently adopted a rule to exempt water transfers from the Clean Water Act's permitting requirements.

This rule allows polluted water to be diverted into clean water sources without a Clean Water Act permit. Meanwhile, federal law is relatively silent on water quantity and instream flow requirements because of the states' primary authority to decide withdrawal matters.



Federal water projects and actions have favored water supply over environmental needs.

For example, on the Apalachicola-Chattahoochee-Flint Rivers (in Georgia and Florida), a federal Court of Appeal found the Army Corps of Engineers exceeded its Congressional authorization to provide water supply for the North Georgia Metropolitan District by doing so at the expense of downstream users and other Congressionally authorized purposes and permits.

ISSUE #7

Coal Mining

Mountaintop coal mining is the scourge of communities in Appalachia and in other rural areas across the U.S. Entire mountains are blown apart to allow access to seams of coal that lie within. Emotions run high as dust, blasting, water pollution and flooding push people out of their homes.

For those brave enough to challenge illegally granted permits in the courts, threats against home and family are now rampant. Communities find themselves embroiled in difficult and lengthy efforts to hold regulatory agencies accountable. Citizens must hire independent hydrologists, biologists, and other legal and technical experts to challenge illegal practices at great personal and financial expense. They find themselves confronting angry neighbors who work in the mines — one family's livelihood pitted against another family's home and heritage.

Today, in West Virginia, Kentucky and Virginia, the situation is explosive — literally. Streams disappear in an instant as coal companies blast apart mountains and bulldoze rubble into valleys. These “valley fills” have buried or damaged more than 1,200 miles of irreplaceable headwater streams.

What's left is a wasteland.

More than 400,000 acres of the world's most productive and diverse temperate hardwood forests have already disappeared and it is predicted that that figure could increase to 1.4 million acres — 2,200 square miles — by the end of the decade if nothing is done to limit this practice.

In addition, the coal industry emits more greenhouse gases and mercury into the atmosphere than any other industry, as the nation's 1,100 coal-fired power plants spew roughly 50 tons of mercury into our environment each year.

How Green Were Our Valleys

By John Wathen, Hurricane Creekkeeper

Many facets of mining — such as long wall mining, strip mining and abandoned mines — left from an era before laws were passed to protect the environment have assaulted Hurricane Creek, here in west Alabama. In West Virginia, it is called mountain top removal. In Kentucky, cross ridge mining. In Tennessee, it is peak reduction. And in Alabama, it is plain old strip mining. All of it is insanity.

Many coalmine operators still propagate the myth that “we are not going to hurt anyone or the environment.” I have worked all over the country with Citizens Coal Council to expose the truth about coal. I have not yet been in a community where the operator did not say “we will be good neighbors” and “we will fix anything we break.”

Tell that to Marian Plovic of Washington, Penn. Her house on Route 136 was subsided by long-wall mining on Christmas day in 1998. The house tilted three inches and continued until it had tilted 25 inches on a diagonal slant. The foundation was broken beyond repair so a repair crew raised her house up off the foundation and built a new concrete foundation. Before the house could be lowered onto the new foundation, however, it cracked beyond use. The Plovics moved back into the home in late February 1999 and by mid-March, the house had tilted about 20 inches over 40 feet. As of today, Marian and her husband are still living in and repairing their home.

The house I once rented on Shoal Creek in Jefferson County, Ala., is now standing in water. The house has long ago rotted into the river but the fireplace is still standing in water as a reminder of what was once a beautiful fishing camp. Old growth forests of 100-year-old oaks and hickories stand dead in 3 feet of water. The water level did not rise. The riverbanks sank into the river in what is referred to in long-wall country as a planned “earthquake.” Subsidence is the one absolute in long-wall mining. It will happen, of that there is no doubt.

Simply put, coal is not our salvation. It is not clean, cheap or efficient. Coal is benign enough when it's left in the ground, where it works as a filtering system for aquifers below. The trouble starts when it's exposed to the atmosphere: It starts to oxidize. The oxidization process and contact with rain causes the sulfur contained in coal to become H_2SO_4

or sulfuric acid, also known as acid mine drainage (AMD). Acid from the mine waste and overburden cause heavy metals to be dissolved and deposited in the water, which causes a ferrous bacteria to accumulate or armor the stream bottom, making it uninhabitable for fish or wildlife. In the Hurricane Creek basin, we have many examples of AMD from past mining as well as current operations.

Twenty-five years ago, Hurricane Creek was included on the 303(d) list, a list of impaired streams not meeting designated use classification, for mine tailings, Ph imbalance, iron, aluminum and others. The Alabama Department of Environmental Management (ADEM) was charged to complete the total maximum daily loads (TMDL) showing the amount of pollutants allowed to be permitted. ADEM sat on it for 20 years until Alabama Rivers Alliance and Friends of Hurricane Creek/Hurricane Creekkeeper sued the U.S. Environmental Protection Agency's Region 4 to force ADEM to comply. EPA performed the survey but when the process was completed, we still faced another dilemma: how to implement the reductions?

There are five coal permits up for "voluntary revocation and renewal." A 30-day notice and comment period is associated with each. None has been answered and no reissuance has occurred. Drummond Coal Co. has been in comment since December 2006. ADEM refuses to deny or issue the permit and claims that they are waiting on judgment on another case we filed years ago against Tuscaloosa Resources Inc. ADEM accepted a permit "voluntary revocation and re-issuance" while the final appeal was under way. Four Republican judges voted unanimously to overthrow the permit. ADEM reissued anyway, starting the entire process all over again.

Dam failures occurred at one local coal mine when tons of dirt and trees used for a temporary dam blew out and inundated the creek with extremely turbid water and woody debris. No fines were issued.

A few years later, a concrete dam failed, dumping millions of gallons of acidic water into Hurricane Creek. Most strip mines in our area are in acidic veins that produce hot or contaminated water. During the spill, millions of gallons of this water was released into the creek. Testing would have given us some indication of the expected impact to fish and wildlife. Neither ADEM nor Alabama Surface Mining Commission (ASMC) brought sample bottles to the spill site for testing so no Ph test was done on the coalmine failure.

It was quite obvious from an aerial view that the spillway was not constructed with steel reinforcement as the permit required. When I pointed it out to the Mining Commission's inspector, he stated that he did not know if steel was required. But



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on inspection of the permit, he found that I was right and it was required. A violation like that is extremely egregious and could, if enforced diligently, cost Black Warrior Minerals their permit. Instead of issuing a new violation for the infraction, the inspector rewrote the existing violation to include "failure to maintain sediment basins."

Now there is a rock quarry operating in the pit with no permit at all while ADEM sits asleep at the wheel.

Both Hurricane Creekkeeper and the Black Warrior Riverkeeper Nelson Brooke and his staff are now deep in the fight for accountability in the mining industry here. While we are both outgunned by the courts and industry, we continue to change things with each lawsuit. We will take back our creek and river, and give them back to our communities in better shape than we found them. That's the Waterkeeper promise around the world, and we plan to keep it.

Acid mine drainage can cause devastating effects on stream bottoms, creating a toxic environment for fish and wildlife.

RECENT ROLLBACKS:



EPA and the Army Corps issued a new rule making it legal to dump "fill material" directly into waterways.

With a simple 404 Permit from the Army Corps, they simply changed the definition of the term "fill" to signify compliance with the Clean Water Act. This rule meant that the Army Corps of Engineers could loosen its mitigation standards for waterways destroyed by mountaintop mining.



The U.S. Department of Interior's Office of Surface Mining (OSM) proposed significant changes to the "Stream Buffer Zone Rule."

The existing rule specifically precludes mining activities within 100 feet of a perennial stream or an intermittent stream without a variance. OSM's proposed changes would exempt the most devastating surface mining activities from coverage under the requirement, allowing for the creation of valley fills and huge coal-slurry waste ponds.



The Bush administration reversed a rule authorizing the Bureau of Land Management to deny mining operations on federal lands if the operations could cause "substantial irreparable harm" to resources and were unable to be mitigated.



The Interior Department overturned a policy allowing only a 5-acre waste site for every 20 acres of mining activity, in favor of a policy that did not limit the size of mining waste sites.

ISSUE #8

Agricultural Nonpoint Source Pollution

According to EPA, agricultural pollution is the No. 1 source of declining water quality in rivers and lakes, the second largest source of impairments to wetlands, and a major contributor to the contamination of estuaries and groundwater. Diffuse agricultural runoff (known as nonpoint source pollution) includes runoff from barnyards, pastures, rangeland and cropland; return flow from irrigation; and wet and dry atmospheric deposition. Silviculture, or logging, also contributes significant sediment loads and changes the temperature of rivers and streams that have lost forest canopy.

There are four principal pollutants from nonpoint source agriculture: sediment, nutrients, pesticides and organic matter.

Sediment chokes wildlife, impairs the respiratory function of aquatic organisms, hinders reproduction and interrupts the predator-prey relationship. Pesticides such as insecticides, fungicides and herbicides are poisons applied to soil, crops, structures and even animals to control pests. And when pesticides reach our waterways, they can be just as toxic to both aquatic vegetation and fish. Massive fish kills are often associated with pesticide pollution.

Organic matter, such as manure and crop debris, reduces dissolved oxygen levels in water; can adversely affect the taste, odor and color of drinking water; and may contribute to or exacerbate nutrient enrichment problems. Manure is also a source of pathogens. Feces can contain antibiotics, hormones and other pharmaceuticals used to prevent or treat infections, regulate reproduction, and increase rate of growth, salts and toxins. These contaminants and others carried in feces may be directly deposited into waterbodies or end up there after the gross misapplication of manure to farmland.

Many family farmers have shown that we can have good, high-quality food without damaging our environment. We should learn from their example.

The Muddy Waters of the Wabash

By Rae Schnapp, Wabash Riverkeeper

The quality of water in our rivers and lakes is a reflection of the way we use our land. The Wabash River drains nearly 24,000 square miles — predominantly made up of agricultural landscape — of Indiana, Illinois and Ohio. Meandering more than 500 miles through a broad flat floodplain that is mostly planted in corn and soybeans, floodwaters reached four miles wide earlier this year.

When the first white settlers appeared in the Wabash River valley, they began clearing the native forests to grow crops. In an effort that continues to this day, farmers installed intricate field drainage systems of pipes and ditches to remove water from cropland more quickly, destroying nearly all of our legendary wetlands and dramatically changing the character of the river.

In 1845, Indiana artist George Winter chronicled the degradation of the river that once sparkled with such clarity that you could see schools of fishes in its depths to a river that ran brown because of the soil washing off the land. He lamented that “clearing the country has had a striking effect — the beautiful islands ... are beginning to wash away under the influence of the greater volume of water that fills the banks and increased rapidity of the current of the river.”

Today, in spite of reduced tillage methods and erosion control measures, the river is still threatened by agricultural practices. Headwater streams often appear as a pipe or ditch in a farm field. These conveyances carry water away from the fields, but they also exacerbate flooding and carry away topsoil, fertilizer, pesticides and bacteria. While fertilizer runoff from the Wabash and other Midwestern rivers causes oxygen depletion and fish kills (like the hypoxic or “dead zone” in the Gulf of Mexico), the bacteria are a special concern because they can make our rivers unsafe to touch.

Bacteria are an indication that sewage is present in our streams. The Clean Water Act requires that human sewage be treated for pathogen removal, but less straightforward requirements exist for animal manure.

We now have vast acreages of grain crops that supply a livestock industry promoting factory-style production facilities known as concentrated (or confined) animal feeding operations. While Mid-

western farms have always had livestock, these industrial-scale livestock operations limit market access for small producers and concentrate millions of gallons of manure in a small area, leading to disposal problems.

Animal manure is typically stored in huge pits until it can be spread untreated on farmland. It has fertilizer content but differs from commercial fertilizer in that it contains pathogens and high levels of phosphorus, a fact ignored by most regulations. Many industrial livestock operations also use low doses of antibiotics to speed growth, which can result in the emergence of antibiotic-resistant disease organisms. And local health departments, concerned citizens and watershed managers have little access to information about where manure is being spread.

Untreated manure is currently being spread on thousands of acres of Midwestern farmland and its use is growing as the costs of commercial fertilizer continue to rise. Spreading manure over more acreage should help ensure that it is spread at rates that will reduce the potential for nutrient runoff, but it will also increase the number of people exposed to the air emissions and pathogens that can threaten public health.

Thanks to a grant from the McKinney Family Foundation, the Wabash Riverkeeper is training volunteers to help document the extent of agricultural runoff and its contribution to pollution in the Wabash River system. This information will be used to encourage enforcement of existing environmental laws and to strengthen those that are not protecting the health of rural communities. At the same time the Wabash Riverkeeper promotes local food and develops networks to connect farmers with consumers and support a more sustainable agricultural system.

Our next president should hold the agribusiness industry responsible for their waste management practices. Manure should be treated to remove pathogens in a manner similar to human sewage, then land-applied at realistic fertilizer rates for both nitrogen and phosphorus. As a public health measure, non-therapeutic uses of antibiotics should be banned, as recommended by the Union of Concerned Scientists and Physicians for Social Responsibility. And the industry should disclose its waste disposal practices so that health officials and watershed specialists can track any water pollution or health problems that emerge. No other industry sector gets to treat its waste disposal as a trade secret!

Further, policies should be put in place to ensure that rural communities have a stronger voice in determining the types of agricultural systems they want to develop. For too long, the industry has been hiding behind a nostalgic image of family farmers while putting true family farmers out of



business with unfair market practices. More sustainable economies can be developed by engaging local farmers in raising crops that can be eaten by people in nearby cities and towns, and keeping the profits within the community.

Agricultural pollution is the second largest source of impairments to wetlands and a major contributor to the contamination of estuaries and groundwater.

RECENT ROLLBACKS

➡ **The United States Department of Agriculture (USDA) is failing to implement and enforce critical wetland and highly erodible land conservation provisions of the 1985 Food Security Act.** A General

Accounting Office's (GAO) 2003 report revealed that almost half of the Natural Resources Conservation Service (NRCS) offices do not implement key conservation compliance provisions designed to control erosion or prevent wetlands loss. Flaws in NRCS's oversight monitoring put into question USDA's claim that 98 percent of the nation's cropland tracts subject to the conservation provisions are in compliance.

➡ **GAO found that the Farm Service Agency waived NRCS's noncompliance determinations about 61 percent of the time during crop years 1993 through 2001.** The frequency and lack of data support for these waivers undermines NRCS's enforcement efforts, resulting in a loss of wetlands and increased erosion from agriculture.

➡ **The Bush administration's final "Application of Pesticides to Waters of the United States in Compliance with FIFRA" rule does not adequately protect water quality from agricultural pesticide pollution.** This rulemaking is based on an assumption that a pesticide is not a pollutant, even though pesticides are clearly poisons. The rule puts American water resources, including water used for human consumption, animal consumption and irrigation in jeopardy from virtually unrestricted pesticide applications.

ISSUE #9

Ocean Protection

Two major ocean commission reports — the independent Pew Ocean Commission report in 2003 and the federal U.S. Commission on Ocean Policy report in 2004 — recognized that the continued ecological decline of our public seas represents a major threat to the U.S. economy, security and environment. Unfortunately while they produced hundreds of recommendations for commonsense-based solutions, few have been acted on by the national government during the Bush years.

Some of the world's most essential fisheries are in steep decline due to the effects of climate change, poor water quality, overharvesting and destructive fishing practices. Our coastal oceans are particularly hard hit, as are the fishing families and communities that depend on these waters.

Global climate change has altered the chemistry of the sea. The ocean itself is becoming more acidic, unknowingly attacking the calcium based shells of corals, clams, oysters and plankton. Our coastal waters are polluted with nutrients, disease, toxic metals and more, creating dead zones such as the one at the mouth of the Mississippi River, which has grown to the size of the state of New Jersey and is now deprived of oxygen and life as a result of runoff from poor agricultural practices throughout the grain belt.

Research and experience from around the world has shown that monitored traditional fishery management — in combination with ecosystem-based management and marine protected areas — are key to both sustainable fisheries and protection of our natural heritage and ecosystems. Without this approach to our living seas, we will continue to see the deterioration of our coasts and oceans.

The U.S. Commission on Ocean Policy and the Pew Oceans Commission concluded that ecosystem-based management is an important tool in protecting ecosystems and a sustainable harvest from our ocean. They gave us 10 years, five have already passed. We must act now before the systems that support us fail.

California Takes a Stand for Ocean Protection

By Linda Sheehan, Executive Director, California Coastkeeper Alliance

While the debate rages in Washington, D.C., over Rep. Sam Farr's H.R. 21 and Sen. Barbara Boxer's National Ocean Protection Act, the lawmakers' home state has been implementing its own California Ocean Protection Act (COPA) for the last four years.

California enacted COPA to create a rational and coordinated approach to protecting and conserving the state's precious ocean resources and coastal waters. Under the oversight of COPA's Ocean Protection Council, the state is developing guiding principles for all state agencies to follow, consistent with existing law. These principles must "incorporate ecosystem perspectives into the management of coastal and ocean resources" and must guide governance of our coast and ocean "by principles of sustainability, ecosystem health, precaution, recognition of the interconnectedness between land and ocean, decisions informed by good science ... and public participation in decision making."

COPA logically extends its reach inland to coastal watersheds, finding that "[t]he ocean ecosystem is inextricably linked to activities on land."

The Ocean Protection Council consists of some of the state's top decision makers including the Secretary for Resources, the State Lands Commission Chair, and the Secretary for Environmental Protection. Supported by strong, continuous advocacy by the California Coastkeeper Alliance and the 12 other California Waterkeepers that span the entire coastline, the council has taken landmark action on a variety of issues affecting coastal and ocean health. Many of these are issues for which California's Waterkeepers already exercise a state leadership role. Among other things, the Ocean Protection Council has taken on pursuant to COPA:

- Phasing out devastating impacts caused by coastal and bayside power plants that still use once-through cooling systems;
- Promoting low-impact development to reduce stormwater pollution and improve coastal ecosystems;

- Reducing marine debris, most recently through its July 2008 Ocean Litter Implementation Strategy;
- Implementing model programs for coordinated, inter-agency enforcement of coastal water quality laws;
- Funding extensive monitoring needed for the development and assessment of California's evolving, coast-wide network of marine protected areas.

The council is in the process of developing a program for restoring California's historic salmon runs, an area important to California's Waterkeepers. The council has also reached beyond California to create regional partnerships with Oregon and Washington. In July 2008, the three-state partnership released a plan to implement the groundbreaking 2006 West Coast Governors' Agreement on Ocean Health. The California Coastkeeper Alliance worked to shape the plan to ensure that the state moves swiftly to protect and restore the health of California's world-renowned coast and ocean.

The ultimate success of the council will depend on the extent to which California chooses to move away from the current fragmented system of managing by single issues, and toward coordinated, ecosystem-based management that recognized the inter-connectedness of land and sea. True integration means that the state's — and our own — actions must not simply be about protecting the ocean so that humans can use it, but also protecting the health of the ocean and its inhabitants for themselves.

In passing and aggressively implementing the Ocean Protection Act, California is demonstrating to federal lawmakers that it is indeed possible to bring to life a larger vision of integrated management. The California Coastkeeper Alliance and California's Waterkeepers are hard at work making that vision a reality.



The California Coastkeeper Alliance is working to ensure that the state moves swiftly to protect and restore the health of California's world-renowned coast and ocean.

RECENT ROLLBACKS



President Bush wins one blue asterisk for establishing the Papahānaumokuākea Marine National Monument in Northwest Hawaii. However, his administration has more typically supported offshore oil drilling, gutted Clean Water Act provisions, enforcement and funding, resulting in increased polluted runoff into U.S. coastal waters, and suppressed climate change findings by federal agencies, including findings on the devastating effects of global warming on the marine environment.

ISSUE #10

Environmental Justice

Inevitably, society's wastes flow toward communities debilitated by high illiteracy, unemployment and low voter registration. These communities have become toxic dumping grounds while receiving few of the safeguards that prudence and decency demand, but which only political power can obtain.

Environmental injustice is morally equivalent to any other form of racism — it has immediate adverse effects on people's health and, in the longer-term, destroys the cultures and vitality of our most vulnerable communities. Above all else, pollution is a violation of human rights.

In 1992, EPA acknowledged that low-income and minority populations shouldered the greatest environmental risks and that the application of environmental controls and enforcement follows racial lines. In the past 15 years, researchers have compiled evidence of unequal protection from the law, shoddy cleanups of toxic sites, and minority and low-income communities being stuck with our worst polluting facilities. These communities and all Americans are paying an unacceptable price:

A 1999 Institute of Medicine study concluded that low-income and minority communities are exposed to higher levels of pollution than the rest of the nation and experience certain diseases in greater numbers than more affluent communities.

In 2000, the *Dallas Morning News* and University of Texas-Dallas reported that nearly half (870,000 of the 1.9 million) of the nation's housing units for the poor, mostly minorities, sit within a mile of factories that reported toxic emissions to EPA.

In 2001, the Center for Health, Environment and Justice reported that more than 1,200 schools — serving 600,000 low-income and minority students in Massachusetts, New York, New Jersey, Michigan and California — are located within half a mile of federal Superfund or state-identified contaminated sites.

In 2003, the U.S. Commission on Civil Rights concluded that "minority and low-income communities are most often exposed to multiple pollutants and from multiple sources."

Confronting the Hazards of Inequality

By Earl L. Hatley, Grand Riverkeeper

In 1997, the U.S. Environmental Protection Agency declared Ottawa County, Okla., an Environmental Justice area. Located in the northeastern part of the state, the county is part of the Tri-State Mining District, one of the largest and most contaminated areas of the country, with 500 square miles of abandoned lead and zinc mines in parts of Kansas, Missouri and Oklahoma.

The Tar Creek Superfund Site is the Oklahoma portion of the district, covering 47 square miles. There are nine small tribes in Ottawa County, along with the Cherokee Nation whose lands are within the Grand River Watershed. All 10 tribes are affected by the toxic heavy metals polluting the watershed and riparian areas. This part of northeastern Oklahoma has one of the lowest median-income levels in the state.

The Grand River contains three hydroelectric dams, creating three large lakes on the river system. The first lake, Grand Lake O' the Cherokees, has been a sink for heavy metals since the dam was built in 1940. The Oklahoma Department of Environmental Quality (ODEQ) has issued a fish consumption advisory for the Oklahoma portions of the Spring and Neosho rivers (the two main arteries creating the Grand River) due to lead contamination. The advisory only includes nongame fish such as carp and drum, which are both commonly eaten by Indian peoples and low-income subsistence users.

To add insult to injury, ODEQ issued a statewide fish consumption advisory for all predator fish due to mercury pollution in 2007. Predator fish includes small and large mouth bass, black bass and crappie, the most popular subsistence fish in the area.

The Grand Lake is surrounded by six coal-fired power plants within a 60-mile radius. Prior to the Bush administration, EPA studies estimated that up to 14 percent of mercury emitted by coal burning power plants are deposited within 30 miles of a plant. Recent modeling results from the Great Lakes found that approximately 48 percent of the mercury in Lake Michigan came from sources within 60 miles of the lake, and coal combustion in the U.S. was found to be the predominant source contributing to mercury deposition in the region. Moreover,



MARIO BURGER

Inner-city pastoral: A swan swims by a garbage boom on the Bronx River.

studies show that at least five years are required for fish to become safe for human consumption, once mercury sources are greatly reduced.

The toxic heavy metal pollution in the Tri-State Mining District will take decades to repair. Regarding the mercury pollution, however, the Grand Riverkeeper is working with coalitions on a statewide level to force ODEQ to adopt stricter regulations than the EPA's proposed Clean Air Mercury Rule, which would allow coal-fired power plants until 2018 to reduce their mercury emissions by 70 percent.

In response, EPA was sued by 16 states, Waterkeeper Alliance and several national groups who argued for a stricter timeframe for a 90 percent reduction and against the Cap and Trade measure in the proposed regulation. The EPA lost the suit and may appeal.

The State of Oklahoma has now taken the approach to table rule making, in favor of collecting stack emission for one year. This idea gets them off the hook while they "wait to see what EPA does." With polluted streams filled with fish unsafe to eat, tribal and low-income people who rely on hunting and gathering for additional protein are enduring extreme hardship, a genocide of sorts — or more accurately, perhaps, ecocide.

Last winter, our coalition convinced governmental authorities not to approve a coal-fired plant in an area with several tribes. Citing global

warming as the chief reason for disapproval, the action prompted the Grand River Dam Authority, which operates the hydro-dams on Grand River, to purchase an existing natural gas-fired plant instead. Not a total victory, but still a decision that is better for us. Presently, there are two more proposals for plants in southeastern Oklahoma and the coalition is working with groups from Arkansas to stop this action.

RECENT ROLLBACKS

Dr. Robert Bullard, author of *Toxic Wastes and Race in the United States*, the seminal 1987 report on environmental justice, recently testified at the first-ever Senate hearing on Environment Justice, citing ongoing failures by the federal government:

- ➔ **In 2005, the U.S. Government Accountability Office (GAO) criticized EPA for its handling of environmental justice issues when drafting new clean air rules.**
- ➔ **In 2004, and again in 2006, EPA's Inspector General chastised the agency for failing to consider environmental justice in important decisions.**
- ➔ **In 2007, the GAO criticized EPA's handling of contamination from the spill of oil, industrial chemicals and other hazardous materials in post-Katrina New Orleans and Gulf Coast communities.**

the way forward

While Waterkeepers fight for clean water at a local level, the President of the United States and the federal government have critical roles to play in making sure existing environmental laws and regulations are enforced and new ones are created.



"If we don't start treating our water resources as finite and precious, we'll soon be dealing with a water crisis that will destroy communities ... encompassing multiple millions of people."

Tom Ford,
Santa Monica Baykeeper

ISSUE #1

Restore Protection

Support the Clean Water Restoration Act (H.R. 2421). CWRA clearly defines Congress's original intent to protect U.S. waters and removes the confusion caused by the SWANCC and Rapanos decisions. This new definition has the potential to once again place our nation's precious water resources back under federal protection, where they belong. Accordingly, any guidance by EPA or the U.S. Army Corps of Engineers regarding SWANCC and Rapanos should be rescinded and rewritten to reflect the protection of the maximum amount of resources possible.

Reverse the 2002 changes to the "Fill Rule" by EPA and USACE. This will prevent the Corps from using 404 permits to allow the discharge of waste to fill lakes, rivers, streams and wetlands. The Clean Water Protection Act (H.R. 2169) clarifies the definition of fill material to limit the amount of industrial materials, specifically mining materials and debris, which may be

released into U.S. waters. Passage of this bill will strengthen the CWA and help protect and restore America's water resources.

Ensure that all projects impacting wetlands undergo a strict permitting process. Federal agencies tasked with overseeing the protection of these waterbodies, such as the EPA, Fish & Wildlife Service (F&WS), and the USACE, must have budgets that reflect staff needs, funding for restoration projects and enforcement capacity.

Institute a net-gain policy to repair the damage incurred by the Bush administration. EPA must eliminate the wetlands mitigation crediting program and restore a policy that requires no net loss of the specific affected wetland. The new administration must also develop a net gain policy to repair the damage and revitalize America's wetlands and watersheds.

ISSUE #2

Enforcement

Increase EPA enforcement funding to at least \$550 million. Cuts in enforcement funding have led to fewer inspections of facilities and fewer resources for prosecuting environmental crimes. Due to continued rates of high noncompliance with the Clean Water Act, the next president should propose a significant increase in EPA's enforcement funding and work to pass that budget through Congress.

Establish a fund for the deposit of enforcement fines and penalties to be used for enforcement and compliance activities. These funds should not be deposited in the general Treasury. Congress should also require EPA to recover the full economic benefit of noncompliance when it seeks penalties so that it does not "pay to pollute."

Strengthen authority of citizens to enforce the CWA. In *Gwaltney of Smithfield v. Chesapeake Bay Foundation*, the Supreme Court held that section 505 of the CWA does not allow citizens to



“The Waterkeeper brand of hard-hitting environmental enforcement can dramatically improve the environmental and political landscape of a contaminated community.”

John Lipscomb,
Hudson Riverkeeper,
Patrol Boat Captain



maintain suits for wholly past violations of the Act. A targeted amendment to revise this section, making it clear that citizens have the authority to enforce the law against entities who either are in violation or have violated the CWA, would help ensure that sources of water pollution comply with the law.

Reevaluate EPA enforcement structure.

The majority of EPA's enforcement work is done in the agency's 10 regional offices. Regional enforcement managers report to politically appointed regional administrators, creating varied enforcement activity across regional offices. This problem could be fixed with a direct-report requirement to EPA headquarters.

Remove the compliance assistance program from the enforcement office at EPA.

Currently, as University of Alabama Law Professor William Andreen notes, “the task of assisting regulated entities with compliance dilutes the focus of what should be a professional law enforcement office and siphons needed resources from that effort.” We agree.

Support robust enforcement. The next president should put more control for enforcement decisions back into the hands of career staff. The president also should not tolerate changes in agency policy that would clearly undermine enforcement positions, and should reverse replacing more traditional enforcement mechanisms with unproven cooperation-based strategies.

ISSUE #3

Stormwater Runoff

Require the incorporation of numeric effluent limits into municipal, industrial and construction stormwater permits, along with effective monitoring to demonstrate compliance with these limits, and the adoption of Low Impact Development strategies for preventing erosion and sediment loss before the opportunity for discharge arises.

Reform permitting regulations and guidance to clarify that stormwater discharge permits must include meaningful allocations under Total Maximum Daily Loads and sufficient additional effluent limits when needed to comply with Water Quality Standards.

Develop meaningful effluent limitation guidelines. In light of the court ruling secured by Waterkeeper Alliance and NRDC, this would serve as a minimum stormwater allowance for any construction activity while retaining state authority to increase the limit.

Formally recognize municipal stormwater runoff as a significant problem necessitating compliance with water quality standards and numeric water quality-based effluent limits.

Issue new Industrial and Construction General Permits to advance stormwater prevention and treatment requirements. Permits should also include reliance on non-traditional practices such as

Low Impact Development and which include numeric effluent limits, meaningful monitoring requirements and measures necessary to comply with TMDLs and water quality standards.

Address the impacts of increased peak runoff volume from impervious surfaces created by development. Presently, EPA does not control this in stormwater permits in many states. These impacts are larger and longer-lasting than runoff of sediment from construction sites. EPA should require stormwater permit holders to maintain pre-development peak flows for up to 100-year flood events.



“Stormwater regulation has been Puget Soundkeeper's No. 1 priority since 2000. Since then, we have appealed every stormwater general permit issued by the Department of Ecology — often several times.”

Sue Joerger, Puget Soundkeeper

ISSUE #4

Sewage

Improve sewage infrastructure by prioritizing sewage system upgrades in the annual budget.

A Clean Water Trust Fund will proactively invest in America's cities. In addition to a long-term separate trust fund, measures like those contained in the Water Quality Financing Act of 2007 (H.R. 720) and the Water Quality Investment Act of 2007 (H.R. 569) can also provide the necessary finances to support the State Revolving Fund program in helping communities upgrade existing wastewater treatment plants and allow them to invest in sewage spill prevention.

Water quality standards must be met at the point of discharge, and mixing zones and dilution credits must be banned.

Mixing zones are areas surrounding discharge outfalls that do not need to comply with the usual requirements that protect the aquatic environment because the pollutants are "mixing" to reach dilution levels that are considered safe. But dilution won't solve pollution problems. Mixing zones are in reality death zones, where pollutants can be discharged at concentrations that are orders of magnitude above Water Quality Standards. Elimination of mixing zones and dilution credits via amendment of the CWA would simplify the permitting and enforcement processes, freeing agency staff to work on improving water quality.



"Our sewage and drinking water systems may be less visible than our roads and railroads, but they are no less important."

Cheryl Nenn,
Milwaukee Riverkeeper



"We have to take aggressive action to protect our children and our waterways against continued mercury contamination by existing U.S. coal-fired power plants. Future generations are depending on us to lead humanity away from these destructive practices and into sustainable investments in the future."

Donna Lisenby,
Watauga Riverkeeper

Withdraw EPA's proposed blending policy.

While the 2005 proposed policy is an improvement on the disastrous 2003 proposal, it remains far short of what is needed and what the law requires. The Office of Management and Budget (OMB) is currently reviewing this policy, however, EPA should withdraw the proposal.

Revive and declare a Sanitary Sewer Overflow Rule.

Since the withdrawal of the SSO rule, there has been no regulation of SSOs on the federal level. A new rule is needed to make clear that SSOs, whether they reach U.S. waters or not, are illegal — a position taken by EPA during many of its previous enforcement actions.

End destructive and outdated 301(h) Clean Water Act waivers.

Congress amended the Clean Water Act in 1977 to add section 301(h), allowing ocean sewage dischargers to apply for a special waiver to the Act's secondary treatment requirements in limited circumstances. Of the nearly 16,000 wastewater treatment agencies across the country, 32 agencies still operate with these harmful exemptions. These waivers must end, moving these sewage facilities into the 21st century.

Wastewater treatment levels must keep pace with population growth.

The U.S. population has more than doubled in the last 60 years, from around 140 million in 1940 to about 297 million in 2004. This surge in population means that not only must

wastewater treatment plants upgrade to meet increasing pollutant removal efficiencies, they also must accommodate greater influent wastewater loads as well.

ISSUE #5

Mercury

Write a mercury control rule that protects Americans from mercury poisoning.

On Feb. 8, the United States Court of Appeals for the District of Columbia handed down a decision against EPA, vacating an anemic, industry-scripted Clean Air Act mercury non-control scheme. EPA must go back to the drawing board and write a mercury control rule that truly complies with the law and protects U.S. residents from mercury poisoning.

Ensure a proper Maximum Achievable Control Technology (MACT) standard that reduces emissions.

Proven, affordable mercury control systems like sorbent injection have consistently shown 90 percent reductions in emissions. The new administration must ensure that a proper MACT standard that contemplates this 90 percent reduction is in place as soon as possible. The federal government's own studies already reveal that technologies such as oxidizing agents or sorbent injection can achieve these levels of reduction at a modest cost to operators.

ISSUE #6

Diversions

Minimize water diversions and protect in-stream flows to sustain drinking water sources.

All existing and future federal legislation to meet water supply for urban and regional uses should include language to protect and sustain the ecological functions, biodiversity and productivity of streams, rivers, lakes and estuaries. No new federal water withdrawals should be allowed until the impact on waterways is fully understood, the public has been given meaningful opportunity for input, and federal or multi-state Compact Commissions are established to monitor, enforce and adaptively manage the responsible, equitable distribution of a stream, river, lake or estuary.

Undo the new federal "water transfer" rule.

This proposal is in direct conflict with numerous court decisions and essentially exempts from National Pollutant Discharge Elimination System (NPDES) permitting any project that moves water from one water body to another, no matter how polluted the discharge or how pristine the receiving water.

Support the New Great Lakes Compact.

The historic accord that manages Great Lakes water in a sustainable way protects 95 percent of our country's fresh surface water. All eight Great Lakes states and Congress have ratified the Compact, and President Bush signed the compact into law on Oct. 3, 2008. Under the Compact, any of the eight state governors can veto a diversion outside the Great Lakes Basin.

Communities can request Great Lakes water if they are "straddling" the basin lines, but must first meet strict water conservation measures and return water to the Lakes in equal or better condition. While the agreement is very strong in many respects, we still need to safeguard against the unregulated privatization of our Great Lakes for bottled water.



"We need an Act of Congress that will be to instream flows what the Clean Water Act was to clean water in our rivers."

Dan Tonsmeire,
Apalachicola Riverkeeper



"Coal cannot be cleaned up enough to be a reliable energy source."

John Wathen,
Hurricane Creekkeeper

Put in place permitting to monitor large scale consumptive uses of Great Lakes water.

Now that the Great Lakes Compact has been passed, it is imperative that the next administration plays a leadership role in establishing a Great Lakes Agreement with Canada that will hold Canadian Great Lakes provinces (Ontario and Quebec) to the same ground rules, and in ensuring that the eight Great Lakes states pass legislation that honors Compact principles. The Federal government must also ensure that Compact guidelines are being met pertaining to both water diversions outside the Great Lakes Basin and to water consumption by in-basin users. Less than 1 percent of Great Lakes water is renewable—the rest was a one-time gift from the Glaciers—and we must protect these national treasures for current and future generations.

ISSUE #7

Coal Mining

Implement and enforce existing mercury and carbon dioxide emissions laws.

The mining of coal, gold and other minerals is done at the expense of America's waterways and the environmental damage is well documented. For these industries to be permitted to continue, regulations and enforcement must ensure that each industry puts human health, human safety, and the environment at the forefront.

Ensure that our American heritage is protected from mining operations.

There should be a complete ban on mining on federal lands and consideration of a ban on all mountain top min-

ing operations. At a minimum, EPA must return the definition of "fill" to its original meaning and revoke permits that were issued under the new "fill" definition. In addition, all authority over fill determinations should be transferred from the U.S. Army Corps of Engineers to EPA.

Increase the mining to waste ratio to 50 to 5 (10 to 1), forcing mining operations to innovatively reduce waste.

For the remaining waste, we must have a fully funded and aggressively enforced Abandoned Mine Land Fund.

Preserve and enforce the Stream Buffer Zone Rule.

The proposed changes to the current rule are a step in the wrong direction, one that runs counter to both the letter and intent of the federal Clean Water Act and the Surface Mining Control and Reclamation Act. Because the existing Stream Buffer Zone rule is one of the very few remaining protections for vital mountain waterways, it should be preserved and enforced in its present form.

ISSUE #8

Agricultural Nonpoint Source Pollution

Amend the Clean Water Act to specifically require Clean Water Act permits for return flows from irrigation and other nonpoint sources of pollution.

Permits should also require the use of mandatory minimum management practices to control nonpoint sources of pollution, meet water quality standards and implement Total Maximum Daily Loads.

Establish and implement numeric criteria for all classes of waterbodies to protect our nation's water resources from nutrient pollution and eutrophication.

States must be given deadlines to establish nitrogen and phosphorus criteria, which must consider downstream uses. EPA should develop and oversee implementation and enforcement of multi-state restoration plans for large watersheds, such as the Chesapeake Bay and the Gulf of Mexico, where dead zones are expanding due largely to nutrient pollution.

Clarify that pesticides are pollutants.

The next administration should require NPDES permits for pesticide applications on or near water and reverse the "Application of Pesticides to Waters of the United States in Compliance with FIFRA" rule to safeguard American water resources.



"We are not used to thinking of sediment as pollution, but by volume, it is the biggest pollution problem we have."

Rae Schnapp,
Wabash Riverkeeper

ISSUE #9

Ocean Protection

Establish an American Oceans Act at the level of the Clean Air or Clean Water Acts of the last century.

Rep. Sam Farr and the bipartisan House Ocean Caucus and Sen. Barbara Boxer in the Senate are attempting to create an environmentally sound ocean policy framework for national and regional management of our public seas. Rep. Farr's Ocean Act for the 21st Century and Sen. Boxer's National Ocean Protection Act are both worthy of support.

Create a comprehensive system of marine protected areas (MPAs).

Networks of marine reserves and other MPAs placed strategically along a coastline and at sea can provide safe harbor for populations of resident and migrating species. Given a haven to grow and reproduce, fish or other animals within these reserves and traveling between them will produce more offspring and can even replenish fished populations and "reseed" areas devastated by manmade catastrophes such as dead zones and oil spills.



Want more recommendations? Check out the complete Blueprint for Clean Water at www.waterkeeper.org.



"The failure of 35 years of 'modern' environmental laws and bureaucracies to protect our oceans have finally debunked the myth that we can care for the ocean in a vacuum."

Linda Sheehan,
California Coastkeeper Alliance



"The range of environmental injustices that tribal and low-income people confront in their communities amounts to genocide, or more properly, ecocide."

Earl Hatley,
Grand Riverkeeper

ISSUE #10

Environmental Justice

Ensure that our laws, enforcement and institutions recognize, understand and eliminate environmental racism.

Society must recognize that both economic and social injustices have manifested themselves in the unequal burden that America's most disadvantaged communities have had to bear in regard to pollution and toxic waste. As we endeavor to heal the wounds that afflict our planet, we must also heal the inequities that divide our nation.

Better, stronger environmental enforcement that protects every community and every citizen from pollution is the solution to environmental racism.

We must pressure Congress to ban the production of toxic materials that cannot be reused or recycled. We must push Congress to reinstate the Superfund tax to ensure that polluters are held responsible for cleaning up their toxic waste. We must fight to restore federal environmental protections that have been systematically stripped from the public. These protections will help us rebuild sewage plants and water delivery systems, revitalize city parks and expand public transportation.

Congress must pass the equivalent of the Environmental Justice Act of 2007 to give the weakly implemented 1994 Executive Order the force of federal law.

Call to Action

By Janelle Robbins, Staff Scientist

We have laid out what the next administration must do to protect our water resources. Here are some of the things that YOU can do:

Protection for all waters of the United States. Headwaters, wetlands and intermittent streams are integral to the health of our water resources and all deserve protection. Visit www.congress.org to encourage your elected officials to support the Clean Water Restoration Act to protect all of our waters.

Enforcement is the crux of our legal system and you play an integral part. You can become an agent of change by knowing and following the law, reporting violations in your community, and following up with enforcement agencies to make sure pollution problems are solved. Locate your state environmental agency at www.epa.gov/epahome/state.htm.

Stormwater is one of the most pervasive, yet avoidable, pollution problems. Everyone can do their part to prevent runoff at home, such as using permeable materials for driveways, sidewalks and patios rather than concrete or asphalt; using rain barrels and rain gardens to store and utilize rainwater; and maintaining a green yard with native vegetation to reduce the need for polluting pesticides and fertilizers. Visit www.lid-stormwater.net/homedesign.htm and www.wildflower.org for ideas.

Sewage generation may be inevitable, but sewage pollution can be stopped. Sewage pollution contaminates our beaches, drinking water supplies and surface waters, but it can be prevented by conserving water, having septic systems inspected regularly, and not flushing pharmaceuticals or other hazardous materials down the toilet. Check out <http://earth911.org> to find the best ways to dispose of these dangerous substances in your community.

Technology exists today to prevent mercury pollution from coal. Our government lacks the will to force coal-fired power plants to change their dirty ways. Go to <http://coal.money.priceofoil.org> to see how much money your legislators have taken from the coal industry, and use the links to tell your elected officials to represent your interests, not the coal industry's.

Diversions of instream flows are needlessly drying up our rivers, lakes and other water resources. We're a thirsty nation, but there's no need for waste. To conserve water, check out www.epa.gov/watersense to find a list of certified water-saving products, encourage your municipality to provide incentives for water conservation and to seek sustainable sources of water for your community. For more ideas and tools, go to www.waterwiser.org.

Coal mining is dirty from start to finish, but there are alternatives. If you're connected to the electrical grid, chances are that your power comes from coal. To find your connection to mountaintop removal coal mining, visit www.ilovemountains.org and then visit www.sterlingplanet.com/residential to explore the use of clean, renewable sources of energy.

Shopping wisely can reduce agricultural nonpoint source pollution. Corporate-farm food leaves a legacy of pesticides, chemical fertilizers and sediment pollution on its way to your table. By purchasing local, organic and otherwise sustainable food, you can reduce the ecological footprint of your meals. Check out www.localharvest.org.

to find farmers' markets, family farms and other sources of sustainably grown food in your area.

Even if you're landlocked, ocean protection should be a priority. The U.S. economy, security and environment depend on healthy oceans. Do your part by consuming only sustainably harvested seafood by using the resources at www.mbayaq.org/cr/seafoodwatch.asp and find out how you can prevent plastic and debris pollution at www.greatgarbagepatch.org.

Everyone must commit to ensuring environmental justice for all. America's poorest communities are also the most polluted because they are used as dumping grounds for all kinds of toxic waste. To see how your community stacks up, visit www.scorecard.org/community/ej-hotspots.tcl and contact www.crpe-ej.org to learn how you can stop environmental injustice. W

Join your local Waterkeeper program at
www.waterkeeper.org.

10TH ANNUAL WATERKEEPER ALLIANCE CONFERENCE

Treated to an unbroken string of sunny days, more than 250 Waterkeepers and their staff members spent the last week of June in Seattle for the 10th Annual Waterkeeper Conference. Co-hosts North Sound Baykeeper and Puget Soundkeeper Alliance, along with conference coordinator Heather George, helped arrange the most successful conference yet. Conference goers were challenged and inspired by morning speakers including Thomas Linzey from the Democracy School, Seattle Mayor Greg Nickels and King County Executive Ron Sims. During the day, Waterkeepers attended a variety of panels covering technical, fundraising, communications, operations and advocacy issues.

On an evening cruise of Puget Sound, Martha Kongsgaard, one of the leaders of local efforts to restore the sound to health, talked about the challenges of creating a sustainable future. Andy Willner, who was stepping down after nearly 20 years of extraordinary service as the New York/New Jersey Baykeeper, was honored.

It was clear that everyone left Seattle ready for another year of fighting for clean water until next year's conference in New York!



"Nothing could have prepared me for the energy and inspiration generated by this gathering of Waterkeepers. I leave the conference with a profound gratitude for their stalwart advocacy and tremendous pride at being part of this remarkable movement."

Kristine Stratton, Executive Director Waterkeeper Alliance

"Our Puget Soundkeeper Alliance staff was thrilled to host the 2008 Waterkeeper Conference. We are very proud of our legal accomplishments and of our beautiful city here on Puget Sound. Local Waterkeepers have a tough job and the inspiration, education and energy shared at the annual conference help send us home more determined than ever to protect our local waterways."

Margy Wallace, Puget Soundkeeper Alliance



JODY BLECKSMITH, SENIOR GARDENER SEATTLE PARKS AND RECREATION

Thank You!

We owe a great deal of gratitude to our co-hosts from North Sound Baykeeper (Wendy Steffensen and Robyn DuPre) and Puget Soundkeeper Alliance (Sue Joerger, Paul Fredrickson, Katie Kolarich, Betsy Moyer, Margy Wallace and Chris Wilke). In addition, we want to express our awe and gratitude for the talents of our conference coordinator, Heather George.

We would like to thank the following individuals, organizations and foundations for their financial support of the 10th Annual Waterkeeper Alliance Conference:

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Greg Waters
Liz Studebaker
Laurel Tomchick
Vicky Wenzlau
Cate White
David Wilson
Faith Wilson

"I am glad to report that we are working with renewed energy and we are pleased to have participated once again in this important conference."

Javier Villavicencio, Punta Abreojos Coastkeeper, Mexico

"I would like to extend my most sincere appreciation for this conference. Each day, we were enriched with experiences and energy to continue fighting for our rivers, lakes, bays and coasts. Our trip to this beautiful place was marvelous."

Luis Lugo, Meta Riverkeeper, Colombia

"Waterkeepers are changing the world one watershed at a time and I am humbled to be part of the amazing Waterkeeper movement!"

Michele Merkel, Chesapeake regional coordinator, Waterkeeper Alliance

"I often refer to the conference as one of my dreams because, on top of learning greatly from each other, we are able to visit beautiful places. This experience is very useful to us in the protection of our watersheds and we have started to win important battles in this respect."

Julio Solis, Magdalena Baykeeper, Mexico



JODY BLECKSMITH, SENIOR GARDENER SEATTLE PARKS AND RECREATION

10TH ANNUAL WATERKEEPER ALLIANCE CONFERENCE

WATERKEEPERS GIVE BACK

In addition to attending panels and hearing a diverse array of speakers, Waterkeepers gave back to the community by engaging in a restoration project that focused on polluted runoff and Puget Sound.

Stormwater is a leading cause of water pollution and the primary reason why 40 percent of our nation's waterways fail to meet water quality standards. Rain and snowmelt flow over roads, rooftops and parking lots collecting contaminants and polluting our rivers, lakes and bays.

Today, runoff is the single largest source of contaminants in Puget Sound, yet stormwater has long been unrecognized by the public as a major source of pollution.

Waterkeepers, Alliance staff, REI employees and other volunteers put in more than 300 volunteer hours at Golden Gardens Park to:

- Retrofit six storm drains to remove petroleum and pathogens from runoff;
- Remove over 7 yards of invasive species from critical wetland and dune habitats;
- Clean over 5 yards of sand from wetlands and weirs,
- Stabilize and prepare slopes for plantings of native vegetation, and
- Conduct a beach clean up.

Waterkeeper Alliance sincerely thanks REI for their supporting grant and volunteers; Glenn Rink, President of AbTech Industries and Kelly Jaske, Vice-President of Operations of Hydrophix for their gracious donation of Ultra Urban Filters® and time; and Jody Blecksmith, Gale Gilbertson, Theresa McEwan, Patrick Merriam and Miriam Preus with the Seattle Parks and Recreation Department for their time and energy! **W**

"I can't thank Waterkeeper Alliance enough for giving me the opportunity to attend the conference and be a part of the team again this year. I never thought a work-related event would become one of the highlights of my year, but it is."

Amy Chastain, Staff attorney, San Francisco Baykeeper

"As a Waterkeeper with five years under my belt, I am still learning things. But being able to share what I've learned with others, that's a good feeling."

*Wendy Steffensen, North Sound Baykeeper,
Conference Co-host*

"What a conference! My fellow attendees have energized me beyond words."

John Wathen, Hurricane Creekkeeper, Tuscaloosa, Ala.


According to the Washington State Department of Ecology, **stormwater carries between 6.3 and 8 million gallons of petroleum into Puget Sound — or an equivalent of over half an Exxon Valdez spill — every year.**

Other contaminants flowing into the sound include heavy metals like lead and mercury, fertilizers, pesticides, PCBs and pathogens. These toxins cause genetic damage and increase mortality in aquatic species and humans alike. Nutrients and bacteria force the closure of fisheries and beaches.

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On The Water

With Gordon Fearey

Gordon Fearey explores memory and loss through photographs of clothing, flags and other objects immersed in water. *USA*, his photograph of an American flag partially submerged in water, examines the boundary between consecration and desecration, baptism and burial. "The flag could be a battle standard in a moment of some defining struggle," he says, "or flotsam sinking in polluted water. It's an apt metaphor for this moment in our history, when we either choose the path to a sustainable future or watch our most precious birthright destroyed."

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Fighting for the Flint River is nothing new to former President Jimmy Carter. He's been at it since the 1970s when he was governor of Georgia and faced down the state's entire Congressional delegation to keep three dams off the river, one of which was to be built at Sprewell Bluff, now a state park and popular fishing spot.

This past August, Carter recalled that showdown — as well as his deep ties to the Flint going back to his boyhood in nearby Plains — at an event in Oglethorpe inaugurating the Flint Riverkeeper, the seventh Waterkeeper program in Georgia. He was joined by more than 200 river advocates, many of whom had just completed a weeklong, 95-mile paddle trip down the Flint from Thomaston, Ga.

The Flint begins its 200-mile journey as a spring under the runways of Hartsfield-Jackson Atlanta International Airport, winding southwest where it meets up with the Chattahoochee River at the Georgia-Alabama-Florida border. Carter's opposition to damming the Flint propelled the little-known Georgia governor onto the national scene as an environmental crusader willing to face down Washington power brokers.

"It was unprecedented back then for anybody to be against a dam," Carter said, adding that those opposing a construction project that brought the kind of federal money and jobs that a dam project did were regarded as "just a bunch of weirdo environmentalists."

Attitudes toward environmental activists have changed considerably since then, and yet the allure of federal dollars and the jobs they bring with them haven't. In recent months, Reps. Nathan Deal (R-Gainesville) and Lynn Westmoreland (R-Grantville) have proposed building new dams on the Flint to increase thirsty Atlanta's water supply.

The renewed threat to the Flint River posed by the dams was a major factor in local community leaders, environmental advocates and concerned citizens joining together to create the Flint Riverkeeper program.

"You ought to prepare for a massive fight," Carter warned. "Because you're up against the promise of employment and recreation and higher land prices — and more water for Atlanta. All of those are going to be put forward and you need to be organized and willing to work on it and be prepared."

He closed by telling his audience, "When you need me, I'll be with you," his gaze steely-eyed like a Western lawman, his voice full of the resolve of an Old Testament prophet. Many in the crowd nodded their heads in assent knowing this was a man who meant to keep his word. **W**

President, Peacemaker, Riverkeeper



DOUG FALLON



DOUG FALLON

Carter's opposition to damming the Flint propelled the little-known Georgia governor ... as an environmental crusader willing to face down Washington power brokers.

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Yun Jianli (second from the right) is Waterkeeper for the middle section of the Han River in Xiangfan City, Hubei, China.

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