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ENVIRONMENTAL MOVEMENT.

50

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VOLUME 12, ISSUE 1 \$5.95





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A handwritten signature in black ink, reading "John Paul DeJoria".

John Paul DeJoria,
Co-founder and Chairman of the Board
Photographed with his son (and Joe)



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CONTENTS



Volume 12, Issue 1



NEWS & UPDATES

14: RIVERKEEPER LEADS THE COMEBACK IN BUFFALO

16: A WATERKEEPER ALLIANCE STRETCHES FROM NORTH CAROLINA TO WEST AFRICA

20: IN OKLAHOMA, TAR CREEK'S TOXIC TRAIL OF TEARS

22: STRENGTHENING "WATER DEMOCRACY" ON THE HUDSON

27: SWEDISH SALMON GET ROYAL TREATMENT

FEATURES

30: THERE AT THE FOUNDING

Five of the earliest Waterkeepers reflect on how their belief in the power of following their deepest convictions spawned a world-changing grassroots environmental movement.

36: WATERKEEPER MOVEMENT MILESTONES

Fifty years of fighting for the world's waters, from New York's Hudson River to the Himalayas.

42: WATERKEEPERS AROUND THE WORLD BATTLE CLIMATE CHANGE

Waterkeepers on six continents are on the front lines of the environmental crisis, leading the fight against global climate change.

50: WHAT'S IN THE WATER; WHAT'S IN A WORD: FROM TOILET-TO TAP TO PURE WATER

In the increasingly thirsty San Diego area, San Diego Coastkeeper crafted the vision and the rhetoric to offer a solution to the worsening water woes.



AbTech Industries is proud to celebrate the Waterkeeper Movement's
Golden Anniversary

50 years ago, fishermen banded together to save their river. These grassroots advocates spawned the rapid growth of similar Waterkeeper organizations, the confluence of which formed a global movement — today's Waterkeeper Alliance. This movement is responsible for saving countless endangered bodies of water, returning them to a sustainable habitat for both fish and humans.

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LETTER FROM THE EXECUTIVE DIRECTOR, MARC A. YAGGI



ART AND PICTURE COLLECTION, THE NEW YORK PUBLIC LIBRARY

THE LOWER HUDSON ESTUARY ONCE CONTAINED ROUGHLY 350 SQUARE MILES OF OYSTER BEDS THAT YIELDED ALMOST HALF THE WORLD'S POPULATION OF OYSTERS, WHICH WERE NEW YORK'S FIRST "FAST FOOD." BY THE 19TH CENTURY NEW YORKERS WERE CONSUMING MORE THAN ONE MILLION A DAY.

A FISHERMAN'S TALE

THE UNLIKELY STORY OF HOW A BAND OF AGGRIEVED, DETERMINED HUDSON RIVER FISHERMEN STARTED AN ENVIRONMENTAL MOVEMENT THAT IS NOW AT THE FOREFRONT ON SIX CONTINENTS IN THE FIGHT FOR CLEAN WATER AND THE FUTURE OF THE PLANET.

This year marks the 50th anniversary of the founding of the Waterkeeper movement, when fishermen on New York's Hudson River, many of whom depended on their catches for their livelihoods, organized in a bold quest to reclaim their waterway from polluters and return it to its rightful owners, the people. We have come a very long way since that time. Our movement is an incredible tale of how

citizen action can change the world for the better. Its main characters are environmental heroes and community advocates who, over these last five decades, have acted in thousands of dramatic episodes on rivers, lakes, streams and other waterways on every continent. And its moral is simple: when people come together for a common cause, and believe in the power of possibility, there is nothing they cannot accomplish.

At Waterkeeper Alliance, we trace our roots back to the 1960s and to those indomitable fishermen and their struggle on the Hudson. But their exploits are part of a much longer story that can be traced to the 1600s. New York always has been a maritime city, and not just because of the countless ships that have imported and exported every imaginable product there through the centuries. It may surprise you to learn that one of the most common activities in the harbor from the 1600s to the 1800s was the harvesting of oysters. Indeed, New York City was the oyster capital of the world. The lower Hudson estuary once contained roughly 350 square miles of oyster beds that yielded almost half the world's population of oysters. They were New York's first "fast food" and by the 19th century, New Yorkers were consuming more than one million of them a day from street carts in every corner of the city.

But as industry and the city's population boomed and hundreds of factories came to dominate the city, the harbor became a dumping ground for every kind of industrial discharge as well as massive quantities of raw sewage. And within just a few decades, the world's



THE MIRIAM AND IRA D. WALLACH DIVISION OF ART, PRINTS AND PHOTOGRAPHY, THE NEW YORK PUBLIC LIBRARY

OYSTER HOUSES, SOUTH STREET AND PIKE SLIP, MANHATTAN

richest oyster shoals had been destroyed. Those oysters that managed to survive in the harbor were so contaminated with bacterial and chemical pollutants that many people who ate them got sick, and some died. By the 1920s, all of New York's oyster beds had shut down, a development that was emblematic of the rapid deterioration of the harbor and the Hudson, which, not more than a century before, and for millennia before that, had teemed with such a variety and abundance of marine life that it was one of the most biologically bountiful rivers on earth.

Waterways across the globe have suffered similarly. The Willamette River in Portland, Oregon, for example, was so filthy and foul smelling by the 1920s that construction workers refused to take jobs along its banks. The Milwaukee River, once a popular recreational destination dotted with swimming-schools and public bathhouses, became so polluted by nearby mills and industry by 1940 that it was practically deserted.

But if the last 50 years have taught us anything, it is that the decline and destruction of the riches of the earth are not destiny and, indeed, these processes can be reversed and, with courage, commitment and vision, the natural world that humankind is only now coming to regard as our common home can be reborn.

The long-declining Hudson had become a common butt of jokes when the fishermen who had been practicing their craft on the river for generations gave birth to the Waterkeeper movement. The river was their home, where they earned their livings and recreated with

their friends and families, and where they hoped to pass on their way of life to future generations. In the 1960s the Penn Central Railroad was discharging thousands of gallons of oil into the river from a pipe at it Croton Rail Yard. The Indian Point nuclear power plant was killing millions of fish each day that were being sucked into its cooling intake pipes. Further downriver, in Tarrytown, one could tell what colors the trucks at the General Motors plant there were being painted by the flume of pigments that spewed out of the plant and into the river. New York City was dumping 1.5 billion gallons per day of raw sewage into the Hudson. And myriad other noxious activities were choking their great and historic river.

When the blue-collar coalition of commercial and recreational fishermen held their first public meeting at an American Legion Hall in Crotonville in 1966, they were not united on what action to take. Some called for violence, such as shoving mattresses up Penn Central's pipes to flood their yards, or floating dynamite into the intake pipes of the Indian Point plant. However, one man at the meeting that night had a different idea. Bob Boyle, devoted fly fisherman and outdoor editor at Sports Illustrated, was already a legend in the Hudson River Valley for his leadership in the fight against a Con Edison power plant proposal that would have destroyed Storm King mountain, one of the most beautiful places on the Hudson. In so doing, he opened up the courts to environmentalists for the first time in history, establishing the principle that citizens can sue corporations for degrading the air and water. And on this night he had a more reasonable idea. He



PETE MALINOWSKI

OYSTER SPAT AFTER THEIR FIRST FULL GROWING SEASON AT HARBOR SCHOOL'S ECODOCK ON GOVERNORS ISLAND.

had discovered a law called the 1888 Rivers and Harbors Act, which prohibited pollution of American waters and provided a bounty reward for whoever reported the violation. Bob told the angry men assembled in that hall that, rather than break laws, they should work to have this law enforced. So the fishermen organized as the Hudson River Fisherman's Association and began to collect evidence to mount a prosecution against Penn Central Railroad and many other polluters. Eventually, they spent money earned through the bounty provision of the Rivers and Harbors Act to buy a boat with which to investigate hundreds of polluters on their river.

Those early victories on the Hudson River were crucial to the birth of the modern environmental movement. By the 1970s, 28 federal environmental laws had been enacted, including the Clean Water Act of 1972, which allows private citizens to bring enforcement actions on their own, unaided by a U.S. attorney. It was as if Congress could foresee that money was going to play an increasing role in politics, and that many politicians would be more beholden to polluting industries than to the people who lived beside or vitally depended on America's waterways.

In 1983, the fishermen hired their first full-time Riverkeeper, environmental activist and former commercial fisherman John Cronin. The Riverkeeper would patrol the river and serve as the eyes, ears and voice of the river's hundreds of communities. His role, as the guardian of the river, was based on the idea that the waterways belong to the people, not to any one individual or corporation, an idea that had its roots in the Justinian Code of ancient Rome.

The immediate success of this undertaking led citizens and organizations around the country to emulate the Riverkeeper – or Waterkeeper – model. Before long there were Waterkeepers on Long Island Sound, the Delaware River, San Francisco Bay, Cook Inlet in Alaska, and elsewhere. These amazing advocates shared stories and strategies, and stood side-by-side in the fight for clean water.

As more individuals and groups expressed interest in starting a Waterkeeper, these early leaders of the movement determined that it would be helpful to form an organization that would honor the grassroots nature of their initiatives and connect the various Waterkeepers, providing them with resources, offering training, and advocating with them on common issues. So in 1999 they founded Waterkeeper Alliance, which included 33 groups in the United States and one in Canada. Now there are more than 275 Waterkeepers in 33 countries on six continents – organizations that, for all their differences, share the firm belief that everyone has a right to clean water, and are united in their determination to keep fighting until that right becomes a reality.

Although the Hudson River still faces problems and threats, it

is a reborn waterway and an icon of ecosystem revitalization, thanks to citizen action undertaken by groups like Riverkeeper, who believed in the power of possibility. They were convinced that things could be different, and fought to make them so. People today are flocking to the Hudson as never before, while, across the continent, with Willamette Riverkeeper leading the fight, the Willamette, too, has been reborn and is now one of the busiest recreational rivers in the United States. The Milwaukee River basin is also thriving and is home to many endangered and threatened species that depend on the vigilance of the Milwaukee Riverkeeper for their continued survival. This is also the case on hundreds of other waterways across the world, where the commitment of Waterkeepers and their bold and innovative actions are the difference between a waterway thriving or dying.

One such innovation is the New York Harbor School, of which Waterkeeper Alliance is proud to be a founding partner. It is a New York public high school in which students learn about their harbor by being its stewards. They have, for example, launched the remarkable Billion Oyster Project, with the intention of introducing that many oysters in the city's bays and rivers by 2035. I hope that one day my children and their children will be able to pluck an oyster out of the harbor and be proud that their father's or grandfather's friends helped restore the legendary New York oyster to glory. In the meantime, these wondrous bivalves can play a major role in cleaning up New York Harbor – each oyster can filter five liters of water an hour, and it is predicted that a billion of them could filter the entire harbor in just three days.

Whether it's a group of fishermen fighting for a river they depend on for their livelihood, a group of school kids that use a harbor to open their minds to new possibilities, or a group of citizens that stands up for their rights in the face of immense adversity, we all have stakes in our waterways.

At the half-century mark of this incredible movement, Waterkeepers are on the water every day patrolling and protecting nearly 2.5 million square miles of watersheds across the world, in Canada, China, India, Nepal, Bangladesh, Kenya, Iraq, Togo, Russia, the United Kingdom, Sweden, Australia, South America and elsewhere. They come from vastly diverse backgrounds, cultures, religions, political and legal systems, but they are united in their fight for a world in which everyone can go to his or her local waterway and fill up a glass without fear of drinking toxic chemicals, or jump in and swim without fear of getting sick, or catch a fish and eat it with their family without fear that it is contaminated with mercury or PCBs. I truly believe that I will see that world, because I know how much we've accomplished since this movement began. We will accomplish much, much more in the 50 years ahead.

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ON THE COVER:

Terry Backer was the Long Island Soundkeeper for 29 years, until his death on December 14, 2015. He was also the longest-serving Waterkeeper and a mentor, friend, champion and inspiration to generations of Waterkeepers. His legacy lives on in their work on hundreds of waterways around the world.

Design by BoyBurnsBarn/John Turner

Photo by Rick Dove

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You will notice that this copy of WATERKEEPER magazine is different from copies produced in the last few years. Although we are very proud of the paper selection choices we have made in the past, we have found that the industry has moved forward. Today we can print on a 100% Post Consumer Waste paper that provides dramatically better environmental savings at lower cost, without sacrificing the print quality that our readers expect.

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MISSION: Waterkeeper Alliance connects and supports local Waterkeeper programs to provide a voice for waterways and communities worldwide.

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square miles of watersheds

Who Is
more than 270 waterways

33 countries

Waterkeeper
Alliance?



Above left, Rae Schnapp, Wabash Riverkeeper on patrol. Photo: Pete Harrison

Above, Wu Yunli, Lower Yangtze River Waterkeeper. Photo: John Wathen.

Left, Alabama Riverkeepers on patrol. Photo: Pete Harrison

In virtually every part of the world, climate change is affecting the quality and quantity of water resources. As the effects intensify in the coming years, the impacts on farms and forests, coastlines and floodplains, water supplies, and human populations are becoming more and more severe.

With 275 Waterkeeper organizations fighting on the front lines on six continents, Waterkeeper Alliance is uniquely positioned to confront the effects of climate change and other environmental threats by engaging its grassroots network on local, regional and global levels. We are the voice for rivers, streams, wetlands and coastlines in the Americas, Europe, Australia, Asia and Africa.

We are a powerful worldwide coalition of more than 275 local Waterkeeper organizations—Riverkeeper, Baykeeper, Coastkeeper and other grassroots Waterkeeper organizations—connected as a unified international

force that is fighting on the front lines to defend the world's waters during this period of unprecedented global environmental crisis.

Everyone has the right to clean water. It is the action of supporting members like you that ensures our future and strengthens our fight for clean water. Join Waterkeeper Alliance and get WATERKEEPER for one year. Go to www.waterkeeper.org and click on Donate Now to join as a supporting member. You can also join by mail. Send your check, payable to Waterkeeper Alliance, to WATERKEEPER Membership, 17 Battery Place, Ste. 1329, New York, NY 10004 or contact us at info1@waterkeeper.org. (Beginning in March 2016, our address will be: 180 Maiden Lane, 6th Floor, New York, NY 10038)

Thanks for your support!



Waterkeeper Alliance is a 501(c)(3) non-profit organization. Your \$25 contribution or more entitles you to receive a one-year subscription to WATERKEEPER magazine, which has an annual subscription value of \$12. The balance of your contribution is tax deductible to the extent allowed by law.



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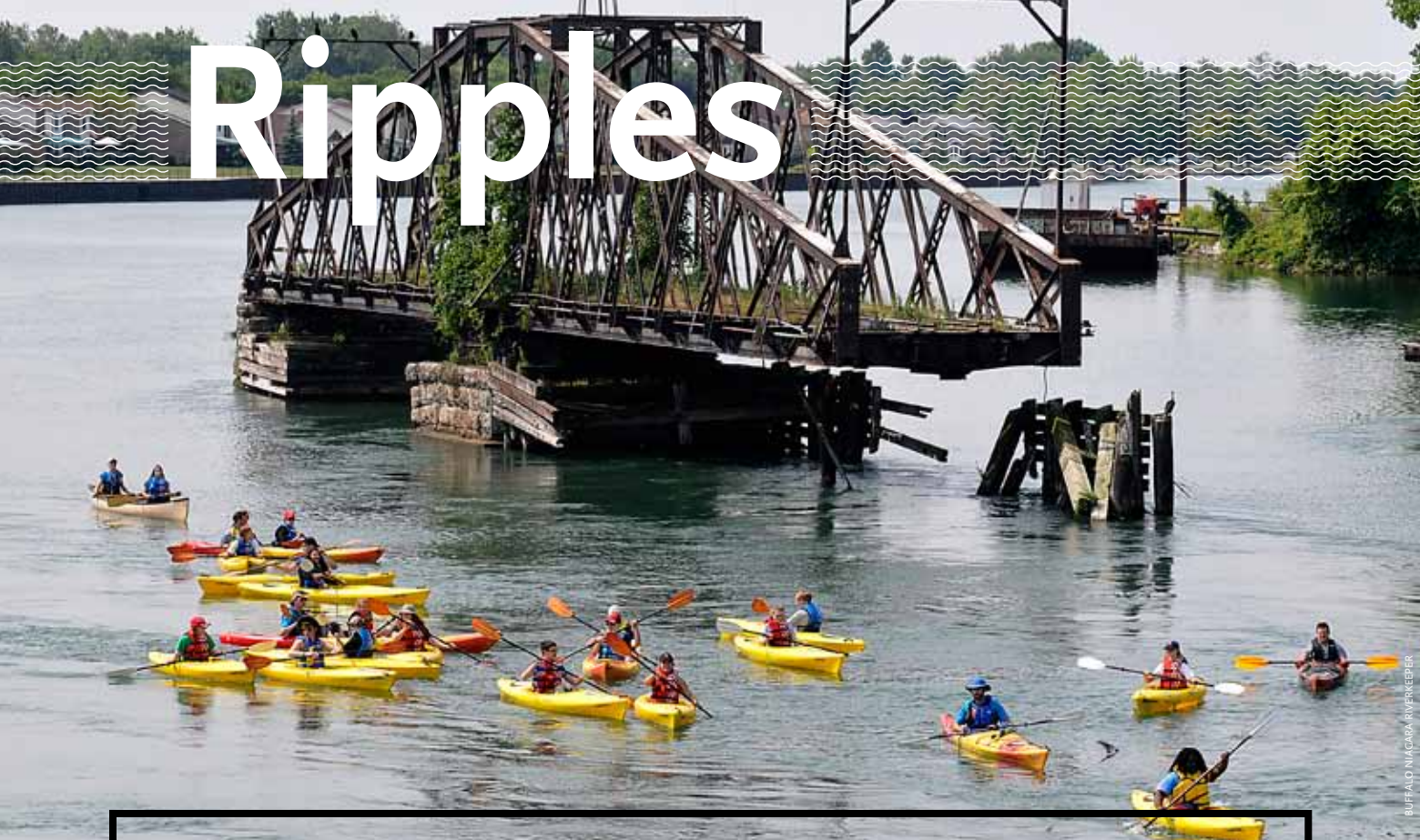
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"The truth is, we've kept sustainability in mind since the resort's inception. Deer Valley is committed to the environmentally friendly practices we have in place and we will continue to focus on adopting new, innovative programs."

Ripples



"BEING BOTH ADVOCATE AND PARTNER IS A COMPLEX PROPOSITION, BUT WHEN PROPERLY APPLIED AND EXECUTED, IT CAN DELIVER AN IMMEASURABLE IMPACT."

BUFFALO NIAGARA RIVERKEEPER JILL JEDLICKA

KAYAKERS ON THE ERIE CANAL NEAR THE RUINS OF A RAILROAD BRIDGE IN A RIVERKEEPER-SPONSORED PADDLING TOUR, PART OF BUFFALO NIAGARA RIVERKEEPER'S EFFORTS TO LEAD BUFFALO'S TRANSITION FROM RUST BELT CITY TO BLUE WATER CAPITAL.

RIVERKEEPER LEADS THE COMEBACK IN BUFFALO

In the early 1900s, cheap hydropower from nearby Niagara Falls combined with the proximity of the Erie Canal for shipping to make this Great Lakes port city the 9th largest urban economy in the world. But by mid-century, the industrial pollution caused by the boom times had rendered Lake Erie and the Buffalo River two of the most polluted waterways in the United States. Today, Buffalo Niagara Riverkeeper is helping to guide a regional transformation and economic revival that is founded, in large part, on the restored health of the region's freshwater systems.

As a result of its 25 years of advocacy and leadership, Buffalo Niagara Riverkeeper has secured nearly \$100 million to support one of the largest waterfront-restoration and economic-renewal efforts in the United States. Coupled with several hundred million dollars in additional public and private investment throughout the Buffalo River corridor, this is creating a ripple effect in the local economy. Most promising is the commitment by New York State of nearly \$750 million to build a giant solar-panel factory on a remediated brownfield along the banks of the Buffalo River where a steel factory once stood. SolarCity, a fast-growing California company,

will operate out of the facility, which will be the largest of its kind in the Western Hemisphere.

The major tipping-point for the Riverkeeper was reached 10 years ago, when it became the first

and only non-profit organization in the United States to be given the authority to administer a federal "Remedial Action Plan." The group then formed a Buffalo River Restoration Partnership, a "team of rivals" model made up of public, private and non-profit partners. The complex coordination included voluntary cost-share agreements with federal agencies and industries, Natural Resource Damage Assessment litigation, and Great Lakes Legacy Act implementation. It integrated the New York State Superfund program and U.S. Army Corps of Engineers "enhanced" navigational dredging, and won a competitive grant from the Great Lakes Restoration Initiative. By 2015 nearly a million cubic yards of contaminated sediment was dredged, and 13 habitat-restoration projects began along two miles of Buffalo River shoreline.

The restoration and rebirth of the Buffalo River is a leading example of how environmental remediation can foster broader economic development. "Being both advocate and partner is a complex proposition," says Buffalo Niagara Riverkeeper Jill Jedlicka, "but when properly applied and executed, it can deliver an immeasurable impact."



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PHOTOS: YOTO RIVER WATERKEEPER



A WATERKEEPER ALLIANCE STRETCHES FROM NORTH CAROLINA TO WEST AFRICA

MORE THAN 130,000 PEOPLE, INCLUDING THESE YOUNG VILLAGERS (ABOVE, RIGHT) SURROUNDED BY WATER CONTAINERS, RELY ON THE YOTO RIVER (LEFT) AS THEIR MAIN WATER SOURCE IN ONE OF TOGO'S POOREST REGIONS.

"SO MANY WATERKEEPERS AROUND THE WORLD HAVE REALLY LIMITED RESOURCES IN THEIR STRUGGLES TO PROTECT AND CLEAN UP THEIR WATERWAYS, THERE ARE FEW PLACES WHERE THIS IS MORE EVIDENT THAN IN TOGO, AFRICA."

happened to meet a new Waterkeeper from the nation of Togo in West Africa, Yoto River Waterkeeper Kossi Koudahenou. They talked about their mutual dedication to protecting the most vital resource in their respective home territories, their rivers.

The Yoto River is the main drinking-water source in a region where water is scarce, and it is also the principal waste-disposal system. In one of the poorest regions in the country, over 130,000 people rely on the Yoto to serve all their needs, and many residents walk up to 20 miles to fill as many buckets as they can carry back to their villages, and often relieve themselves near the river before making the long trek home. They also bathe and wash their clothes in the Yoto's waters. These activities further pollute the river, which has become the source of deadly gastrointestinal diseases, and puts locals at risk for contracting river blindness from the bites of infected blackflies that breed near the river.

Koudahenou told Carson about a project he was planning

to build drinking-water wells in villages along the river. Carson had a month-long sabbatical coming up and he proposed to Koudahenou that he spend it in Togo helping him with his project. Koudahenou was delighted.

"So many Waterkeepers around the world have really limited resources in their struggles to protect and clean up their waterways," says Carson. "There are few places where this is more evident than in Togo, Africa. I'm honored to be part of an organization where I can help a fellow Waterkeeper on another continent in their fight for their river and for clean water."

Says Koudahenou, "When I met the local communities and told them of my plans to build new drinking-water wells, they looked very skeptical. But when I told them about my new family and all the good things that Waterkeeper Alliance has done around the world, they showed great interest. Now they can't wait to welcome Hartwell to Yoto."

Carson hopes to raise \$10,000 to build one drinking-water well, with the ultimate goal of raising \$50,000 to build additional wells. The project will employ local people to build the wells. This life-enhancing and life-saving undertaking along the Yoto River is a case of two Waterkeepers from distant continents who have, literally, joined hands. That is, it is a Waterkeeper alliance.

Here is the link to find out more about the project and to donate: www.crowdrise.com/togoafrricriverkeepe/fundraiser/hartwellcarson

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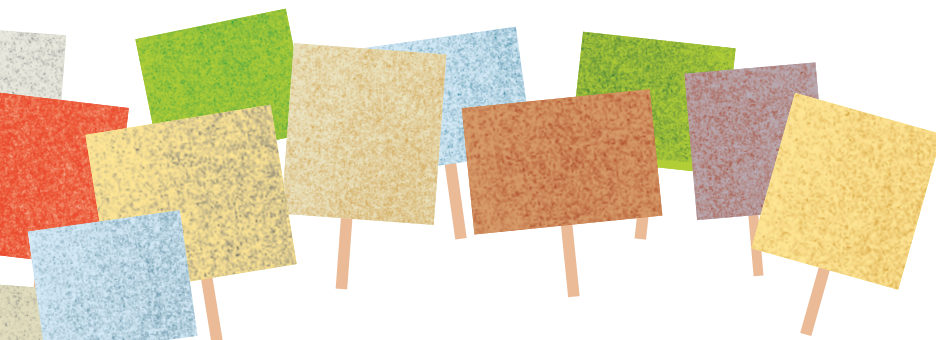
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RECORD NUMBERS OF CITIZENS TURNED UP AT PUBLIC HEARINGS TO OPPOSE THE PIPELINE.



WATERKEEPERS PUSH BACK ON PIPELINE IN GEORGIA

**THREATS INCLUDE RISKS
TO DRINKING WATER,
PRISTINE HABITATS
AND HISTORIC AND
ARCHAEOLOGICAL SITES.**

A boom of major fossil-fuel projects in the last decade has increased the network of pipelines in the U.S. by more than 25 percent. But the need for these projects is being challenged, and early this year Waterkeeper organizations in the Southeast formed the “Push Back the Pipeline” coalition to battle Kinder Morgan’s proposed Palmetto Pipeline, which would transport up to seven million gallons a day of ethanol, gas and diesel along a 360-mile route beginning in South Carolina, tunneling down the Georgia coast and ending in Jacksonville, Florida. Kinder Morgan’s safety record is one of the worst in the nation; it is responsible for more than half of all pipeline accidents in the United States since 2003. Led by the Savannah, Ogeechee, Altamaha and Satilla Riverkeepers, a network of concerned citizens, landowners, environmental groups and businesses joined forces against the project.

Amid a host of concerns typical to pipelines, including risks to drinking water, pristine habitats and historic and archaeological sites, eminent domain is at the forefront of the Palmetto issue. Kinder Morgan applied for a “Certificate of Public Convenience and Necessity” from

the Georgia Department of Transportation, a license that would allow the company to seize private property along the proposed route. The pipeline would cross the property of almost 400 landowners in Georgia, requiring 50-foot-wide easements that would limit private use.

When the coalition spread the word about this, landowners rallied to protect their property rights, and Georgia Governor Nathan Deal publicly opposed the project. After record numbers of citizens turned up at public hearings and submitted more than 3,000 comments, that application was denied in May. “This pipeline would cross five of Georgia’s major rivers, thousands of acres of wetlands, both public and private, and leave our coastline at risk for environmental disaster,” said Altamaha Riverkeeper Jen Hilburn. “While we celebrate the Department of Transportation’s decision, I don’t think we’ve seen the last of Kinder Morgan.”

Meanwhile, in South Carolina, which lacks a comparable permitting process, landowners and lawmakers were uncertain whether or not Kinder Morgan could exercise eminent domain. State Attorney General Alan Wilson suggested not. But, not wanting to leave the matter to a court decision, the coalition is addressing it with legislators. A bill that would bar private petroleum-pipeline companies like Kinder Morgan from exercising eminent domain is expected to gain support and warrant hearings in the current legislative session.





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WATERKEEPER ALLIANCE

OKLAHOMA'S GRAND RIVERKEEPER EARL HATLEY SURVEYS TAR CREEK, WHICH WAS DECLARED A SUPERFUND SITE IN 1983 BUT IS STILL DISCHARGING TOXIC CHEMICALS THROUGH MANY COMMUNITIES IN THE GRAND RIVER WATERSHED.

TAR CREEK'S TOXIC TRAIL OF TEARS

poor, minority and indigenous people – to fight back against all-too-common toxic contamination that threatened to destroy their communities and their lives. It has, at times, been a dangerous occupation. “I’ve faced lots of harassment,” he says, “been held at gunpoint, had my phone tapped, my office bugged and frequent break-ins to get to my files.” Much of Earl’s work has centered in an area of the Grand River watershed called Tar Creek.

Home to 10 Indian tribes, Tar Creek, is the site of one of the biggest environmental disasters in U.S. history. More than a century ago, lead and zinc were found in the area and the mining industry boomed, providing most of the United States’ ammunition in World Wars I and II. In the 1960s and 1970s, the mines were abandoned with reckless disregard for the environment and public health. Left behind were massive mountains of chat, the toxic lead-dust byproduct of this type of mining, which blew in the wind and seeped into ground and surface water.

Tar Creek turned a deep orange, and chat piles, some higher than the town’s tallest buildings, dotted the landscape. They quickly became

“If you can’t clean it up, don’t do it” is an adage Earl Hatley took to heart a long time ago. As the Grand Riverkeeper and co-founder of Local Environmental Protection Demanded (LEAD), Earl has worked tirelessly to protect Grand Lake and the upper Grand River watershed, located in Oklahoma’s northeastern corner. A member of the Cherokee nation, he has spent most of his adult life, in places such as Louisiana’s infamous “Cancer Alley,” organizing those with the least power – most often

an attractive nuisance, drawing children to play on them with all-terrain vehicles, dirt bikes and sleds. The grim effects of cavorting in this toxic amusement park included cognitive disabilities, high blood pressure and cancer. A 47-square-mile area was declared a superfund site in 1983, and the communities closest to Tar Creek were bought out by the federal government and reduced to ghost towns. Only 13 families decided to stay.


More than 30 years since Tar Creek was declared a superfund site, the challenges are far from over. Grand Riverkeeper and LEAD estimate the discharge of toxic chemicals coursing daily through many communities in the Grand River watershed near Tar Creek to be more than one million gallons. In other words, every three days, the discharge equals the total volume of pollutants from last summer’s mining disaster on the Animas River in Colorado.

Northeastern Oklahoma needs justice, and, remarkably, after all they have been through, those who have chosen to fight for Tar Creek haven’t given up hope. Each September, Grand Riverkeeper and LEAD host the National Environmental Tar Creek Conference in nearby Miami, Oklahoma to collaborate on finding solutions and forming action plans for various environmental problems in the area. At this year’s conference, organizers again vowed to continue their fight.

I was honored to speak at the conference and incredibly grateful to spend time among women and men, many of them Native American, who have fought so valiantly against an egregious injustice to their sacred tribal lands.

I like to quote Lake Ontario Waterkeeper Mark Mattson who has observed: “It has long been true who draws the short end of the stick. And forcing people without much political voice to bear the burden of pollution, disease and misery is most certainly a form of injustice.”

The mining companies and politicians may have given this community the short end of the stick, but these brave souls are determined to use that stick to fight back. — Marc Yaggi



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CAROL KNUDSON OF COLUMBIA UNIVERSITY'S LAMONT-DOHERTY EARTH OBSERVATORY TAKES A HUDSON RIVER WATER SAMPLE FROM THE RIVERKEEPER PATROL BOAT IN THE LOWER HUDSON VALLEY.

according to federal guidelines. Collecting the data not only fills a need to protect public health along one of the world's most heavily populated estuaries, where rivers and streams are increasingly used for recreation. The effort also built an extensive network of partners that has become a powerful force for clean-water advocacy. In 2015, the collaboration included more than 130 citizen scientists and 23 partner organizations, chief among them Queens College and Columbia University's Lamont-Doherty Earth Observatory. In all, 11 IDEXX labs managed by universities and non-profit groups participated, testing more than 2,500 water samples from 315 locations in the Hudson River watershed for the presence of fecal-indicator bacteria.

Riverkeeper's commitment to data collection and grassroots outreach has already shown substantial results:

In 2012, Riverkeeper was instrumental in passing the Sewage Pollution Right to Know Law, which now provides near-real time electronic alerts via email, text or voice message when raw or partially treated sewage is discharged to water. In 2015, an average of more than 100 discharges were reported statewide per week. Those startling statistics proved crucial to Riverkeeper's successful efforts, as part of a statewide coalition, to win passage of the Water Infrastructure Improvement Act of 2015, a sorely needed grant program to

help struggling cities and villages invest in deteriorating water infrastructure. Data has also contributed to specific infrastructure investments, including an historic \$136 million 15-year plan to make the state capital district's notoriously polluted waters safe for swimming. New citizen-led efforts have also been launched to protect and restore the tributaries of the Hudson River.

"This work has allowed a generation of

residents to deepen their relationship with their waterways – an example of what we see as 'water democracy,'" says Dan Shapley, Riverkeeper's Water Quality Program Manager.

"How you have done this is as powerful and change-producing as what is being done," wrote Laurie Seeman, an artist and advocate who coordinates the Sparkill Creek Watershed Alliance, one of Riverkeeper's sampling partners. "It's inspiring on many levels for so many."

Much remains to be done: Riverkeeper faces the challenge of building public support for statewide wastewater infrastructure investments estimated to be at least \$36 billion over 20 years. "By harnessing the energy of river lovers," Shapley says, "we're a lot closer to achieving one of our foundational goals: Finally making good on the Clean Water Act's promise of water safe for swimming."

RIVERKEEPER TO NEW YORK: SWIM OR SINK

When Hudson Riverkeeper started routine water-quality testing in the Hudson River Estuary in 2006, its goal was to answer a common question from people with beach blankets slung over their shoulders: How's the water? At the time, there wasn't data available to answer their question. Now, there is.

Riverkeeper has gathered the New York region's most extensive data showing where and when water is safe for swimming,

IN 2012, RIVERKEEPER WAS INSTRUMENTAL IN PASSING THE SEWAGE POLLUTION RIGHT TO KNOW LAW, WHICH NOW PROVIDES NEAR-REAL TIME ELECTRONIC ALERTS VIA EMAIL, TEXT OR VOICE MESSAGE WHEN RAW OR PARTIALLY TREATED SEWAGE IS DISCHARGED TO WATER. IN 2015, AN AVERAGE OF MORE THAN 100 DISCHARGES WERE REPORTED STATEWIDE PER WEEK.



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FOR FIVE DAYS AND FOUR NIGHTS, MORE THAN 130 PEOPLE PADDED IN CANOES AND KAYAKS DOWN 85 MILES OF THE NEARLY 200-MILE-LONG WILLAMETTE RIVER TO LEARN MORE ABOUT THEIR RIVER AND TO CONNECT TO IT MORE CLOSELY.



PHOTO: TRAVIS WILLIAMS, WILLAMETTE RIVERKEEPER

OREGONIANS HOPE A RISING RIVER WILL LIFT ALL PADDLERS

"Paddle Oregon" has been heading downriver for 15 years. The annual event, sponsored by Willamette Riverkeeper, took off from Salem, Oregon last August. For five days and four nights, more than 130 people paddled in kayaks and canoes down 85 miles of the nearly 200-mile-long Willamette to learn more about their river and support the work of its Riverkeeper.

Encompassing some 11,500 square miles, the Willamette River is the most urbanized watershed in the state of Oregon and drains both the Cascade and Coast mountain ranges.

"The whole point of the event is to enable people to see and explore the Willamette River up close," said Travis Williams, Riverkeeper and executive director. "Participants learn about the Clean Water Act, habitat issues, toxic cleanups, invasive aquatic weeds and much more."

Through the event, Williams hopes to turn participants into active

members of Willamette Riverkeeper and committed advocates who engage in key issues along the river. In addition to receiving daily lessons from river experts, this year's participants helped to rid Norwood Island of an invasive weed called teasel.

The paddlers also learned first hand about the problem of low river-flows that have plagued the U.S. West. Even in rain-abundant northwest Oregon, lack of rainfall and snowpack has been telling, and the Willamette's levels in 2015 were among the lowest in the past 15 years. Side-channels that had not been depleted in recent memory had nearly no water, or were cut off completely from their main channels. The river system's tributaries are highly regulated by U.S. Army Corps of Engineers dams, yet many large reservoirs were very shallow, and releases were held at absolute minimums to aid fish-passage upriver.

In addition to robust community-engagement and habitat-restoration programs, Willamette Riverkeeper is grappling with a variety of pollution issues, and is one of the leaders in the cleanup of the 10-mile Portland Harbor Superfund site, a toxic legacy of the city's industrial past, which threatens the river with PCBs, dioxins, arsenic, mercury and DDT.

VICTORY FOR THE CLEAN-WATER WARRIOR OF HANN BAY

Hann Bay, which opens onto the Atlantic Ocean south of Senegal's capital city of Dakar, was once renowned as one of the most beautiful beaches in that country. But many years of industrial discharges and untreated municipal sewage emptying into the bay left it one of the most polluted bodies of water in West Africa.

For more than two decades, Mbacke Seck, who heads Hann Baykeeper, the first Waterkeeper organization in Africa, has been a leader in the fight against the pollution that has impoverished fishermen, sickened villagers and fouled the bay's beaches.

In late 2013, Hann Baykeeper's advocacy convinced the Government of Senegal, the French Development Agency and the European Investment Bank to commit \$68 million to fund a cleanup of Hann Bay. The magnitude of the effort to fight pollution is unprecedented in Senegal. A project team has been established by Office National de l'Assainissement du Sénégal, the government agency in charge of wastewater treatment. Officials from France and the European Union have visited the bay and the work will begin this year.

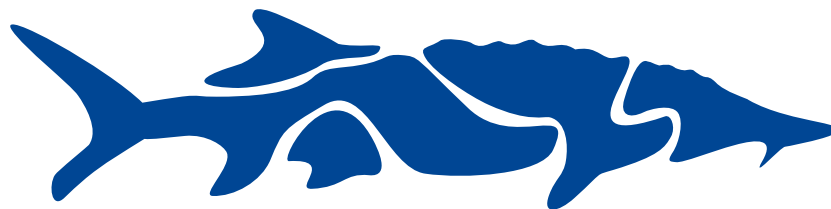
The plan, now being activated, begins with stopping waste discharges into the bay by obligating industries to treat their water before releasing it. A 15-kilometer-long interceptor will be built along the bay to direct wastewater to a purifying station with a capacity of 25,000 cubic meters per day. Seven pumping stations and 45 km of secondary and tertiary sewage pipes, with 10,000 residential sewage connections, will be built. A treated-wastewater outfall, or discharge point, will be situated three kilometers offshore. And Canal 6, which has been the main channel carrying municipal waste into Hann Bay, will be closed.

"A strong community for clean water has arisen in Senegal," says Seck, "and the people of Hann Bay will once again see white sandy beaches and clean blue water."



PHOTO: HANN BAYKEEPER

THE RELENTLESS ADVOCACY OF HANN BAYKEEPER MBACKE SECK, CENTER IN BLUE CAP, PROVED CRUCIAL TO A NEW \$68 MILLION PLAN TO CLEAN UP HANN BAY.



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...AND SLIPPED THE SURLY BONDS OF EARTH: IN MEMORIAM, JOHNNY STRANGE

We are saddened by the loss of Waterkeeper Alliance friend and avid adventurer Johnny Strange, who passed away at age 23 on October 1, 2015, while attempting to BASE-jump off Mt. Gitschen in Switzerland.

Johnny came from a family of adventurers, and he lived a life dedicated to exploring and improving the world. At 17, he became the youngest person to have climbed the Seven Summits – the highest mountains on each continent.

Johnny dedicated much of his life to advocacy efforts like stopping genocide and curing Parkinson's disease, and he was a great friend to Waterkeeper Alliance. At the time of his death, he was helping the Alliance develop strategies to protect wild rivers around the world.

"The day I let my fear deter my ability to follow my dreams, I have already died," Johnny wrote in a blog post on his website. "I will, as well as everyone else, die someday, but on this day, I was more alive than I had ever been before."

"THE DAY I LET
MY FEAR DETER
MY ABILITY TO
FOLLOW MY
DREAMS, I HAVE
ALREADY DIED. I
WILL, AS WELL AS
EVERYONE ELSE,
DIE SOMEDAY, BUT
ON THIS DAY, I
WAS MORE ALIVE
THAN I HAD EVER
BEEN BEFORE."

JOHNNY STRANGE ON
SWITZERLAND'S MT. GITSCHEN
JUST BEFORE HIS LAST JUMP



MARIUS BECK DAHLE

PROTECT THE GREAT LAKES, SAYS LAKE ONTARIO WATERKEEPER – IT'S THE LAW

In the fall of 2015, the Canadian Province of Ontario passed a groundbreaking law, the Great Lakes Protection Act, which will hold future governments accountable for the health of the Great Lakes.

The Great Lakes, shared by Canada and the United States, are five of the world's largest bodies of fresh water, connected to each other through a series of rivers, and to the Atlantic Ocean through the mighty St. Lawrence River. They provide drinking water to more than 40 million people in the two countries. Their shores are dotted with thousands of beaches, including some of the largest freshwater sand dunes in the world.

Sadly, the Great Lakes have been in decline for over a century, and, although the two contiguous countries

have made progress recently, much work remains to clean up the lakes. Four of the lakes border the province of Ontario, and despite the province's having some of the strongest environmental laws in the world, along its coast fish are disappearing and stormwater and agricultural runoff are causing destructive algal blooms. Swimming is prohibited at hundreds of beaches.

Lake Ontario Waterkeeper, led by environmental lawyer Mark Mattson, strongly supported the new law. Testifying to a government committee, Mattson stated:

"The Great Lakes Protection Act should not be seen as 'environmental' legislation. It is as much an economic bill, an industry bill, a culture-and-tourism bill, as it is environmental. This is legislation that helps to ensure Ontario can prosper in the future. You should not pass the act just because environmentalists support it. You should pass the act because it is the smartest investment in this province's future that a government can make."

The new law isn't flashy, but it has the potential to transform the Great Lakes. It is basically an enabling law that empowers Ontario to do more to ensure the Great Lakes becomes swimmable, drinkable and fishable again. If it's executed well, it will influence decision-making across all sectors of government, just as the Great Lakes influence every part of our daily lives.



LAKE ONTARIO WATERKEEPER

LAKE ONTARIO WATERKEEPER MARK MATTSON



LEFT, SWEDISH BALTIC RIVERS WATERKEEPER THOMAS JOHANSSON ON HIS HOME KÅGE RIVER. BELOW, MARC YAGGI, WATERKEEPER ALLIANCE'S EXECUTIVE DIRECTOR, LANDS HIS FIRST SWEDISH FISH.

SWEDISH SALMON GET ROYAL TREATMENT

SVENSKA LAXAR FÅR KUNGLIGT BESÖK



Since 2011, Baltic Salmon Rivers Association has been protecting Sweden's salmon rivers from poorly regulated fishery practices, as well as threats to salmon populations from dams on over 60 percent of Sweden's rivers. Now, with support from the Swedish Postcode Foundation, Waterkeeper Alliance is working to help develop a network of Waterkeeper organizations to protect the Baltic Sea region. In January 2015 Swedish Baltic Rivers Waterkeeper joined the alliance to advance advocacy for the region's waterways.

In August, Executive Director Marc Yaggi and International Director Sharon Khan traveled from New York to Sweden to participate in Swedish Baltic Rivers Waterkeeper's first National Water Conference. More than 100 Swedish water advocates and fishermen and women attended the conference, which was co-hosted by the town of Umeå and opened by King Carl XVI Gustaf of Sweden.

Addressing the conference, Yaggi said:

"Swedish Baltic Rivers Waterkeeper is an incredible advocate for the health and safety of the Baltic's magnificent salmon rivers, their aquatic life, and the

communities that depend on them. And now they are part of the global family of Waterkeepers fighting to ensure clean water for swimming, drinking and fishing worldwide. As the saying goes, a pool begins with many drops of water, and together the world's Waterkeepers can create a pool that rivals the greatest oceans."

Yaggi and Khan, accompanied by King Gustav, visited projects where salmon habitat is being restored, and discussed Waterkeeper Alliance and its mission with him. During a celebration of the twenty-fifth anniversary of World Water Week and the Stockholm Water Prize, he spoke of his experience with us:

"I recently had the opportunity to visit Ruskträskbäcken, a beautiful stream in Lycksele in the north of Sweden," he said. "The stream has been restored following the negative effects of log driving, and new fishing rules have been introduced. As a result of these actions, the fish have returned, and Ruskträskbäcken is now a popular site for sustainable fishing. It offers opportunities to share ideas and experiences that solve water problems and create jobs. It was an interesting and inspiring visit in many ways — not least as I myself caught some beautiful graylings there! Ruskträskbäcken serves as an example that, while water problems are global, the solutions are often local."

Sedan 2011 har Östersjölaxälvar i samverkan jobbat för Östersjöns vilda lax och öringsbestånd. Hoten är många för de kvarvarande bestånden. Alla vattendrag är påverkade av rensningar för timmerflottning,

vattenkraften har ödelagt över 60 % av älvarna och överfisket från nationerna runt Östersjön har varit stort. Men stöd från Svenska PostkodStiftelsen arbetar nu Waterkeeper Alliance med att utveckla ett nätverk av Waterkeeper-organisationer för att skydda Östersjöområdet. I januari 2015 anslöt sig svenska Östersjölaxälvar i samverkan till alliansen för att trappa upp kampen för områdets bestånd och vattendrag.

I augusti reste Marc Yaggi (VD) och Sharon Khan (internationell chef) från New York till Sverige för att delta i en nationell vattenkonferens tillsammans med Östersjölaxälvar i samverkan. Över 100 svenska vattenförfärdare och fiskare deltog i konferensen, som Umeå stad stod som värd för och som invigdes av H.M. Konung Carl XVI Gustaf.

Yaggi talade till deltagarna och sa: "Östersjölaxälvar i samverkan är en fantastisk förespråkare för hälsa och säkerhet i Östersjöområdets storslagna laxälvar, med det liv som finns i dem och

de samhällen som är beroende av dem. Nu är de en del av vår globala Waterkeeper-familj, som kämpar för att garantera att vi har rent vatten att dricka, bada i och fiska i över hela världen. Många bäckar små gör en stor å, och tillsammans kan världens alla Waterkeeper-medlemmar skapa ett vattendrag kraftigt nog att utmana de största haven."

Tillsammans med Kung Carl XVI Gustaf besökte Yaggi och Khan projekt där laxarnas naturliga miljö har återställts och diskuterade Waterkeeper Alliance och dess uppdrag med honom. Vid 25-årsjubileet av Världsvattenveckan och Stockholm Water Prize delade Kungen med sig av sina erfarenheter: "För inte så länge sedan fick jag möjligheten att besöka Ruskträskbäcken, ett vackert vattendrag i Lycksele uppe i norra Sverige", sa han. "Bäcken har återställts efter att ha påverkats negativt av timmerflottning och nya fiskeregler har införts. Detta har lett till att fisken har återvänt och Ruskträskbäcken är nu en populär plats med ett hållbart fiske. Detta ger oss möjlighet att dela tankar och erfarenheter om hur vi löser vattenproblem och skapar jobb. Det var på många sätt ett intressant och inspirerande besök, inte minst eftersom jag själv fångade några vackra harrar! Ruskträskbäcken är ett bevis på att även om vattenproblem är globala, så finns lösningarna ofta lokalt."



THE WATERKEEPER MOVEMENT'S FIRST 50 YEARS:
IT STARTED WITH WITH ONE AND STEADILY GREW
BEYOND WHAT ANY OF THE FOUNDERS
COULD HAVE IMAGINED.
THERE AT THE FOUNDING: PAGE 30
THE TIMELINE : PAGE 36
AROUND THE WORLD: PAGE 42

ONE TO

75

THERE AT THE FOUNDING

IN THIS ROUNDTABLE DISCUSSION, WHICH TOOK PLACE ABOUT 18 MONTHS AGO AT A WATERKEEPER ALLIANCE ANNUAL CONFERENCE, FIVE OF THE EARLIEST WATERKEEPERS – NEUSE RIVERKEEPER RICK DOVE, NEW YORK/NEW JERSEY BAYKEEPER ANDY WILLNER, CHATTAHOOCHEE RIVERKEEPER SALLY BETHEA, CASCO BAYKEEPER JOE PAYNE AND THE LATE LONG ISLAND SOUNDKEEPER TERRY BACKER, THE MOVEMENT'S LONGEST-SERVING WATERKEEPER, WHO PASSED AWAY ON DECEMBER 14, 2015 – REFLECTED ON THEIR CONNECTIONS TO WATER, THEIR FIRST YEARS FIGHTING FOR THEIR WATERWAYS, AND THEIR WONDER AT HOW THEIR BELIEF IN EACH OTHER AND IN THE POWER OF FOLLOWING THEIR DEEPEST CONVICTIONS SPAWNED A WORLD-CHANGING GRASSROOTS MOVEMENT THAT IS NOW ON THE FRONTLINES OF THE GLOBAL ENVIRONMENTAL CRISIS ON SIX CONTINENTS.



RICK DOVE:

MY EARLIEST MEMORIES OF
WATER WERE WHEN I WAS
SIX OR SEVEN YEARS OLD...

...growing up on the Chesapeake Bay. The only thing I ever wanted to do, even as I grew older, was to be around water, be a fisherman, a tugboat captain, anything, just to be near water. My folks talked me out of that and told me, you just can't support a family on that alone. So I went to college, but I never turned loose that dream of somehow, someday working on the water.

I joined the Marine Corps because the draft was chasing me. As it turned out, I liked it a lot, so I stayed for 25 years. But for all that time, there was something running through my veins that told me that someday, somehow I would get back to working on the water. And when I retired from the Marine Corps, I remember walking out the gate in my spiffy uniform, and going home and getting into my oldest, dirtiest clothes, and grabbing my son. I told him, C'mon, we're going fishing. And we went down to the Neuse River, got in our boats, and started fishing.

For about three years, I was having probably the happiest time of my life. But then, all of a sudden, the fish began to die, and there were huge sores all over their bodies, and I got the sores on me, and my son got sick, and we had to

give it up. It was right about then I recognized that maybe there was another calling for me – to find a way to get involved with somebody, some organization, so I could fix the problem that was denying me the one thing I really wanted, even as a kid.



ANDY WILLNER:

WHEN I WAS A VERY YOUNG
CHILD, MY PARENTS TOOK US
FOR A VACATION UP IN THE
POCONO MOUNTAINS. IT WAS
A BIG LAKE...

...and there was this little area they called the crib where little kids were supposed to swim. They let me go in there, and the minute I realized that you could swim underwater is when I realized how much I wanted to be in the water. It was, I think, that lesson that carried me through my life. Of course it scared the crap out of my parents, because I disappeared for more minutes than they thought anybody could stay underwater.

It was that feeling of being immersed, being really at home in that medium, that made me look for ways that I could be on, near, or in the water for the rest of my life. And I think that the frustration that brought me to Waterkeeper was when I had a boatyard in Staten Island, and my daughter, who was probably six or seven,

was hot. It was summertime, and she couldn't go in the water of New York Harbor because I knew that it was so polluted it was off-limits for swimming.

I was just furious. Here we were, surrounded by this beautiful body of water – there was actually a beach down the street, but she couldn't go swimming. So I wound up filling an old plastic dinghy full of water so she could splash around. And I think that frustration and deciding that I needed to do something about it led me to become the Baykeeper.



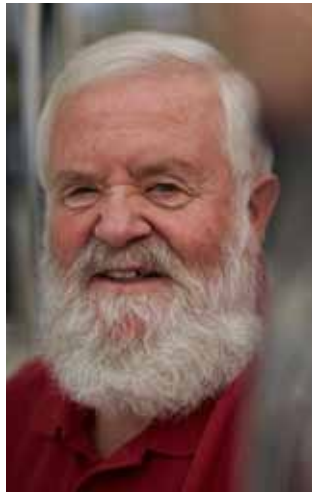
SALLY BETHER:

I GREW UP IN THE 1950S AND 1960S, LIVING NEXT TO A LITTLE STREAM ON THE OUTSKIRTS OF ATLANTA. IT HAD CRAYFISH, SNAKES AND ALL KINDS OF LITTLE FISH.

The water was really clear. I loved playing in the creek. I was a little bit of a tomboy. My parents also took us to a wonderful barrier island off the west coast of Florida in the '60s, and there we would play, walk the shores, look for seashells, and I just developed this love for the natural world.

Fast-forward to the '70s. It was a time when there were rivers that were so polluted

with industrial waste, like the Cuyahoga in Cleveland, that they actually caught fire. People in Georgia were just waking up to the fact that Atlanta was going to grow and develop at a tremendous rate. Finally, a highway was proposed through the north Georgia mountains, cutting across major river basins including the Chattahoochee, and I thought there's got to be something I can do. That's when I got involved in environmental advocacy, first with several environmental groups and federal agencies, and then I had the lucky break of a lifetime and heard about Waterkeeper. I became the Chattahoochee Riverkeeper 20 years ago. It's been an incredible blessing; it's been a place where I could channel both my outrage and my hope.



JOE PAYNE:

MY FIRST MEMORIES OF WATER ARE GROWING UP ON PEAKS ISLAND IN CASCO BAY [MAINE]. I'D ALWAYS BE AT THE SHORE AND TURNING OVER ROCKS AND GATHERING PERIWINKLES...

...to eat, to use for bait, swimming on one side of the island, then doing a circuitous route over to

the other side. Island life gives kids confidence. Your parents are freer to let you go because that village is going to let them know right away if you did something wrong or if you got hurt. It was a great, great experience.

My grandfather was a waterman, a fisherman on Casco Bay, and my first water experience was the summer before I was born. My mother, pregnant with me, traveled back and forth all that summer on my grandfather's boat from Portland to Peaks Island. So I go back to in utero for my first water experience.

He had a big family – ten, eleven kids, but none of them felt the pull of the water the way I did. I don't know how that happened, but Casco Bay, the life on the water, it hit me hard. I liked the sciences, and when I took biology and found out that our blood and seawater are 98 percent the same, that was kind of a justification for why I had to be in, near, under saltwater.

Andy was talking about being underwater. When I was in high school, I took a ten-week-long scuba course, and for five weeks all we did was learn stuff and swim laps every time someone got cold. I learned to not like people who get cold easy. But on the sixth week we got to put on a tank and a regulator and go underwater, and I will never forget that feeling. It was only 10 feet in the deep end of the pool, but sitting on the bottom looking up and not having to come up, that was the start of it. I became a diver, then a research diver, and I went to school to become a marine biologist.

We have 5,400 miles of coastline in Maine, but I couldn't find a job as a marine biologist, so I had to go away. I worked on the Great Lakes, on Lake Ontario quite a lot. Then I heard about a job in New Hampshire in marine biology, and I took that. Then this organization called Friends of Casco Bay advertised for a Baykeeper, and I looked and looked at it. My wife Kim and I both had great jobs. We had a passive solar house on 12 acres. Everything was fantastic. I kept the paper beside the bed for two weeks. I didn't say anything to Kim. This job sounded great, but I was thinking, where will Kim find a job in Casco Bay? I showed

her the ad two days before the deadline. She said, "You've got to try." I said, "Yeah, that's it. I've at least got to try, just so I won't always wonder." They offered me the job, and, boy, I haven't looked back now almost 24 years.



TERRY BACKER:

FOR ME WATER WAS JUST ALWAYS THERE. MY DAD WAS A LOBSTERMAN AND AN OYSTERMAN ON LONG ISLAND SOUND, LIKE HIS FATHER AND HIS FATHER BEFORE HIM, GOING BACK GENERATIONS.

So I can't say there was ever an awakening to water. I can remember being a little kid on my father's lobster boat looking up at him with his hands on a spoked wheel and that boat cutting through the water. I said, "Well, this is me. I'm going to be a fisherman, too."

I used to lean over the side of the boat and wait for the lobster trap to come flying up out of the bottom, and I worked on the boat with my father for many years. Then I got the urge to try some other kind of fishing, and I headed out to the West Coast

and ended up in Alaska working on salmon seiners and down the coast of the Pacific Northwest and Puget Sound working on fishing boats. And eventually I'd got the urge to come home and work with my father again.

When I got back, we were headed down the river one day, and I looked over the side of the boat and there were rafts of brown, foamy stuff floating on the water, and I said, "Hey, Dad, what is all that crap?" And he said, "That's what it is." Towns

things are starting to change for the better. You ought to go up and see him in Cold Spring – John Cronin." So we got talking to John Cronin and Bobby Kennedy, and they said, "You guys have got to take those towns and their politicians to task, challenge them, and you can do it in court through the Clean Water Act," which had been passed in 1972 and gave citizens greater power than ever before to bring their own lawsuits to stop illegal pollution. "You can prosecute

certain benchmarks to improve the sewage-treatment plan in Norwalk, Connecticut. Our lawyers were pretty much volunteers from the Pace Environmental Litigation Clinic in White Plains, New York, which Bobby Kennedy, Jr., had created, and we won an \$87,000 settlement.

Talking to Bobby and John, we decided to create a Long Island Soundkeeper, and I took on the job. I can remember my father leaning over to me saying, "You're going to starve to death doing that, boy."

And I had the great fortune to see more and more people wanting to be keepers, like Joe Payne in Casco Bay, Maine, and Rick Dove on the Neuse River in North Carolina, and, of course, Sally Bethea, on the Chattahoochee in Georgia.

At some point, John Cronin and I were talking, and we said, "We ought to create an organization to keep everybody on track, put a hub in the middle of this wheel." I think that was my expression. So we started with the Alliance of River, Bay and Soundkeepers, and over time that morphed into Waterkeeper Alliance, which now supports over 270 organizations on six continents. Watching this movement grow has been the greatest pleasure of my life.

Water still means so much to me. It's indelibly the deepest part of me. I vividly remember my father telling me it was time to learn to swim and taking me to the back of the boat and heaving me over the side into the river. And I kicked and splashed and panicked, but somehow my body started moving toward the boat. Of course I couldn't climb up in the boat, so he fished me out. And I remember when my eldest son, who is 28 now, was born; I headed down the river to pull lobster traps with him perched on the motor box in a bassinet.

A newspaper commented in an editorial, "Remember Long Island Sound filled with sewage before Terry Backer and the Soundkeeper crew came along," and it was then I realized that I had made a difference for the place where I lived, for the people I grew up with, for the culture I was raised in, and that other people followed and were doing it too. It's a great feeling when I go to Waterkeeper conferences and see all these people from all over the world realizing and doing things that make a difference for themselves and the people around them and for the world.

If you were to go up to my dad, God rest his soul, and ask him, "Who are you?" he would tell you, "I'm a lobsterman." Sometimes I feel that way. Who am I? I'm the Long Island Soundkeeper. I can't think of anything more worthwhile that I could have done, and I am very grateful to my belief in God and to have been put here and to have found a way to be useful in my work.



LEADERS OF THE FIRST 11 WATERKEEPER ORGANIZATIONS MEET IN CASCO BAY, MAINE, IN 1995. LEFT TO RIGHT, FRONT ROW, MIKE HERZ, SAN FRANCISCO BAYKEEPER, ANDY WILLNER, NY/NJ BAYKEEPER, CYNTHIA POTTEN, DELAWARE RIVERKEEPER, SALLY BETHEA, CHATTAHOOCHEE RIVERKEEPER, KENNY MOSER, PUGET SOUNDKEEPER, JOHN TORGAN, NARRAGANSETT BAYKEEPER. BACK ROW, TERRY BACKER, LONG ISLAND SOUNDKEEPER, JOE PAYNE, CASCO BAYKEEPER, JOHN CRONIN, HUDSON RIVERKEEPER, TERRY TAMMINEN, SANTA MONICA BAYKEEPER, AND RICK DOVE, NEUSE RIVERKEEPER.

were just dumping their raw sewage right into Long Island Sound. And I got to thinking and worrying about it. When we needed lobster bait, we'd go up the Hudson River to buy buck shad up past the Tappan Zee Bridge. The Hudson had a pretty bad reputation for being so polluted by then. Looking out at the river, I turned to a Hudson River fisherman, Bobby Gabrielson, and I said, "I always had the impression an atheist could walk across the Hudson River." And he said, "Well, we got a Riverkeeper here now and

them and you can use the law to force them to stop polluting." So we formed the Connecticut Fisherman's Association with another lobsterman named Chris Staplefeldt, and a few other fishermen came on board, and we brought our first citizen suit against five or six different towns for violations of the Clean Water Act – some of them up to 50,000 violations.

We went in the court with their own discharge-monitoring reports showing that they were violating the law, and they agreed to settle. Our first settlement was for

But here I am almost 30 years later, still the Long Island Soundkeeper, as long as God gives me breath and the strength to do it.

We started getting letters from some guy named Willner in New Jersey, and he said, "I want to be a keeper." And I said to myself, "Well, if you want to be a keeper, go do it." And one day down on the dock in our oyster house, along came Andy Willner, and he told us he was now the New York/New Jersey Baykeeper. And I said, "Well, now you've got it right. You're not asking. You're telling." And then there was a Delaware Riverkeeper.

AW: I think the one unifying thing about Waterkeepers is persistence. In order for me to become a keeper, I had to be persistent. At first, John Cronin threw my letters away; Terry threw my letters away. And they were the only two people to ask. But I still used them as models because I realized that they were really on to something, that what they were doing and how they were doing it was unique and powerful because it was rooted in private citizens taking responsibility for the shared resources that we the people own in common, that are our shared birthright. Right from the beginning, the Waterkeeper movement was, at its heart, a democracy movement.

That model was so vital, it was so vibrant that even in those early days we saw that it had to be codified in some way, organized so that we could make sure that the next person who came along and was persistent enough to become a Waterkeeper actually had a roadmap, or maybe I should say a navigational chart. We also wanted to make sure that they understood that this was a calling, that it wasn't just a job. I think of the audacity of those early days. The first time we had an official meeting there were just seven Waterkeeper organizations. But there we were, seven of us in a room with the audacity to declare that we were an international organization. A circle of people were battling out what this movement was and could become, and some of the insights, some of the ideas were really earthshattering in the sense that we never had heard of a model like this: That independent grassroots organizations could work together toward a common goal without infringing on each other's autonomy, and that an individual citizen could declare that he or she was the legitimate steward of a community's waterway.

I can still remember the first time I was in a community meeting after I'd been the Baykeeper for a while and was called on to speak. I introduced myself as the Baykeeper and after I finished speaking no one disputed my legitimacy or what I had to say. I suddenly realized that it wasn't just a title; that by being out there on the water, day in and day out, by protecting that waterway, I had proven that I had a right to speak for it.

We needed to invent something absolutely brand new. And we did it, and I think a lot of the reason we succeeded was because we were so damned persistent.

And that spirit has carried through, and I continue to see it in the men and women who decide to become Waterkeepers. Every one of them has a passion for the body of water they want to protect. I'd even say a spiritual bond. And I think that's it's that love of a particular place that's the secret to

SB: My introduction to Waterkeeper was when Bobby Kennedy came south to Georgia and gave a speech for a candidate running for mayor in a small town. I was working for a mainstream environmental group, but I didn't feel I was really getting anything done. I wanted something more aggressive, more focused and more place-based. And I remember hearing Bobby and writing notes on my hands, on napkins, to record all the things he was saying about all the things that the Hudson

them and getting to know them, and picking their brains to figure out a way for a Southern woman to get the same sorts of results for a river that sustains nearly four million people. My great memory is going to Casco Bay in 1995 and walking into this room with men who mostly had big beards, and wondering what I'd gotten myself into, but also being completely engaged and entranced with their passion, their commitment, their knowledge. And I thought, boy, I don't know how I'm going to do this, but I'm going to follow these great examples.

The family aspect of Waterkeeper has been really important. As we all know, families fight sometimes, but you've got each other's back. Without Waterkeeper Alliance, without all these people that were fighting the same fights and dealing with the same frustrations, I could never have done this work.

RD: In 1991 we lost a billion fish on the Neuse River. I was still a commercial fisherman, and I was extremely depressed. After 25 years in the Marine Corps, I had never known failure. That's the way it is in the Corps. And here I was with my son with failure everywhere we looked. I had sores on my hands from some unknown organism that was in the water. Fishermen were suffering from memory loss and some passed out in their boats. When they awoke, they couldn't remember how to get back to their dock. Soon, many people along the lower Neuse began suffering these same symptoms. I wanted to do something but I didn't know where to start. Then I happened to read an article in the local newspaper about this environmental group, the Neuse River Foundation, looking for a Riverkeeper. What in the world was a Riverkeeper? I had no idea, but I liked the sound of it. I began to read about what John Cronin was accomplishing on the Hudson River and Terry Backer on the Long Island Sound and Andy Willner in his watershed, and I said, "Man, these guys are getting things done. They're really making a difference."

I had the same experience that Andy did at first. I was writing John Cronin letters saying, "I want to be a Riverkeeper," and

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TERRY BACKER

the persistence that characterizes Waterkeepers, their readiness to confront and to overcome all the huge obstacles that Waterkeepers face all the time.

Having served on the committee that reviewed new applicants for several years, I remember there were people who didn't appear to have all the qualifications at first, but they came back three, four, even five times. They just wouldn't take no for an answer. And they were so persistent that, finally, we said, well, dammit they have the most important qualification – they won't take no for an answer. And we just gave in.

Riverkeeper was doing. I had no idea that two years later, in 1994, I would be in the right place with Ted Turner's daughter, Laura Turner Seydel, and her husband, Rutherford Seydel, who were looking to replicate a Hudson Riverkeeper on the Chattahoochee River in Atlanta. And when I remembered the inspiration that I had gotten from Bobby and the excitement about this model, I stepped forward, hesitantly, in some ways, but also with a lot of excitement, because I wanted to be part of this movement.

There is no way I could have done it on my own without reading about what these guys had already accomplished and, later, talking to

John didn't answer. I kept writing, kept writing, and then one day I said, "I'm just going out and be a Riverkeeper for a while." I wrote to a guy named Michael Herz on the West Coast who was working as the San Francisco Baykeeper, and he said, "Come to this meeting in Portland, Maine. We're going to take a look at you and see if you qualify." Well, man, I was pretty scared because I really wanted to be a Riverkeeper. But once I arrived in Portland, pretty much right away I found I had a lot in common with those people. It was what I'd found I had in common with the Marines I'd served with, some in combat. Here was a group of people so passionate about what they were doing and so committed to protecting their waters that you just knew they were not going to fail. And I knew right then that I had a whole other life ahead of me, with people with absolute integrity, who would fight, who wouldn't quit, who would stick together, and who would win.

When I went home, I knew that the choice I had made to become a Riverkeeper was the right one. By 1995, we had our answer about the fish kills. Pfiesteria, a one-celled animal so tiny 100,000 could fit on the head of a pin was producing a neurotoxin that paralyzed fish and devoured the fish's blood cells. We also learned what was promoting it.

It was fertilizer pollution, most of it coming from factory swine and poultry facilities. The next seven years on the Neuse River were very trying but now we at least knew who we were fighting. We had as many as 25 cases on our docket every month, and we made tremendous inroads in protecting the Neuse over those years. And today we've got two Riverkeepers protecting the river – the Lower Neuse Riverkeeper and the Upper Neuse Riverkeeper.

As I look at the movement that has grown out of that group of people and I look at the Waterkeeper movement today, I know that the seeds that these folks had sown in me are being sown in all of these other Waterkeepers around the world, and that this is a movement that will not fail.

If you're a polluter and you come across a Waterkeeper, you're in big trouble. And that pollution will stop. This is a fearsome group

of people. I've had two major careers, one in the Marine Corps and one in Waterkeeper, and I wouldn't trade either one for the world.

JP: The first Waterkeeper conference I went to there were just six other Waterkeepers. Casco Baykeeper was the seventh organization in the movement. And when I got back home, I told anyone who would listen that I'd just been with the six most impressive people I'd ever met. Almost 25 years later, I'd say that if you went around this country and you handpicked people who you thought had done the most for the environment, you couldn't beat these six people. They have set important legal precedents in the field of environmental law and they've also saved some of the most important bodies of water in this country, and they still inspire me.

TB: Shortly after I became the Long Island Soundkeeper, I learned that there were 30 to 40 million people within 100 miles of the water body that I had had the nerve to declare myself the protector of. It took me a while to be able to say I'm the Long Island Soundkeeper. It seemed a little pretentious. But once I realized it wasn't just me, it was all those other Waterkeepers who've helped me and given me advice over the years and Bobby Kennedy, Jr., and the legal team at the Pace Environmental Law Clinic, that they've all been an integral part of my success, then I was okay with saying I am the Long Island Soundkeeper.

When we all got started, we had a body of law, at least in the U.S., that enabled us to do a lot of things, and we have used those tools, even though there have been continual attempts to weaken them and strip them away, and undermine what they stand for, which is the right of the people to ownership of these resources that we hold in common. Bobby Kennedy, Jr., once said to me, "When you bring these clean-water cases, you elevate yourself to the status of the Attorney General, because you're defending the rights of the people who, in our system, are the government." So we have to be on constant guard for changes in policy rules and law. And it's even harder in most other parts of the world, in places like Africa and China, where Waterkeepers

"IF YOU'RE A POLLUTER AND YOU COME ACROSS A WATERKEEPER, YOU'RE IN BIG TROUBLE. AND THAT POLLUTION WILL STOP. THIS IS A FEARSOME GROUP OF PEOPLE. I'VE HAD TWO MAJOR CAREERS, ONE IN THE MARINE CORPS AND ONE IN WATERKEEPER, AND I WOULDN'T TRADE EITHER ONE FOR THE WORLD."

RICK DOVE

and other environmental activists have very little law to support them. I've never felt that my life was at risk, but I've met plenty of Waterkeepers from other parts of the world who are risking their lives for doing what they do.

SB: I think the movement is doing extremely well right now, and I couldn't be more proud. When I started I was just the second woman, and it was a little tough. You know, a man could speak up. A man could be loud. But I knew that I had to do it in my own Southern way, but do the same kind of work, get the same kinds of results. Now more than a third of the Waterkeepers in the world

are women. I see so many young women and people of color in this movement, and I know it's going to just keep on increasing, and the more diverse we are, the more powerful and effective we're going to be.

But there's still a crying need for even more resources. A lot of the times, the polluters we're up against are very powerful corporations, so powerful that they've, in effect, captured the government agencies that are supposed to be enforcing the law. But we have passion and we've learned to use the media and the law. And we've also become savvy at strengthening each other's capabilities. I don't believe there's ever going to be a time when the Chattahoochee Riverkeeper, and all the world's other Waterkeeper organizations, won't be needed. We need to be here tomorrow, next week, ten years, a hundred years from now, because we occupy a space in society between government and the private sector that looks out for the common good in a way that the other sectors never will.

JP: Those of us who were there at the founding, we share a deep kinship. These people are my brothers and sisters. When I talk to some of the Waterkeepers who have been around for two, three, four, five years, and ask, "What did you hear, what helped you the most," I keep getting the same answer: there was always somebody I could call, someone who I had met at a conference or I saw on the LISTSERV and sounded like they might know something I need. We have this family feeling, and we don't think about the time and the resources it might take to help someone else. And I think that's a big part of why this movement is going to keep growing and getting stronger.

TB: I think back to when there were only two of us, me and John Cronin, talking on the banks of the Hudson River. We didn't call it "waterkeeping" then. And to have seen this grow into more than 270 Waterkeeper organizations working on six continents, I think is amazing. And the core principles, ideas and visions that John and I talked about are still at the heart of the Waterkeeper

movement. One of the important functions of having Waterkeeper Alliance is to constantly reinforce those core principles of what it is to be a Waterkeeper, to stand up for this place and this body of water that you love, to stand up for the people who depend on it for their sustenance, in a material and a spiritual way, and to be wholly committed, body and soul, to make a real difference.

We're different from a lot of the other large environmental organizations because we started as a group of autonomous grassroots organizations that chose to come together because we recognized that we were working toward common ends and that we could be so much stronger if we worked together. It was the Waterkeepers, who were on the water and on the frontlines of the environmental crisis, who created the Alliance not the other way around. And I think that's grounded the movement in a way that's deeper and more powerful than any other environmental organization you can think of.

AW: The special feeling that we had in those early days was very heady, because in the short time we'd been Waterkeepers, we had accomplished some pretty significant things. Once we realized just how powerful the Waterkeeper model was, we started to look for ways to multiply what we were accomplishing, and figure out we could act collectively and to share what we were learning. Each one of us brought something to that mix. John was the first to teach us about using the law. Terry had the heritage of being a commercial fisherman. Rick had that we-can't-fail attitude he'd brought with him from his Marine Corps days.

I remember when John Cronin started talking about an international movement, we laughed at him. We called him the "universe keeper." There were only about a dozen of us at that point, but the Waterkeeper model almost had a momentum of its own, something more powerful than maybe any of us realized.

It turned into what is, as far as I'm concerned, the most successful environmental organization in the world because of the individuals and because it developed organically. It developed with a soul, like many other large

organizations don't have, and it developed into a family, as Sally has said.

RD: There's one common trait to success, and that's the readiness and the courage to lead, on the individual level and on the organizational level. From that first meeting all those years ago in Portland, I saw that quality in my fellow Waterkeepers. I knew that they had my back. I knew they always would. I knew they'd come if I needed them. And because of that, I've never been afraid of who I was taking on, whether it was a giant corporation or the governor of North Carolina.

Look at Bobby Kennedy, Jr., and his contributions all these years, how he stuck with this movement, how he stuck his neck out for Waterkeepers all over the world. When I meet young Waterkeepers, almost invariably,

"I THINK THERE'S A SPIRITUAL ASPECT TO ALL OF THIS, THE WEB OF ALL LIVING THINGS AND OUR CONNECTIONS TO EACH OTHER. AND RIGHT FROM THE BEGINNING, WATERKEEPERS HAVE BEEN THE REPRESENTATIVES OF THOSE WHO DON'T HAVE VOICES, WHOSE COMMUNITIES AND WAYS OF LIFE ARE BEING THREATENED."
ANDY WILLNER

I sense that same trait, that here's another leader, people like Nabil Musa in northern Iraq, Liliana Guerero in Colombia, or Mbacke Seck in Senegal. They're literally putting their lives on the line, but somehow they're fighting through their fears, and I think a big part of it is that they know that the Waterkeepers around the world have their backs.

Waterkeeper Alliance is solid from the ground up. I'm pretty old now, but I hope I'm around in ten years, because I just can't wait to see what the Waterkeeper movement becomes. With the track it's on right now, man, there is just no limit.

TB: I didn't know how long I would be a Soundkeeper. I figured, give it four or five years and we'd have it licked. It's been 30 years now and there's still so much work to be done. And for all that time, Bobby Kennedy, Jr.'s, been a constant in my life and in my struggles, personal and professional. Over those 30 years, we've had our share of fights, but through it all we have worked together to make the world a better place for an awful lot of people we don't know and will never know.

I've been a representative in the Connecticut state legislature for almost 25 years, and if there's one thing I've learned it's that laws are written in pencil. They can be erased. If you're fighting for clean water, advancing the will of the people that our shared natural resources are protected, you can't ever let your guard down because it's a constant fight.

JP: My hope for the Alliance is that we keep recruiting Waterkeepers with the energy and passion to be real catalysts for change in their communities. And I think we will. I also hope that we figure out new ways to help the Waterkeepers who are in countries that don't have a tradition of philanthropy and don't have the environmental laws that have been so crucial to the successes of those of us in the U.S.

The Waterkeeper model is there, the success is there, the ethic is there, and I would tell new Waterkeepers be confident and be brave. Follow your instincts, and if you feel it's right, it most likely is right. Do it. And as Rick has said, know the rest of us will have your back.

SB: I have no doubt that Waterkeeper Alliance will be here in 10, 20, 50 and 100 years. It's just such a powerful idea that I'm confident that the movement will only keep growing larger and stronger. I think we're in the first stages of a sea change in human consciousness and that there will be more and more men and women who are committed to speaking truth to power and taking care of the water that sustains all of life.

AW: I think there's a spiritual aspect to all of this, the web of all living things and our connections to each other. And right from the beginning, Waterkeepers have been the representatives of those who don't have voices, whose communities and ways of life are being threatened by the powerful, whether in the corporate sector or in government. I would hope that in the coming years organizations with that kind of mission are only going to be more important and more influential in societies in every part of the world.

RD: Waterkeeper Alliance is a pretty awesome organization today; but it's going to be even more awesome 10, 20, 30 years down the road. I see so many remarkable young people joining this movement. And when you boil it down, it's really all about individuals. Terry Backer as an individual, Sally Bethea, Andy Willner and Joe Payne. Their commitment, their integrity, their courage. All of the Waterkeepers around the world have got to be outstanding leaders of organizations, but they've also got to be outstanding individuals.

They speak for the water. And the advice I would give every Waterkeeper is never, ever compromise in your fight for that body of water that you love. No matter who you're up against, stand your ground and fight for your river, lake or bay. No matter what the consequences are. And if you ever have a question about what it is that you should do, what is the answer to a problem, go down to that body of water, sit on the bank, look out over the water, and ask, "Hey, what would you do if you could speak? What is the answer? What would you want? What do you need?" **W**

WATERKEEPER MOVEMENT MILESTONES TIMELINE

1966

Hudson River Fishermen's Association is formed (now Hudson Riverkeeper) by Bob Boyle (right) and commercial and recreational fishermen in response to massive pollution from several industrial facilities on the Hudson River that threaten many of their livelihoods.



JOHN P. CHRESTIN

1981

Storm King case settles after 17 years of litigation. Con Ed agrees to abandon the project and to install fish-saving screens in the cooling water intakes at Indian Point power plant and to contribute \$12 million to benefit and study the Hudson.

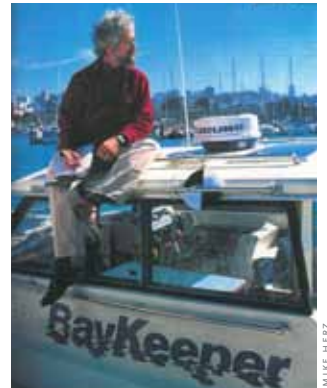
1987



Pace Environmental Litigation Clinic is established at Pace University Law School to represent primarily Riverkeeper; the clinic becomes the model for many other university law clinics across the country.

1989

San Francisco Baykeeper is formed – 3rd Waterkeeper organization.



MIKE HEYZ

1983

Hudson River Fishermen's Association hires activist and former commercial fisherman John Cronin as first full-time Riverkeeper and launches a 25-foot wooden outboard to patrol the Hudson for polluters. On his first patrol, Cronin discovers Exxon oil tankers rinsing their holds and stealing water from the Hudson for use in their corporate refinery. Exxon pays \$2 million in fines and stops practice.



DON NICE

1970

First Earth Day – 20 million Americans participate in the largest public demonstration in U.S. history. Hudson River Fisherman's Association President Ritchie Garrett is a featured speaker at Union Square demonstration in New York City.

1971

Hudson River Fishermen's Association and member Fred Danbeck, a former Anaconda employee, initiate prosecution under the Refuse Act against Anaconda Wire and Cable in Hastings-on-Hudson. The company is fined \$200,000, the highest against a polluter in U.S. history.

1984

Robert F. Kennedy, Jr. joins Hudson Riverkeeper.

1988

Hudson Riverkeeper's successful federal lawsuit establishes that landfill leachate and contaminated rainwater are regulated pollutants under the Clean Water Act.

1990

Hudson Riverkeeper forces Westchester County to withdraw proposal to close six Hudson River and Long Island Sound parks.

1991

Long Island Soundkeeper federal lawsuit holds that discharges of lead shot into Long Island Sound are a violation of the Federal Resource Conservation and Recovery Act

Hudson Riverkeeper forces New York City to cease unpermitted operations of Chelsea pump station to withdraw Hudson River water to supplement its water supply.

1992

Hudson Riverkeeper halts expansion of a waste transfer station in a low- and middle-income African-American neighborhood in Ossining, New York.

1996

Long Island Soundkeeper case establishes legal precedent that trap- and skeet-shooting ranges are pollution "point sources" and that spent shot and targets are "pollutants" within the jurisdiction of the Clean Water Act.

1993

Puget Soundkeeper settles a Clean Water Act case with the city of Bremerton, WA, requiring the implementation of upgrades to the city's sewage system and combined- sewer-overflow control system. In accordance with the Consent Decree, the upgrades are completed in 2011 at a cost of \$50 million.

Neuse Riverkeeper is formed in New Bern, North Carolina.

Federal District Court holds in Hudson Riverkeeper lawsuit that Lovett Generating Station, on the west shore of the Hudson River at Tompkins Cove, must implement "Best Technology Available" to minimize adverse environmental effects such as the impingement and entrainment of fish and shellfish at all life stages.

1994

Santa Monica Baykeeper (later L.A. Waterkeeper) presides over a landmark settlement against CalTrans requiring stormwater controls along roadways throughout Southern California to reduce pollution from heavy metals such as copper and zinc.

Neuse Riverkeeper sues the Town of Cary, N.C., leading to 11 major dischargers removing their river outfalls and all others, including Cary, upgrading to superior technologies. As a result of this action, and other state and federal lawsuits filed by the Neuse Riverkeeper, more than \$200,000,000 is allocated to reduce nutrient loading in the Neuse River watershed over the next seven years.



Chattahoochee Riverkeeper is formed in Atlanta, Georgia.

CHATTAHOOCHEE RIVERKEEPER

1997

Following two years of intensive negotiations, 35 upstate communities, the U.S. EPA, New York State and environmentalists sign the historic Watershed Agreement, which guarantees that New York City can protect its water supply from pollution. The agreement requires the city to increase its environmental expenditures in the watershed by over \$1.5 billion. In exchange, upstate communities agree to allow the city to exercise greater control over development.



The Riverkeepers by Robert F. Kennedy, Jr. and John Cronin is published.

Peconic Baykeeper is formed on Long Island's East End.

NEW YORK STATE GOVERNMENT ARCHIVES

2000

Waterkeeper Alliance and Neuse Riverkeeper take leadership roles in the movement to return sustainability to America's farmlands by fighting in court against the massive pollution caused by industrial meat production.

2001

Peconic Baykeeper identifies the presence of toxic batteries at several sites on Peconic Bay's bottom, previously discarded by the U.S. Coast Guard. This investigation leads to a Coast Guard cleanup, and a commitment to remediate any other similar dumpsites found in area waters.

Hudson Riverkeeper provides FBI and EPA criminal investigations with information about New York City DEP's mishandling of mercury in the New York City water supply system. The information leads to guilty pleas for felony violation of the Clean Water Act and misdemeanor violation of the Toxic Substances Control Act. City gets fined and seven years of probation.

Milwaukee Riverkeeper sues the Milwaukee Metropolitan Sewage District for sanitary sewer overflows and forces the state to require over \$900 million in improvements.

1998

Chattahoochee Riverkeeper wins a \$1 billion lawsuit against the City of Atlanta and sets a national precedent on requirements to improve sewage infrastructure, thereby reducing millions of gallons of raw sewage spills during rainstorms.

1999

Waterkeeper Alliance is established, and today comprises 275 Waterkeeper organizations and affiliates on six continents.



2003

CONTINUED



Waterkeeper Alliance pressures the U.S. Navy through legal actions and civil disobedience to cease highly polluting bombing practices off the Caribbean island of Vieques.

WATERKEEPER MOVEMENT MILESTONES TIMELINE

2003

Hudson Riverkeeper wins \$5.7 million penalty levied against the City of New York for discharging highly turbid water from the Shandaken Tunnel into the Esopus Creek (a world renowned trout stream) in the Catskills without a required Clean Water Act permit - largest penalty against a municipality for violating the Clean Water Act.

Waterkeeper Alliance becomes a founding partner of New York Harbor School where students participate in the Billion Oyster Project, leading New York City's effort to restore this keystone species to New York Harbor.

Alabama's Black Warrior Riverkeeper sues Sloss Industries Corporation for industrial water pollution of Five Mile Creek, a tributary of the Black Warrior River's Locust Fork in Birmingham. Sloss settles and agrees to pay \$2 million.

2003

Using a citizen-science program, Colorado Riverkeeper provides compelling physical evidence that results in the U.S. Department of Energy having to remove the 2nd largest uranium waste pile in the United States from the Colorado River's floodplain.



JOHN WEISHER, COLORADO RIVERKEEPER

2003 cont.

Orange County Coastkeeper secures \$237.2 million, which is used to help local agencies and cities clean up highway and street runoff to meet Clean Water Act standards.

A San Diego Coastkeeper lawsuit results in the City of San Diego investing \$1 billion in infrastructure upgrades, which reduce sewage spills by 90 percent.

2006

Australia's Yarra Riverkeeper is instrumental in the state government's decision to cap the amount of water extracted from the Yarra River.



YARRA RIVERKEEPER

Lower Susquehanna Riverkeeper stops thermal pollution from a coal-fired power plant. Pressure and Notice of Intent to sue on over 1,350 violations of temperature standards in the Susquehanna River by Pennsylvania Power and Light's Brunner Island Coal to Energy Facility leads to \$125 million in water-quality improvements.

2007

San Diego Coastkeeper compels the City of San Diego to invest \$14 million in a demonstration project to prove the viability of reclaiming wastewater to augment local drinking water supplies. In 2014, the city approves a plan to move forward with full implementation of potable reuse, ending the city's reliance on importing 90% of its water from hundreds of miles away.



SM PHOTO

Casco Baykeeper's advocacy efforts result in the Portland City Council committing \$61 million to construction projects to stem the flow of raw sewage, industrial wastes and stormwater into Casco Bay. In 2013 the Portland City Council commits another \$179 million to sewer-overflow remediation projects.

In the wake of the Cosco Busan oil spill that releases 53,000 gallons of fuel into San Francisco Bay, San Francisco Baykeeper helps write and successfully advocates for the passage of eight state bills that improve oil-spill prevention and response along the California coast.



SAN FRANCISCO BAYKEEPER

2009

Cartagena Baykeeper in Colombia files the first class-action lawsuit against the City of Cartagena for improper and insufficient waste management.



CARTAGENA BAYKEEPER

After Riverkeeper's 30-year fight, General Electric finally agrees to finish historic cleanup of highly toxic PCBs deposited by GE's Fort Edward and Hudson Falls plants into the Hudson River. Riverkeeper and partner organizations continue to closely monitor the cleanup.



RIVERKEEPER

Lake Erie Waterkeeper helps facilitate the application of the most stringent mercury limits for a coke plant in the United States.

Milwaukee Riverkeeper's investigation of the Kinnickinnic River results in the river being named one of the nation's most endangered, leading to a \$22 million cleanup that removed 170,000 cubic yards of PCB-contaminated sediment from the river.

2010

Petitcodiac Riverkeeper in New Brunswick, Canada, wins a 40-year battle to open causeway gates on the Petitcodiac River and begin the biggest fish-passage restoration project in Canadian history.



BRIAN BRANCH

San Francisco Baykeeper successfully reaches a settlement agreement with the federal government for the cleanup and removal of 57 decaying surplus military ships that had poisoned an inlet of San Francisco Bay with more than 20 tons of toxic metals over 40 years.

Rogue Riverkeeper successfully intervenes in court to force the removal of the Gold Ray dam on the Rogue River. The removal of the dam opens up miles of new mainstream salmon habitat.



SERGE MARTIN

Big Blackfoot Riverkeeper wins a landmark court decision stopping Exxon Mobil from using the Blackfoot Valley as a transportation corridor for massive shipments of oil-field equipment destined for Alberta, Canada's highly polluting tar sands oil fields.

San Diego Coastkeeper succeeds in its fight to create "underwater state parks" that prohibit or limit fishing to preserve the coastal ecosystem when the California Fish and Game Commission votes to create Marine Protected Areas along the California coast between the Point Conception lighthouse in Santa Barbara County and the Mexican border.

2011



MIDDLE HAN WATERKEEPER

China's Middle Han Waterkeeper is responsible for closing several facilities that pose a serious environmental threat to the Middle Han River, including a concrete mixing plant and an industrial poultry facility.



San Diego Coastkeeper volunteers identify a 1.9 million-gallon sewage spill in Los Peñasquitos Lagoon, resulting in a \$12-million infrastructure investment by the City of San Diego to prevent future spills.



PUGET SOUNDKEEPER

Puget Soundkeeper settles a case with BNSF Railway to address toxic stormwater discharges from the Balmer Yard rail facility in Seattle. Under the Consent Decree, BNSF implements stormwater improvements at the yard to address toxic discharges of heavy metals and petroleum and pays \$1.5 million for a new Puget Sound Stewardship and Mitigation Fund.

Lower Susquehanna Riverkeeper stops a new hydro-electric pumped storage facility from being built. This facility would have permanently covered 1700 acres of York County, PA, including over 300 acres of prime agricultural lands, and 27 farm and homesteads. In addition, this project would have destroyed one of the most beautiful and naturally preserved valleys of the lower Susquehanna region, Cuff's Run gorge.

Lake Erie Waterkeeper helps facilitate the closing of three of the four units at the Bayshore power plant.

2012

CONTINUED



LA WATERKEEPER

L.A. Waterkeeper presides over settlement with City of Malibu to address stormwater pollution. The City of Malibu is required to meet stormwater water-quality standards at several of the region's most popular beaches, significantly reducing bacteria levels and other public health effects on surfers and swimmers.

Catawba Riverkeeper files a lawsuit against South Carolina Electric & Gas, and they agree to clean up a leaking coal ash pond at the Wateree Steam Station. This lawsuit establishes the precedent that unpermitted seepage of coal ash waste from unlined coal ash ponds violates the law and requires the cleanup of the ash pond.

Middle Han Waterkeeper's pollution reduction project prevents 40 million gallons of wastewater and 30 tons of toxic sludge from entering the Han River.

San Diego Coastkeeper succeeds in its lengthy campaign to get the San Diego Regional Water Quality Control Board to order the local shipbuilding industries and the United States Navy, San Diego Gas & Electric, and the San Diego Unified Port District to clean up decades of soil pollution collected on the bottom of the bay.

WATERKEEPER MOVEMENT MILESTONES TIMELINE

2013



YADKIN RIVERKEEPER

Yadkin Riverkeeper prevails in legal case against Alcoa when the state revokes Alcoa's 401 Water Quality Certification, detailing Alcoa's intentions to withhold information in its 401 Application. This is a major victory in the fight to defeat Alcoa's efforts to privatize the Yadkin River and other local waterways.

Waterkeepers Iraq conducts a major expedition down the Tigris River, starting in southeastern Turkey and traveling through Iraq, using traditional boats and vessels to document and bring awareness to the myriad threats facing the Tigris. During the expedition, extensive water-quality data is collected and analyzed for the first time.



WATERKEEPERS IRAQ

Georgia's Coosa Riverkeeper forces the removal of Goodwin's Mill Dam from Big Canoe Creek to set the creek free for the first time in 130 years. Goodwin's Mill Dam was the only impoundment on the richly biodiverse Big Canoe Creek. With its removal, fish, mussel and snails have restored habitat and no barriers to migration.

San Diego Coastkeeper lawsuit pressures Camp Pendleton to increase its sewer infrastructure maintenance to reduce the occurrence of sewage spills to less than 10 spills per year by 2017 and to notify Coastkeeper of any spills greater than 50,000 gallons and any spills that trigger beach closures.

Idaho's Lake Pend Oreille Waterkeeper convinces the Sandpoint City Council to adopt resolutions opposing increases in coal-train traffic that would result from proposed export terminals in Washington and Oregon. The city recognized the potential negative impacts of coal transport on the water quality of Lake Pend Oreille since the rail route runs adjacent to and over a significant portion of the lake.

2014



MAULE ITATA COASTKEEPER



FUTALEUFU RIVERKEEPER

Chile's Maule Itata Coastkeeper successfully leads the opposition against construction of the Los Robles coal plant on Chile's Maule coast.

L.A. Waterkeeper wins lawsuit declaring L.A. County and County Flood Control District responsible for cleaning up the Los Angeles and San Gabriel rivers.

Chile's Futaleufú Riverkeeper is credited with defeating multinational corporation Endesa's attempts to build three dams on the Futaleufú River.

2015

Legal action by Chattahoochee Riverkeeper results in U.S. District Court levying a \$10 million penalty against American Sealcoat Manufacturing for unlawful discharge of toxic pollutants into the Chattahoochee River.

Santa Barbara Channelkeeper wins court battle when Superior Court Judge Timothy Frawley orders the State and Central Coast Regional Water Quality Control Board to create new rules to protect human health and the environment, surface water and groundwater from agricultural pollution.

Hudson Riverkeeper and Waterkeeper Alliance stop an attempted raid by New York State of nearly \$500 million in Clean Water State Revolving Funds, intended to help communities upgrade sewage and other water infrastructure, to finance the replacement of the Hudson River's Tappan Zee Bridge.

From July to September 2015, Waterkeepers from across the U.S. document potential deficiencies of 250 railway bridges in 15 states along known and potential routes of explosive oil trains resulting in Waterkeeper Alliance releasing an investigative report exposing the condition of U.S. rail infrastructure and how it is being stressed by oil train traffic.



STEVE SHIMKE, MONTEREY COASTKEEPER

TERRY BACKER 1954 - 2015 A LEGEND'S FIRST LEGACY

In June 2015 Terry Backer, Long Island Soundkeeper and a Connecticut state representative, successfully leads Connecticut legislature's passage of a ban of toxic plastic microbeads, which are found in personal care items like soaps, cleansers and toothpaste, because of their danger to aquatic wildlife. "We're now one of the only states to disallow these plastics," Backer says, "which are currently flooding Long Island Sound, showing up in fish in our food chain and also posing a risk to human health."

December 14 Terry Backer, third-generation commercial fisherman, Long Island Soundkeeper for 29 years, the second and longest-serving Waterkeeper, and a 12-term Connecticut state representative, dies in Bridgeport, Connecticut after a career devoted to defending his beloved Long Island Sound.

December 18 The U.S. Senate approves legislation to ban plastic microbeads from bath products like soaps and body washes. The Microbead-Free Waters Act of 2015 passes by unanimous consent, almost two weeks after the bill wins passage in the U.S. House of Representatives. The legislation aims to protect the nation's lakes and streams from getting clogged with the little pieces of plastic that easily pass through water filtration systems. An estimated eight trillion plastic microbeads have

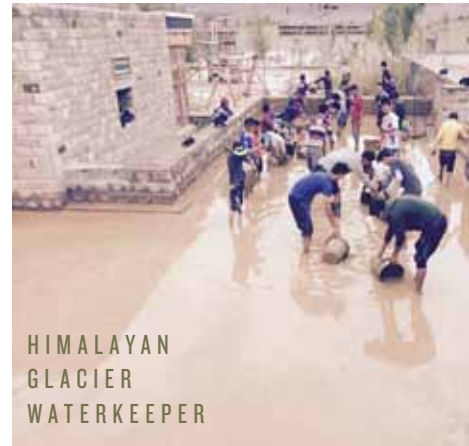
already entered the country's waterways "For much of Connecticut, that means they end up in the Long Island Sound, which is critical to Connecticut's economy and our way of life," says U.S. Senator Chris Murphy (D-Conn.), a strong supporter of the bill. He credits Rep. Terry Backer for his part in Wednesday's victory. "I cannot help but feel deep regret that Terry Backer, a close friend and mentor, isn't around to celebrate this victory," Murphy says. "I wouldn't have fought for this issue so hard without his fierce advocacy in Connecticut, and he deserves credit for the state ban and for raising awareness of this across the country."

Backer joined Murphy in October at an outdoor event to back the senator's call for a federal ban on plastic microbeads. "Despite being so ill," said Murphy, "he stood with me on a beach on Long Island Sound, making one final pitch that defined his life and career...urging us to preserve his legacy. To his very last breath, the Soundkeeper."

December 28 President Obama signs the bill into law prohibiting selling and distributing products containing microbeads. Just two weeks after his death, Long Island Soundkeeper Terry Backer's legacy of environmental activism is enshrined in federal law intended to protect waterways across the entire United States of America.



Waterkeepers Around the World Battle Climate Change



THE RECENT REPORTS THAT THE LEVEL OF CARBON DIOXIDE IN THE EARTH'S ATMOSPHERE HAS PASSED 400 PARTS PER MILLION, THE HIGHEST IN MORE THAN 300 MILLION YEARS, HAS TAKEN MANY PEOPLE BY SURPRISE. BUT THE WOMEN AND MEN OF THE WORLD'S MORE THAN 270 WATERKEEPER ORGANIZATIONS WERE NOT AMONG THEM. WATERKEEPERS IN NORTH AMERICA, LATIN AMERICA, EUROPE, AFRICA, ASIA AND AUSTRALIA ARE ON THE FRONT LINES OF THE GLOBAL ENVIRONMENTAL CRISIS, LEADING THE FIGHT AGAINST MISGUIDED AND DESTRUCTIVE FOSSIL-FUEL PROJECTS THAT ARE THE CHIEF CULPRITS IN THE DANGEROUSLY INCREASING CONCENTRATIONS OF CARBON DIOXIDE IN THE ATMOSPHERE. THESE CHALLENGES EXIST EVERYWHERE, IN VARIOUS ECOSYSTEMS, AND THE IMPACTS OF CLIMATE CHANGE ARE DEVASTATING IN MANY PLACES. HERE ARE SOME OF THE MOST COMPELLING EYEWITNESS ACCOUNTS FROM WATERKEEPERS ON SIX CONTINENTS.





BURIGANGA RIVERKEEPER, BANGLADESH: THE EFFECTS OF CLIMATE MIGRATION IN DHAKA

By the end of the century, 15 million people are expected to be landless and displaced as a result of climate change in Bangladesh, which is only 20 feet above sea level. Each year some 500,000 people come to Dhaka, migrating from their homes and livelihoods because of frequent floods, extreme droughts and catastrophic storms that destroy fields of rice and other crops that have sustained their villages for generations. In a city with an estimated population of 3.5 million, 40 percent of the people in Dhaka live in the slums, which are rapidly expanding along the banks of the Buriganga River, and a great number of climate refugees are now living on the river itself.

"The water in the Buriganga is like poison. Every day untreated waste from more than 200 tannery operations along the Buriganga are discharged into the river, along with untreated medical waste and waste from textile factories. There is no dissolved oxygen during winter. No aquatic life. More numerous floods and storms are also contributing to the river being turned into a huge drain. People are getting many kinds of diseases and dying because of their dependence on the river's polluted water. I have been organizing a people's movement against the illegal encroachments and pollution by industrial operations and was even successful in getting the government to form a special taskforce to protect the rivers around Dhaka city including the Buriganga. But then there was a change of governments and the effort stalled. However, we are continuing to fight against the encroachments and the terrible pollution of the river. Right now we are putting together a robust plan of action on several fronts that we will be implementing in the coming year." - Sharif Jamil, Buriganga Riverkeeper, Dhaka, Bangladesh

HIMALAYAN GLACIER WATERKEEPER: EXTREME WEATHER IN THE WORLD'S MOST IMPORTANT GLACIAL REGION

The Himalayan Glaciers, which provide fresh water for nearly half of the world's population, are threatened by pollution and climate change. Rapid glacial melt and extreme-weather events known as "cloudbursts" or "Himalayan tsunamis" have resulted in flash floods that have devastated downstream communities. Increasingly, Himalayan Glacier Waterkeeper, based in Ladakh, India, has to respond to these climate disasters that are wiping out homes, farms and livestock. In September 2014, flash flooding kept Himalayan Glacier Waterkeeper from joining over 100 members of Waterkeeper Alliance at the People's Climate March in New York, and this past August, incessant rains and flash floods damaged summer crops and schools.

"Over the last 10-to-12 years, different corners of Ladakh have been affected. In some places there is extreme water-shortage and in other places extreme flooding. It snows when it shouldn't. It doesn't rain when it should. Everything in Ladakh's climate has been turned upside-down. We've worked hard to help villagers rebuild their communities from the devastation of the floods. We've also organized massive tree planting events as a protection against future climate-caused disasters." - Padma Tashi, Himalayan Glacier Waterkeeper, Ladakh, India

MAHANADI RIVER WATERKEEPER: RISING SEA, VANISHING VILLAGES AND FADING HOPES

Rising sea levels in the Bay of Bengal are now a horrifying reality, particularly on the Odisha coasts in the Satabhaya region, where the sea is estimated to have penetrated inland 2.5 kilometers in the last 15 years. In one area, where there were once seven villages there is now one because of the invading sea, and the remaining 1,000 residents must live with the fear that it will eventually inundate them and end their struggle to survive.

"The Bay of Bengal is most vulnerable to climate-change impacts, and the people here are increasingly powerless to cope with the disasters. It is high time the global negotiations make a solid commitment to stop climate change and help the poor to develop strategies to deal with the

effects. Mahanadi River Waterkeeper has been in constant touch with both the communities who have been displaced and the one that remains, advocating in both the media and directly to the government for proper support and rehabilitation. We have also been working with other local civil society groups to develop local solutions to sea-level rise, such as the regeneration of mangrove forests, and demanding that government, at both the local and state levels, step up and commit to this work." - Ranjan Panda, Mahanadi River Waterkeeper, Orissa, India

TUUL RIVER WATERKEEPER: IMPACT OF CLIMATE CHANGE ON LANDLOCKED MONGOLIA

Drought has increased dramatically in Mongolia in recent decades, and has worsened rapidly. The worst droughts were in the consecutive summers of 1999, 2000, 2001 and 2002, which affected 50-to-70% of the territory. During the past few years, about 3,000 water sources, including 680 rivers and 760 lakes, have dried up, and vegetation has greatly diminished. This degradation, in turn, has affected the level of primary production of vegetation/plants, which support livestock as well as human populations.

"Many people from the countryside are migrating to the city to search for better conditions and better opportunities. As more and more people come to the city and more businesses develop, there is an increasing demand for water-resources, which climate change is making scarcer. In the face of this crisis, we are trying to educate people how to use our water in a more sustainable and efficient way." - Javzansuren Norvanchig, Tuul River Waterkeeper, Ulaanbaatar, Mongolia

QIANTANG RIVER WATERKEEPER: IN HANGZHOU TOMORROW IS HAPPENING TODAY

Seven hundred years ago, Marco Polo visited Hangzhou and was amazed by its beauty. He described it as "the City of Heaven." This beauty is now under the threat of frequent climate disasters and extreme weather. Over the past ten years, Hangzhou's average temperatures have risen .28 of a degree Celsius, and typhoons and severe rainstorms sweep across the city with much greater frequency, threatening its six million people.

"Since 2002, Qiantang River Waterkeeper has been educating citizens about climate change through various activities, from encouraging the use of energy-saving CFL light bulbs to establishing 12 'Water-Future Labs', in which selected elementary schools agree to incorporate environmental courses into their curriculums, within the Qiantang River Watershed.

"Locally, I was able to convince the state television station to present a forum on reducing coal use in Hangzhou. The show featured meteorologists, environmentalists and officials from the state environmental protection bureau, as well as representatives from the community and local businesses in an open discussion about addressing air pollution in the city. Internationally, I'm carrying the message of what we're doing in Zhejiang to conferences and forums throughout the world. In response to climate change, tomorrow is today. We need everyone to get involved in this issue." - Xin Hao, Qiantang River Waterkeeper, Hangzhou, China

UPPER TIGRIS WATERKEEPER: EXTREME DROUGHT IN THE MIDDLE EAST

The continuous loss of water in the Tigris and Euphrates river basins is making this dry region more prone to frequent and severe droughts and dust storms. Last summer was the driest that the Mesopotamian Marshlands have seen, and many people were forced to migrate because they simply could not survive in the area. There have been no outright water wars in Iraq yet, though it is widely believed that the Syrian conflict was initiated by a drought in 2007. Serious confrontations over water in an already conflict-ridden region are bound to come.

"We all must take responsibility in our positions for tackling the impacts of climate change. No matter where we live and where we are on this planet, we have to take action now." - Nabil Musa, Upper Tigris Waterkeeper, Kurdistan, Iraq



AFRICA

► HANN BAYKEEPER: STORMS AND SEA CLAIM TRADITIONAL FISHING VILLAGES IN SENEGAL

Hann Bay, just south of the capital city of Dakar, was once one of the most beautiful beaches in Senegal, with calm, clear waters, white, sandy beaches, and hundreds of traditional fishing boats. But all of that has been disappearing. Over the last two decades, the sea has advanced 300 meters and hundreds of people have been forced to leave their homes. Last August a powerful hurricane created strong waves and rising sea water that crashed over Hann Bay destroying fishing boats and leaving hundreds of families homeless. While this devastation occurs, Senegal, a country rich in potential for solar-energy projects, has plans to build 11 coal-fired power plants.

"We do not want the government simply to accommodate people in schools and give them food. What we want is a sustainable solution to climate change. That's why Hann Baykeeper is at the forefront of a national campaign to stop the building of coal-fired power plants. We've already succeeded in stopping one proposed plant, and we're committed to continuing the campaign against fossil-fuel projects that threaten our future." – Mbacke Seck, Hann Baykeeper, Dakar, Senegal *(In November, Mbacke Seck was awarded Senegal's top environmental prize, the Green Trophy for the Environment, for his leadership nationally in advocating for environmental protection.)*

► KENYA LAKE VICTORIA WATERKEEPER: A CONFLICT OVER SHRINKING WATER RESOURCES ON AFRICA'S LARGEST LAKE

Lake Victoria, Africa's largest freshwater lake, is shrinking. Critical papyrus-wetlands habitat and fish stocks are declining. Hydroelectric dams and poor water-resource management contribute to increasing temperatures and climate variability. Lake Victoria fisheries employ over three million people in Kenya, Uganda and Tanzania, and these changing conditions and the conflict over their access to the water are threatening their livelihoods and lives.

"National and local governments of Kenya and the Lake Victoria region must invest in climate-change-adaptation measures now in order to limit fisheries conflicts." – Leonard Akwany, Kenya Lake Victoria Waterkeeper, Dunga Beach, Kisumu, Kenya



AUSTRALIA

► PORT PHILLIP BAYKEEPER: COASTAL SQUEEZE

Port Phillip Bay, near Melbourne, Australia is in a "coastal squeeze," its terrestrial coastal-zone caught between urban infrastructure and rising sea levels. The government of the State of Victoria expects that sea level is likely to rise by 800 millimeters by 2100, but climate change also is masking the impacts of development that contribute to coastal erosion. The deepening of the shipping-channel at Port Phillip Heads, for example, has caused stronger tidal currents and storm-surges.

"There are still some who want to argue the toss about climate change being due to natural or human-induced causes, when it's obviously a bit of both. The point is: what are we going to do about it; and, who'll have to pay for it?" – Neil Blake, Port Phillip Baykeeper, Port Phillip, Australia



CARIBBEAN

► WATERKEEPERS BAHAMAS: THE PLIGHT OF A SMALL ISLAND-NATION

Bahamian coastlines have been severely eroded by climate-change impacts. This small island-nation has been made vulnerable to storm surges and sea-level rise, as natural barriers like coral reefs and coastal mangrove forests are being destroyed. The Bahamas, a nation of 700 islands and 2,400 cays, or coral reefs, may lose 80% of its land in this century due to climate change. Monitoring and adaptation-planning are critically needed now.

"The subject of climate change in the Bahamas is about more than choosing renewable power or reducing greenhouse emissions; it is about the security of our culture, heritage and continued existence." – Vanessa Haley-Benjamin, Executive Director, Waterkeepers Bahamas, Nassau, Bahamas



NORTH AMERICA

▶ CALIFORNIA COASTKEEPER ALLIANCE: DROUGHT PARCHES THE EIGHTH-LARGEST ECONOMY IN THE WORLD

Climate change is significantly altering California's coast, bays, ocean, rivers and groundwater basins. Sea-level rise, ocean acidification and a searing drought threaten the viability of the waters that sustain the state's communities, wildlife, economy and quality of life. Climate-change models suggest more frequent and more severe drought and flooding over time.

"Climate change is transforming every facet of California's waters: the chemistry of our ocean, the character of our coastline, and the frequency

and intensity of rain that falls from our sky. We must be innovative, focused and aggressive to transform the way we manage and protect our water." – Sara Aminzadeh, Executive Director, California Coastkeeper Alliance, San Francisco

▶ CASCO BAYKEEPER: ACIDIFICATION IN MAINE - IT SHUCKS TO BE A CLAM

Our coastal waters are becoming more acidic due to carbon-dioxide and nitrogen pollution. Clams, mussels and other shellfish are having a harder time building and maintaining their shells. Friends of Casco Bay placed hatchery-reared baby clams

in a mudflat that had very low pH levels—that is, high acidity. All of the clams showed obvious signs of pitting – formation of microscopic holes that weaken the shells, causing disease and high mortality rates.

"Casco Bay is changing faster than we could have ever anticipated. We are working with local clambers and scientists to find ways to buffer the mudflats by spreading old clam and oyster shells on them because the calcium carbonate in the shells helps raise the pH levels and lower acidity. The long-term solution is that we all need to reduce our use of fossil fuels and fertilizers." – Cathy L. Ramsdell, Executive Director, Casco Baykeeper, South Portland, Maine

CHOPTANK RIVERKEEPER



▶ CHOCTAWHATCHEE RIVERKEEPER: SUFFERING FROM DROUGHT AND FLOODING

Weather patterns in Alabama have shifted noticeably in recent decades, during which the Choctawhatchee River basin has experienced five extraordinary droughts, more than twice the number of severe droughts experienced between the 1930s and the 1980s. Droughts further stress streams that are already stressed, impacting water quality and endangering species, including numerous mussel species and Gulf sturgeon. The basin is also experiencing increasingly frequent destructive floods not typically associated with tropical-storm systems.

"The increasing frequency and severity of drought will only intensify, as will the frequency of large, destructive storms. We must speak out and demand that our communities and states undertake serious climate-change mitigation-and-adaptation efforts." – Michael Mullen, Choctawhatchee Riverkeeper, Troy, Alabama

▶ CHOPTANK RIVERKEEPER: A CHANGING LANDSCAPE - EROSION AND TRANSPORT OF SEDIMENT IN THE CHESAPEAKE

The Chesapeake Bay and its tributaries are being seriously altered by climate change. With rising sea levels and more frequent and intense storms, erosion has increased and flooding has altered the natural transportation of nutrients and sediments into the creeks and rivers that feed the bay. As the low-lying and subsiding land of the bay's Eastern Shore erodes and less sediment is deposited to replenish it, the natural landscape is changing rapidly.

"Climate change is transforming every aspect of the Choptank River and Chesapeake Bay, from

the land that surrounds them to the water that flows through them. As resource managers and stewards of our land and water, we need to adapt our management strategies to innovatively and resourcefully combat the impacts and eliminate the problem." – Matt Pluta, Choptank Riverkeeper, Easton, Maryland

▶ GRAND RIVERKEEPER: FRACKING WHAT'S LEFT OF OKLAHOMA'S WATER

Extreme-weather events in Oklahoma have caused declines in groundwater, the primary drinking-and-irrigation resource in the state. Groundwater is also the fracking industry's primary ingredient in its extraction technique, which requires one-to-four-million gallons per job. The prime area for shale fracturing is the north central portion of the state, which has seen the worst of the drought this decade. Wastewater from the process is beginning to show up in private rural wells in that area, which indicates that wastewater is in the groundwater, and could at some point contaminate streams. Oklahoma's drought is predicted to continue indefinitely.

"Even on the wetter side of the state, water is now a premium and being fought over. All the while it is being contaminated by those who want it for oil. This problem is exacerbated by climate change, and will only get worse." – Earl Hatley, Grand Riverkeeper, Vinta, Oklahoma

▶ LOWER MISSISSIPPI RIVERKEEPER: INTENSE STORMS AND DISAPPEARING WETLANDS IN THE DELTA

The Mississippi River Delta is in crisis. The intensity and frequency of hurricanes has increased in recent decades, a trend which will continue as the ocean surface keeps warming. Last year, the National Oceanic and Atmospheric Administration removed 40 names of places from the maps of Southeast Louisiana because those places no longer exist, except in the memories of coastal residents who have seen the land disappear in their lifetimes. The New Orleans metro area now has only a fraction of the protective wetlands it had 100 years ago.

"Louisiana is on the front lines of climate change. Rising seas will overwhelm our coast and coastal-restoration efforts, and our communities will be increasingly vulnerable to stronger hurricanes. Meanwhile, our politicians are rolling out the welcome mat and subsidizing giant international fossil-fuel corporations who are looking to Louisiana as the last place in the country that will tolerate them." – Paul Orr, Lower Mississippi Riverkeeper, Baton Rouge, Louisiana.

▶ MIAMI WATERKEEPER: RISING SEA LEVELS AND STORMS ARE THREATENING THE CITY'S INFRASTRUCTURE

Miami has the world's 4th-largest population vulnerable to sea-level rise. Climate-change

projections strongly suggest that rising sea levels coupled with hurricanes and other extreme-weather events will exacerbate inundation and flooding. A new study projects that the value of private property on Florida coasts that will flood at high tide could climb by \$69 billion by 2030. Miami, one of the fastest-growing cities in the nation, must find a balance between sustainable growth and adequate environmental protections.

"Miami is ground zero for sea-level-rise impacts and extreme-weather events in the U.S. We must change the current course of developing, destroying and paving over the shorelines and wetlands that serve as natural buffers to climate-driven impacts." – Rachel Silverstein, Miami Waterkeeper, Miami, Florida

▶ MILWAUKEE RIVERKEEPER: THE GREATLY THREATENED GREAT LAKES

The Great Lakes contain 20 percent of the planet's fresh surface water; provide drinking water for 40 million Americans and Canadians, and are integral to our economic livelihood and quality of life. While ocean levels are predicted to rise with climate change, due primarily to melting ice, Great Lakes water levels are predicted to decline, because of increased evaporation caused by higher water temperatures in summer and lower ice levels in winter. Lake Michigan and Huron water levels are projected to fall by one-to-two feet by the end of the century, and Lake Erie could drop by more than four feet. Unless actions are taken, climate change is also predicted to cause much more extreme weather, which threatens our existing water infrastructure, and contributes to increased risk of flooding, increased runoff of pollutants, and worsening blooms of nuisance algae like the toxic bloom in Lake Erie that shut down the drinking water supply for greater Toledo, Ohio in 2014.

"North America's Great Lakes are one of the world's most astonishing wonders. They might well be called 'The Very Great Lakes,' and very great also are the challenges that confront the 11 Waterkeeper organizations dedicated to preserving and protecting them. Great Lakes Waterkeepers are leading the charge for better planning in our communities to make our tributary rivers, lakes and communities more resilient to climate change. We're advocating strongly for further investment in Great Lakes infrastructure and restoration and for stronger legislation to protect the Great Lakes from emerging threats, such as toxic algae blooms and oil shipments. Waterkeepers are also working hard to protect and restore shorelines, floodplains and wetland habitats to help make our region adaptable to more volatile storms that affect water quality and fish and aquatic life. And we're organizing opposition to stop the movement of tar sands and Bakken crude oil over our Great Lakes or through our watersheds." – Cheryl Nenn, Milwaukee Riverkeeper, Milwaukee, Wisconsin.



COOK INLETKEEPER



FRASER RIVERKEEPER



PUGET SOUNDKEEPER

NORTH AMERICA

▶ COOK INLETKEEPER: WARMING STREAM TEMPERATURES ARE STRESSING SALMON

Alaska's average air temperature has increased 4° F over the past 50 years and winter temperatures have soared 7-to-10° F, which has led mainstream newspapers such as USA Today to label Alaska the "poster state" for climate change in the United States. In Cook Inlet, the effects of climate change have been especially pronounced: a massive spruce-bark-beetle epidemic, several 100-year floods, and alarming warming trends in local salmon streams. Cook Inletkeeper has been monitoring 48 streams for more than a decade to document warming temperatures of important salmon-spawning streams that are critical to Alaska's culture and economy.

"Salmon define who we are as Alaskans, and climate change poses a real and present threat to our economy, our culture, and our way of life." – Bob Shavelson, Cook Inletkeeper, Homer, Alaska

▶ PUGET SOUNDKEEPER: OYSTER INDUSTRY THREATENED BY OCEAN ACIDIFICATION

Scientists around the world have been studying ocean acidification in labs for decades, and many have been tracking shellfish hatcheries along Washington's Pacific coast, where young oysters are now failing to make the transition from a free-swimming state to the shell-bearing organism we all know. This is the result of increasingly caustic waters in which ocean-acidification is more advanced than anywhere else on the planet. In a region where shellfish harvesting is a \$270 million industry that employs thousands of people, this is a big cause for concern.

"The Pacific Northwest may indeed be the canary in the coal mine when

it comes to climate change and ocean acidification. From record droughts to dissolving plankton, the link between climate and water cannot be ignored. It is high time we get serious about reducing carbon emissions. Puget Soundkeeper is addressing these problems in two ways: We're working with local advocates, including North Sound Baykeeper, to stop what would be North America's largest coal-export terminal, which would handle 48 million tons of coal every year and equal the carbon footprint of the entire state of Washington while creating zero local energy. We're also working to build resiliency in local waterways to protect salmon, shellfish and counter the threats posed by climate change and ocean acidification. By reducing toxic pollution from wastewater and polluted stormwater runoff, local species will have a better chance of surviving mounting climate-caused threats." – Chris Wilke, Puget Soundkeeper, Seattle, Washington, and member of Waterkeeper Alliance's Board of Directors

▶ FRASER RIVERKEEPER: LOSS OF WINTER SNOWPACK IN BRITISH COLUMBIA

The loss of winter snowpack in British Columbia is one way that climate change has impacted the Fraser River watershed. The Fraser is driven by snow-melt, so less snow on the mountains in the winter translates to lower flows and warmer water temperatures in summer, which wreak havoc with the river's annual salmon runs.

"Water temperatures of 20-to-25 degrees Celsius represent the lethal threshold for salmon. This past summer saw temperatures in the main body of the Fraser hovering dangerously close, at around 19.8 degrees. All indicators are pointing to a very poor salmon run as a result of this summer's extreme weather, and if this trend continues, it could spell disaster for one of British Columbia's most economically and ecologically important species." – Joe Daniels, Fraser Riverkeeper, Vancouver, British Columbia

SOUTH AMERICA

▶ ESTERO SALADO WATERKEEPER: GUAYAQUIL LOOKS TO PARIS FOR CLIMATE JUSTICE

Over 12% of the population of Guayaquil, Ecuador, on the Pacific coast of South America, lives in poverty, many in shoreline areas most vulnerable to climate impacts. These people, who already suffer from malnourishment, now also face the greatest impacts from the strongest El Niño predicted in more than a decade. Guayaquil must align economic growth with equity, justice and environmental protection. Remediating the Estero Salado Estuary is a matter of survival for the poor who live along its banks. The area urgently needs a real commitment to climate-justice that we hope is one of the results of the agreement in Paris.

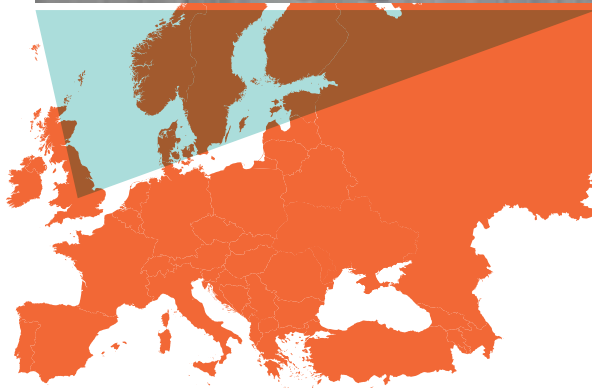
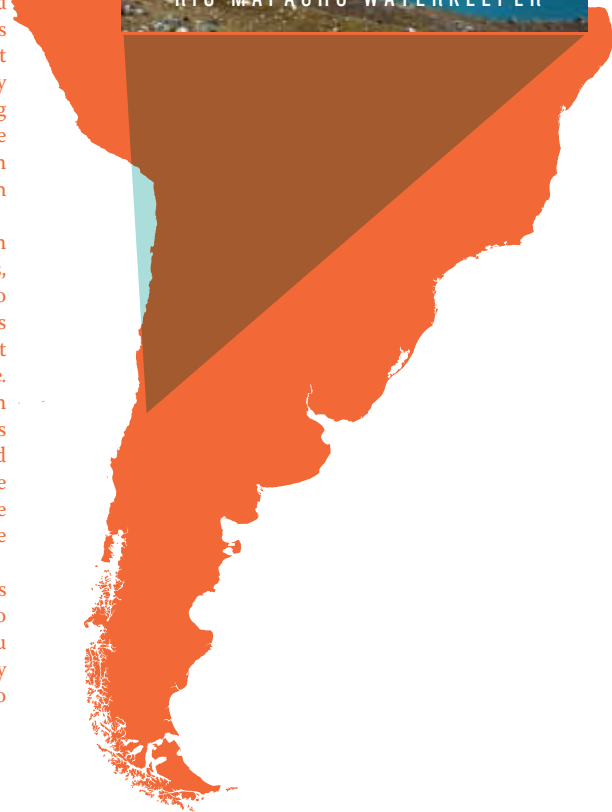
“El Niño will strike the entire country of Ecuador and will hit hardest on the poor. Poor people living on the shorelines of the Estero Salado Estuary have been forced to settle where wetlands once served as natural buffers. Guayaquil is not ready for extreme-weather events made worse by climate change.” – Daniel Ortega, Estero Salado Waterkeeper, Guayaquil, Ecuador

▶ RIO MAPACHO WATERKEEPER: WATCHING OUR SNOW AND WATER DISAPPEAR

The people of Peru watch their snow-capped mountains thaw more and more every year, as natural water-sources in the mountains that provide them with clean drinking water dry up. Rio Mapacho Waterkeeper is advocating for action to protect these sources during a time of less rain and drier land that forebodes an insecure future in which migration to areas with better water-access will be necessary.

Peru's national strategy is mitigation through decreasing greenhouse-gas emissions, and adaptation to reduce vulnerability to extreme-weather events. The country is responsible for only .4% of global emissions, yet is one of those most affected by climate change. During a 90-minute soccer game, the Amazon rainforest loses the equivalent of 43 soccer fields of forest acreage, and glaciers have decreased 30% in the last 25 years. Some studies estimate that in 40 years Peru will have only 60% of the water it has today because of poor water-usage and glacial melting.

“I remember as a youth, the mountains were covered in snow always, and we would go play in the snow. Now to reach the snow you have to travel much farther. Soon there may be none.” – Ronald Catpo, Rio Mapacho Waterkeeper, Cusco, Peru



EUROPE

▶ LONDON WATERKEEPER: RISING TIDES

With much of the city of London sitting just above sea level, 1.25 million people are at risk from the rising tides. Moreover, London has spent much of the last generation unwittingly making itself more exposed to climate change and extreme-weather events. Green spaces amounting to 22 times the size of Hyde Park have been paved over, increasing the chances of flooding.

“London must protect and restore its greenspaces to make the city more resilient to climate change and extreme-weather events. London Waterkeeper is making the case for a comprehensive green infrastructure strategy and highlighting both the significant loss of green space over the last 25 years and the need for retro-fit projects in urban areas to offset its paving over. London Waterkeeper's campaign ‘New York 1, London 0’ makes a direct comparison with the efforts being made in New York City and how far behind London is. The campaign features the solutions that are needed via social media, lectures and lobbying City Hall.” – Theo Thomas, London Waterkeeper, United Kingdom



WHAT'S IN
THE WATER?

WHAT'S IN
A WORD?

FROM TOILET TO-TAP TO PURE WATER

IN THE INCREASINGLY THIRSTY SAN DIEGO AREA, SAN DIEGO COASTKEEPER CRAFTED THE VISION AND THE WORDS TO OFFER A SOLUTION TO THE WORSENING WATER WOES.

BY DEVON LANTRY 

For more than 25 years, the City of San Diego had a pass to pollute signed by the EPA itself.

More than half of the city's water is pumped over mountains and through desert from more than 500 miles away, and for many years, after it had been used, some of the least-treated sewage in America was dumped straight into the Pacific Ocean. After the passage of the 1972 Clean Water Act, the lower level to which San Diego treated its sewage became illegal, but their sewage treatment plant was perched on the edge of a cliff over the Pacific Ocean making an upgrade costly and complicated. In fact, the upgrade was just costly and complicated enough for the resource-stressed EPA to offer legal sympathy in the form of a five-year pollution waiver, which was renewed every five years.

For years, San Diego Coastkeeper Bruce Reznik and his predecessors had been pressing the EPA to stop signing these pollution waivers and for the city to stop applying for them and upgrade their sewage treatment to legal standards. Finally, in 2003, Reznik and Marco Gonzalez, Coastkeeper's senior attorney, filed an aggressive lawsuit against the City of San Diego to end the pollution.

The suit forced the city, with the EPA's cooperation, to form a long-

term plan to upgrade the sewage-treatment plant. The city had always claimed the \$2 billion price tag made the upgrade an insurmountable pie-in-the-sky project. But as advocates and the city began to hammer out the details, the actual cost of the project came in at around \$1.2 billion, significantly less but still not cheap.

For that amount of money, San Diego would transition from treating sewage below federal standards, and dumping it all into the ocean, to treating sewage at federal standards and dumping it all into the ocean. The \$1.2 billion, however, would have no effect on the unsustainable practice of pumping San Diego's water from hundreds of miles away, that is drying up the Colorado River Basin and using massive amounts of energy.

Reznik and Gonzalez wondered if the victory they had worked toward for years, and which now seemed within reach, was really the best they could do for San Diego, its coastal waters and its freshwater supply. Reznik recalls, "Environmentalists encourage everyone else to think in systems, to look at the whole picture when making decisions, but then we often get stuck in our own silos. We saw our mission at San Diego Coastkeeper was to stop water pollution. That's what we did. But all of a sudden that role was too small. We had to break out of that limited way of thinking." They realized that, to be fully effective in their advocacy for clean water, to use the funds available most effectively, they had to think beyond pollution.

So the Coastkeeper took a bold step – backward. It reversed its position and asked San Diego and the EPA to renew the pollution waiver for another five years while they worked on a deal with the city to reclaim and recycle wastewater, because a water-reclamation plan, they had discovered, was more cost efficient for the environmental benefits it offered. Many environmental groups – particularly Coastkeeper's closest allies in San Diego – supported this plan, but others did not. Some accused the group of selling out with a soft compromise. But that didn't slow Coastkeeper down or weaken its strong vision for San Diego's water.

Reznik and Gonzalez figured that the water should get more bang for that billion-plus bucks. The current plan didn't touch the big problem: San Diego's blatantly unsustainable practice of pumping in over 168 million gallons of water a day from Northern California and out of state. So they developed a new plan to advocate for potable reuse, turning the sewage that would have been partially treated and then dumped into the ocean, back into pure drinking water. This would lower San Diego's imported water needs by a third, a huge step toward a less carbon-intensive and more sustainable water supply, and better protect natural environments in the Colorado River Basin and the Sacramento-San Joaquin River Delta that were the main sources for San Diego's imported water.

The technology available uses advanced reverse osmosis and powerful UV lighting to turn sewage into pure drinking water of even higher quality than what currently came out of San Diego's taps. Compared to importing water, potable reuse was cheaper, more energy efficient and a whole lot better for the environment. It should've been an easy sell. The one catch? A primal human fear threatened everything. Potable reuse had a bad name in San Diego, and in most other places.

When the process had first been suggested in San Diego a decade earlier, opponents had labeled it "Toilet-to-Tap," and those three words became a baited hook on which the media and politicians bit down hard. A fear-mongering frenzy over poop in the tap water began spreading misinformation everywhere, and the fear became strong and universal. It spanned across party lines and attached itself to all issues. Critics of large-scale government projects, and there were many in San Diego, claimed it was too risky to leave it to a government agency to undertake a project that could foul the city's water supply. The project became the butt of every joke.

Politicians, wary of public criticism and ridicule, killed the project. "They went so far as to pass an ordinance that said the city could never look at recycled water again," Reznik recalls. "No staff time, no financial resources. They just buried their heads in the sand."

Reznik was up against a brick wall. He knew that, if he was to succeed, he would need a lot of help, and he began to gather a coalition of organizations in support of the potable-reuse project. Some groups, like the local Sierra Club, had also long been advocates of water reclamation, and soon other familiar environmental groups signed on: San Diego Audubon Society, Environmental Health Coalition and the Surfrider Foundation's San



PHOTOS COURTESY OF SAN DIEGO COASTKEEPER

DAVID HUNTAMER, SENIOR OPERATIONS SUPERVISOR AT THE POINT LOMA WASTEWATER TREATMENT PLANT, SHOWS TOURING SAN DIEGO COASTKEEPER STAFF A SAMPLE OF SAN DIEGO'S WASTEWATER BEFORE THE PLANT PERFORMS PRIMARY TREATMENT.

Diego Chapter. But to many politicians, this coalition still wasn't influential enough to lend legitimacy, or political cover, to the proposal.

Then Lani Lutar, an old friend of Reznik's and a former intern at San Diego Coastkeeper who was now the leader of the San Diego County Taxpayers Association, became involved in the issue. She didn't like the idea of ratepayers being tied to the fluctuations of the imported-water market. Potable reuse would be a perfect proposition for her association to lend their support to. Nor would they enter the fray alone. Lutar brought into the coalition several major pro-business groups, including the local Chamber of Commerce and Building Industry Association, who relied upon a financially stable water supply. These unlikely bedfellows soon formalized their relationship by organizing into what became known as the Water Reliability Coalition.

And suddenly the project had a real chance to succeed. Combined with strong environmental backing, the business groups gave the coalition broader, more mainstream, credibility. Likewise, the Taxpayer's Association and its allies had goals that often were at odds with the goals of environmentalists. But here they were, joined in the same fight, sharing resources and bringing in more and more allies. Word spread and people

started to take notice. Labor groups and social-justice organizations followed suit, and the coalition soon included 32 members.

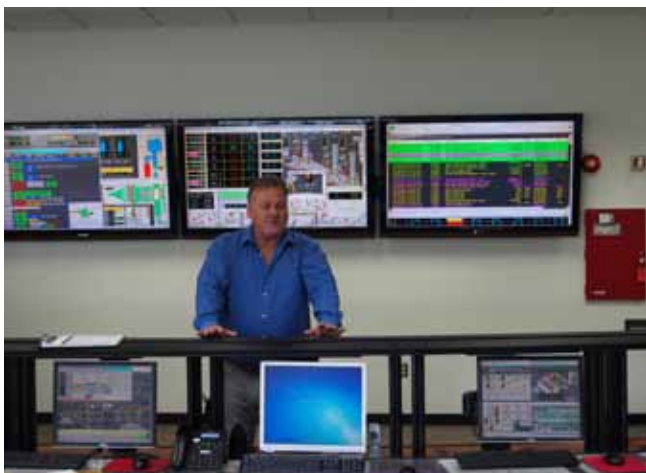
While there had been advocates for water reclamation within city government since the project was first proposed in the 1990s, and a few politicians gradually had come onboard, there hadn't been the critical mass

of support to move it forward. Now Reznik, Gonzalez and Lutar stood on a bi-partisan, pro-business and pro-labor, pro-environment and pro-economy platform that couldn't be ignored. Politicians on both sides of the aisle would have several interests in their districts represented in this coalition, and now there would be enough political traction

and momentum to push potable reuse forward.

It was not that the newly formed coalition didn't face challenges. Most business groups in San Diego, for example, also wanted a desalination plant to produce a stable supply of water from the ocean. But desalination plants use huge amounts of energy. Also, most plants include designs that discharge polluting high-sodium brine back into the ocean as well as intake valves that kill enormous numbers of fish, leaving environmentalists vehemently opposed to them. Meetings were always at risk of becoming derailed by a desalination debate, but Lutar and Reznik would remind the

AN EXPANSIVE WAY OF THINKING HAD CONVINCED SAN DIEGO TO POLLUTE A LITTLE LONGER, AFTER WHICH LONG YEARS OF ADVOCACY AND DETERMINED OPPOSITION TO UNFOUNDED FEARS FINALLY CULMINATED IN ONE OF THE MOST HISTORIC VICTORIES FOR SOUTHERN CALIFORNIA WATER SUPPLY.



TOP, BRUCE REZNIK LED SAN DIEGO COASTKEEPER FOR 11 EVENTFUL YEARS, AND IN SEPTEMBER 2015 REJOINED THE WATERKEEPER MOVEMENT WHEN HE WAS NAMED THE LOS ANGELES WATERKEEPER. ABOVE, DAVID HUNTAMER AT THE POINT LOMA PLANT'S CENTRAL CONTROL STATION, WHICH MANAGES AN AVERAGE OF 145 MILLION GALLONS OF WASTEWATER PER DAY.

coalition-members that they had joined forces to fulfill a vision that they all agreed would make San Diego better for everyone. With their leadership, the coalition continued to broaden and strengthen.

The next step was strong public outreach. Reznik was sure that it was going to be a challenge pushing an issue with so much negative history through a still-cautious City Council. Even after the coalition had formed, Reznik says, "The issue was still a huge political hot potato." The "Toilet-to-Tap" label came up every time the project was mentioned. Reznik got lots of advice about how to refer to potable reuse. He was cautioned to swap any specific reference to sewage for vague phrases like "reservoir augmentation" or "indirect potable reuse."

"I tried that at first," he says. "I would give a big speech on how we need to reclaim our water and be more self-sustaining, and then someone from the audience would inevitably say, 'That's wonderful. I totally agree with everything your saying. I'm so glad you're not talking about Toilet-to-Tap.' Finally, I decided that we had to be transparent. We had to own it."

Reznik ditched the spin. He purposefully reminded everyone what environmentalists had always tried to make the media forget: the project was about turning sewage into drinking water. He used the "Toilet-to-Tap" phrase but went on a desensitizing campaign, showing the public and city officials that recycling water was already a normal part of our lives. He even came up with a one-liner, "What happens in Vegas doesn't stay in Vegas," to explain that the same water from the Colorado River Basin that San Diego used came to the city with plenty of Las Vegas's (and 240 other municipalities') partially treated sewage-discharge. Eventually the messaging quieted alarmists by equating fear-mongering with ignorance.

The last hurdle was the City Council votes, and that didn't prove easy either. Although by this time there were a few strong proponents of water reclamation on the council, additional votes were needed to move the project forward. Reznik made an open offer to any skeptical member of the City Council to tour Orange County's wastewater-recycling plant north of San Diego to see that the operation was feasible. Only one, Republican councilmember Kevin Faulconer, obliged him. Reznik contacted the Orange County Water District, a longtime leader on water-reclamation, and they organized a tour during which business-owners demonstrated to Faulconer the economic benefits of potable reuse for their county. It made a believer out of Faulconer.

Shortly afterward, in 2010, Reznik left Coastkeeper after having led the organization's expansion from two full-time employees to 17. His success had, ironically, turned him into more of a manager than an advocate, and advocacy was his real love. He was followed by Matt O'Malley, an attorney at the Surfrider Foundation and a staunch supporter of Reznik's campaign for potable reuse, working side-by-side with Megan Baehrens, who had been Coastkeeper's development director since 2009 and was promoted to executive director in 2012.

He soon ran into a roadblock when Mayor Bob Filner, who appeared ready to support the project, became entangled in a sexual-harassment scandal that led to his resignation. Then the head of the San Diego Water Department departed and left behind an agency that seemed rudderless and unable to take a strong stand in favor of the project. At this point, though, the fates turned in O'Malley's favor. Kevin Faulconer, who had become a supporter of potable reuse thanks to Reznik's efforts, ran for mayor in a special election and won in 2014. At last, project supporters had an ally with the power to give the issue the attention and effort it deserved.

Still there were challenges. "There was still some lack of trust on all sides," O'Malley recalls. "There were times we considered walking away from the table because progress seemed willfully slow and commitments by the city seemed tenuous at best. A leap of faith was required by everyone at the table. We had to believe that if we worked together, we could get this done."

And somehow, bordering on the near-miraculous, they did work together, effectively marshaling their diverse resources, unique strengths and connections. In 2014, fifteen years after Reznik and Gonzalez had decided to allow pollution to continue in San Diego in order to work towards something even better for the region, potable reuse, now re-named "Pure Water," earned a unanimous vote of approval from the San Diego City Council.

San Diego Coastkeeper, its environmental partners and the city signed a legal agreement to work together to implement the Pure Water program. When it is fully completed in 2035, one-third of San Diego's drinking water will be supplied from treated wastewater. Stress on the Colorado River Basin and Sacramento-San Joaquin River Delta will be reduced, and San Diego's water infrastructure will have a much smaller carbon footprint. An expansive way of thinking had convinced San Diego to pollute a little longer, after which long years of advocacy and determined opposition to unfounded fears finally culminated in one of the most historic victories for Southern California's water supply.

But even with the papers signed, O'Malley is still not celebrating. He is too busy considering what is needed to ensure that the project is realized with full consideration for the totality of its impact on the water and broader environment.

"After the vote, it felt good," he says. "But those of us at the table who have been part of this for years now know there is still so much work left to do. While we do have an agreement with the City of San Diego and a commitment to work together, nothing is ever certain."

As the region's water-supply fears grow during the most severe California drought on record, O'Malley knows that he can use the City of San Diego's example of leadership to encourage more cities in the region to follow suit. Meanwhile, Bruce Reznik, who was named the Los Angeles Waterkeeper in September 2015, is hoping to use the lessons he learned in San Diego. His goal is to push for the massive Hyperion Water Reclamation Plant, which discharges 250 million gallons of sewage five miles off the Los Angeles coast, to pursue its own massive "toilet-to-tap" project and continue to transform the region's water-supply policy. [W](#)

Devon Lantry is a writer at Mixte Communications, where he specializes in writing stories about people and organizations that are changing their communities and the world for the better. He holds a B.A. in media and communications from the American Jewish University.



WATERKEEPER ALLIANCE'S INTERNSHIP PROGRAM



Waterkeeper Alliance's Internship Program is a unique opportunity for students to gain hands-on experience working with a global grassroots environmental movement. During this program, interns work at Waterkeeper Alliance headquarters in New York City, and engage in various projects to hone a wide range of skillsets, including investigative research, original report writing, website content creation and editing, water issues analysis, and social media engagement. Interns work directly with staff to further the Waterkeeper Alliance mission of providing a way for communities to stand up to anyone who threatens the basic right to clean water. As the Waterkeeper movement enters its next fifty years, the Internship Program will be integral to training the next generation of environmental advocates.

To apply for the Waterkeeper Alliance Internship Program, please visit waterkeeper.org.

"My experience with Waterkeeper was truly rewarding. I was given the opportunity to surround myself with people who work and live to maintain the purity and beauty of the environment. Though there are a number of different departments, each is connected to the next by one common goal."

Chelsea E. Hebert
Pace Law School

"During my internship with the Waterkeeper Alliance I learned invaluable skills and gained tangible experience in the nonprofit sector. From trips meeting local Waterkeeper organizations to working with the communications team in the office, the summer was extremely rewarding!"

Jamie Matos
University of North Carolina

"The internship at Waterkeeper Alliance was a valuable asset to my education, since it provided me with the training and knowledge a traditional classroom setting is unable to provide. I was able to observe how an environmental non-profit organization operates, the various tasks each employee has on a daily basis, and how the organization accomplished its goals, dealt with difficulties, and communicated with the hundreds of Waterkeeper organizations."

Nicole Pidala
University of Vermont

"Interning at Waterkeeper Alliance was a great way to experience what it is like to be an environmental lawyer."

Philana Potter
Pace Law School



CONGRATULATIONS TO THE
WATERKEEPER MOVEMENT
ON 50 YEARS
OF PATROLLING AND PROTECTING
OUR MOST PRECIOUS BODIES OF WATER
AROUND THE WORLD

R A L P H L A U R E N