Suing EPA

The Chesapeake Bay is dying, and the lead federal agency charged by Congress to take responsibility is doing nothing about it. The most basic pollution-reduction strategies are being ignored, and an eight-year-old state and federal commitment to reduce pollution (the Chesapeake 2000 agreement) gathers dust. When government agencies consistently fail to meet their responsibilities, they must be held accountable. So, on October 29, 2008, CBF and a number of partners filed a letter of intent to sue EPA. (See article on page 25.)

Scientific research lays out the causes of the Bay’s degradation: too much nitrogen, phosphorus, and sediment pollution from municipal and industrial wastewater; nitrous oxide and toxins from power plants that fall back to land and are washed into the water; animal waste and fertilizers from agriculture; and a toxic brew flowing off developed areas when it rains. The solutions are straightforward; the technology exists. Government must do its job by requiring the solutions to be implemented. When these strategies are put in place, pollution is reduced, the dead zones get smaller, the water becomes clearer, and critical underwater grasses increase.

This summer, the Bay reached a tragic milestone. EPA officials threw in the towel, admitting that they had zero chance of meeting a 2010 water quality deadline mandated by the 2000 agreement. Following the admission of failure, officials recently began to discuss moving the deadline back 12 years to 2020. Such a delay may put the Bay and its tributary rivers beyond the point of no return.

While it may seem ironic that a not-for-profit organization must petition the court to compel government to meet its responsibilities, we have no other choice. People are fed up with government’s failure to reduce the pollution of this national treasure.

Pennsylvania Votes for Clean Water

Last month Pennsylvania voters approved a $400 million ballot referendum to fund sewage treatment and drinking water facilities upgrades statewide. By a nearly two-to-one margin! This will bring Pennsylvania closer in line with the other Bay states, but not, as in the other states, until plant construction is complete.

CBF’s Blueprint for the Next President

This fall, CBF released Restoring Clean Water and the Chesapeake Bay: A Plan for America’s Next President (cbf.org/blueprint). At a press conference in Alexandria, Virginia, each candidate was represented and each endorsed CBF’s plan in general. We congratulate President-elect Obama, and we look forward to working with his administration. The restoration of the Chesapeake Bay can be a model for waters nationwide.

The Obama Administration will work aggressively with the states to bring accountability to the Chesapeake cleanup program and to implement [CBF’s blueprint]. We owe it to our communities and to our children.

—J. Charles Fox
FOR CANDIDATE SENATOR BARACK OBAMA
SEPTEMBER 25, 2008

William C. Baker
President, Chesapeake Bay Foundation
Destination Chesapeake: Shenandoah River
Far from the Bay, the mountains of northwestern Virginia rise above a legendary American valley. But the land's productivity has a price: Pollution from agriculture, sewage treatment plants, and air is taking a toll on the water.

2008 Annual Report
With successes at both state and national levels, CBF delivered an impressive return on its members' investments this year.

Complete in this issue, CBF's 2008 Annual Report: A Year of Significant Victories outlines the past year's successes in pollution reduction, litigation, education, and restoration.

Campaigns
CBF and partners notify EPA of their intent to sue over its failure to keep an agreement to reduce pollution by 2010.

In Memoriam: Former CBF trustee and long time friend Ernest W. (Ernie) Jennes, 90, of Maryland died in October of this year. Ernie served on CBF's board for 15 years (1979-1994), including as Treasurer (1985-1991). He was Chairman of the Audit Committee for many years and an important member of the Environmental Defense, Executive, and Legal committees. After retiring from CBF's board and until his death, he continued to serve as a member of CBF's President's Advisory Council. Ernie retired as a partner with the law firm Covington & Burling. His legal expertise and sense of integrity played a major role in the evolution of CBF's programs and operations. CBF wishes to acknowledge Ernie Jennes for his many years of superb contribution and extends our heartfelt condolences to his daughters, Gail, Margaret (Peg), and Kate, their partners and families.
Editor’s Note

Two steps forward, one step back? Although big victories in Washington in 2008 advanced our Save the Bay efforts (read more in our enclosed Annual Report), there’s a dismaying corollary. The landmark Chesapeake 2000 Agreement, once heralded as the region’s road map to restoration, has failed. Areas like the Shenandoah Valley, featured in this issue, need bold, sustained action to rescue thousands of miles of polluted rivers and streams.

The good news is that more and more residents of the Bay region are fighting for this national treasure, determined to turn the tide. In the coming year, let’s take inspiration from our recent momentum to move forward together—with no steps back.

Carol Denny

Environmental Awareness Statement

The Chesapeake Bay Foundation saved the following resources in the production of this publication:

- 11 tons Trees
- 233,086 gallons Wastewater
- 506 million BTUs Total Energy
- 29,329 pounds Solid Waste
- 75,763 pounds Greenhouse Gases

Environmental impact estimates were made using the Environmental Defense Paper Calculator. www.papercalculator.org
The “sacred bench” overlooking Black Walnut Cove at CBF’s Annapolis headquarters provides a quiet setting to reflect. Here are some excerpts from the bench’s built-in journal.

Words and thoughts only mean something if action is then taken.  
Love is a verb—So what are you going to do to show your love for the Bay?  
Say something. Mean something. Do something.

Me and my dad saw a bald eagle and we saw a heron and we found sea glass.  
The water was calm.

Thank you CBF for your continued support of the Chesapeake Bay. Thank you for helping generations of people experience the Bay.

Nature is more than just nature.  
It is life and paradise.

Blessed are the stewards of the land for they keep us connected to the beauty of the earth.  
This spot is a treasure for today, for the future.  
The birds call. The wind blows through bare branches. The ducks float by and I feel peace.

Get in touch with Save the Bay!
Talk to us online  
E-mail the editor at stbeditor@cbf.org.

Write us a letter  
Save the Bay Editor, Chesapeake Bay Foundation, 6 Herndon Avenue, Annapolis, MD 21403

Give us a call  
888/SAVE-BAY or 888/728-3229
Riverbank Farm is more than two hundred miles from the Chesapeake Bay, but it's on the front lines in the fight to save it. Here in the Shenandoah Valley, inventors are testing a device that could solve a monumental problem: what to do with tons of excess animal manure that threaten regional water quality.

In a process that mimics the fairytale feat of turning straw into gold, farm owner Oren Heatwole and engineer Foster Agblevor, with support from a group called the Virginia Waste Solutions Forum, have developed a technology that consumes poultry litter and turns it into three valuable products—combustible gas, bio oil, and fertilizer. The system, called pyrolysis, "takes a liability and turns it into an asset," Heatwole explains (see page 8).

The forum, which includes the Chesapeake Bay Foundation (CBF), has a daunting task. With three quarters of the state's poultry and egg production farms located in the region, the Shenandoah Valley is a hot spot for nitrogen pollution in the Chesapeake region. Rockingham County generates more manure than any other county in the United States—about 350,000 tons a year, some of which is used as fertilizer on croplands. Over-application can lead to runoff during rainstorms, which causes nitrogen and phosphorus pollution in local streams, the Shenandoah River, and the Chesapeake Bay.

That's why both residents and scientists are intrigued by pyrolysis. "Not only is it a good idea, but the community is behind it," says Kristen Hughes, Virginia Staff Scientist for CBF. "We're really excited about how this process can help reduce nutrient pollution in the Bay and also create a renewable energy, without sacrificing the fertilizer value in the poultry litter."

On the policy side of the issue, Hughes is working with farmers and regulators to revise new state regulations that govern the handling of poultry litter. Currently, much of the land application of the manure is not regulated. A new plan, expected to be submitted by the end of the year, will propose tighter controls.

The Shenandoah, one of the few American rivers that flows north, has long been celebrated for its rural beauty and pioneer heritage. Its North and South Forks, separated...
by Massanutten Mountain, carve their way through prime agricultural lands, converging at Front Royal and emptying into the Potomac at Harpers Ferry. As the Potomac’s largest tributary, the Shenandoah has a major impact on downstream residents, as well as the Bay beyond.

“The valley is breathtakingly scenic,” says Jeff Kelble, who as Shenandoah Riverkeeper monitors 3,000 square miles along the water. “The problems it has aren’t always evident.” But the area is under siege from increased polluted runoff, over-burdened sewage treatment plants, and air pollution. More than 2,000 miles of its rivers and streams fail to meet federal clean water standards.

One of the most visible signs of distress has been recurring spring fish kills, which have wiped out thousands of smallmouth bass and other species in both the North and South Forks since 2004. Scientists have searched for explanations, but “it’s difficult to tease out,” says Kelble. “No one cause seems to be responsible.” Intersex fishes (ones exhibiting both male and female characteristics) have also been widely reported, though no link to the die-offs has been established. “There’s little question that poor water quality is stressing this system,” says CBF Virginia Staff Scientist Mike Gerel. “So it would be a mistake to delay aggressive action to reduce pollution until the science becomes clear.”

The fish kills have helped to mobilize anglers and other recreational users of the river for more conservation action. Fly fishermen, for example, have rallied behind a program to keep the Eastern brook trout, Virginia’s state...
Turning Chicken Manure Into Energy

Five years ago, Shenandoah Valley poultry expert Oren Heatwole started thinking about the possibility of converting chicken manure from his Riverbank Farm into clean, usable fuel. As he researched waste-to-energy projects, he met Dr. Foster Agblevor, a chemical engineer at Virginia Tech who’d designed a small-scale unit using a process called pyrolysis. The pair toured Europe to investigate emerging technologies, then returned to the valley to build their own.

The Virginia Waste Solutions Forum helped Agblevor and Heatwole raise funds for the project. The National Fish and Wildlife Foundation, the Farm Pilot Project Coordination Inc., the Blue Moon Fund, the Virginia Poultry Federation, Virginia Tech, the Shenandoah Resource & Conservation Development Council, the Commonwealth of Virginia, and CBF contributed.

The inventors took delivery on a full-sized prototype in June and began testing the unit. So far, the results are remarkably positive: “It’s amazingly efficient. We’re still studying it, refining it, and making it better, but 80 percent of it is dead on,” Heatwole says. “Over the next six months, we’ll see how much electricity and propane gas it uses and what it will cost to run.”

Two tons of poultry litter a day (from Riverbank and neighboring farms) go into the unit to be heated to 840 degrees Fahrenheit in a closed system that yields gas, bio oil, and a residue that can be used as fertilizer. “We take the gas that comes off and use it to produce heat in the unit after we get it running,” Heatwole explains. He’s even converted a separate boiler to utilize the bio oil for heating, normally a big expense for poultry producers.

The inventors have mounted the unit on a six-wheel, three-axle trailer so that it can travel easily from farm to farm—far more energy-efficient than trucking tons of waste to a central site.

The new technology (“It looks something like a still,” Heatwole laughs) was on display at the Virginia State Fair this fall. It’s attracted plenty of funding, but Heatwole says it’s important to him that the pyrolysis project can stand on its own. “We don’t want something that needs a bunch of subsidies to make it work,” he says. “This project can make money, help the environment, and be a win-win for everyone.”

Students and teachers have joined the cause, as well. In counties throughout the valley, high school chapters of FFA, the nation’s leading association for future agricultural leaders, are learning about how land use affects the health of the Chesapeake. Rockingham’s Turner Ashby High School, in particular, has a long and lively history of participation in CBF-sponsored projects. A group of its students paddled with a 2005 CBF canoe expedition that followed the Shenandoah from their home all the way to the Bay. They discovered—as many in the valley have—that the distance between the river and its final destination isn’t really that long a stretch.

Anglers and sportmen’s groups have joined forces to protect and restore Shenandoah Valley streams. Providing on-the-ground technical assistance for farmers is essential,” agrees Libby Norris, CBF Watershed Restoration Scientist. Her focus is working one-on-one with valley landowners to install forested stream buffers (to filter runoff naturally) and fencing systems (to keep cows out of streams and healthy). As she builds relationships, Norris also offers opportunities for farmers to learn about the Chesapeake Bay. “One of our efforts has been an ongoing exchange program between valley farmers and Bay watermen, so that each group can better understand the challenges facing the other. It shows them they’re connected, even though they’re hundreds of miles apart.”
2008 ANNUAL REPORT

A YEAR OF SIGNIFICANT VICTORIES

CHESAPEAKE BAY FOUNDATION
Saving a National Treasure
There is no doubt that 2008 presented some extraordinary challenges for both the Chesapeake Bay Foundation and you, our members. Money was tight, in both the private and public sectors. We are pleased to report, however, that CBF saw some of its greatest successes ever this past year. This is due to all of you, who in spite of tough financial times, contributed an unprecedented level of support. On behalf of all life—fish, crabs, oysters, and humans—in and around the Chesapeake Bay, we thank you.

The pages of this report document just some of the accomplishments CBF was able to achieve in the past year. At both the state and federal level, public investments have been gained which will pay real dividends in pollution reduction in coming years. After two years of CBF work, Congress passed a Farm Bill that includes $440 million over five years of targeted funding for Chesapeake Bay states to reduce pollution from agricultural sources. This will be the largest single federal investment for pollution reduction in the Chesapeake Bay ever. Although the current administration continues to block the release of this money, we are confident that the next administration will put it to work, providing economic stimulus and jobs for rural areas while reducing pollution significantly and improving the region’s water quality.

Also at the federal level, many years of hard work again proved successful when the United States House of Representatives passed our legislation titled No Child Left Inside. It will reform the No Child Left Behind federal funding bill to encourage environmental education nationwide. CBF pulled together a coalition representing some 840 organizations and 45 million people to support this endeavor. While there was not time to get it through the Senate this year, we are confident it will pass both houses in the next session of Congress.

Important state legislation was also passed in Richmond, Annapolis, and Harrisburg. In Pennsylvania, CBF organized a broad coalition to support upgrades to sewage treatment plants. In November, the voters approved the referendum. It will provide $400 million in bond funding to vastly improve sewage treatment, reducing pollution to local waterways and the Bay downstream.

Throughout the watershed, CBF staff and volunteers have restored hundreds of miles of stream banks with forested buffers; removed tons of trash; planted millions of oysters on sanctuary reefs; partnered with scientists and industry to research, test, and implement innovative pollution reduction technology; educated ten of thousands of students and teachers; and so much more.

Finally, CBF and its team of staff and pro-bono attorneys filed a legal action to force the federal EPA to comply with the terms of the Clean Water Act and the historic Chesapeake Bay agreement. Our intent is to petition the federal court to impose a legally binding, deadline-driven plan for EPA.

Going forward, we have every reason to believe that 2009 will be even more successful than 2008. We have you to thank. Each and every day, we reflect on the fact that none of this would be possible without you.

Our most sincere thanks,
William C. Baker, President
Keith Campbell, Chairman
of the Board
This was a year of key environmental victories by the Chesapeake Bay Foundation—at a precarious time.

The Bay continues to be in critical condition. Low-oxygen “dead zones” were rampant this year and populations of the iconic blue crab hit near historic lows. The most insidious threats to the nation’s largest estuary remain nitrogen and phosphorus pollution, from agriculture, urban and suburban stormwater runoff, sewage treatment plants, and air pollution. These pollutants fuel algal blooms that die and rot—sucking oxygen out of the water and killing much of the life on the bottom.

This runoff pollution is Enemy No. 1 for the Bay. And it has been a wily foe because—unlike factory or sewage plant discharges from pipes—it is harder to monitor and control.

For this reason, innovative solutions are necessary. And CBF broke new ground in 2008 in forward-thinking strategies for reducing runoff.

After a year and a half of focused effort, CBF and its allies convinced Congress to approve legislation that secured $440 million over five years in federal investments in agricultural conservation practices that will help control runoff pollution into the Chesapeake Bay. In Maryland, CBF won a similar battle. Despite tough economic times, CBF convinced the state to approve $25 million in the first year—and hopefully $50 million in future years—for efforts to reduce runoff from farms and urban areas in the new Chesapeake Bay 2010 Trust Fund (formerly called the “Green Fund”).

In Pennsylvania, CBF worked closely with agricultural nutritionists to come up with a creative strategy to alter the feed of farm animals. A better diet for cattle cuts the amount of nitrogen and phosphorus in their waste—and therefore means less pollution being washed by rain into the Bay’s tributaries.

But the progress by the Chesapeake Bay Foundation in 2008 was not only in agriculture. In Washington D.C., CBF worked with more than a dozen states and environmental groups to file a lawsuit that overturned the Bush administration’s weak coal-fired power plant mercury pollution control rules so that more protective standards can be adopted. CBF’s lawyers also overturned a U.S. Environmental Protection Agency water pollution permit that failed to require a schedule for the largest sewage treatment plant in the world (Blue Plains in Washington, D.C.) to install nitrogen-reduction equipment.

In Virginia, the Chesapeake Bay Foundation planted nearly ten million juvenile oysters in underwater sanctuaries. And CBF’s army of volunteers hauled about 240,000 pounds of trash out of rivers on the most successful “Clean the Bay Day” in the commonwealth’s history, held in June.

In the area of environmental education, the Chesapeake Bay Foundation forged an unprecedented coalition of more than 840 organizations representing 45 million Americans—from teachers to scientists—across the country to push for the No Child Left Inside Act. This landmark legislation is intended to enable teachers to use the environment as a tool to achieve better test scores, improved discipline, and increased enthusiasm and pride among students. The legislation will also provide $100 million a year for high-quality outdoor and ecological studies.

None of these successes—in the areas of pollution reduction, habitat restoration, or education—could have happened without the support of our members and donors. None of these successes—in the areas of pollution reduction, habitat restoration, or education—could have happened without the support of our members and donors.

None of these successes—in the areas of pollution reduction, habitat restoration, or education—could have happened without the support of our members and donors.
The battle over investments in agricultural conservation practices in the 2008 U.S. Farm Bill was the most intense ever waged at the federal level by the Chesapeake Bay Foundation. Every five years, the law that authorizes agricultural subsidies and conservation practice dollars across the nation must be re-approved by Congress. This legislation is often controversial—but CBF recognized it as an opportunity to bring in vast federal resources to improve the health of the estuary. CBF decided to advocate not only for more pollution-control funding in the bill—but also to try to target funds specifically for the Chesapeake Bay watershed. It was an uphill battle, but one that ultimately delivered a very important return—the largest-ever federal investment in on-the-ground pollution reduction for the Bay states. These investments could yield a reduction of up to 40 million additional pounds of nitrogen annually—more than a third of the region’s overall goal—if funds are released and spent strategically.

“Nobody in the Chesapeake Bay community had ever taken on anything like this before,” recalls Doug Siglin, Federal Affairs Director for CBF “The biggest obstacle we had was answering the question: Why should we do
this for you in the Chesapeake region and not for everybody else in the nation? The answer was that we have this terrible pollution problem and the Bay can serve as a model for the rest of the nation.”

The campaign for the legislation was extensive, and the cost was as well. CBF counted on the investments of a number of individuals and organizations, among them the Philanthropic Collaborative and Charles and Barbara Rossotti. Together they provided the lion’s share of support for this pollution-control initiative.

With the teamwork of Bay-area lawmakers, the Farm Bill passed the House and Senate with $440 million in new conservation funding for Bay farmers over the next five years. Areas of investment include environmentally friendly, cost-effective practices, such as building streamside buffers and manure sheds that keep rain from washing waste into streams.

**LITIGATION**

In the area of litigation, CBF fought hard for tough limits on nitrogen and phosphorus pollution from sewage treatment plants. In addition to pushing for a deadline to install additional pollution controls on the Blue Plains plant in Washington D.C., CBF also intervened to try to stop more than 70 cities in Pennsylvania and West Virginia from weakening the permits for their sewage treatment plants. And CBF settled a lawsuit against Philip Morris with an agreement that will force the company to reduce its water pollution. The litigation department’s work is made possible by a generous challenge grant from the Lenfest Foundation.

**PRECISION FEEDING**

In Pennsylvania, CBF spearheaded an industry-changing initiative for dairy farmers. CBF partnered with Penn State Cooperative Extension and the University of Pennsylvania on “precision feeding,” the technique of reducing the phosphorus and nitrogen content in animal feed to the levels required to maintain healthy livestock.

Dairy farmers have long supplemented their cattle’s feed with phosphorus. The exact levels needed for milk production and herd health have been unknown. For at least five years, scientists have been reporting in academic journals that feeding cattle excessive amounts of phosphorus—while costly—does not improve the animals’ health.

CBF and its partners worked with 66 dairy farms across the commonwealth in trimming the amount of nitrogen and phosphorus in feed, while monitoring the health of their cows, as well as their manure and milk output. “There weren’t any herd health problems…and in many cases, there was more milk production,” said Kelly O’Neill, agricultural policy analyst for CBF. The project partners are also educating nutritionists, veterinarians, and other dairy...
Over the last two years, the Chesapeake Bay Foundation and its allies have pushed for stormwater permits with limits and teeth—accountability and enforceability.

industry professionals about the benefits of precision feeding.

Improving animal feed is one of the most cost-effective ways of cleaning up local streams and the Bay. Now CBF is working with the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) to promote these strategies across Pennsylvania. This effort was also made possible through a $120,000 Growing Greener grant from the Pennsylvania Department of Environmental Protection, which allowed CBF to obtain matching funds from the Forrest and Frances Lattner Foundation, the New York Community Trust, and the Roy A. Hunt Foundation.

STORMWATER CONTROL

In Maryland, CBF successfully advocated for a path-breaking new approach to stormwater management. Stormwater systems collect water that flushes over streets, parking lots, and roofs during rainfalls and release it into streams and rivers that lead to the Bay. Under the federal Clean Water Act, states must issue pollution-control permits for municipal storm-drain systems just as they must issue permits for factories. But a fatal weakness of the stormwater program has been that while factory permits have specific, numeric pollution limits, stormwater permits have lacked these limits. They are vague and toothless. And that means unlimited amounts of pollution—gasoline, lawn fertilizer, dog waste, and other toxins—can gurgle down gutters into the Bay. This is harmful and pointless, because the states have spent years developing pollution limits for streams and waterways, called “total maximum daily loads” or TMDLs. But nothing has been done to connect these pollution limits to stormwater permits.
Now that has changed. Montgomery County’s stormwater permit came up for renewal before the Maryland Department of the Environment (MDE) in 2006. Over the last two years, the Chesapeake Bay Foundation and its allies have pushed for stormwater permits with limits and teeth—accountability and enforceability. The new draft permit issued by the MDE in September 2008 for the first time anywhere directly incorporates the pollution limits (the TMDLs) for receiving water bodies. That means Montgomery County must ensure that any future development doesn’t cause runoff with pollution that exceeds the limits for nitrogen, phosphorus, sediments, bacteria, and other criteria in the stream TMDLs. And the county must also be more aggressive about controlling polluted runoff from existing roads and buildings. “It’s an absolutely huge advance in these kinds of permits,” said Lee Epstein, Director of CBF’s Lands Program.

CBF recognized an opportunity to turn this one victory in Montgomery County into reductions in stormwater pollution across the region. “We want to convince the EPA that this is the model to adopt across the whole Bay watershed.”

This effort was aided by investments in CBF by The Morris & Gwendolyn Cafritz Foundation of Washington, D.C., and the Annapolis-based Keith Campbell Foundation for the Environment. Because of their generosity, a model for successful stormwater management has been developed, and rivers and streams that flow into the Bay will be cleaner.

**STREAM CLEANUP**

In Virginia this year, CBF organized the largest and most successful “Clean the Bay Day” in the event’s 20-year history. In June, more than 7,000 volunteers turned out across the commonwealth to haul 241,384 pounds of trash from 434 miles of Bay tributaries, including the James, York, Elizabeth, Lafayette, and Lynnhaven rivers.

“In the Hampton Roads area, we had over 100-degree temperatures, and we still had one of the best turnouts ever,” said Sharon Smith, Project Coordinator for the Chesapeake Bay Foundation. “I think it is an indication at the grass-roots level of how passionate people are about healthier waterways.”

Farm Fresh Supermarkets again was lead sponsor of the cleanup. In addition to funding the campaign, the markets sell reusable grocery bags to reduce waste—with five cents per bag donated to the Chesapeake Bay Foundation. The supermarkets are not only encouraging recycling, but also directly contributing to a major effort that removes tons of litter from the Bay’s tributaries.
NO CHILD LEFT INSIDE

For decades, the Chesapeake Bay Foundation has run the largest environmental educational program in America. Every year, almost 40,000 participants learn about Bay and stream ecology through one of CBF’s 17 field programs, which include canoe and island expeditions, and farm experiences. About three years ago, CBF began to notice that school administrators were increasingly reluctant to send their students on field experiences—or let the kids leave their desks for any reason. Part of the problem was federal legislation passed in 2001, the No Child Left Behind Act, which created intense pressure on principals and teachers for good scores on standardized tests.

Studies show that integrating the environment in school curriculum leads to better performance on standardized tests, reduced classroom discipline problems, and more enthusiasm for learning and pride in accomplishments from students. “Principals were telling us they couldn’t let their students leave the building because that would take them out of test preparation—literally learning how to fill in test bubbles,” said Tom Ackerman, Director of Teacher Training and Student Leadership at the Chesapeake Bay Foundation.
“Everyone we talked to was very supportive of environmental education, but the time they have for everything but the basics is being squeezed.”

It seemed at first a far-fetched idea that the Chesapeake Bay Foundation could change federal education policy. But CBF felt it had no choice but to try because federal policy was undermining its ability to educate young citizens about the interconnection between the Bay’s condition and their own lives. A key part of CBF’s educational goal is to weave lessons about the Chesapeake Bay throughout a school’s curriculum, so that students can incorporate discussions of the environment into history, biology, government, and other courses. The point is to have a broad education that is not narrowly focused on just the math and reading testing demanded by the No Child Left Behind Act.

The Chesapeake Bay Foundation found champions for its cause in Congressman John Sarbanes of Maryland’s 3rd district and Senator Jack Reed of Rhode Island. Together they crafted legislation, the No Child Left Inside Act, that would encourage states to develop environmental literacy plans and provide $100 million a year for environmental education. CBF held press conferences, launched a website and e-mail campaign, and rallied a broad team of education, health, business, and outdoors groups. The No Child Left Inside Coalition grew from 13 organizations in 2007 to more than 840 today, representing 45 million Americans. Among the many advocates are the National Education Association, the American Federation of Teachers, the National Wildlife Federation, and Ducks Unlimited.

This swell of support convinced 64 U.S. representatives and 14 senators to sign-on as co-sponsors. And then the House Committee on Education and Labor on June 18...
voted 38-7 to endorse the legislation to the full U.S. House of Representatives. By a vote of 293 to 109 on September 19, the House approved the bill, setting the stage for what CBF is confident will be a victory in the Senate next year.

Organizing the coalition was made possible by contributions from the Pennsylvania-based Lenfest Foundation.

“Gerry Lenfest provided leadership funding at the very outset of the campaign,” said Will Baker, President of the Chesapeake Bay Foundation. “His vision was instrumental to the success of the campaign.”

**LEARNING ON THE RIVER**

One of the most successful examples of CBF’s outdoor education can be found in downtown Washington, D.C. Over the last year, more than 3,000 students from the District and suburbs have explored the Potomac River on the Susquehanna, a 42-foot deadrise workboat. The CBF vessel is launched from the Gangplank Marina in southwest Washington and carries young people on learning experiences on both the Anacostia and Potomac rivers. Foundation instructors teach the students how to sample the water for nitrogen pollution and dissolved oxygen. The students see the outfalls of urban storm drains and the world’s largest sewage treatment plant, Blue Plains. Behind the boat, they drag a net. The students are often surprised to catch hundreds of gizzard shad, catfish, and bass in a once-dead waterway that many assumed was still a toxic waste stream.

“We let them pick up and feel the fish—and for a lot of these kids, it’s the first time they’ve ever put their hands on a fish,” said Eric Marshall, captain of the Susquehanna. “They make a connection between the impact of what they’re doing on the land and how that has a direct impact on the river. It helps them feel responsible for what they’re doing.”

Among those who learned on the Susquehanna this year were middle school students from the San Miguel School, an education center for disadvantaged Latino youth in Washington, D.C. Their floating classroom was supported with help from Maria and Michael Jones of McLean, Virginia, donors to the Chesapeake Bay Foundation with a love of both education and the environment.

CBF leads similar educational experiences. On June 30, 2008, the foundation christened a new educational vessel, the Bea Hayman Clark, which takes thousands of students out onto the Bay. Based in Hampton Roads, Virginia, the 50-foot workboat has a low-emissions diesel engine and was a gift of Dr. Fred Clark and his wife Dr. Karen Clark of Philadelphia. CBF named the vessel after Dr. Fred Clark’s mother. On the James River, the CBF workboat Baywatcher took more than 1,000 students on learning experiences.

It seemed at first a far-fetched idea that the Chesapeake Bay Foundation could change federal education policy.
expeditions thanks to the Harrison Family Foundation. The boat sets off from the docks in Hopewell, showing the students industrial plants and then taking them upstream past historic plantations to cleaner waters surrounded by forests and farms. It is an experience that CBF hopes will help form citizens who will respect the Bay and its tributaries for their whole lives.

CHESAPEAKE CLASSROOMS

For more than two decades, CBF has been running a program, now called “Chesapeake Classrooms,” that trains teachers how to become better environmental educators. CBF shows teachers how to incorporate ecological subjects into the core learning areas of reading, math, science, and social studies. The program also helps educators use schoolyards as outdoor classrooms. Chesapeake Classrooms teachers lead students in identifying and removing invasive plants, as well as by building nature trails, rain gardens, and other projects. And the teachers learn how to perform surveys of local streams by dipping nets to scoop up bugs and fish as a measure of biodiversity and health. The core component of Chesapeake Classrooms is a five-day summer immersion course, in which teachers receive education in the field on CBF vessels to connect their community to the Bay.

Each teacher who is educated has the potential to teach thousands of students about the value of the Bay watershed over the course of their career.

No school district is more active in the program than Montgomery County, Maryland. The county has been working closely with the foundation for more than two decades. Last year, 48 Montgomery County teachers participated in the environmental training, and CBF took nine principals from the district out to Smith Island for a three-day leadership retreat. About 4,000 students a year from Montgomery County go on CBF field experiences. This learning is supported by, among others, the National Geographic Education Foundation and the Howard Hughes Medical Institute, which have both provided leadership and investment in CBF’s teacher training program for more than a decade.

STUDENT LEADERSHIP TRAINING

Over the last year, CBF has more than doubled the number of student leadership training trips that it offers, from six to 13. One of the most successful last year was in Pennsylvania.

From July 13 to 19, CBF took a group of middle school students to Gifford Pinchot State Park, where they used bicycles to visit wildlife settings for study. The teenaged students examined how farmland affects streams, inspected a sewage treatment plant, and discussed how nitrogen runoff causes algal blooms and low-oxygen “dead zones.” The students took water samples and canoed. When they returned, they learned how to use CBF’s online Student Action Network, which teaches them how to become certified as environmental leaders. These student programs are supported throughout the watershed in part by a $50,000 gift from Starbucks Coffee Company.

“These are the decision makers of future years and they are really passionate about the environment,” said Allyson Ladley Gibson, Education Outreach Coordinator for CBF. “It’s important that they have this educational experience, not only for their personal development but also for the good of the entire Bay watershed.”
Over the last year, CBF has helped to plant about 180,000 trees and 90,000 bushes along streams in Pennsylvania. It is part of a campaign that has brought 2.2 million new trees to the commonwealth over the last eight years. Similar efforts to create forested buffer strips beside waterways are growing across the Bay watershed.

The Pittsburgh-based Richard King Mellon Foundation made generous contributions that have allowed the Chesapeake Bay Foundation to leverage funds from the U.S. Department of Agriculture’s Conservation Reserve Enhancement Program (CREP) to plant these buffer strips in Pennsylvania.

The result—a perpetual pollution-reducing investment—allowed 10 workers to team with rural landowners to complete about 150 miles of streamside buffers with about 270,000 trees and shrubs.

“The forested buffers are well known as wonderful interceptors of pollution,” said Dave Wise, CBF’s Watershed Restoration Manager in Pennsylvania. “They keep things out of a stream that have no business being in there, such as nitrogen pollution, sediment,
and farm chemicals like pesticides and harmful bacteria.”

What is less well known is the value of trees for important biological processes. Riverbanks with trees are littered with leaves. When rain percolates through these leaves, the water brews a high-energy, tea-like mix. This flows into the waterways and feeds bugs and beneficial bacteria. These critters absorb nitrogen from the stream, and use it as the building blocks for their cell walls, ligaments, and membranes. Thus pollution becomes part of a mayfly instead of a “dead zone” in the Chesapeake Bay.

“Trees turn streams into huge nitrogen-processing facilities,” Wise said. “Clean water factories is what they become.”


Because of the Mellon Foundation and the U.S. Department of Agriculture, scores of clean water factories are removing nitrogen pollution that would otherwise smother the Bay.

This continuing work with oysters—as well as CBF’s similar work in Maryland—is supported by contributions from Restore America’s Estuaries, a nonprofit organization, and the National Oceanic and Atmospheric Administration’s Community-based Restoration Program.

“The sanctuaries are important to protect the oyster so it can do its job, which is to filter algae and pollutants out of the water,” said Bill Goldsborough, Director of Fisheries and Oyster Restoration for CBF. “And the reefs also provide habitat for the other Bay critters.”

OYSTER RESTORATION

In Virginia, CBF’s oyster program continues to focus on using science to try to bring back native oysters. CBF gets larvae of Crassostrea virginica from breeding tanks at the Virginia Institute of Marine Science’s Aquaculture Genetics and Breeding Technology Center. The larvae are placed in CBF setting tanks on site, where they grow into “spat,” or juvenile oysters. A CBF restoration vessel, Chesapeake Gold, hauls the oysters into the Bay and its tributaries for planting on reef sanctuaries. In these protected areas, the oysters cannot be harvested. In 2008, in Virginia’s Piankatank River alone, CBF and its volunteers planted nearly 10 million young oysters.

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CBF’s programs in the water and on land in Virginia received important new aid in 2008. CBF will be able to continue its open-space advocacy and smart-growth planning because of a donation from the Chesterfield Conservancy, which disbanded this year. “This funding is absolutely critical to CBF’s efforts in Virginia, and in particular Chesterfield County, to restore the water quality of the Chesapeake Bay and its tributaries through sustainable land use,” said Ann Jennings, CBF’s Executive Director in Virginia.

CBF donors in 2008 saw substantial returns on their investments.

“Lessening the human impact on the environment is a must,” said John E. “Chip” Akridge, III, Chairman of Akridge. “This tournament allowed us to stand with the Chesapeake Bay Foundation and the other ‘Save the Bay Classic’ sponsors who share this goal.”

Overall, donors to the Chesapeake Bay Foundation in 2008 saw substantial returns on their investments. Because of their generosity, less nitrogen pollution will harm the Bay, urban stormwater will be better filtered, tens of thousands of trees will be planted, streams will run clearer, and children will know why all this matters. And all these steps point to a brighter future for the Chesapeake Bay.
CBF’s management practices ensure that operating funds raised in the current year as well as the capital campaign funds pledged in previous years are effectively put to use to support programs to save the Bay.

**FINANCIAL OVERVIEW**

**FINANCIAL SUMMARY FOR THE FISCAL YEAR ENDING ON JUNE 30, 2008**

Support and Revenue 2008

- Membership Contributions: $5,130,217
- Grants and Gifts: $11,341,562
- Education Contracts & Tuition: $1,160,718
- Investment Income: $2,435,992
- Other: $943,599
- Funds raised in prior years to support FY08 expenses: $2,298,984

Total Support and Revenue: $23,311,072

Expenses 2008

**PROGRAM SERVICES**
- Environmental Education: $6,323,551
- Environmental Protection & Restoration: $8,853,805
- Communications: $3,175,809
  - Total program services: $18,353,165

**SUPPORT SERVICES**
- General & Administrative: $1,742,560
- Fundraising: $3,215,347
- Total support services: $4,957,907

Total Expenses: $23,311,072
ABOUT THE COVER
CBF successes in federal legislation, environmental education, and habitat and fishery restoration during 2008 advanced the foundation’s primary goal: to save the Bay and its rivers and streams.

Photo: Ian Plant

PHOTO CREDITS:
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inside front cover: Kelly McMahon Willette
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THE CHESAPEAKE BAY WATERSHED
The Chesapeake Bay’s 64,000-square-mile watershed covers parts of six states and is home to more than 17 million people.
In an effort to force the nation’s leading environmental agency to keep its promise to clean up a national treasure, a group including the Chesapeake Bay Foundation (CBF), watermen, environmentalists, and former elected officials has notified the Environmental Protection Agency (EPA) that it intends to file a federal suit to force EPA to require pollution reduction in the Chesapeake Bay.

The notice letter to enforce the Clean Water Act, issued on October 29, is required for any citizen lawsuit against EPA.

Joining CBF in the action were the Virginia State Waterman’s Association, the Maryland Watermen’s Association, the Maryland Saltwater Sportfishermen’s Association, former Maryland Governor Harry Hughes, retired Maryland Senator Bernie Fowler, former Virginia legislator and Natural Resources Secretary Tayloe Murphy, and former Washington D.C. Mayor Anthony Williams.

“People are outraged with the lack of progress,” said CBF President William C. Baker at a press conference announcing the action. “Over the last 25 years, Chesapeake Bay restoration efforts have been littered with promises broken and commitments unfulfilled. It is time that EPA either step up to the plate, or be held legally accountable for its failure to comply with the law and fulfill the commitment to reduce pollution sufficiently to have the Bay removed from the federal ‘impaired waters’ list by 2010.”

Eight years ago, the administrator of EPA, a representative of the Chesapeake Bay Commission, three governors, and the mayor of the District of Columbia signed a regional pact known as the Chesapeake 2000 agreement. In the agreement, they promised to take the necessary steps to curb pollution degrading the nation’s largest estuary by 2010. But EPA recently admitted that with the current programs and policies, that goal might not be achieved until 2020 or later.

CBF and its allies have called on the EPA administrator to establish a deadline of 2010 to have programs and funding in place to achieve the pollution reduction goal. The group wants EPA to meet 80 percent of the goal by 2012, and complete the task by 2015. The signers call for serious consequences for missing those deadlines.

“If the signatories to the numerous Chesapeake Bay agreements, especially the 2000 agreement, are not held accountable for the commitments made in those agreements, the Bay will never be saved,” Tayloe Murphy said. “Contracts are made to be performed, not ignored.”

The legal action targets EPA because it is the lead agency in enforcement of the Clean Water Act. EPA has 60 days to respond to the notice of intent to sue letter.

This past July, the Bay suffered its fourth worst “dead zone” since 1985. Pollution is also a major factor in the decline of the Chesapeake’s blue crab population, which is near historic lows. As a result, Maryland and Virginia have severely limited the commercial crab harvest, putting many watermen out of work.

“We are doing this because we’re backed into a corner. We’ve all been preaching to clean the Bay up, with no results,” said Larry Simns, president of the Maryland Watermen’s Association. “We’re at a crucial point here, and unless we do something now we’re going to lose the Bay completely.”

CBF President Will Baker, left, former Maryland Senator Bernie Fowler, former Maryland Governor Harry Hughes, CBF Litigation Director Jon Mueller, and Maryland Watermen's Association President Larry Simns discuss the notice of intent to sue letter sent to EPA for its failure to honor its agreement to clean up the Bay.
Policy Priorities '09: Buffers

Recent research has provided more evidence for a fundamental conservation principle:Forested buffer areas along rivers and creeks help keep pollutants out of waterways.

Findings show that wooded sections of streams remove two to eight times more nitrogen pollution, and have five times more total life, than grass-buffered sections along the same waterways.

The research, by CBF partner Stroud Water Research Center, provides additional support for a new state environmental initiative. Buffers 100 seeks to broaden the use of forested buffers through regulatory changes that would require 100-foot buffers along streams for all new development. CBF and many state partners back the plan.

Since 1999, the Stroud Center, the Pennsylvania Department of Conservation and Natural Resources (DCNR), and CBF have hosted sessions on stream ecology for conservation professionals. They recently hosted decision-makers from across the state to discuss the Buffers 100 initiative.

Learn more about Buffers 100 at www.pacleanwatercampaign.org.

Citizens Endorse Bond for Improved Water Quality

Pennsylvanians voted overwhelmingly for clean water on November 4th, approving an important statewide water and sewer infrastructure bond referendum. The ballot question asked voters to support an allocation of $400 million to help communities throughout the commonwealth fund necessary upgrades to wastewater and drinking water facilities.

Eligible projects include ones that will cover the repair, construction, or expansion of existing systems—all needed to meet the needs of growing populations and reduce water pollution in Pennsylvania waterways. In many cases, the upgrades are required to fulfill federal and state clean water mandates.

“Without state funding, including the $400 million bond referendum, the cost to upgrade these vital services would be passed along to Pennsylvania ratepayers,” said Matt Ehrhart, CBF Pennsylvania Executive Director. “These new state funds will help our communities begin to address water and sewer upgrade needs.”

In Lancaster this summer, about 4,000 cubic yards of the manure-based compost were sold at market value for local athletic fields and golf courses. Additionally, CBF coordinated the delivery of nearly 2,000 tons to an abandoned mine land reclamation project in Clearfield County. The compost is being used as a soil amendment, which will aid the regrowth of vegetation on the site.

CBF plans to continue to explore additional markets for the compost, such as plant nurseries, road maintenance, and urban stormwater management projects in south-central Pennsylvania.

For more information on how CBF is working to protect Pennsylvania waters, visit cbf.org/Pennsylvania.

A CBF project that transforms manure into compost for landscaping has proven commercially successful in south-central Pennsylvania.
Managing Growth to Prevent Pollution

During the 2009 session of the Maryland legislature, CBF will partner with other conservation organizations on passage of a bill to reform the state’s approach to growth management.

Currently, Maryland law offers incentives to encourage smart growth, but the programs do not work well and developers often find it cheaper to build in outlying areas instead of near existing roads, sewer connections, and other infrastructure. All this adds further pressure to the environment.

The proposed reforms look to expand Maryland’s existing smart growth program to better address the problem of sprawl.

“Growth management reform is needed now. As our state prepares for unprecedented population expansion in the coming years, rural development trends must be reversed to stop farm and forest land losses, reduce pressure on roads and other public services, and stem the decline in the health of the Bay,” said Kim Coble, CBF’s Maryland Executive Director.

State Delays Decision on Wetlands Destruction

Officials with the Maryland Department of the Environment (MDE) have postponed a decision on whether to allow Charles County to destroy seven acres of wetlands to build the proposed Cross County Connector highway. The announcement came after more than 1,500 CBF members from Maryland urged Governor Martin O’Malley to intervene in the case.

Charles County’s government wants to route the four-lane highway through the heart of Mattawoman Creek—“the best” spawning and nursery tributary for migratory fish in the entire Chesapeake Bay, according to state biologists. Opponents say the road will create significant sprawl in a critical environmental area.

▶ For the latest updates on the project, visit www.cbf.org/smartergrowth.

Oysters Gain Ground in Severn

Millions of young oysters got an improved shot at survival this fall, taking up residence on a Severn River reef built from recycled concrete from the Bay Bridge. The oysters, which are natural filters for pollutants in the water, were planted near Asquith Creek by CBF and the Maryland Department of Natural Resources.

Concrete for the reef was taken from the westbound re-decking of the Bay Bridge. Engineers did extensive testing to ensure the reef allowed a minimum of 10 feet of clearance for boats.

The Asquith reef is off-limits to harvests. Traditionally, old oyster shells serve as foundation for new growth, but the current oyster population is so depleted that few shells exist, threatening restoration of the species.

▶ Learn more about CBF’s oyster restoration efforts at cbf.org/oysters

Keith Campbell Honored

Keith Campbell, the Chairman of CBF’s Board of Trustees, has received the Maryland Chapter of the Association of Fundraising Professionals’ 2008 Outstanding Philanthropist of the Year Award. Nominated by CBF and chosen by a jury of past recipients, Campbell was recognized for his generous support of 64 Maryland nonprofits, including CBF. His foundation, The Keith Campbell Foundation for the Environment, meets with Bay leaders to determine where environmental grants will be most effective, collaborating with scientists, permit writers, and other foundations to find new solutions to old problems.

▶ For more information on how CBF is working to protect Maryland waters, visit cbf.org/Maryland or call 410/268-8816.

CBF’s Patricia Campbell was used to plant millions of young oysters on a protected reef in the Severn River. The boat was named for the wife of CBF Board Chairman Keith Campbell, who funded the construction of the vessel.
Study Evaluates Asian Oyster; CBF Recommends Restoration of Native Species

The federal government, Maryland, and Virginia have released a long-awaited Draft Environmental Impact Statement (DEIS) evaluating options to restore the Chesapeake Bay’s oyster population, including a proposal to introduce a non-native oyster species from Asia.

The report says that the introduction of non-native oysters would be irreversible, and that Asian oysters would likely spread to other waters outside the Chesapeake Bay, with unknown ecological consequences.

CBF Senior Scientist Bill Goldsborough said that the report presents serious potential risks to the Chesapeake oyster, the Bay, and the Atlantic coast from the introduction of the Asian oyster. Furthermore, it does not indicate that the expected benefits of the Asian oyster would outweigh the risks. “We need to be sure that the introduction will not result in significant problems,” said Goldsborough. “Our review of the DEIS indicates that this burden of proof has not been met.”

Instead, cultivation of native oysters on sanctuary reefs and in commercial aquaculture operations should be supported, Goldsborough said. “The scientific community is generally positive about the prospects for native oyster restoration,” he said, citing successful projects in Virginia and Maryland. But the Bay’s degraded habitat, poor water quality, and sedimentation are key limitations for Chesapeake oysters, he said. They will continue to hamper restoration if they are not addressed. The same factors are also likely to hinder a successful introduction of Asian oysters.

For more information on how CBF is working at the federal level to protect and restore the Bay and its tributaries, visit cbf.org/dc or call 202/544-2232.

As the harvest of blue crabs continued its decline, Congress approved federal assistance for those affected by fisheries disasters.
Support for Farm Stewardship Sought

CBF and a diverse coalition will seek economic stimulus investments in Governor Kaine’s and the General Assembly’s 2010 budget.

Governor Kaine recently reported that agriculture contributes more than $55 billion annually to Virginia’s economy, employing an estimated 357,000 people. While acknowledging the state’s budget constraints, the partners contend that agriculture is a critically important economic and environmental sector that requires public and private investment.

In 2008, state legislators established the Virginia Natural Resources Commitment Fund to provide greater state support for conservation programs that help farmers improve water quality. The Fund is an ideal vehicle for investments in jobs and clean water; therefore, adequate and consistent funding of it is essential for sustaining the commonwealth’s economy.

Without addressing runoff, Virginia’s clean water goals will not be met. Farm runoff contributes a third or more of the nitrogen plaguing Virginia waterways. Agricultural conservation practices offer the most cost-effective tools for reducing that pollution and in Virginia can remove as much as 12 million pounds of nitrogen from the Chesapeake Bay. Combined with pollution reductions from sewage treatment plants, such farm practices would achieve 90 percent of Virginia’s Chesapeake Bay pollution clean-up goals.

To achieve Bay cleanup goals, CBF urges state support for conservation practices by farmers.

Failure to achieve the Bay clean-up goals will devastate Virginia’s commercial and recreational fishing industries.

Conservation practices can be costly for farmers, who typically pay half of the out-of-pocket costs. Last year, one of every three farmers seeking state cost-share assistance was turned away due to lack of funding. That leaves farmers frustrated, state waterways polluted, and the commonwealth’s economy weakened.

“Investments in farm stewardship practices can serve to stimulate the economy and improve water quality,” CBF Virginia Executive Director Ann Jennings said.

CBF Urges Stricter Stormwater Rules

CBF and partners including the James River Association are pushing for stricter regulations governing the stormwater that runs off Virginia streets, parking lots, and construction sites.

Recent studies have shown that stormwater, which accounts for a quarter of the Bay’s nitrogen, phosphorus, and sediment pollution, is on the rise. As pollution from sewage treatment and agriculture have declined, contaminants from urban areas have increased, undermining past cleanup progress. CBF and its partners have called for new requirements—numeric limits and conditions—designed to protect water quality in the face of Virginia’s growing urban and suburban landscape.

“The costs to improve management of stormwater now will pale in comparison to the costs of inaction that communities will pay later in the form of lost fishing, tourism, and property values and providing clean drinking water. We must move forward with new regulations that allow Virginia to accommodate both future growth and healthy waters.”

CBF Fisheries Specialist Tommy Leggett, left, shared his oyster expertise with celebrity chef Emeril Lagasse during an hour-long Thanksgiving special on the Planet Green network.

Supporters rallied for clean water during a gathering in Richmond’s Capitol Square in 2006. CBF will repeat the event on January 26, 2009.

Despite considerable opposition, Virginia advanced strengthened regulations to public comment, likely to begin in spring 2009.

For more information on stormwater regulations, contact Mike Gerel at mgerel@cbf.org.

Rally for Clean Water

Join hundreds of clean water supporters in Richmond’s Capitol Square on January 26, 2009, at the Rally for Clean Water. Your presence will remind legislators that residents across the commonwealth support the protection of our rivers, streams, and the Chesapeake Bay.

Sign up today at cbf.org/CleanWaterRally. To learn more about how CBF is working to protect Virginia waters, visit cbf.org/Virginia or call 804/780-1392.
In Baltimore, a city of row houses, a stream called the Stony Run nourishes a cathedral of trees. The creek runs near my front porch and is the heart of my neighborhood. The gnarled roots of sycamores dangle into the waters like the fingers of old men. My daughters run down to the stream after school to mold cats from the clay. Acres of lush parkland fringe the waterway—creating an oasis of peace amid the racket and violence of urban life.

The river is a gathering place for families, many of whom decided to raise their children here because of the park. So when Baltimore launched a massive project to rebuild the Stony Run three years ago, many neighbors were outraged. Why fix what is good? The project required cutting down more than 150 trees and bulldozing the creek to flatten its banks and armor the shores with lines of boulders. The goal was to reduce erosion and cut down on the amount of sediment flowing downstream into Baltimore Harbor.

In late 2006, the rebuilding was done—and the stream looked awful. But then something miraculous happened. The pools of water formed by the new dams became breeding grounds for thousands of green frogs, bull frogs, and American toads. Their singing grew to a boisterous bayou chorus. My daughters forgot about their lost clay mines in their scramble to catch frogs on the riverbanks. Hardy little fish called black-nosed dace darted between the rocks. Before the project, the stream was pretty but dead. Today, the stream remains attractive, as the contractors spared many of the grand old sycamores. And now the creek swarms with crayfish the size of small lobsters. As I walk among the newly planted trees along the resurrected creek, I can see crayfish shoot like volleys of arrows beneath the glassy water.

The rebuilding of streams like this has been happening increasingly across the Chesapeake Bay region over the last two decades—and this is only one kind of restoration project. Environmental restoration efforts also include planting strips of trees along creeks on farms, as well as building oyster beds and wetlands. These projects have the potential not only to multiply wildlife—which I witnessed—but also to improve water quality and create jobs during a time of recession.

The construction can look messy, at first—and often these programs don’t have enough money to go as far as they should. For example, the Stony Run project didn’t do anything to stop polluted runoff that, during rainfalls, gushes into the stream from nearby parking lots. These lots could also be rebuilt, so they absorb rain instead of funneling it into the creek.

But even when restoration projects are limited, they can spark the unexpected and magical. For example, at 5 a.m. one morning, I awoke in a cold sweat to hear what sounded like insane monkeys shrieking from the treetops outside my bedroom window. As it turned out, the bizarre sounds came from barred owls. The predators normally live in the deep forest, but they had moved to the city to prey on the crayfish in the rebuilt Stony Run. My wife was on the hammock outside our bedroom when a large barred owl swooped down, perched on a branch and stared at her like a character from a Harry Potter movie. We’ve adopted the owl as our familiar, and as a symbol of our stream’s rebirth.

These projects have the potential not only to multiply wildlife, but also to improve water quality and create jobs during a time of recession.
Remember the Bay this Holiday!

START A TRADITION
This first-in-a-series, collectible ornament from Salisbury Pewter Company is engraved on the back to commemorate the year and your support of the Chesapeake Bay Foundation.

REMEmBER FRIENDS AND FAMILY
Designed exclusively for CBF, these elegant holiday cards are printed on 100 percent recycled stock.

WARM UP YOUR WINTER
This fitted fleece jacket, embroidered with the CBF logo, is available in colors and styles for everyone on your list.

CARRY YOUR MESSAGE IN STYLE
This high-quality canvas tote comes with your choice of imprints: a blue crab or “Save the Bay” life ring.

GET A FREE GIFT WITH YOUR PURCHASE
CBF’s 2009 wall calendar features prize-winning photographs from members across the Bay region. Get one free with your purchase of $50 or more.

Show your support with a gift from CBF’s online store.

To see the complete selection, visit cbf.org/store.
Save the Bay

Let’s leave a legacy of clean water for our children.
Find out how you can help at cbf.org.

On the cover: Ice floes grind against giant boulders in the Susquehanna River. The Susquehanna is the Chesapeake Bay’s largest tributary, delivering half of its fresh water as well as a heavy load of nitrogen and phosphorus pollution. Photo by Ian Plant