A large suspension bridge, likely the Chesapeake Bay Bridge-Tunnel, spans a body of water. The bridge features tall towers and suspension cables. The scene is captured at sunset, with a warm orange and yellow glow on the horizon and the water's surface reflecting the light. The sky transitions from a deep blue at the top to a lighter orange near the horizon.

The **INTERDEPENDENCE** of Land and Water Protection

**A model for action from the
Chesapeake Bay Land
and Water Initiative**

by Madeline Bodin

In addition to providing environmental benefits, the protection and restoration of the Chesapeake Bay and related waterways are essential to a healthy economy. The fishing, tourism, real estate and shipping industries all depend on the bay's health.

©ISTOCKPHOTO.COM/1MORECREATIVE

Water covers 71% of the Earth's surface. It makes up to 60% of our bodies. And year after year, it tops all environmental concerns in a Gallup environmental issues survey. In the 2017 Gallup poll, 63% of those surveyed worry "a great deal" about the pollution of drinking water. Another 57% worry a great deal about pollution of rivers, lakes and reservoirs.

"Clean water is a big concern to Americans," says Jennifer Miller Herzog, program manager for the Land Trust Alliance's Chesapeake Bay Land and Water Initiative (the Initiative). "I think we're in a great moment when land trusts are thinking about this issue in a deeper way. And we want to help them do that."

One sign of a great partnership, she says, is when each party seems to be the answer to the other's toughest questions. Such is the case with land and water in the Chesapeake Bay watershed.

This 64,000-square-mile estuary—America's largest, and the world's third largest—is in the midst of an epic, unprecedented effort to reverse the impacts of pollution and restore healthier water quality to the region's more than 100,000 rivers and streams and to the bay itself. A key factor in that effort is land: land management, land use, land cover. "Land determines the quality of water we have to drink, play in and work in, and land trusts are a prime player in protecting and stewarding this critical resource," says Miller Herzog.

"Land trusts know a property with river frontage is a high-value property ecologically," she says. "But the Initiative asks them to take that one step farther, looking at a property's link to water quality with a greater level of sophistication."

That means getting specific about how using best management practices on the land will reduce the levels of water

pollutants, such as nitrogen and phosphorous, she says. It also means targeting strategic land conservation with more precise water quality and pollution data. For many land trusts, that will require new tools and new skills.

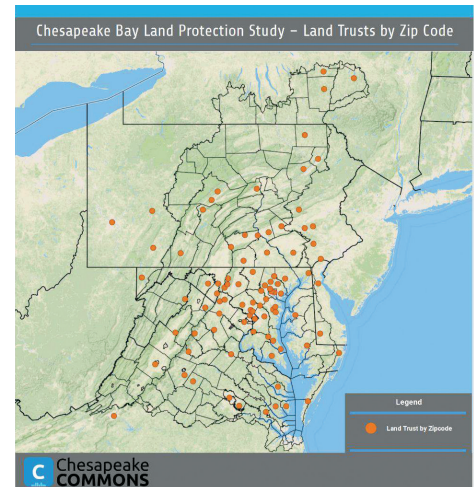
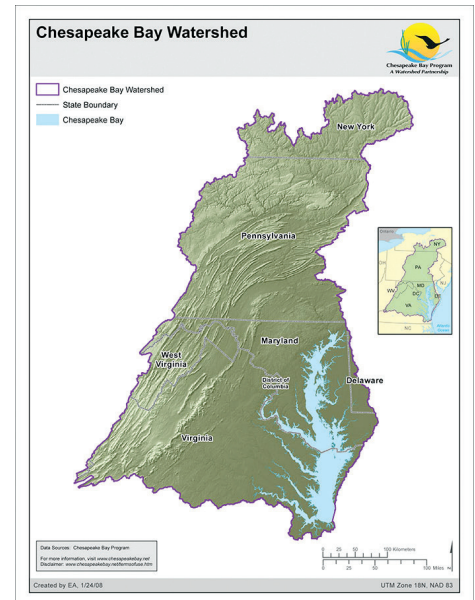
For land trusts, working on water issues is a way to stay relevant and gain public support for their work. It's also a possible avenue to new sources of funding.

"A Really Productive Partnership"

Foundation leaders active in the Chesapeake Bay Funders Network (CBFN) saw the ingredients for a perfect partnership emerging. CBFN members had been funding activities to improve water quality in the Chesapeake Bay since before the network's founding in 2003. Especially in its early years, CBFN focused on agricultural practices and building the capacity of grassroots watershed restoration organizations. Many of those organizations also worked to get laws passed that would improve the water quality of the bay.

"There are lots of funder affinity groups throughout the nation organized around geography or issue," says Jamie Baxter, CBFN's program director. "When the Chesapeake Bay Funders Network was founded, it was with a bias for collaborative action. We are always looking for the places where working collectively will make a bigger difference than we could make individually."

It was good work, but Sam Stokes, then the board chair of the MARPAT



Foundation, a member of the network, thought more was needed. "Laws mandating the reduction of pollutants and sedimentation can be changed," Stokes observed. "Riparian buffers protected by easements are forever." And while water quality is determined by land management, those working on watershed restoration often struggled to gain access to private land. Likewise, was every acre conserved in the watershed delivering cleaner water? Likely not yet.

Four years ago, Stokes asked his CBFN colleagues to consider another focus to their collective grant making, which had grown

The **INTERDEPENDENCE** of Land and Water Protection

to include capacity building, stormwater management and working with farmers: land conservation. They would do this by working with land trusts.

Stokes tapped Alliance Northeast Director Kevin Case and Heather Richards (now director of the accredited Conservation Fund's Virginia program) to meet with 20 CBFN members to consider how funders could encourage the region's land trusts to accelerate land protection with the greatest potential impact on the bay's water quality in the near term.

CBFN formed the Land Trust Working Group, with co-chairs Stokes and Megan Gallagher, a foundation trustee from Virginia, and commissioned the Alliance to study the current work and capacity of land trusts in the Chesapeake Bay watershed to improve water quality. "We wanted to know how land trusts addressed water resources and how our funding might expand strategic land protection and stewardship for water quality," Gallagher says.

The assessment, led by consultant Mary McBryde of Long Haul Conservation

Advisors, found that water resources matter to land trusts, and, in partnership with others, the land trusts are developing new tools, skills and programs to protect, improve and restore water quality.

Most important, the assessment stated that land trusts—given their on-the-ground presence, landowner relationships, stewardship of millions of acres of land and broad community focus—are uniquely positioned to accelerate land conservation that achieves specific water quality goals while building strong communities. The assessment also highlighted the critical role of, and need for, science-based tools and training tailored for land trusts.

"The assessment was not only about the Chesapeake," says McBryde. "There are huge water issues across the country. We identified tools, strategies and approaches

Land trusts are uniquely positioned to accelerate land conservation that achieves specific water quality goals while building strong communities.



Greg Kearns, a naturalist at Patuxent River Park in Prince George's County, Maryland, leads a tour of osprey nests on the river during annual efforts to band juveniles. Approximately one-quarter of all ospreys in the contiguous United States nest in the Chesapeake Bay region, which includes the Patuxent River.

SKYLER BALLARD/CHESAPEAKE BAY PROGRAM

Can historic preservation protect drinking water? In Jefferson County, West Virginia, the answer is yes. "The Jefferson County Historic Landmarks Commission has acquired properties along the Potomac River to preserve their history, protecting drinking water in the process," says David Lillard with West Virginia Rivers Coalition.

to promote water quality that could be replicated in other places."

Stokes, Gallagher, Case and Richards, with their funder and Alliance colleagues, adapted McBryde's recommendations to create the Alliance's Chesapeake Bay Land and Water Initiative. "Both Sam and I have land trust backgrounds and years of experience working with either Kevin or Heather, which made for a really productive partnership," Gallagher says.

The Chesapeake Bay's watershed reaches into six states: New York, Pennsylvania, Delaware, Maryland, West Virginia and Virginia. Overlapping local, state and federal regulations can make coordinating efforts to improve the bay's water quality challenging. But, with its landscape-scale, multifunder network, collaborative partnerships and technical innovation, the Initiative provides a good model for similar efforts across the country.

Grants for Water Quality

The Initiative made its first round of grants in 2017. The accredited Virginia Eastern Shore Land Trust (VES Land Trust) received one of them.

When VES Land Trust director Hali Plourde-Rogers says, "What happens on the land, happens in the water," she knows that more than most. On Virginia's Eastern Shore, you are never more than a few miles from the Chesapeake Bay. When the clouds ride low and the air gets heavy before a rain storm, you can smell the salt in the air. And when the clouds part and rain moves on, the bay is a little browner from everything the rain just washed into it.

"Water quality is essential to our existence," Plourde-Rogers says. The VES Land Trust holds 74 donated conservation easements on 14,000 acres and has two staff members.

In recent years, VES Land Trust has required all its new conservation easement holders to have a 100-foot buffer in between their agricultural operations and any body of water. But some older easements grandfathered in narrower buffers. VES Land Trust is working with landowners to



increase those buffers to 100 feet. It used an Initiative grant to accelerate that process.

VES Land Trust contracted with the Chesapeake Conservancy's Conservation Innovation Center to get LIDAR (laser-based measurement technology) data that show tiny dips and folds in the land, and, from that, exactly how water is moving across the landscape. The maps that were created let the VES Land Trust see where improved buffers are needed most.

Plourde-Rogers says that encouraging residents of the Eastern Shore to focus on water quality requires the same balancing of needs that it does in places where residents never smell the tang of salt in the air. Maintaining local drinking water quality is important, she says, as is being able to enjoy the region's famous blue crabs and oysters in the years to come.

The second round of Land and Water Initiative grants was awarded recently, and it included a project by the accredited Brandywine Conservancy, which works in the scenic Brandywine watershed in southeastern Pennsylvania. As an organization that has "dependable water supplies" as part of its mission, the conservancy leverages national Municipal Separate Storm Sewer System (MS4) regulations under the Clean Water Act to further its goals.

One aspect of the regulations requires municipalities to reduce the nutrient pollution and sediments flowing into waterways. "Agricultural best management practices are a much cheaper route to better water quality than projects in urban or suburban

areas," says John Goodall, Brandywine Conservancy's Western Area manager.

Local farmers see the Brandywine Conservancy as a trusted resource that can provide or guide them to funding for conservation projects, help them sort out government regulations and paperwork and even help manage contractors.

"Farmers are busy," says Grant DeCosta, senior planner for the conservancy. "Having that assistance is invaluable to them, which has helped us get so much done in this area." And, he says, when giving assistance, they always keep in mind that farming is a small business. They explain the benefits in terms of saving money or improving the family's quality of life, such as having safe drinking water.

Where it all comes together, says Goodall, is when the water quality work is done on farms that already have conservation easements. "It's a wise use of our funds," he says, a way for the investment to have the longest possible life. "You know that benefit is going to be preserved."

Far-Reaching Collaborations

The Initiative also supports new partnerships of different organizations to improve water quality. The Shenandoah Valley Conservation Collaborative is doing this in a big way. It brings together eight conservation organizations—including a watershed group, a county conservation easement authority, two land trusts and four groups interested in land use, transportation and historic preservation—who

The **INTERDEPENDENCE** of Land and Water Protection

all share an interest in the Shenandoah Valley region of Virginia.

“When diverse partners meet across the table, what comes along is all their relationships throughout the community and all the respect they’ve earned within their constituencies,” says Kate Wofford, executive director of the Shenandoah Valley Network, a land use organization.

Although the collaborative is relatively new, Kim Woodwell, executive director of the Shenandoah Forum, another land use organization, says that she’s already seeing the benefits of this extended network. One partner may identify a pristine stretch of river or productive farmland and find that another partner already has a relationship with the landowner.

Wofford and Woodwell say that while the organizations in the collaborative had been working together for more than 10 years, the grant opportunity from the Initiative brought them together formally in pursuit of their shared land and water goals for the first time.

One of the partners in the collaborative is the Shenandoah Valley Battlefields Foundation. The rich cultural resources found throughout the Chesapeake Bay watershed mean that battlefield preservation

organizations are an important source of funding, knowledge, personnel and local political will to several Initiative projects.

But what’s most exciting, say Wofford and Woodwell, is the collaborative spirit behind the partnership. There are groups working to preserve historical sites all around the country, but, they contend, when you get down to it, it’s not just the history that’s important, but reaching out to new partners. “What’s innovative,” says Wofford, “is bringing in non-land trust partners to advance land conservation goals.”

As the collaborative gets started, Wofford says, “We find ourselves asking why we didn’t do this 10 years ago because there really are some exciting prospects.”

Connecting with Farmers

Lancaster County, Pennsylvania, is just 90 miles from the Chesapeake Bay, but to most of the county’s residents, the bay is a world away. Lancaster is marked by cornfields, dairy cows and historic barns adorned with colorful hex signs. For members of the Plain sects that the county is known for, such as the Amish, the distance seems even farther because it is traveled by horse and buggy.

So when staffers from the accredited Lancaster Farmland Trust sit down at the kitchen table with a local farmer, they don’t mention how trees shading a stream or good manure storage can help a Chesapeake Bay fisherman keep his job. Although the land trust knows this is true, says Deputy Director Jeff Swinehart, during that conversation, staffers focus on local benefits, such as keeping local drinking water sources safe to drink.

Farmers have faith in Lancaster Farmland Trust because of all the good it has already done in the community. By the end of 2018, it will have conserved 500 farms and 30,000 acres of land. That’s especially important in this part of the country, where farmers have cultural reservations about dealing with government agencies that make up the federal and state regulatory framework of bay restoration, Swinehart says.

Funding for projects that ultimately benefit water quality, such as an area to store manure over the winter, plays a big role in getting these projects done, says Swinehart. But they are only part of the story. For the past 12 years, the land trust has been meeting with farmers one-on-one to talk about the connection between their farming practices and water quality. The depth of this interaction means that when funding for farm improvements becomes available, the land trust already has an established relationship with the farmers who will benefit most.

Protecting Land to Protect Water

Whitewater paddling and fishing are significant parts of West Virginia’s heritage. Nearly 30 years ago, outdoor enthusiasts founded the West Virginia Rivers Coalition (WV Rivers) to look out for the health of the state’s watersheds. The group became a statewide water policy organization, focused on drinking water as well as recreational streams.

In 2014 it championed a law to protect drinking water supplies, designed to identify threats and engage the public and utilities to work upstream of water intakes. Its Safe Water for West Virginia program combines the talents and resources of utilities, agencies, watershed associations and civic groups.

The Initiative’s new grant opportunity, with its focus on partnerships, inspired WV Rivers to invite land trusts to work together to protect streams vital to drinking water. “The best way to protect water might be to protect land,” says David Lillard, coordinator of WV Rivers’ Private Lands, Public Waters collaborative. The goal is to collaborate with local land trusts to bring land conservation into a watershed-based approach to protecting drinking water. “Our aspirational model is New York City, which has been conserving land to protect its water supply for decades,” he says.

In 2018, it is identifying lands in Jefferson and Berkeley counties that are high priorities for water quality, especially the streams that feed the Shenandoah and Potomac rivers, which meet in Jefferson County. The Potomac then flows into

Thank you to the 11 Chesapeake Bay Funders Network members that have generously made pledges and contributions that collectively total more than \$1 million to the Chesapeake Bay Land and Water Initiative. The Alliance is working to match their investment 1-to-1 to maximize the program’s reach and impact.

To support this Initiative, contact Jennifer Miller Herzog, Chesapeake Program Manager, jmillerherzog@lta.org, or Suzanne Erera, Director of Foundation and Corporate Relations, serera@lta.org.

Learn more and see the full list of funders at www.lta.org/chesapeake-bay.



DI GLISSON, II

Mike Kane, John McCarthy and Claire Catlett, staff from Piedmont Environmental Council, took Jennifer Miller Herzog, Land Trust Alliance (far right) and Jennifer McGarvey, Alliance for the Chesapeake Bay, on a tour of the Upper Rappahannock Watershed, reviewing PEC's protection work in the area.

Chesapeake Bay, so better water quality for West Virginians also means a healthier and more productive bay. The Initiative funding is helping the collaborative develop conservation planning models and create public awareness of the link between land conservation and water quality.

Revolving Loan Fund Keeps Giving

At the edge of the Washington, D.C., metropolitan area, in Virginia's northern Piedmont, farmers and rural landowners are working to adopt agricultural best management practices (BMPs) to improve water quality in the Goose Creek watershed, which feeds into the Potomac River and the Chesapeake Bay, and is an important public drinking water source for the Northern Virginia suburbs.

Public agencies—such as local soil and water conservation districts—offer programs that reimburse farmers for installing those BMPs, like fencing that keeps livestock away

from streams and new wells and watering systems that provide livestock an alternative source of drinking water.

The problem is cash flow, says Michael Kane, director of conservation for the accredited Piedmont Environmental Council (PEC) of Warrenton, Virginia. Implementing BMPs can be expensive, at times costing more than \$100,000. Some farmers simply don't have the money for the up-front costs of installing the BMPs, even though they may be reimbursed later. The result: a short term funding gap is preventing willing landowners from implementing BMPs that can improve water quality in the Goose Creek watershed.

By repurposing funds from PEC's James Rowley Goose Creek Conservation Fund, originally established for real estate acquisitions in this important watershed, PEC will offer short-term capital to landowners to cover the up-front costs of participating in BMP cost-share programs.

An \$18,000 grant from the Initiative is filling a small funding gap in PEC's plans, just as the revolving loan fund fills the need for farmers, Kane says. Careful work by legal counsel will create the documentation that ensures that each project is done to specifications and that the funds return to assist the next project. Even better, this will be a model template that can be used by other organizations, particularly in Virginia, that are planning similar projects.

Just the Beginning

"We're just beginning to scratch the surface of what's possible for land trusts in terms of their role in delivering cleaner water to their communities, local creeks and streams and the bay," says Miller Herzog. "I hope that one day we're going to look back and say, 'Wow, now that was a watershed moment.'"

MADELINE BODIN IS A FREQUENT CONTRIBUTOR TO SAVING LAND.