



CHESAPEAKE BAY
FOUNDATION

Saving a National Treasure

FISCAL YEAR 2017

JULY 1, 2016–JUNE 30, 2017

IMPACT REPORT

This was a remarkable year for the Chesapeake Bay. CBF helped produce cleaner water by planting millions of oysters. We forged new partnerships, even engaging foreign embassies in Washington, D.C., through growing underwater grasses for the Bay. We successfully advocated for funds to help farmers in south-central Pennsylvania, the area of the state contributing the most pollution to the Bay. We shared the wonders of the Bay with tens of thousands of students and teachers. And with you, we celebrated the Bay's improving health.

Together, we'll push ahead until the Bay is fully restored, creating a cleaner, healthier environment for us all and making the Chesapeake Bay the planet's greatest environmental success story.

Please read on for some highlights of CBF's accomplishments in our fiscal year 2017.

2017 at a Glance

- Educated 32,526 students, teachers, and adults through our pioneering outdoor environmental education programs.
- Bolstered the Bay's natural filters by planting 48,577 trees and 40,770,999 oysters.
- Worked with 590 farmers and landowners to reduce agricultural pollution.
- Protected Maryland's oyster sanctuaries from a plan that threatened to open some of them to harvest.
- Intervened in a lawsuit to defend Virginia's stormwater fee, an important local source of funding for projects that reduce polluted runoff.
- Launched a new environmental education program at the Brock Environmental Center in Hampton Roads, Virginia, creating CBF's 15th education program in the Bay watershed.
- Provided 33,013 pounds of organic produce to over 420 families in need through a partnership between CBF's Clagett Farm and the Washington, D.C., Capital Area Food Bank.

In January, CBF released our biennial

State of the Bay report, which gave the Bay a health index rating of C-, the highest score since we first issued the *State of the Bay* 19 years ago!



50 Years of Progress

In 1967, a group of friends noticed that something was happening to the Chesapeake Bay. "There



Truman Semans

were fewer ducks, and the underwater grasses were disappearing," says Truman Semans, a Baltimore businessman who joined CBF just after its founding. "We could see that the Bay's resources were diminishing, but to be honest, I don't think that we realized that it was as critical as it turned out to be."

Fifty years later, the Bay has gone through a total system collapse and has begun to recover, thanks to the ambitious federal and state clean-up plan, which CBF supported and defended, called the **Chesapeake Clean Water Blueprint**. With the support of our members, CBF has significantly increased public awareness of the Bay's health, protected ecologically sensitive areas, and pioneered an environmental education program that has touched the lives of 1.5 million people. CBF has grown to more than 240,000 members strong and has become the leading voice advocating on behalf of the Chesapeake Bay and its waterways.

When asked why he is still involved with CBF after all of these years, Semans replies, "If we keep working at it, and we continue making people aware of how necessary the Bay is, I'm optimistic that we will succeed."



Bolstering the Blueprint

"Like flying a plane without instruments." That's how CBF President Will Baker describes efforts to restore the Bay, should the Chesapeake Bay Program funding be eliminated. The Chesapeake Bay Program is a branch of the U.S. Environmental Protection Agency that provides pollution-reduction grants to the states and conducts scientific monitoring of the Bay, providing vital data telling us how the Bay is progressing.

This year, the Trump Administration proposed eliminating the Bay Program from its federal budget. Recognizing that this elimination would stop Bay cleanup in its tracks, CBF led the way in advocating that Congress restore the funds in the final federal budget. We:

- **Alerted our members to this urgent threat** and urged them to contact their representatives in Congress. Over 30,000 have signed our petition in support of the Bay Program.
- **Published op-eds and letters to the editor in a variety of local and regional newspapers**, explaining why the Chesapeake Bay Program is critical to local clean-up efforts and the success of the Blueprint. CBF also appeared in national news regarding the cuts. Our Virginia Oyster Restoration Center was featured in a video produced by *The New York Times*, and CBF scientists and President Will Baker appeared on NPR's *All Things Considered*.
- **Advocated for bi-partisan support from lawmakers and regional leaders.** CBF has worked closely with the Bay delegation to Congress, which jointly signed a letter to President Trump urging him to preserve the Bay Program's funding. We held an urgent and well-received lobby day, bringing CBF members to Washington to meet with their representatives. Although negotiations were still underway at the time of publication, the House Appropriations Committee has approved \$60 million in funding for the Bay Program.
- **Partnered with more than 500 farming and conservation groups**, including the American Farm Bureau Federation (an organization that previously opposed the Blueprint in a five-year legal battle), to urge Congress to maintain Farm Bill funding in the 2018 federal budget. The Farm Bill includes vital funding for conservation programs that help farmers reduce pollution.

Action Through Advocacy

Over the past year, CBF was also a leader in advocating at the state level:

- In Maryland, a proposal threatened to open sanctuary (protected) oyster reefs to harvest. Until an ongoing stock assessment of the native oyster population is completed, these sanctuaries should remain closed. With the support of our members, **CBF and partner organizations successfully advocated for the Oyster Sanctuary Bill**, which preserved sanctuaries from harvest. More than 3,600 CBF members wrote to legislators urging them to stand up for oyster sanctuaries.
- CBF released an analysis that found Pennsylvania could significantly reduce pollution by prioritizing conservation efforts in the five south-central counties producing the most pollution: Lancaster, York, Franklin, Cumberland, and Adams. After CBF's call for state and federal investment in this strategic approach, the Chesapeake Bay Executive Council (the governing body responsible for Bay cleanup), announced **\$28 million in additional conservation funding**, much of it earmarked to help farmers in the priority areas that CBF identified. Upon making the announcement, **EPA Administrator Gina McCarthy thanked CBF for keeping the agency focused on Pennsylvania and identifying the most effective course of action.**



DAVID TANAN/CBF STAFF

University of Maryland, College Park, Alternative Spring Break students wrote letters and attended a bill hearing in support of keeping oyster sanctuaries closed to harvest.



CHRISTINE LECHNER

At Waynesboro, Virginia's annual Riverfest on the banks of the South River in the Shenandoah Valley, CBF's Grassroots Field Specialist Robert Jennings educated and encouraged visitors to sign postcards to their Congress member. Jennings delivered the postcards, which urged Congressional leaders to keep funding of the Chesapeake Bay Program in the final federal budget.

Protecting Progress

During our fiscal year 2017, CBF's Litigation team:

- **Defended Virginia's stormwater fee**, a local source of funding for projects that reduce polluted runoff.
- **Raised awareness about Maryland's Critical Area Act**, which some Maryland counties have not been enforcing.
- **Tackled air pollution through an innovative, multi-faceted project** focusing on agricultural and industrial sources throughout the Bay region and beyond.
- **Protected wetlands and other ecologically sensitive areas** by challenging unlawful development.

CBF's innovative and precedent-setting legal work has a **tangible impact on the health of our waterways.**





Engaging the Next Generation of Bay Stewards

CBF's environmental education program offers students, teachers, and adults from across the watershed the opportunity to experience the Bay firsthand. **This year CBF launched a new program at the Brock Environmental Center—CBF's regional headquarters in Virginia Beach.**

"This is an area that is surrounded by water. We have the Bay on one side, the Atlantic on the other, and a bunch of rivers in between. There's great interest from teachers for outdoor learning opportunities for students," says Molly Graham, Manager of the Brock Center's education program.

Graham leads students and teachers on explorations of the marshes and unique natural landscaping around the Brock Center. The students don't stay dry for long. A highlight of the day is often seining, when students drag a net across the creek bottom to examine what critters they find.

The new program also utilizes another resource: the Brock Environmental Center and its Lester Education Pavilion.

Having received accolades as one of the greenest buildings in the world, the center showcases features which make it beneficial to the environment and to the education of its visitors. Welcoming over 70,000 visitors since its opening in 2015, the Brock Center generates all of its own electricity, captures and treats rainwater onsite for drinking, and utilizes reclaimed and recycled materials throughout the building. "The Brock Center gives a different perspective on balancing the needs of nature and the need for development and provides a chance to have really interesting, complex discussions," says Graham. **"The experiences we provide students are unique and memorable. These kids will carry this with them for years to come."**

The Brock Environmental Center Education Program served over 1,200 participants in its first year.

Over 1,300 community members attended the inaugural Brock Center Save the Bay Family Day and participated in several activities, like exploring the Lynnhaven River on the *Jenny S*, learning first-hand about the Bay and CBF.

A Leader in the Field

This year, CBF's environmental education program received a powerful endorsement when the National Oceanic and Atmospheric Administration (NOAA) formally adopted our **Environmental Literacy Model (ELM)**. CBF and partners developed the model as a way to **integrate environmental issues into classroom curricula.**

**ENVIRONMENTAL
LITERACY
MODEL ELM**



ELM incorporates the environment into core subjects, such as science and social studies, using the local environment to investigate classroom subjects and encouraging students to learn **through hands-on exploration.**

As NOAA provides grant funding to environmental educators across the country, their adoption of ELM is a **powerful endorsement of CBF's approach.**

Grasses for the Masses Goes Global

For a group of embassy staffers this year, their schedules involved the usual paperwork, typical meetings, *and* growing underwater grasses! CBF was honored to have diplomats from 15 countries growing these grasses in their Washington, D.C., embassies as part of the Department of State's Greening Diplomacy Initiative.

In January 2017, CBF held a training workshop, providing grasses, supplies, and instructions on how to make their sprouts thrive. Along the way, the diplomats not only got their hands dirty but also learned why grasses are so important to the Bay—they provide habitat for fish and crabs, add oxygen to the water, and trap sediment.

After six months of growing the grasses in their offices, the diplomats—from countries including Costa Rica, Somalia, and Germany—planted their grasses in the Potomac River off Mason Neck State Park in Fairfax County, Virginia. There was some friendly competition with awards given to the countries with the longest and most dense shoots. (China was the winner.) Through this partnership, CBF engaged diverse new audiences in hands-on Bay recovery while sharing restoration techniques that can be implemented throughout the region, country, and world.



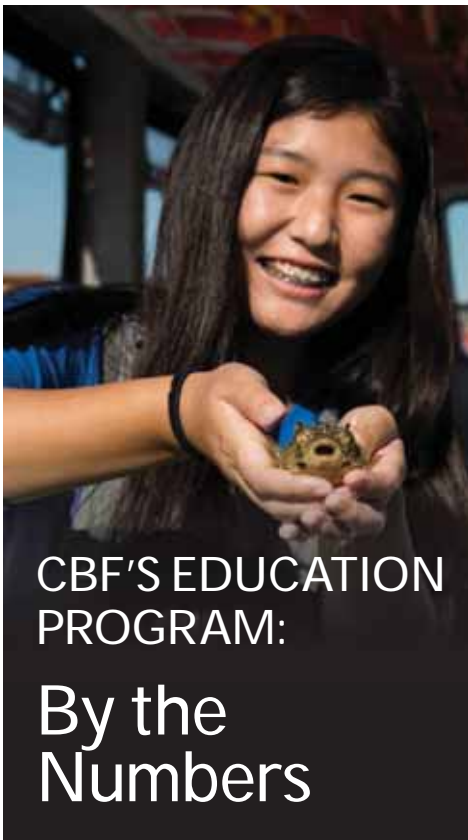
EMMY NICKLIN/CBF STAFF

This past spring, 15 foreign embassies grew underwater grasses and planted them off Mason Neck State Park in Virginia. Cliff Seagroves (pictured above), Acting Director of the Office of Foreign Missions with the U.S. State Department, helped plant the grasses.

"We have so much emphasis on maintaining biodiversity, especially in the water, because we are an island country. This is a nice example that we can replicate in our home country, too."

—Anggarini "Ririn" Sesotyoningtyas, with the Embassy of Indonesia, as quoted in *Bay Journal*, April 25, 2017

JAY FLEMING



CBF'S EDUCATION PROGRAM: By the Numbers

32,526 students, teachers, and adults participated in CBF's environmental education programs last year.

15 programs are offered, ranging from one-day experiences on the water to multi-night excursions to remote islands in the Chesapeake Bay.

72 students took part in CBF's Student Leadership program, participating in an immersive weeklong field experience across the watershed, which culminated in *50 Forward*, an event where these dedicated students met and presented their Bay-saving strategies to regional environmental leaders.

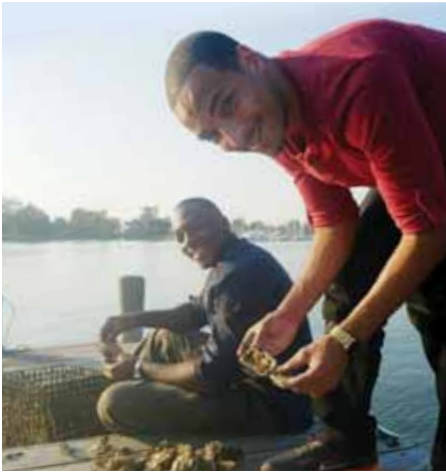
2 Urban Outreach Educators joined CBF's staff last year and are creating new opportunities for students and teachers in Baltimore and Washington, D.C., to participate in our programs.

5,819 students from Title I schools participated in CBF programs. CBF strives to ensure that our learning experiences are accessible to all students, regardless of socio-economic status.

406 teachers participated in our *Chesapeake Classrooms* program, which provides teachers with the skills and resources to incorporate outdoor learning into their curriculum.

Helping Communities Reduce Pollution

CBF works directly with local communities such as Hampton, Virginia, on high-impact restoration projects. This year, we:



ANN JURCZYK/CBF STAFF

Worked with students and staff at Hampton University, a prestigious, historically black university located near the mouth of the Chesapeake Bay in Virginia, to jumpstart oyster restoration activities in the Hampton River.



ANN JURCZYK/CBF STAFF

Installed several rain gardens, including one at the First Baptist Church of Hampton, estimated to treat at least 750 square feet of polluted runoff. **We offer continued education on this type of green infrastructure** by hosting community workshops teaching neighbors about rain gardens and other practices for their properties.



ANN JURCZYK/CBF STAFF

Assisted Langley Air Force Base in installing a second oyster reef in Back River, with the help of students from local Booker Elementary School. CBF and NASA Langley Research Center also **hosted local officials on a tour of innovative stormwater management** at the NASA facility.

Supporting Pennsylvania Farmers

“We want to hear from farmers—what can we do to make it easier?” says Bill Chain, CBF’s Senior Agriculture Program Manager. **Chain leads a farmer’s advisory council in Pennsylvania, which seeks to encourage sustainable farming and deepen CBF’s relationship with the Commonwealth’s farming community.**

Through quarterly meetings, Chain learns about the obstacles farmers face when seeking to implement conservation practices. In some cases, CBF can send one of our trained specialists to help. In other

cases, we raise issues with state senators and other lawmakers, advocating for robust public investment in programs that will help overcome barriers.

“We figure out the road blocks and communicate them to others. CBF is unique in that we work directly with farmers, and we advocate. That gives us a lot of credibility and enables us to get things done,” Chain says.

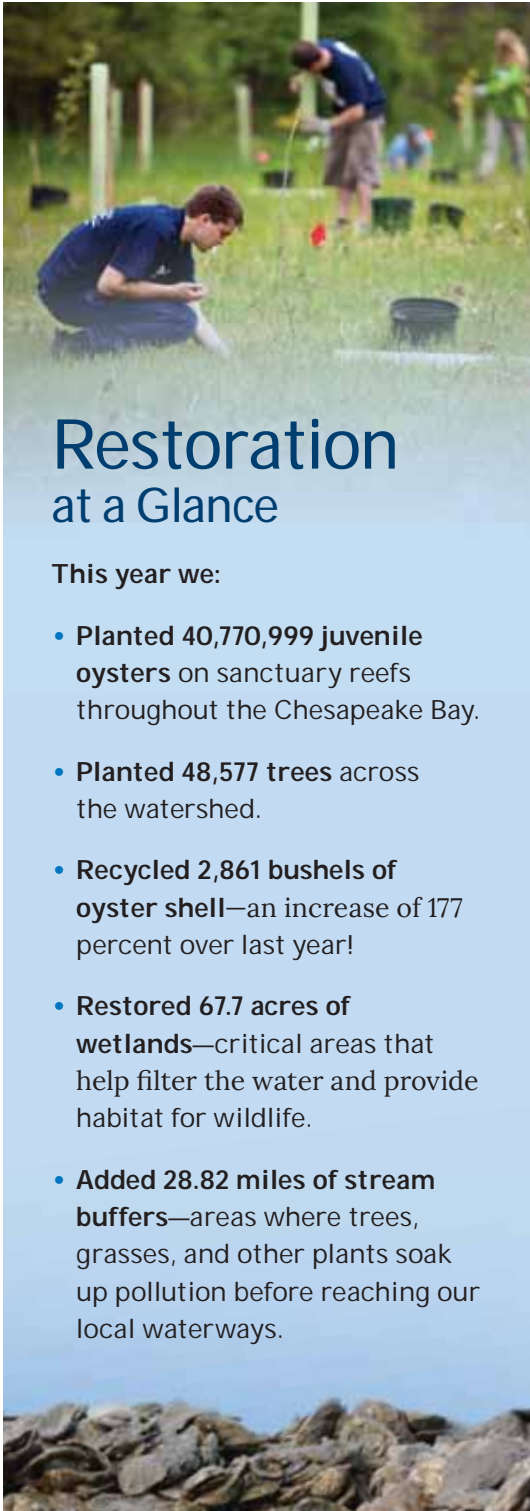
CBF is working to make Pennsylvania’s waters—and the Bay—a little cleaner, one farm at a time.

“These practices are too important to me to not do them. I consider it the right thing to do.” —David McLaughlin, a member of CBF’s Farmer Advisory Council, as quoted in *Lancaster Farming*, August 4, 2017



"I'm incredibly proud to work for an organization like CBF that will continue to seek innovative ways of solving problems—which will ultimately save the Bay!"

—Kim Coble, CBF Vice President for Environmental Protection and Restoration



NIKKI DAVIS

Restoration at a Glance

This year we:

- **Planted 40,770,999 juvenile oysters** on sanctuary reefs throughout the Chesapeake Bay.
- **Planted 48,577 trees** across the watershed.
- **Recycled 2,861 bushels of oyster shell**—an increase of 177 percent over last year!
- **Restored 67.7 acres of wetlands**—critical areas that help filter the water and provide habitat for wildlife.
- **Added 28.82 miles of stream buffers**—areas where trees, grasses, and other plants soak up pollution before reaching our local waterways.

Continued Innovation

One major challenge to the Bay's recovery is polluted runoff. In recent years, **CBF and others have promoted green infrastructure, such as rain gardens, to reduce polluted runoff and manage stormwater.** Green infrastructure slows runoff, filtering out pollutants and sediment before they arrive in downstream waters. Although science shows these techniques to be very effective, municipalities have been slow to adopt them due to strapped budgets and concerns that these techniques are untested.

To reduce the risk to local communities, **CBF is investigating Environmental Impact Bonds as a financing method for green infrastructure implementation.** CBF Vice President for Environmental Protection and Restoration Kim Coble shares more about this innovative endeavor:



NIKKI DAVIS

Kim Coble

Can you tell us more about green infrastructure?

The fact is, America's aging infrastructure is desperately outdated and will be costly to upgrade. Installing green infrastructure—such as rain gardens and green roofs—is an incredibly appealing option. It's economical to implement and maintain, and provides jobs, flood control, and climate-change resilience.¹ These practices will create cleaner waterways and healthier communities nationwide.

How do Environmental Impact Bonds or similar loans come into play?

Basically, Environmental Impact Bonds allow private investors to pay the upfront costs associated with developing these innovative projects, AND they receive a return on their investment based on the environmental outcomes. It's a win-win arrangement: Municipalities can test environmentally friendly methods of managing stormwater with low risk, while non-traditional or civic-minded investors can help solve a tricky problem and potentially collect a return.

So what does CBF have in store for Environmental Impact Bonds?

We are planning to engage up to four diverse communities within the watershed to implement green infrastructure funded through Environmental Impact Bonds. We'll work to identify ideal environmental outcomes, offer technical advice, and publicize the work. Plus, of the four communities selected, at least one will be economically challenged; we feel it's important to improve environmental conditions in a disadvantaged area AND to demonstrate the potential of green infrastructure to create environmental equity.

¹ Source: "Green Infrastructure and Climate Change Collaborating to Improve Community Resiliency," EPA, August 2016

In the last year, CBF and staff members received several awards and accolades. We share these honors with our generous and dedicated members.

- In March 2017, Will Baker accepted the *President's Environmental Excellence Award* from the **National Association of Environmental Professionals** for CBF's defense and implementation of the Chesapeake Clean Water Blueprint.
- Pennsylvania, Maryland, and Virginia legislatures all recognized CBF on its 50-year anniversary with **resolutions and official citations** for conserving and protecting our beloved Bay.
- CBF's state-of-the-art Brock Environmental Center received numerous awards for its sustainability and design, most notably from the **American Institute of Architects Committee on the Environment's prestigious 2017 Top Ten Green Projects and 2017 Top Ten Plus Honor for Exceptional Post Occupancy Performance.**
- Mary Tod Winchester, Vice President for Administration, received the *Women in Sustainability Leadership Award* from *Green Building & Design Magazine* and the *Hero Award* from the **International Living Future Institute.**
- Kim Coble, Vice President for Environmental Protection and Restoration, was honored as a *Birdland Hero* by the **Baltimore Orioles** for her 25 years of leadership and service to the Chesapeake Bay and its communities.
- CBF's Virginia Oyster Restoration Team received the *2017 Communications Award* from the **Chesapeake Environmental Improvement Council** for individuals or groups involved in outstanding recycling, beautification, and litter-control projects.
- Bill Portlock, CBF's Senior Educator, received the *Elizabeth Cabell Dugdale Award for Conservation* from the **Garden Club of Virginia** for his outstanding work in conservation.



KENNY FLETCHER/CBF STAFF

Delegate L. Scott Lingamfelter (at the microphone) announced the resolution on the floor of the Virginia House of Delegates before formally presenting a certificate to CBF President Will Baker and CBF's Virginia Executive Director Rebecca LaPrell (center).



SCOTT ADAMS

The support of our members makes all of our work possible, from our environmental education programs, to planting oysters and trees, to advocating for a science-based approach to reducing pollution. Please support CBF and become a member today at cbf.org/join. Together, we can create a healthy, vibrant Chesapeake Bay, for us and future generations.

CBF prides itself on demonstrating the highest standards of transparency, effectiveness, and accountability. We hold high ratings with the top charity rating organizations in the United States, including:



GuideStar Exchange
Platinum Participation Level



Independent Charities
Seal of Excellence



Better Business Bureau
Top-Ranked Charity



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