

From PA *to the* BAY



CHESAPEAKE BAY
FOUNDATION

Saving a National Treasure

Who *is* this guy?



CHESAPEAKE BAY
FOUNDATION

Saving a National Treasure



Who is *CBF*?



CHESAPEAKE BAY
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Saving a National Treasure



Source: CBF



Source: CBF

Source: CBF



Source: Janice Wagner Photography

SAVE THE BAY



cbf.org • 1 888 SAVE BAY
CHESAPEAKE BAY FOUNDATION



Source: Jim Pickerell, 1973, via National Archives Catalog



Bay is dying, scientists warn

By Michael Wentzel
Evening Sun Staff

From May through most of September, 25 percent of the Chesapeake Bay in Maryland—from the Bay Bridges to just south of the Potomac River—is dead.

At a depth below 30 feet, this 85-mile stretch of the bay is oxygen-starved, choked with poisonous hydrogen sulfide and uninhabitable. No crab, no fish, no oyster can live there. Only rugged anaerobic bacteria can survive.

"This deepwater oxygen loss has occurred in the past. It's a natural phenomenon but not on such a scale," said Roy Taft, a research scientist with the Johns Hopkins Chesapeake Bay Institute.

"Since 1960, it has extended over a wider area and for a longer period of time. The increase in intensity has been dramatic. Man's activity in the watershed has helped to

Little has changed since the first reports of problems in the Chesapeake Bay. A 8

These increases. This is the strongest single indication we have that the bay has changed in the last 20 years. My feeling is that it is for the worse."

Taft's findings, along with those of a wide range of scientists under the federal Environmental Protection Agency's \$27 million Chesapeake Bay Program, etch a grim portrait of a bay undergoing extensive and potentially calamitous changes.

Previously conservative scientists like Taft and Kent Price, a marine biologist at the University of Delaware, who five years ago believed the bay was a healthy body of water, have found the portrait so alarming they decided to speak out.

"Before this research began, I felt the bay was fairly pristine," Price said. "I no longer feel that. At least one-third of the bay is stressed. If something is not done, it won't be long—perhaps 10 years—when two-thirds of the bay will be stressed. If society desires to preserve the bay, it is now, we must do something soon."

The research details the steadily increasing presence of toxic chemicals and metals and the growing dominance of minute plant and animal life that cut off light and suck oxygen from the bay waters.

The studies also appear to refute the theory that the changes in the bay—the dwindling number of rockfish and the disappearance of the grasses that once covered the bay floor—are part of a natural cycle.

"This is a portrait of a body of water on a decline," said Price, who works on the program's staff.

"The decline continues to accelerate. Any prudent individual reviewing the information would have to conclude that we must apply increased controls. Just to hold things as they are now, we will have to do something."

Completing almost five years of work, the bay program staff and scientists will produce by the end of this year at least 40 technical reports, a series of summary articles called "synthesis papers," a report characterizing the state of the bay and a management report outlining strategies for improving the bay.

The Evening Sun interviewed a dozen scientists who worked in the bay program, which has been one of the broadest and most thorough examinations ever of a single body of water. The major findings of the program research are:

- The amount of nitrogen and phosphorus flushed out of sewage treatment plants and skimmed off fertilized farmlands into the bay has doubled in the last 20 years. The two chemicals act as nutrients, accelerating growth of minute plant and animal life that have a variety of effects.

[Continued, Page A 8, Col. 1]



The Evening Sun

Darkened area shows parts of bay poisoned and oxygen-starved 30 feet below surface.

Bay action awaits review by EPA

By Michael Wentzel
Evening Sun Staff

With only five months left in the life of the Chesapeake Bay Program—the federal Environmental Protection Agency's \$27 million effort to study the state of the nation's largest estuary—no one has a plan to translate the program's scientific findings into governmental action.

Scientists and state officials agree on the high caliber and uniqueness of the work of the program which they say provides some startling assessments of the state of the bay and establishes a valuable data base for future study and management.

But no action apparently will be taken until the EPA reviews and publishes the scientific findings and then presents a series of management options to improve the bay. Those options could include increased and more costly levels of sewage treatment, tougher air pollution and

[Continued, Page A 8, Col. 1]





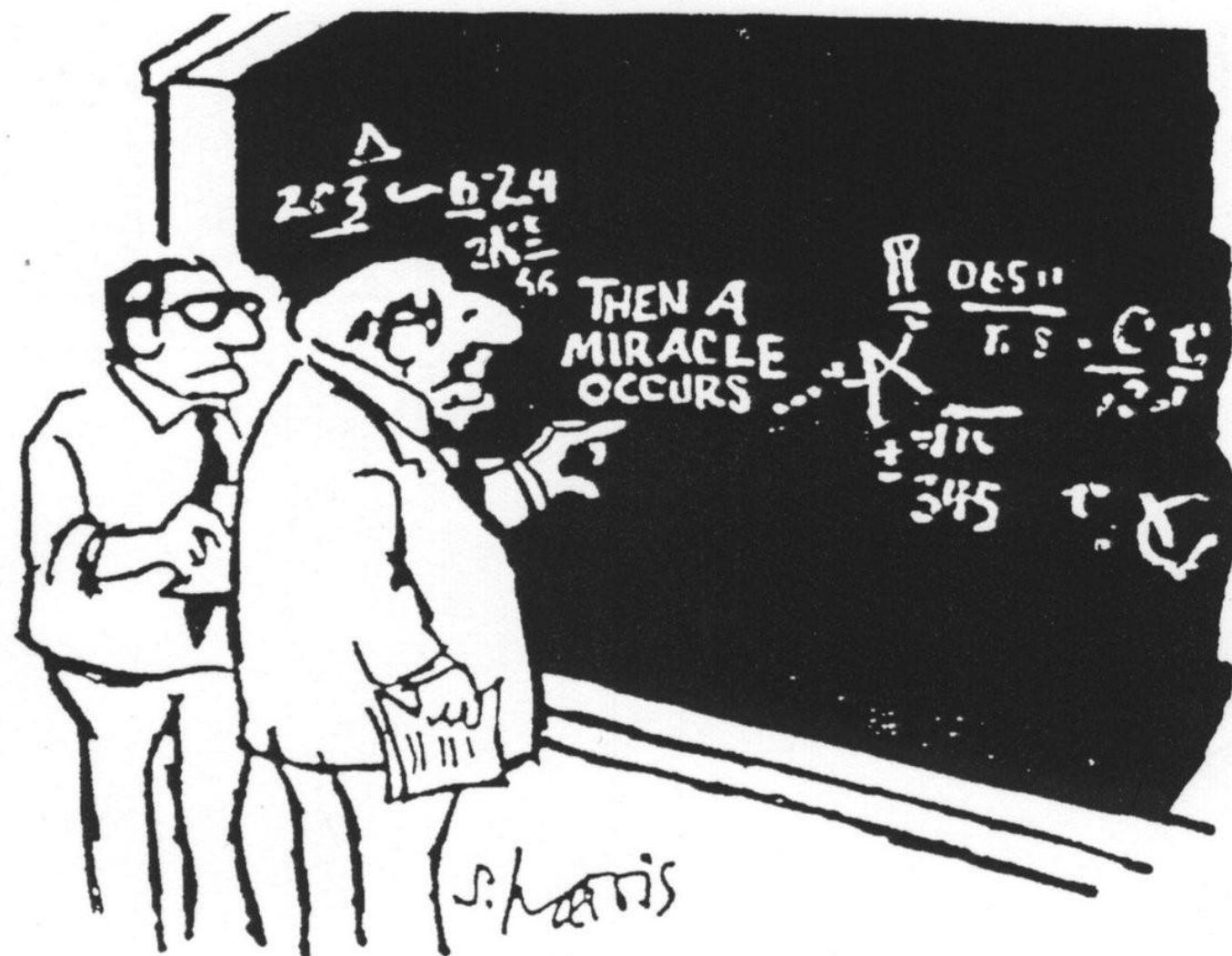
Source: CBF



Source: CBF



Source: CBP



I think you should be a little more specific, here in Step 2

Est. 2010

Chesapeake Clean Water Blueprint

Goal: 2025

WHAT IS THE BLUEPRINT?

It's a unique agreement between the six Bay states, Washington D.C., and the EPA, designed to ensure pollution is reduced and local waterways are restored.



HOW DOES IT WORK?



IT ENSURES
SHARED
RESPONSIBILITY.



IT SETS INCREMENTAL
POLLUTION-REDUCING
GOALS.



IT IMPOSES
CONSEQUENCES
FOR FAILURE.

AND IT IS WORKING.

The progress we are making shows what can be done when businesses, governments, and individuals work together. But much more needs to be done.



With 2025 Chesapeake Bay goal out of reach, region plans for what's next



Karl Blankenship

Oct 7, 2022

5

News by Topic

Ag & the Bay
Special Series



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Since 1957

Clyde's
SPORTS SHOP

FISHING TACKLE - LIVE BAIT
GUN AMMUNITION



No doubt: The Chesapeake Bay is improving

DOUG DOMENECH Jul 29, 2012 Updated Sep 19, 2019  0

Scientists say they're confident Chesapeake Bay health is 'significantly improving'

By SCOTT DANCE
THE BALTIMORE SUN | JUN 15, 2018 AT 10:30 AM



Good news for the Bay, and some challenges

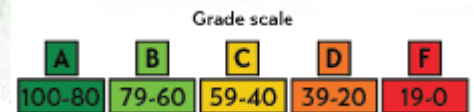
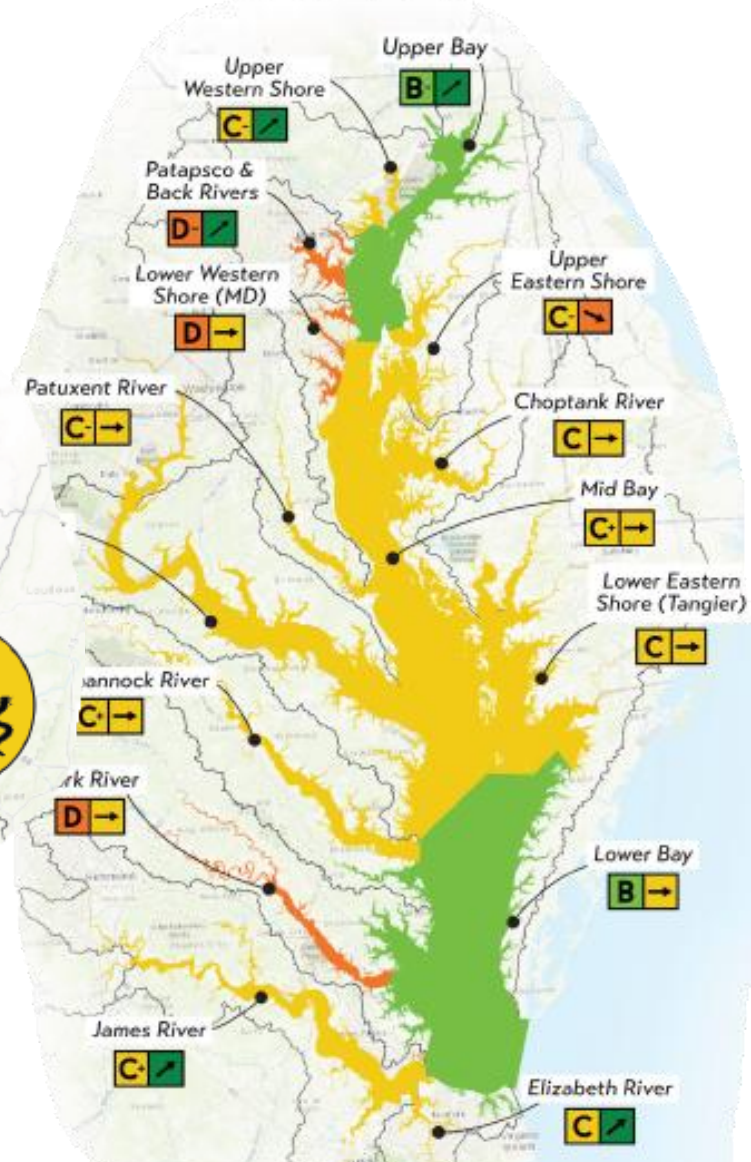
Apr 7, 2021  0

CHESAPEAKE BAY & WATERSHED

REPORT CARD 2023/2024



Source: UMCES



OPINION

Chesapeake Bay's got a friend in Pennsylvania | STAFF COMMENTARY



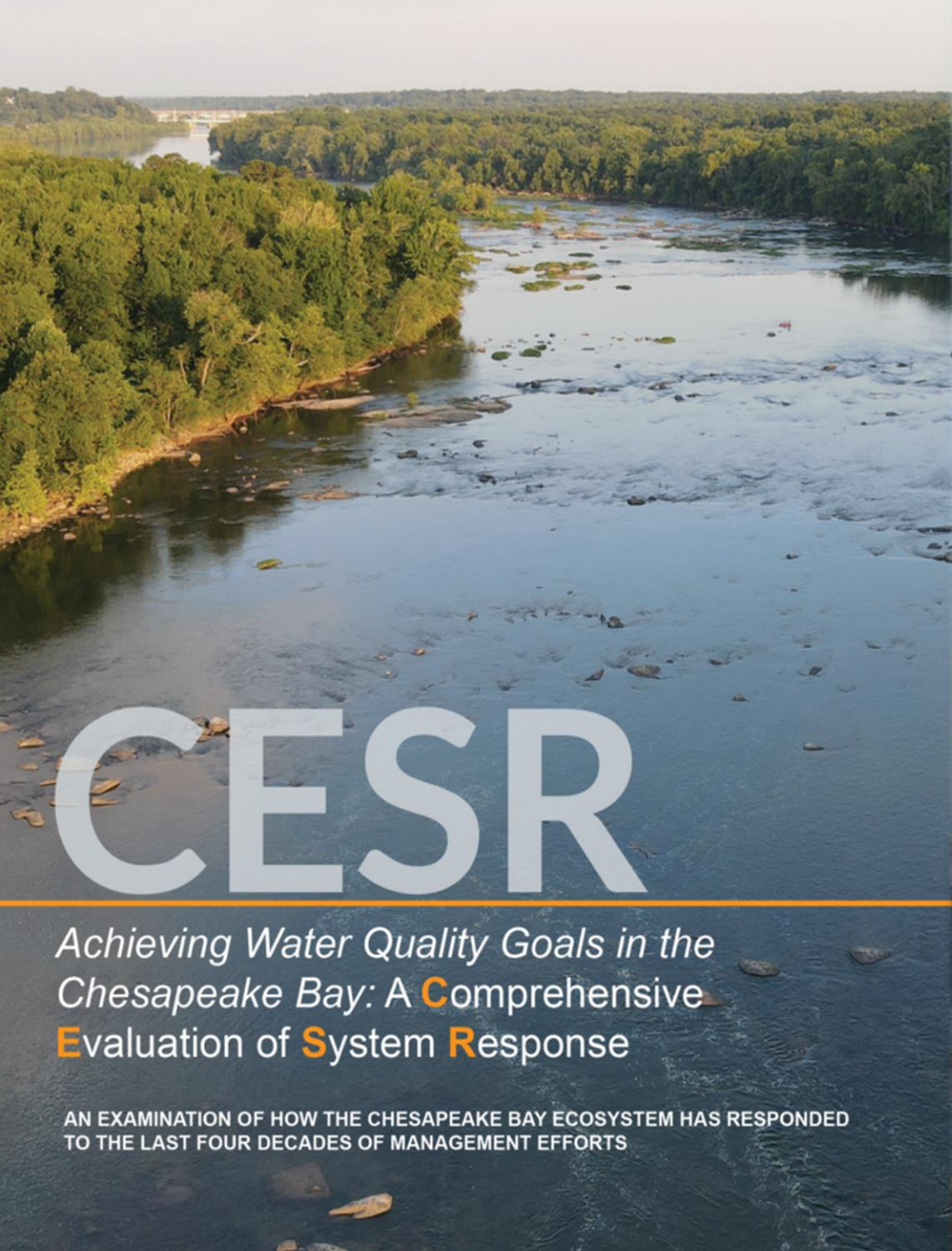
MOST POPULAR



Source: rawpixel





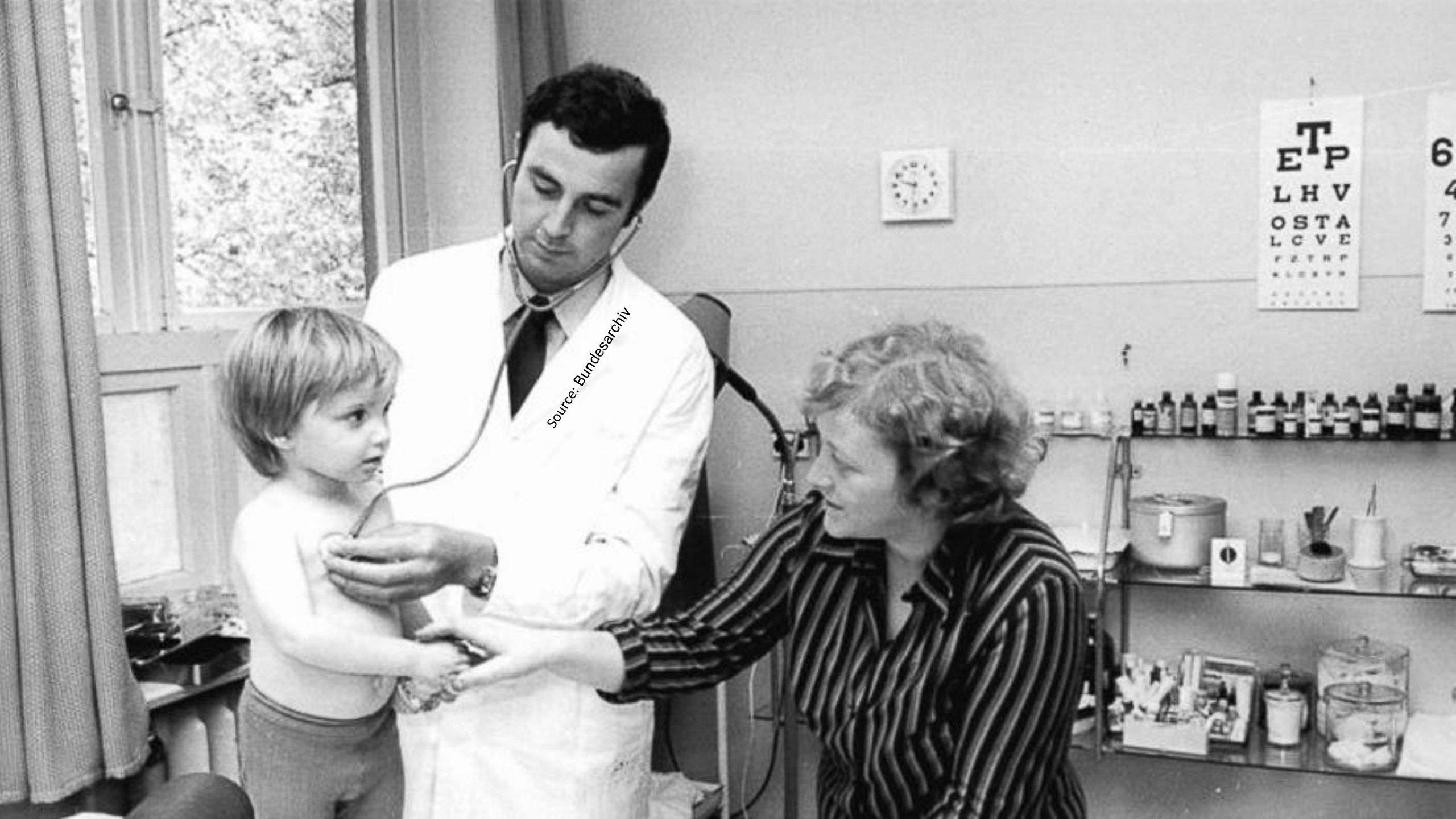


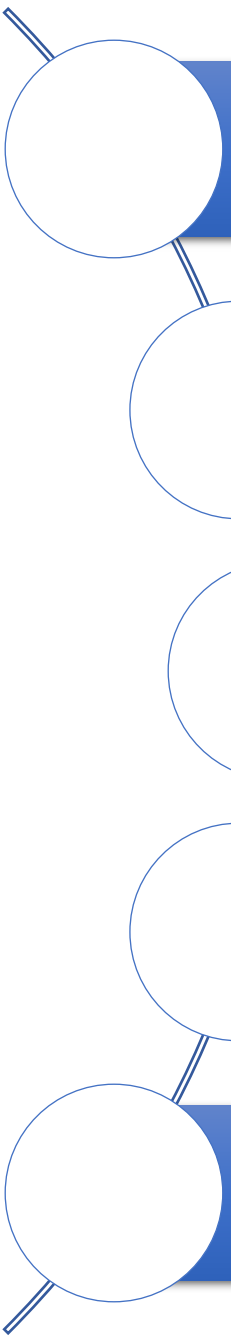
CESR

*Achieving Water Quality Goals in the
Chesapeake Bay: A Comprehensive
Evaluation of System Response*

AN EXAMINATION OF HOW THE CHESAPEAKE BAY ECOSYSTEM HAS RESPONDED
TO THE LAST FOUR DECADES OF MANAGEMENT EFFORTS







Focus on Outcomes

Promote Innovation

Confront Impacts of Climate Change

Build & Strengthen Partnerships

Center around People

CBF'S VISION

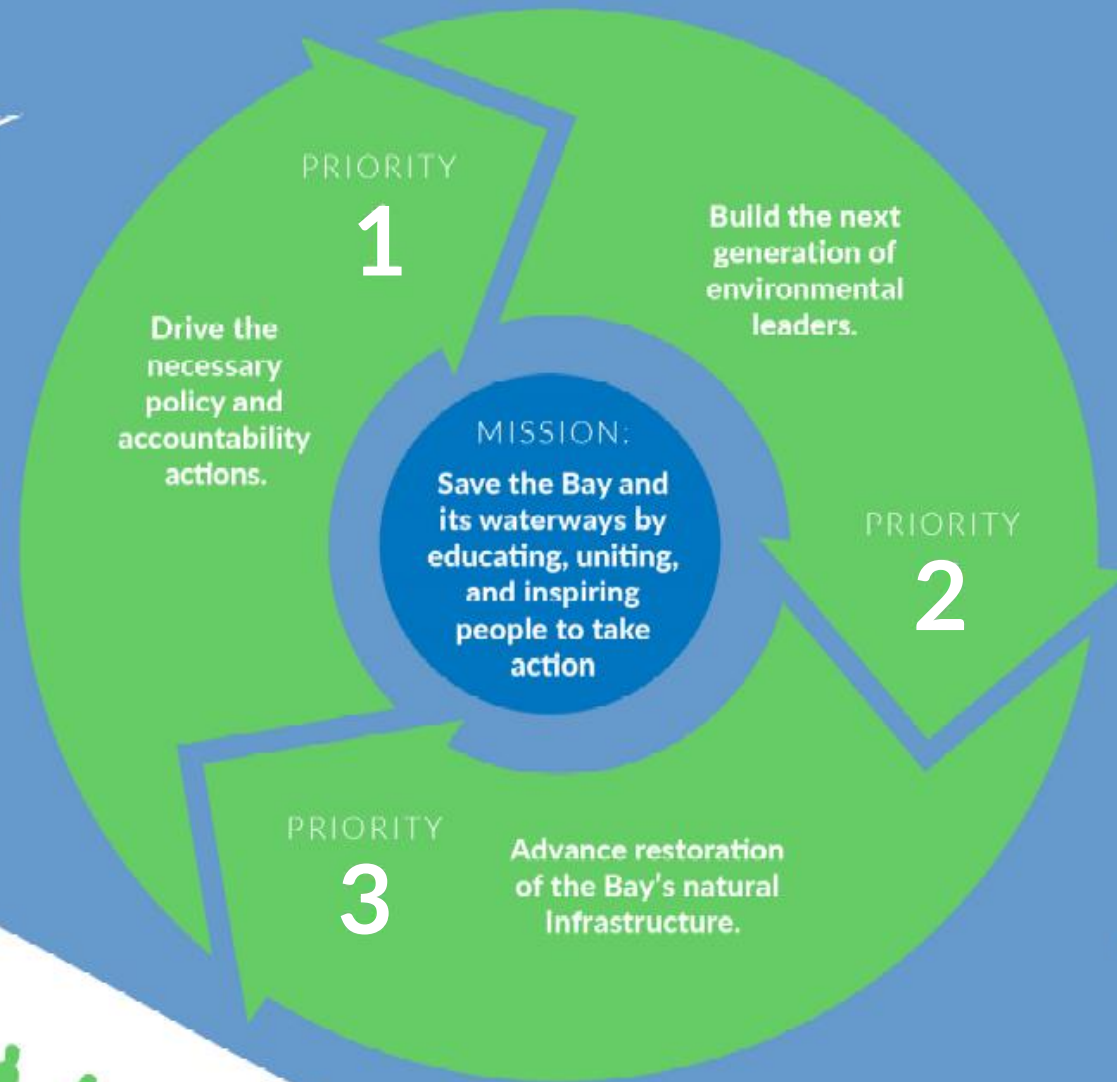
A HEALTHY AND RESILIENT CHESAPEAKE BAY ECOSYSTEM

where people, plants,
and animals
thrive together



CORE VALUES:

We are connected, credible, and
courageous in every facet of our work.



SHARED RESULT:

RESTORING AND PROTECTING
THE CHESAPEAKE BAY, ITS
WATERWAYS, LANDS, AND WILDLIFE
IS A SHARED PRIORITY OF
INDIVIDUALS, BUSINESSES,
AND GOVERNMENTS.

SHARED RESULT:

THE CHESAPEAKE BAY
ECOSYSTEM IS HEALTHY,
RESILIENT, AND PROTECTED
FOR FUTURE GENERATIONS
IN A CHANGING CLIMATE.

SHARED RESULT:

ALL PEOPLE WHO LIVE,
PLAY, OR WORK IN THE
CHESAPEAKE REGION HAVE
EQUITABLE OPPORTUNITIES TO
EXPERIENCE, AND BENEFIT FROM,
A THRIVING CHESAPEAKE BAY.





Engagement



Restoration



Policy



Education



Litigation



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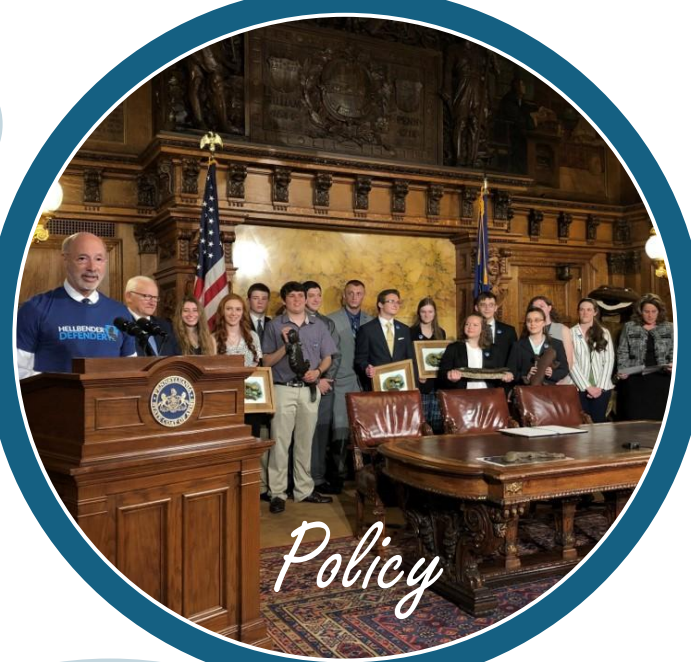
PENNSYLVANIA



Engagement



Restoration



Policy



**CHESAPEAKE BAY
FOUNDATION**

Saving a National Treasure

PENNSYLVANIA



Education



Litigation



Policy

State Budget that advances
conservation

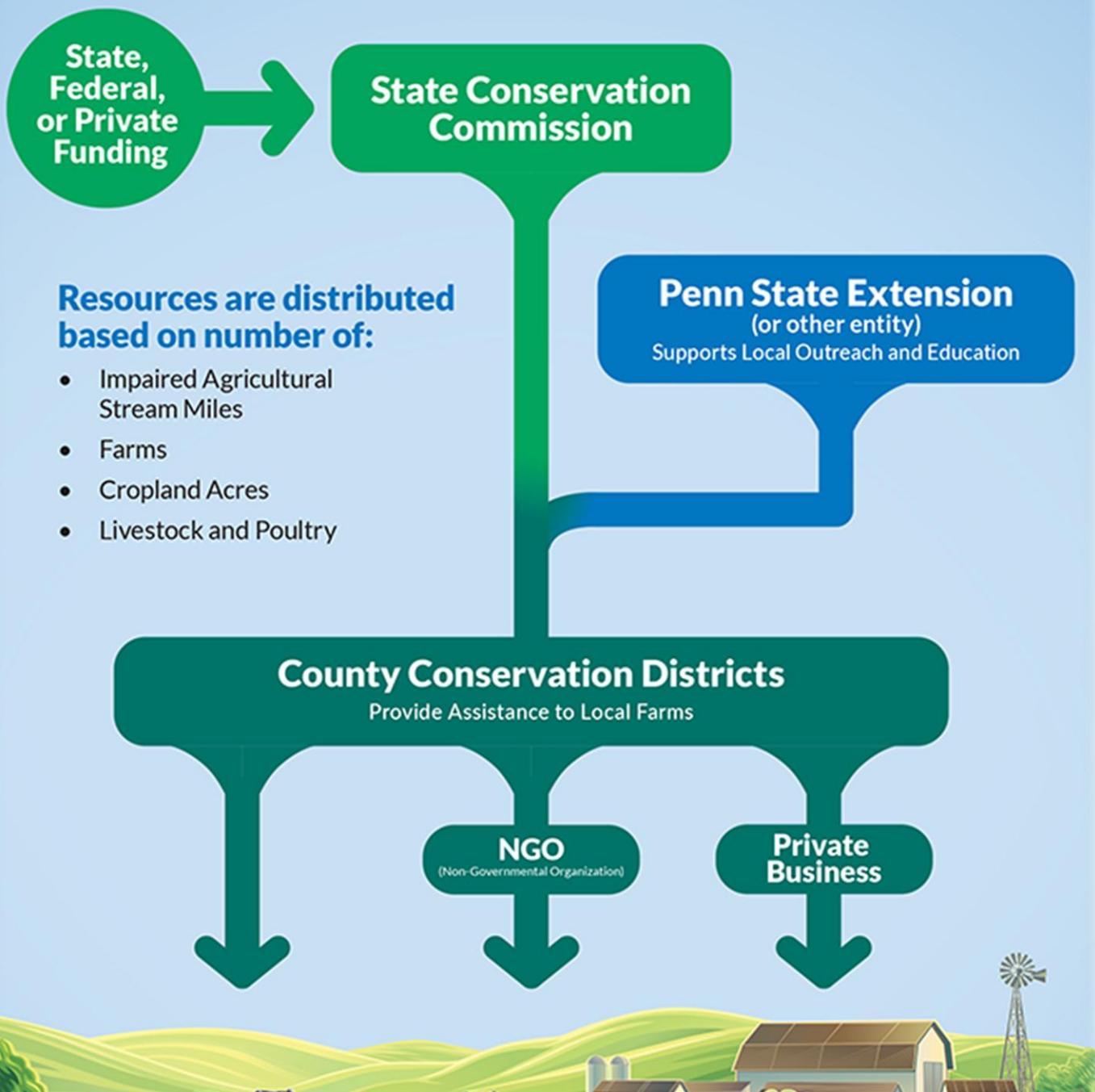
Sufficient agency
complement

Science-based regulations,
policies, and guidance

Drive the necessary policy
and accountability actions

1

How ACAP Sets Pennsylvania Farmers up for Success



Policy

Passed in FY22-23

\$220M Clean Streams Fund package

\$154M (70%) for ACAP

\$22M to *Clean Water Procurement Program*

\$22M to *Nutrient Management Fund*

\$8.8M to *Act 167 planning*

\$8.8M to *Keystone Tree Account*

\$4.4M to *Abandoned Mine Drainage*

Drive the necessary policy
and accountability actions

1

Policy

FY-23-24: \$50M reoccurring
Clean Streams Fund investment

\$35.75M (71.5%) for ACAP

>2,000 projects contracted

~70% within PACBW

Drive the necessary policy
and accountability actions

1



Policy

Food Processing Residual Wastes
Stream Maintenance
Coal-tar Asphalt Sealants
Forested Riparian Buffers

Pollinator Habitat Guidance
Freshwater Salinization Syndrome
Microplastics
Forested Riparian Buffers

Drive the necessary policy
and accountability actions

1

A close-up photograph of a person's legs and feet, wearing black socks and dark sneakers, applying a thick, black asphalt sealant to a driveway. The person is using a large, flat-topped brush. The background shows a suburban street with houses and a clear sky.

Policy

Food Processing Residual Wastes
Stream Maintenance
Coal-tar Asphalt Sealants
Forested Riparian Buffers

Pollinator Habitat Guidance
Freshwater Salinization Syndrome
Microplastics
Forested Riparian Buffers

Drive the necessary policy
and accountability actions

1

Policy

Food Processing Residual Wastes
Stream Maintenance
Coal-tar Asphalt Sealants
Forested Riparian Buffers

Pollinator Habitat Guidance
Freshwater Salinization Syndrome
Microplastics
Forested Riparian Buffers

Drive the necessary policy
and accountability actions

1

Source: Sgt. Michael Davis, DOD

**Pennsylvania Stormwater
Best Management Practices
Manual**

Chapter 1

Introduction and Purpose



Policy

Finalized

December 2006

18 years

Drive the necessary policy
and accountability actions

1



Engagement



Restoration



Policy



Education



Litigation



**CHESAPEAKE BAY
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PENNSYLVANIA



Litigation

Cuffs Run

1,000-acre pumped-storage
hydroelectric facility

580 ac of farms, fields, &
forests flooded

40+ families displaced

Source: CBF

Drive the necessary policy
and accountability actions

1



Engagement



Restoration



Policy



Education



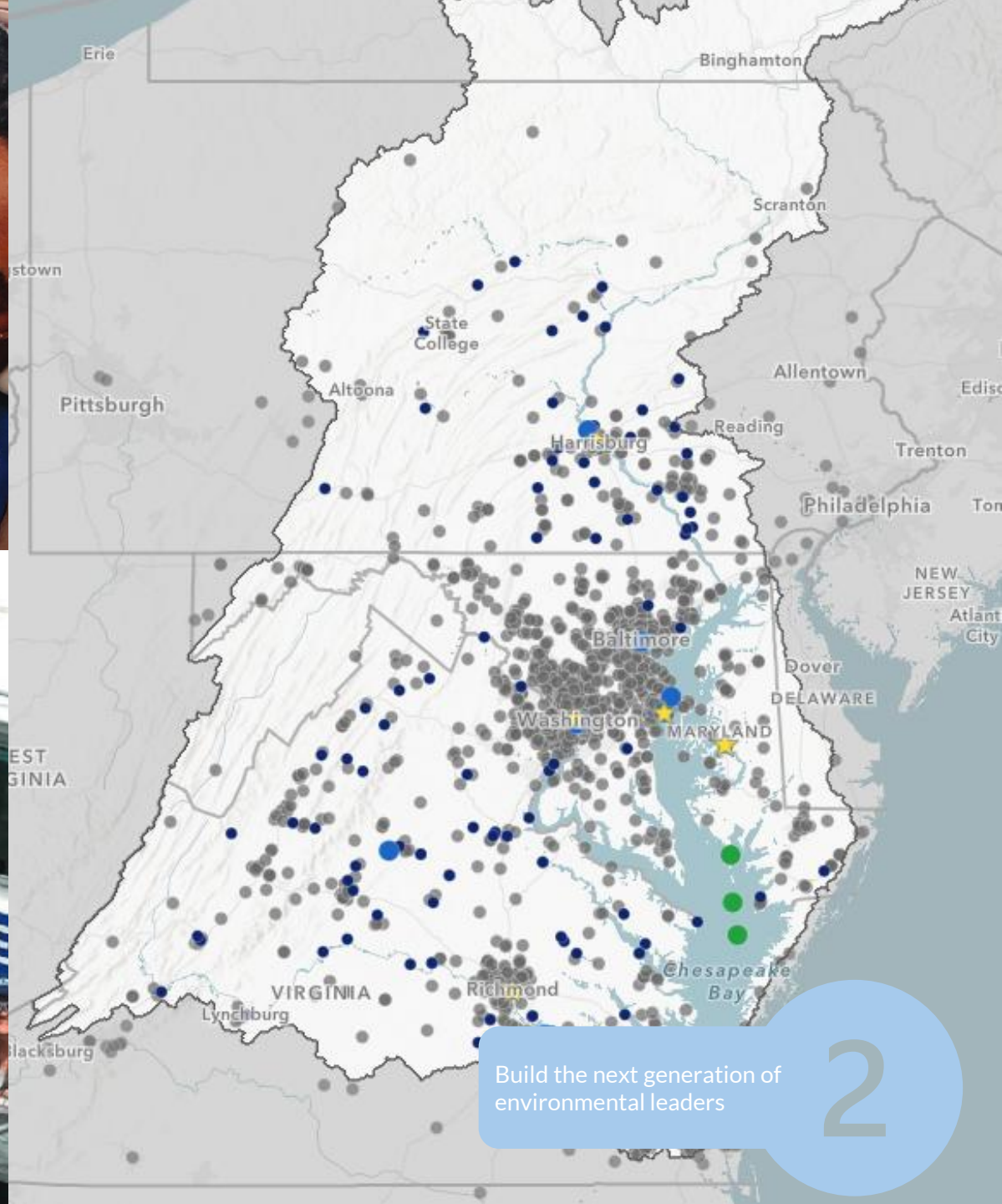
Litigation



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Source: CBF

Phosphates

What are Phosphates? - Are chemical components that contain phosphorus. Phosphorus is a key nutrient that both plants and animals need for growth and development. While phosphates are essential for plant and animal life, they can also be used as fertilizers.

Where do Phosphates come from?

- Naturally occurring in the earth's crust
- Fertilizers & Pesticides
- Detergents, soaps, and toothpaste
- Food, feed, and other animal products
- Phosphoric acid and other chemicals

Human Influences on Phosphate Cycle

Runoff of Phosphates from Fertilizers and Pesticides

Runoff of Phosphates from Detergents, soaps, and toothpaste

Runoff of Phosphates from Food, feed, and other animal products

Runoff of Phosphates from Phosphoric acid and other chemicals

Build the next generation of environmental leaders



Source: CBF

Build the next generation of
environmental leaders

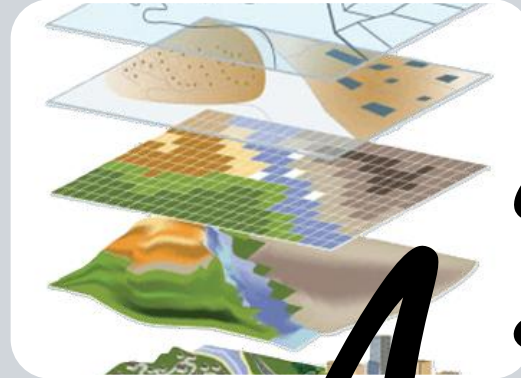
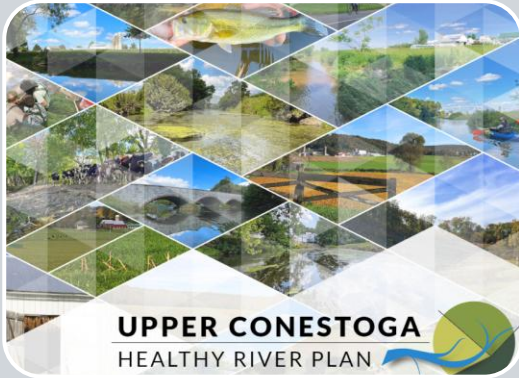
2



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4Ps

Plans

Comprehensive,
Collaborative, &
Innovative

Places

High impact
precision
locations

Practices

High impact
ecological value,
public welfare, etc

Partners

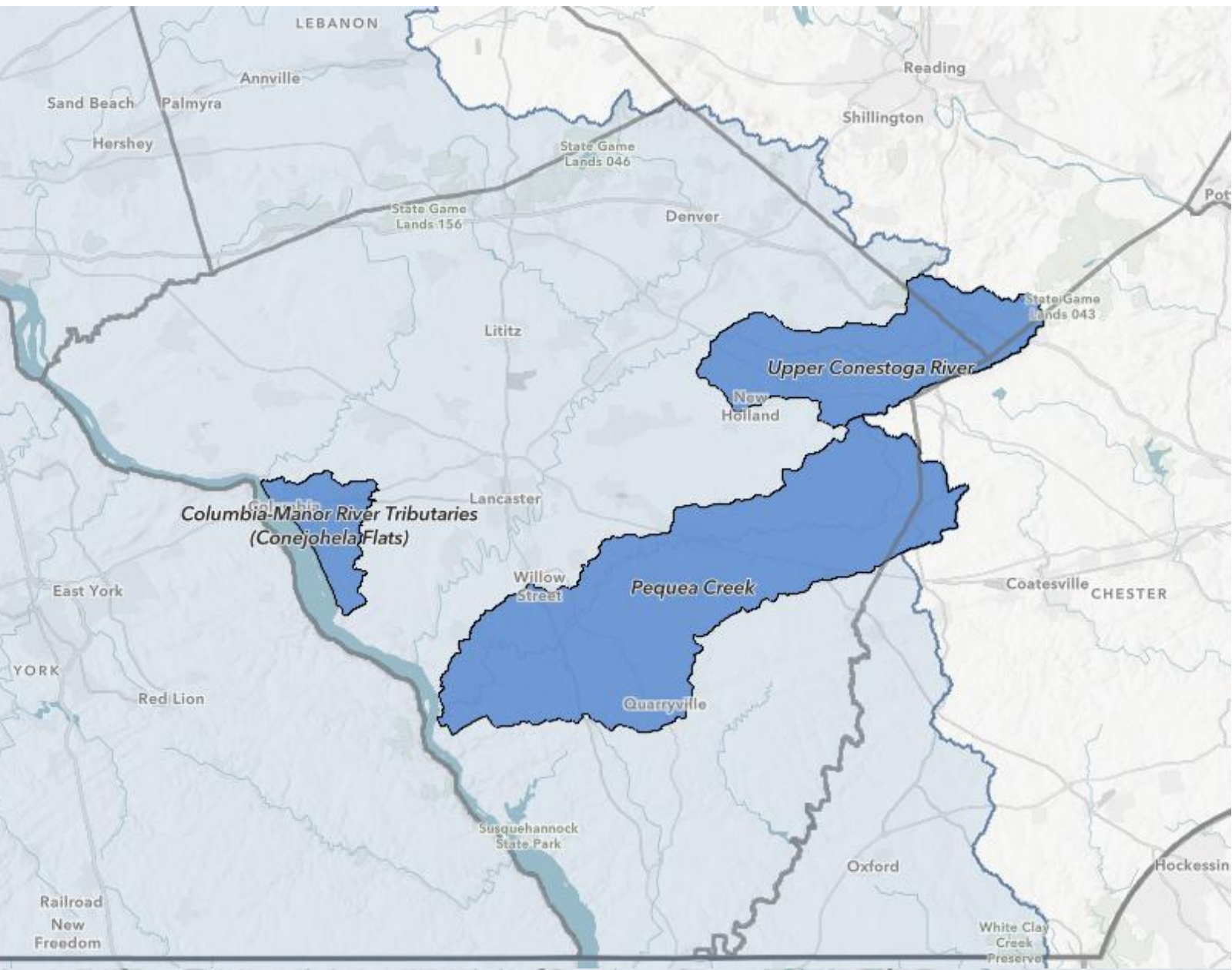
A diverse array of
local, state, &
regional

Advance restoration of the
Bay's natural infrastructure

3

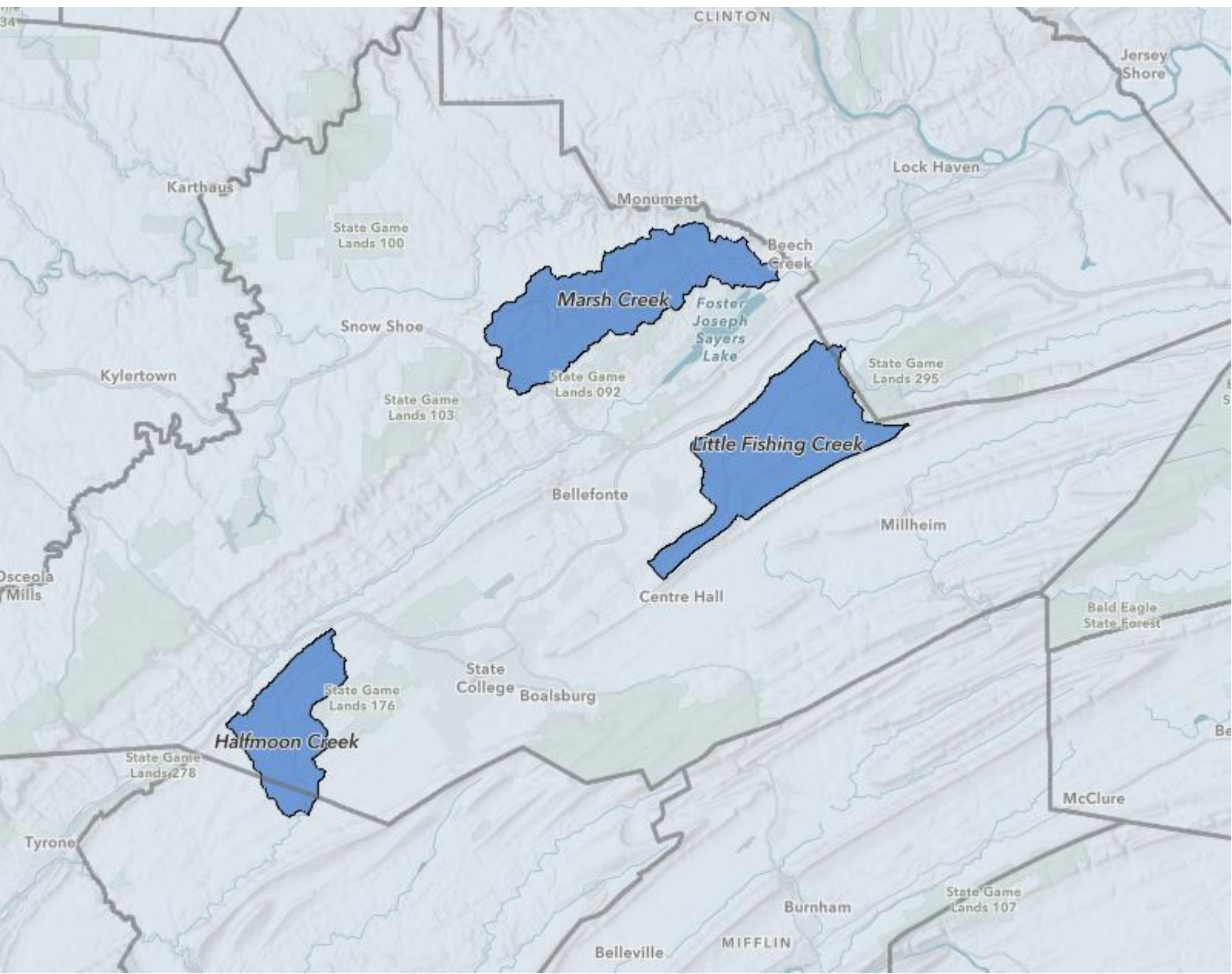


Advance restoration of the Bay's natural infrastructure



Advance restoration of the
Bay's natural infrastructure

3



Advance restoration of the
Bay's natural infrastructure

3





Advance restoration of the
Bay's natural infrastructure

3



Advance restoration of the
Bay's natural infrastructure

3

A photograph of a forest stream with mossy rocks and green foliage. The water is clear and flows over a bed of reddish-brown gravel and moss-covered rocks. The surrounding forest is dense with green trees and undergrowth. The text 'Clean water grows on TREES' is overlaid in large white letters.

Clean water grows on TREES

Source: iLCP

Advance restoration of
Bay's natural infrastru

3

Streams with forest buffers **process**
200-800% more
pollution non-buffered



Advance restoration of
Bay's natural infrastru



Keystone 10 MILLION TREES PARTNERSHIP

OUR PROGRESS

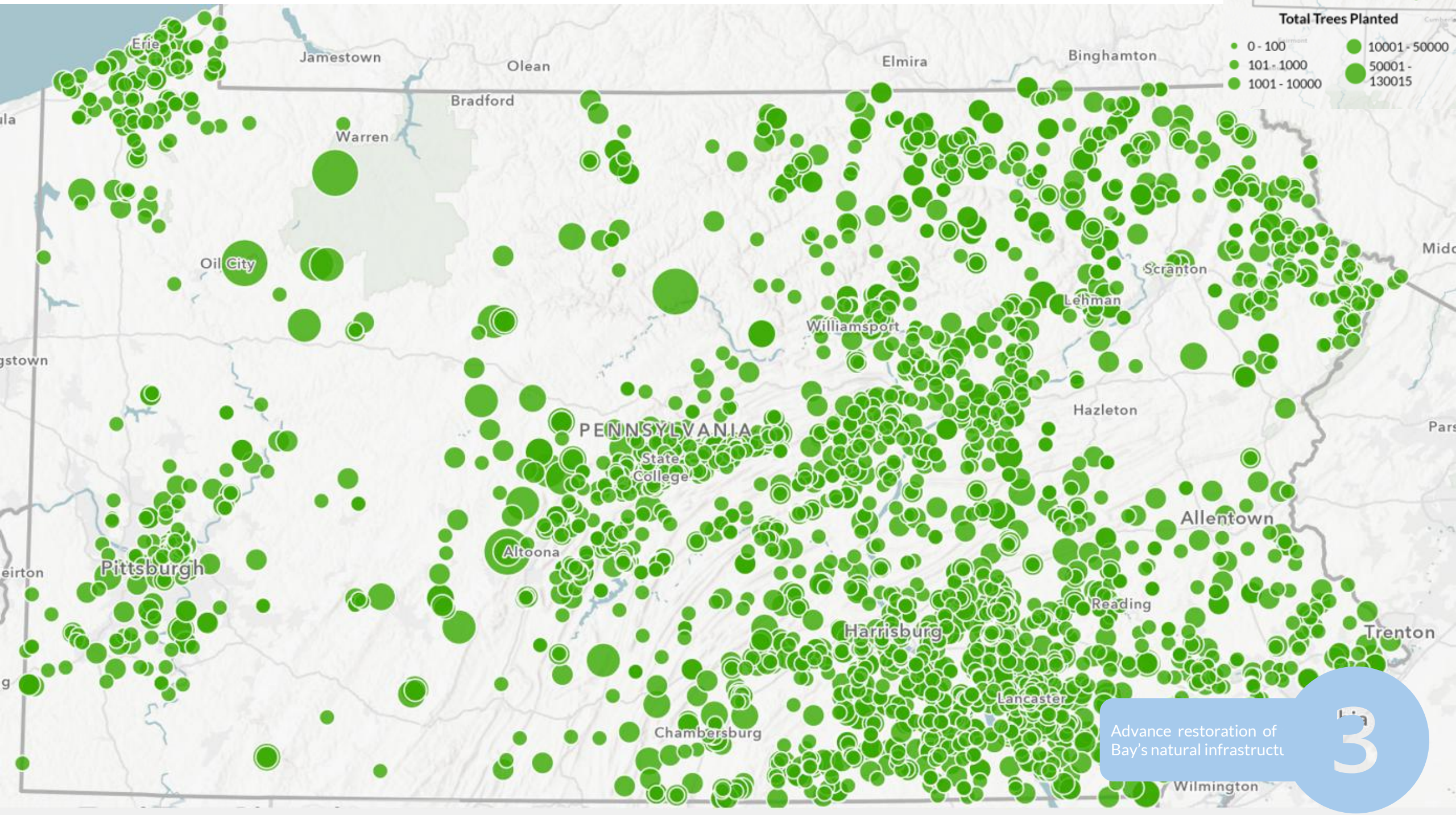
8,200,000
trees and counting

0 1 2 3 4 5 6 7 8 9 10

In 2018, we set an eight year goal to plant ten million trees across Pennsylvania. That goal launched a movement that has involved collaborating with national, regional, state, and local agencies, conservation organizations, outdoors enthusiasts, businesses, and citizens – including you!

Advance restoration of
Bay's natural infrastru

3



Advance restoration of
Bay's natural infrastru

3









Photo credit: iLCP



Photo credit: iLCP



Photo credit: CBF





Photo credit: CBF



Photo credit: iLCP



Help us save the Bay. Become a member today!

YES, I WANT TO SAVE THE BAY

[Renew Your Membership](#) • [Update Your Information](#)

JOIN US

Whether it's signing up to join us in the field on an education or volunteer experience, speaking out on behalf of clean water, or making a gift to support the Bay, rivers, and streams we all love, there are lots of ways to join us!



ELL PORTLOCK

Participate in an Education Program

For more than 40 years, CSF has provided meaningful watershed experiences to more than one million students. Join us out in the field:

[READ MORE](#)



NICK DAVIS

Volunteer

Whether growing oysters, planting trees, or helping in our offices, there are plenty of ways you can contribute.

[READ MORE](#)



More Things You Can Do

You can stand up for the Chesapeake Bay and its rivers and streams in your daily life! Check out these ideas of what you can do.

[READ MORE](#)



JOHN MORLEY

More Ways to Give

From monthly to workplace giving, all the different ways you can make a difference!

[READ MORE](#)



Take Action

Send a message to your representative, sign a petition, and raise your voice for clean water!

[READ MORE](#)



THOMAS TAYLOR

Stay up to date about the Bay!

Sign up here to be the first to know the latest Chesapeake Bay issues and how you can help in the fight to save the Bay and its rivers and streams.

[READ MORE](#)

HL Campbell, Science Policy & Advocacy Director

Phone: 717.200.4538

Email: hcampbell@cbf.org

Web: cbf.org



HL Campbell
Partner-Serve-Inspire

