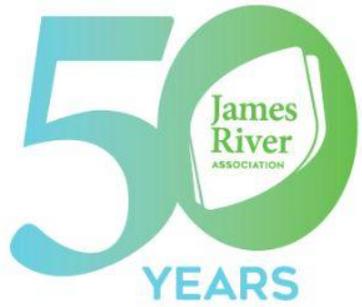




# STATE OF THE JAMES



# James River Association

## KEEP THE COMEBACK COMING

**JRA Mission:**  
To protect the James River and  
Connect people to it.

**JRA 10-year Vision:**  
A Fully Healthy, Grade-A James River  
That Supports Thriving Communities





## Programs: Advocacy, Riverkeeper, Restoration, Education

# TOP IMPACTS OF 2025

In 2025, the James River Association advanced restoration, strengthened clean water protections, expanded community stewardship, and connected thousands of people directly to the river.



**20,000+**

STUDENTS EXPERIENCED  
HANDS-ON LEARNING



**94**

ACRES OF RIPARIAN  
FOREST RESTORED



**4,809**

FRESHWATER MUSSELS  
RELEASED



**477**

WATER QUALITY TESTS  
PERFORMED BY 107 JAMES  
RIVER WATCH VOLUNTEERS



**2,000+**

RIVER HERO HOMES



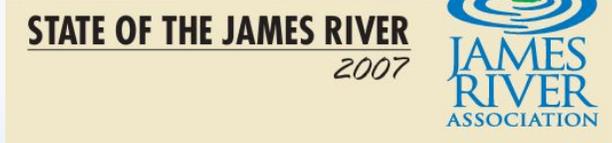
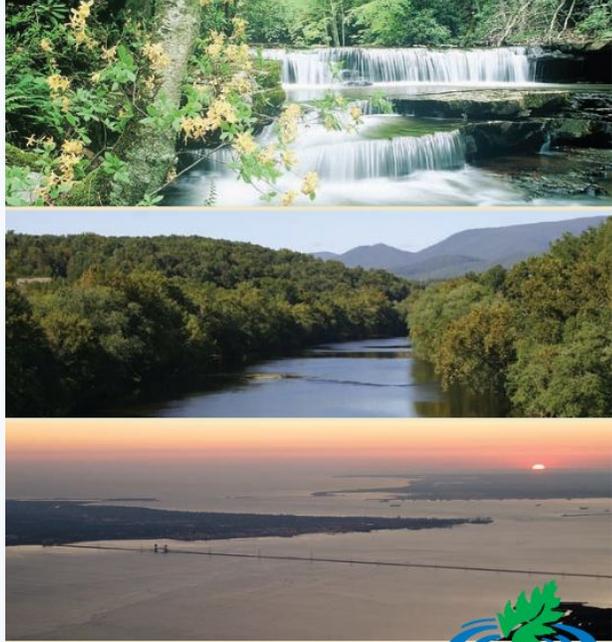
**9,300**

MARSH PLANTS INSTALLED  
THROUGH LIVING SHORELINE  
PROJECTS



# STATE OF THE JAMES

- Communication Tool
- Track Progress
- Strategic Planning
- Evolution of Report



### STATE OF THE JAMES RIVER 2007

**THE HEALTH OF THE JAMES RIVER IS UP TO YOU**

**Prevent pollution at home.** Join the James River Association's River Hero Home program which recognizes homeowners who are reducing runoff and pollution through the use of River-Friendly Practices such as rain gardens, rain barrels and native plants.

**Take action for the river.** The more people enjoy the river, the more they will care about its health. We offer river outings and education to habitat restoration, to advocating on the river's behalf.

**Help be eyes and ears on the river.** If you see a problem such as a fish kill or dumping, email [info@jra.org](mailto:info@jra.org) and one of the Riverkeepers will investigate it further. If you want to regularly patrol your own section of river, join our RiverRats program.

**Strengthen our collective voice for the river.** Become a member and show your commitment to improving the health of the James River. Visit [www.jamesriverassociation.org](http://www.jamesriverassociation.org) to learn more about our programs and how you can help ensure the future of the James.

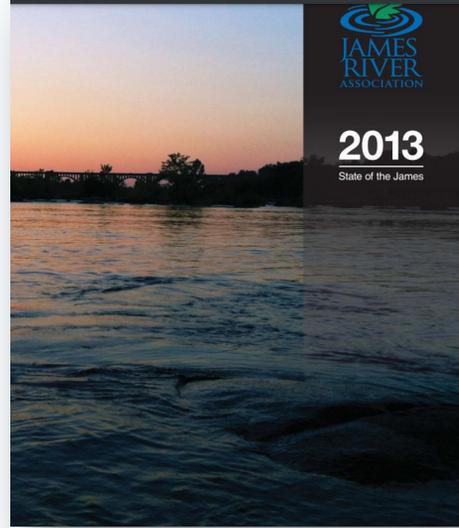
**Let your elected officials know that protecting the James River should be a priority.** Join our Action Network to find out how to contact your elected officials and stay up-to-date on current river policy issues.

**Introduce someone to the James River and teach them about being a good steward.**

**ABOUT THE JAMES RIVER ASSOCIATION**  
The James River Association is a non-profit, non-partisan organization founded in 1975 to work as a guardian and steward for the James River. Throughout the James River's 10,000-square-mile watershed, the James River Association works through its many programs of Education, Community Conservation, Watershed Restoration, River Advocacy and the Riverkeepers to help people of all ages enjoy, appreciate and protect the beauty and health of the James River for future generations to enjoy.

**OFFICES IN LYNCHBURG, RICHMOND & WILLIAMSBURG**

© 2007 JAMES RIVER ASSOCIATION



### STATE OF THE JAMES RIVER 2013

State of the James

Since the founding of the America on its banks 344 years ago, the James River has played a central role in the development of Virginia. No other natural feature has provided more for Virginia. After 400 years of nurturing, our Watershed's Founding River needs nurturing still.

This State of the James River report provides a report card on the effort to bring this shared natural resource back to full health. The report examines the status and trends of indicators in four categories that build on one another. At the top are the fish and wildlife populations that are important to the health of the river and to everyone who enjoys and cares about the river. These wildlife populations depend on habitat to provide their critical needs for life. The greatest factor affecting the quality of habitat in the James River is the amount of pollution that enters our streams and creeks and ultimately flows into the James River. Finally, the report assesses progress on the restoration and protection actions needed to reduce damaging pollution and return the James River to a healthy, diverse ecosystem.

For each indicator, JRA has identified and compiled a key measure of river health. Quantitative benchmarks have been set for what we need to achieve to have a healthy James River. When possible, the benchmark is a goal that has been set by the state or an authority on a specific indicator. Current progress is compared to the benchmark to calculate a score which is then averaged across the indicators in each category to determine the grade for that category.

Also, the 2-year change has been listed for each indicator. Because of refinements in the methodology of the report, the changes do not necessarily correspond to the scores contained in previous State of the James reports. The scores for current and 2-year change are determined by using the same methodology and benchmark.

© David Everett

### STATE OF THE JAMES RIVER 2021

**RIVER HEALTH 64% (B)**

**RIVER RESTORATION EFFORTS 58% (C)**

**OVERALL 61% (B)**

**SCORING SCALE:** 90% (A+), 80% (A), 70% (B), 60% (C), 50% (D), 40% (F), 30% (F-), 20% (F-)

- SPRING HEALTH: 54% ↓
- PROLIFEROUS FISH SPECIES: 55% ↓
- WILDLIFE POPULATIONS: 78% ↓
- WATER QUALITY: 59% ↓
- WATERBIRD POPULATIONS: 77% ↑
- WATERBIRD POPULATIONS: 33% ↓
- WATERBIRD POPULATIONS: 34% ↓
- WATERBIRD POPULATIONS: 91% ↓
- WATERBIRD POPULATIONS: 92% ↓
- WATERBIRD POPULATIONS: 62% ↓
- WATERBIRD POPULATIONS: 54% ↓
- WATERBIRD POPULATIONS: 74% ↓
- WATERBIRD POPULATIONS: 46% ↓
- WATERBIRD POPULATIONS: 51% ↓
- WATERBIRD POPULATIONS: 0% ↓
- WATERBIRD POPULATIONS: 85% ↓
- WATERBIRD POPULATIONS: 100% ↓
- WATERBIRD POPULATIONS: 74% ↓

**KEY CONCLUSIONS**

- For the first time in decades, and since the James River Association first published the State of the James report, the river's health has improved to a B-
- The James River is on track to meet its 2025 goals as part of the Chesapeake Bay cleanup plan.
- We continue to see marked improvements in areas where Virginia has made significant investments, specifically in wastewater pollution controls.
- While the river's overall health has improved, there is still much work to be done, most importantly to accelerate pollution controls for stormwater and agriculture in order to meet the 2025 goals for the James River.

**THE JAMES RIVER: A VALUABLE NATURAL RESOURCE**

- Economic Benefit:** The river is a major tourist attraction and economic driver for our communities.
- Quality of Life:** The James enriches our lives with plenty of ways to relax and play.
- Community Identity:** The James River defines much of our community with its rich landscape and beauty.
- Legacy for Future Generations:** Our actions today will determine the future health of the river and impact the health and prosperity of our children and future generations.

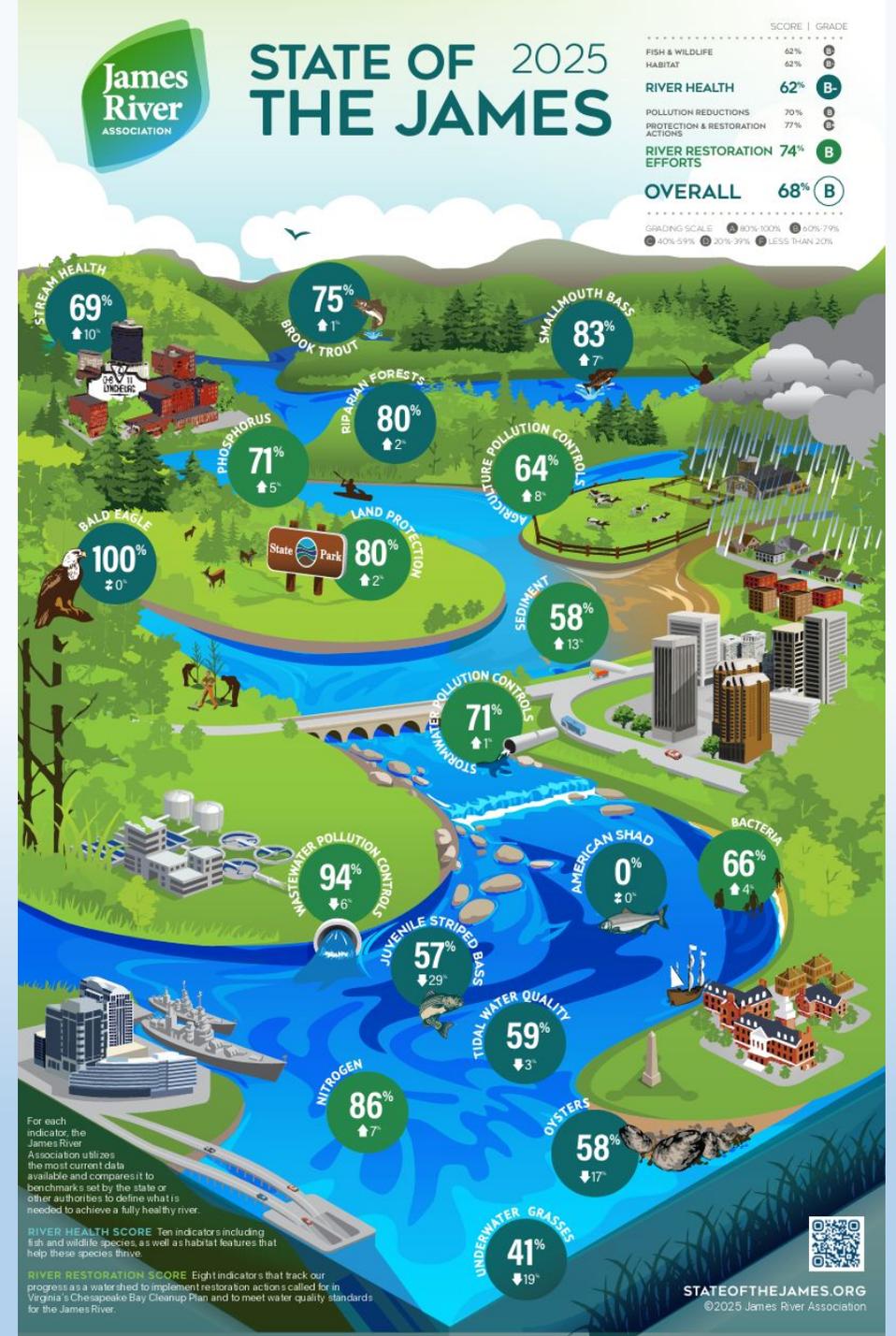
**TO LEARN MORE ABOUT THIS REPORT, VISIT [WWW.STATEOFTHEJAMES.ORG](http://WWW.STATEOFTHEJAMES.ORG)**

©2021 JAMES RIVER ASSOCIATION



# STATE OF THE JAMES

- 2-year Report Card
  - Indicators
  - Benchmarks
  - Grading Scale
  - Categories
  - Overall Score





# STATE OF THE JAMES

## River Health

Fish and Wildlife



Habitat



Pollution Reductions



## River Restoration

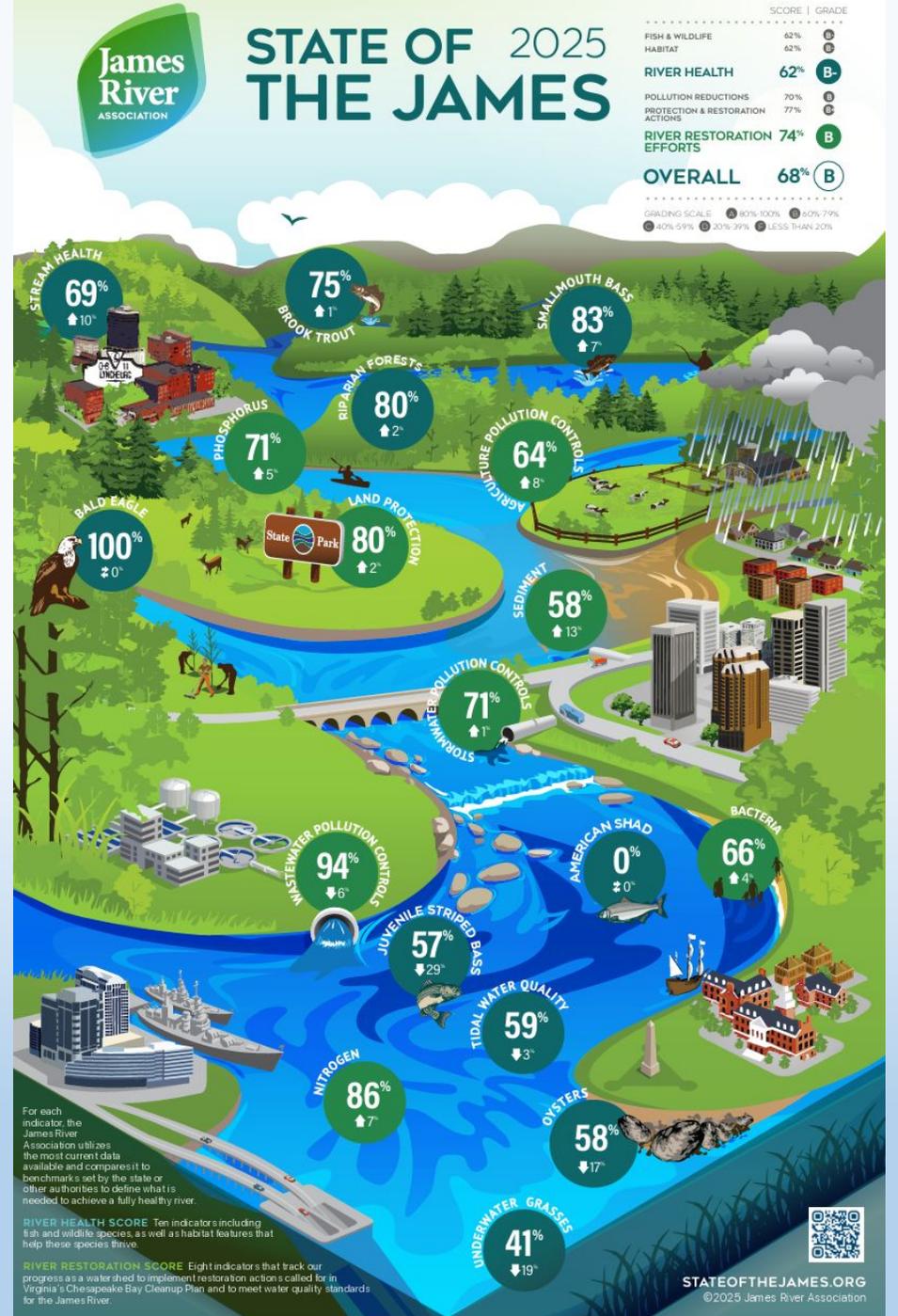
Protection & Restoration Actions





# STATE OF THE JAMES

Interactive Webpage:  
[StateoftheJames.org](http://StateoftheJames.org)



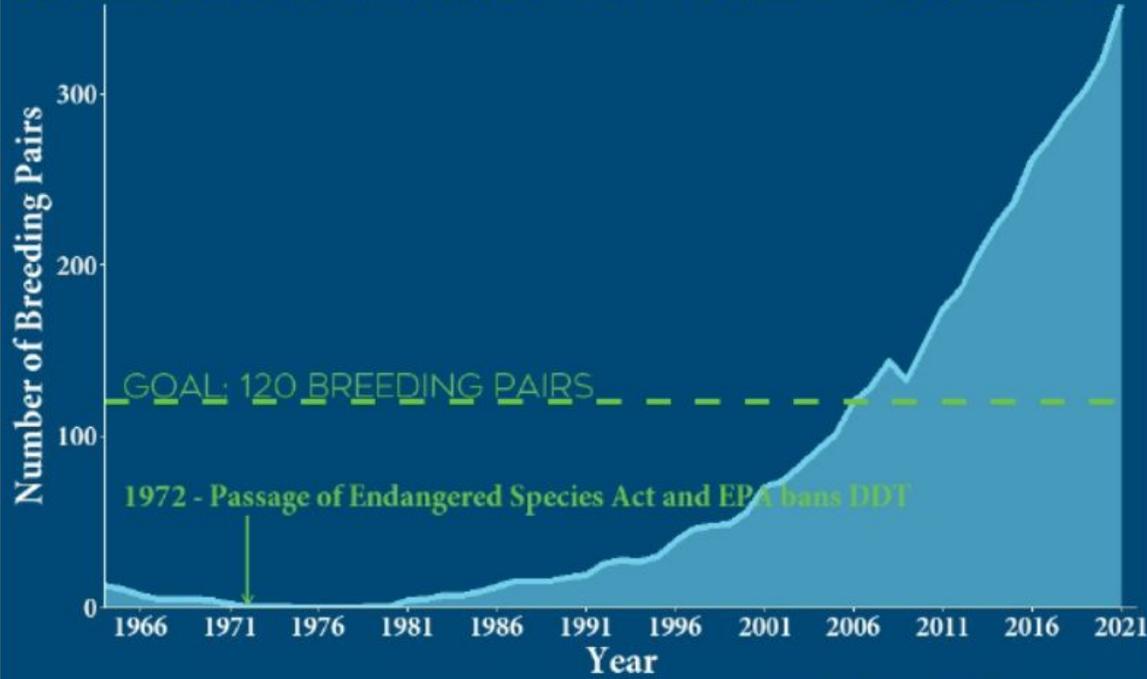


# STATE OF 2025

SCORE | GRADE

FISH & WILDLIFE	62%	B-
HABITAT	62%	B-
RIVER HEALTH	62%	B-

## BREEDING PAIRS OF BALD EAGLES



Data provided by College of William and Mary  
Virginia Commonwealth University | Center for Conservation Biology

### BALD EAGLE: 100% ⇔ ±0%

Since the United States banned the pesticide DDT in 1972 and passed the Endangered Species Act in 1973, the James River's bald eagle population has rebounded in a dramatic way. There were no known nesting pairs along the James from 1974 through 1978. Today, the James supports one of the densest populations in North America with 352 breeding pairs nesting in the watershed in 2021. Bald eagles require large mature trees for roosting, perching, and foraging. Restoring and protecting riparian forest buffers ensure bald eagles have habitat to support them into the future.

#### Keep the comeback coming

- Apply for a forested buffer on your property or volunteer to plant trees at [JamesRiverBuffers.org](https://JamesRiverBuffers.org).

[ Close this Window ]



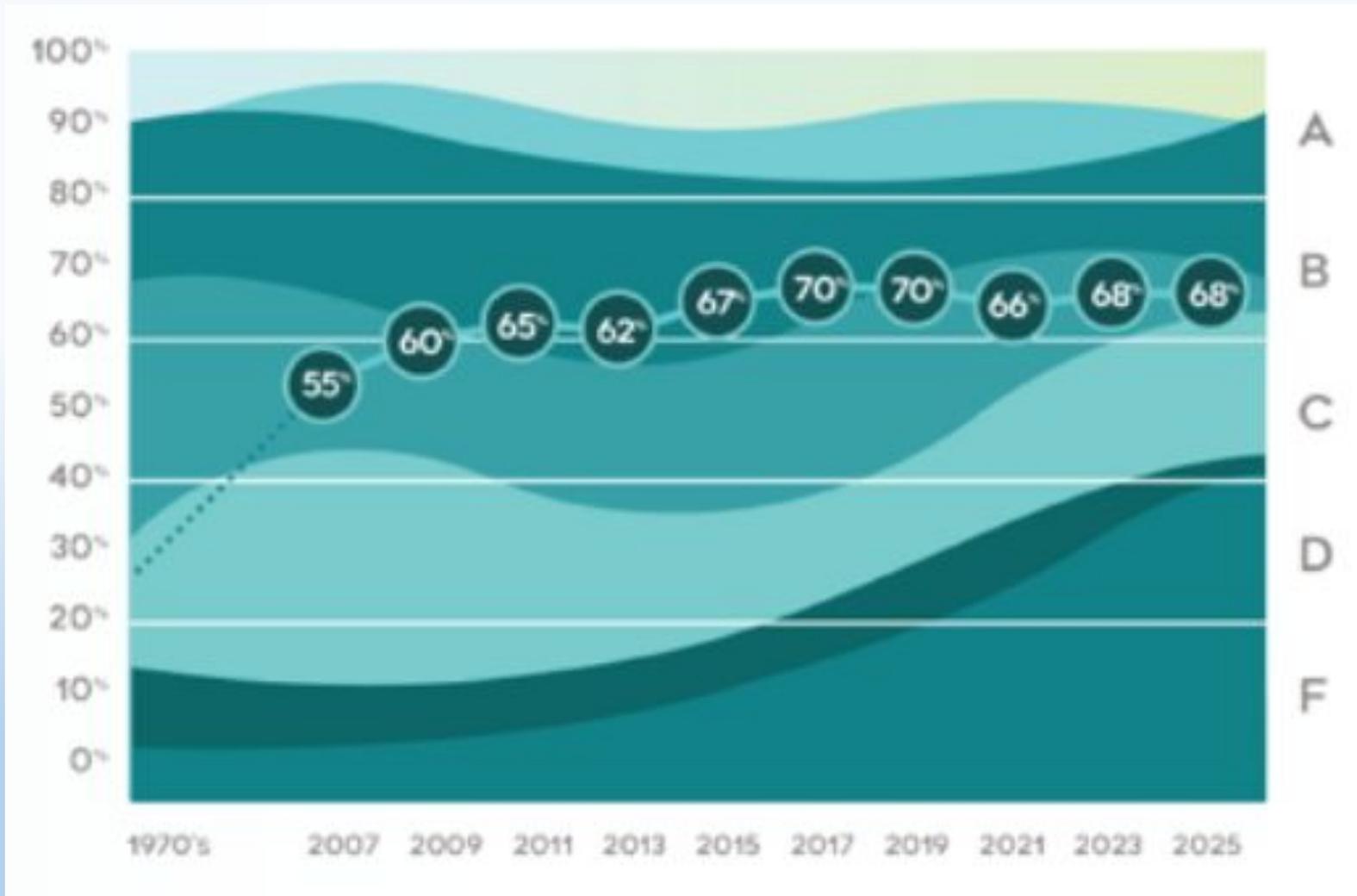


# STATE OF THE JAMES

	2025	2-yr Change
<b>River Health</b>		
<b>Fish and Wildlife</b>	62%	-7
<b>Habitat</b>	62%	-3
<b>Average</b>	<b>62%</b>	<b>-5</b>
<b>River Restoration</b>		
<b>Pollution Reductions</b>	70%	+7
<b>Protection and Restoration Actions</b>	77%	+1
<b>Average</b>	<b>74%</b>	<b>+5</b>
<b>Overall Score</b>	<b>68%</b>	



# State of the James Overall Score



# KEY CONCLUSIONS

## GOOD NEWS

**Big comeback over 50 years:** In 1975, the James River was shut down to any kind of fishing due to toxic contamination. Untreated raw sewage and industrial waste also made the river very unhealthy. Since then, things have gotten much better. The State of the James now gets an overall grade of B with a score of 68%.

**Healthier upstream areas:** Upstream indicators like stream health, smallmouth bass, and riparian buffers have high scores and saw increases over the past two years. This reflects the good watershed health of the Upper James as well as restoration efforts across the watershed.

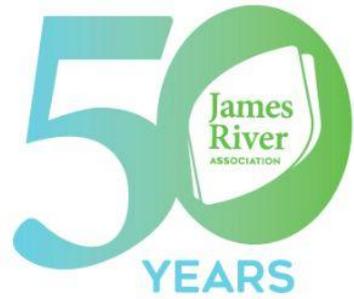
**Investments are paying off:** Virginia's investments in clean water programs – wastewater treatment, agricultural practices, and stormwater management – are making a real difference. The more we invest, the better the river gets.

## MORE WORK NEEDED

**Trouble in tidal areas:** Underwater grasses, oysters, and tidal water quality declined in the last two years. Despite progress in river restoration, the tidal James still faces heavy stress from pollution sources, including wastewater, erosion, agricultural runoff, and stormwater. To restore these waters, we must reduce pollution at its source and rebuild critical habitats so the tidal James – and the whole river – can thrive.

**Migratory fish at risk:** American shad remain at zero and striped bass numbers also declined substantially since our 2023 report. To bring back these and other iconic migratory fish, Virginia needs to act fast to deal with problems like invasive catfish, pollution, blocked waterways, water intakes, and degraded habitats.

**Challenges remain:** Progress has slowed over the past 10 years because of population growth, land development, and climate change. To keep improving the James River, everyone needs to help protect it for the future.



James River Association  
KEEP THE COMEBACK COMING

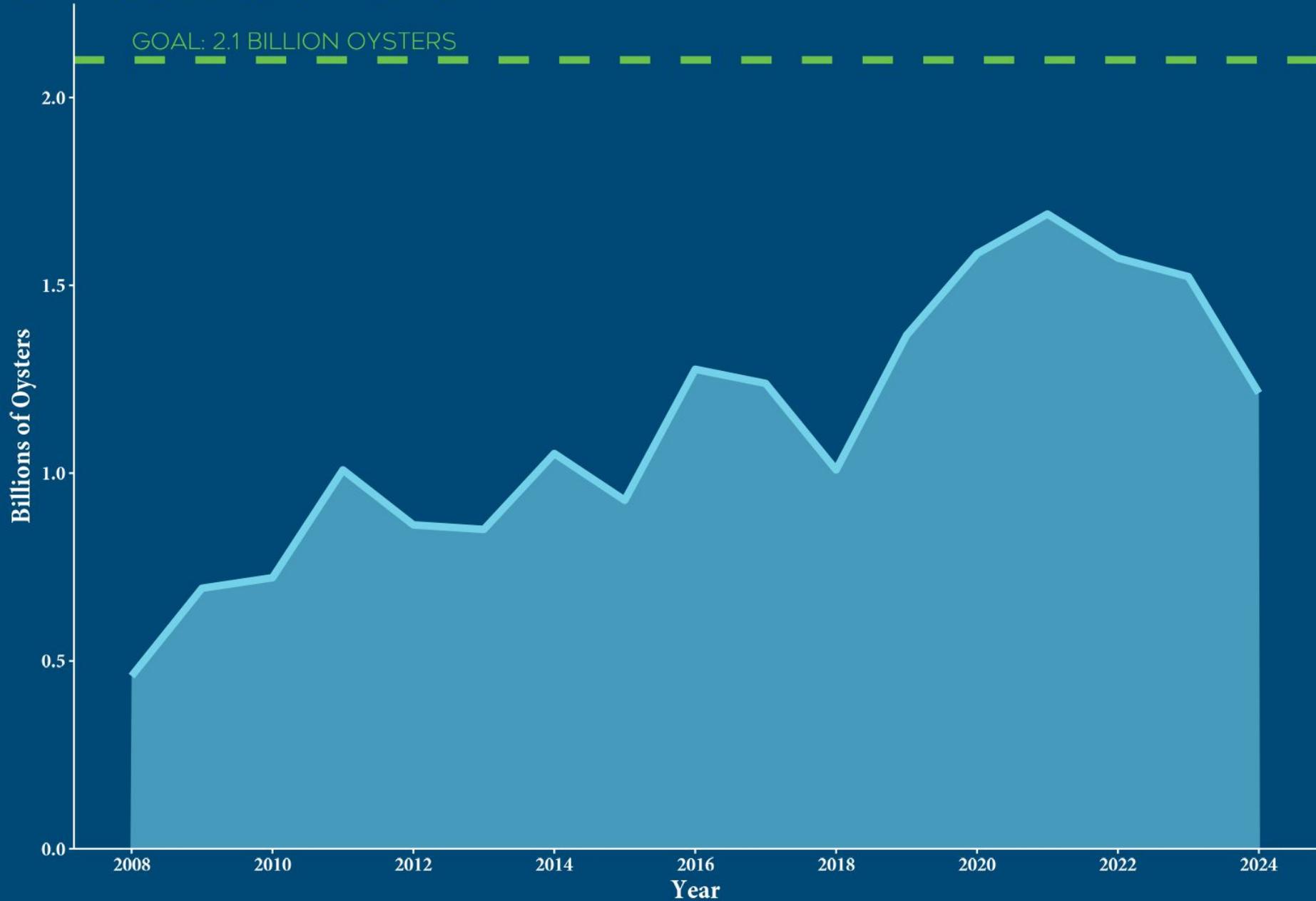


# STATE OF THE JAMES

## River Health *Fish & Wildlife*

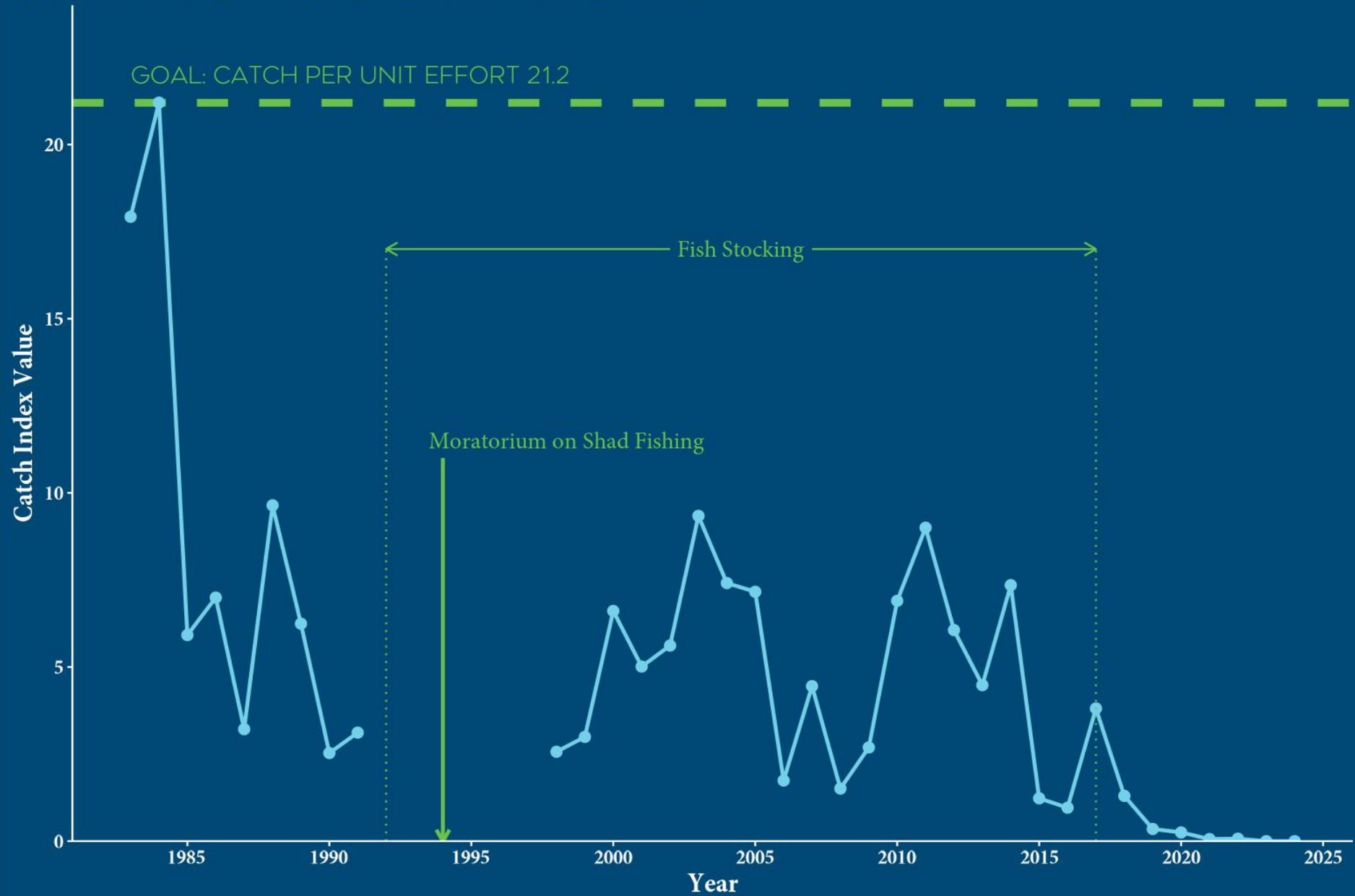
	2025	2-yr Change
<b>Bald Eagle</b>	100%	—
<b>Juvenile Striped Bass</b>	57%	-29
<b>Oysters</b>	58%	-17
<b>American Shad</b>	0%	—
<b>Smallmouth Bass</b>	83%	+7
<b>Brook Trout</b>	75%	+1
<b>Avg</b>	<b>62%</b>	
	<b>B-</b>	

# OYSTER POPULATION



Data provided by Virginia Institute of Marine Science

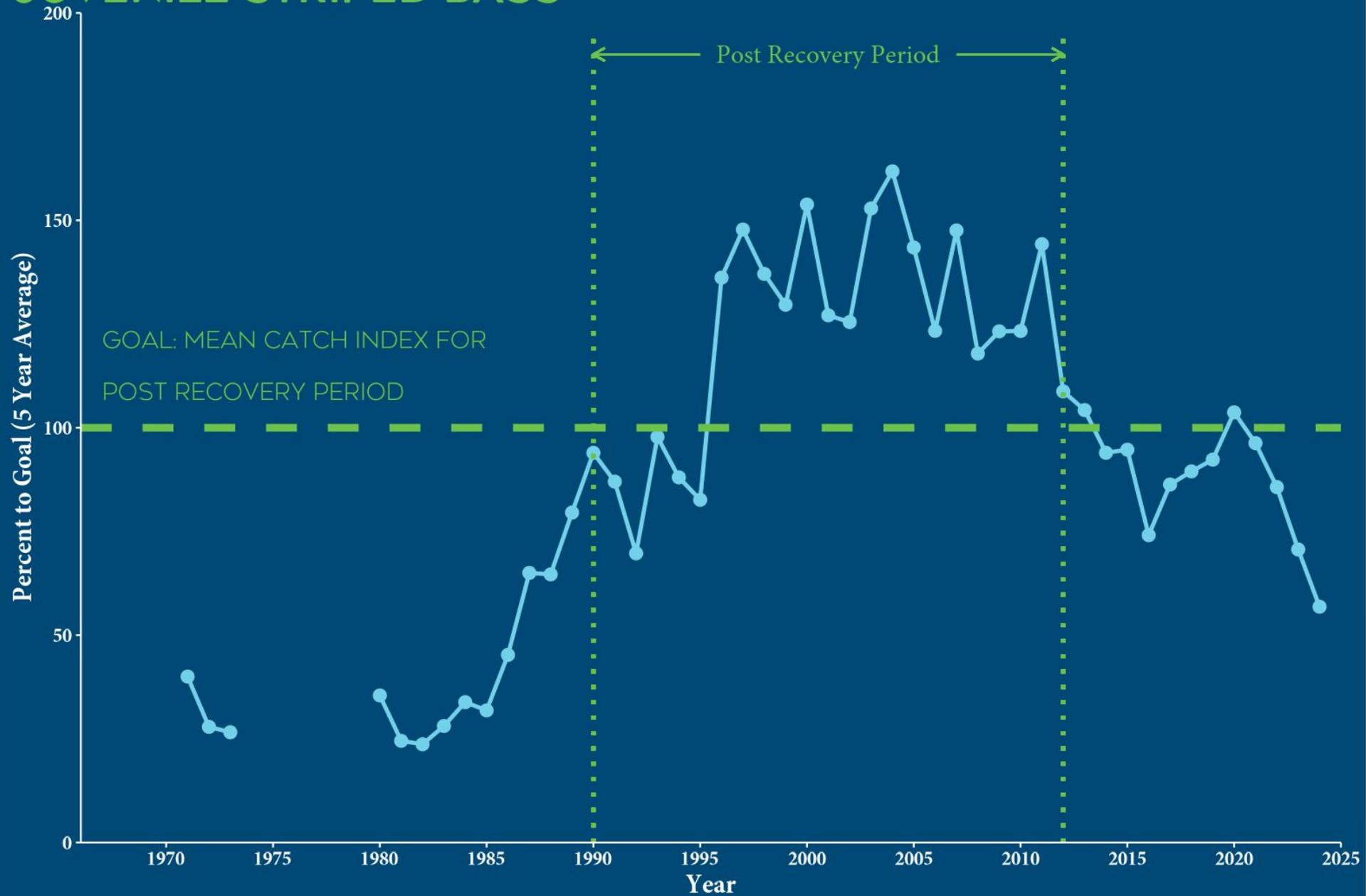
# AMERICAN SHAD ABUNDANCE



*No Data from 1992-1997*

*Data provided by Virginia Institute of Marine Science*

# JUVENILE STRIPED BASS



Data provided by Virginia Institute of Marine Science

No data from 1974-1979



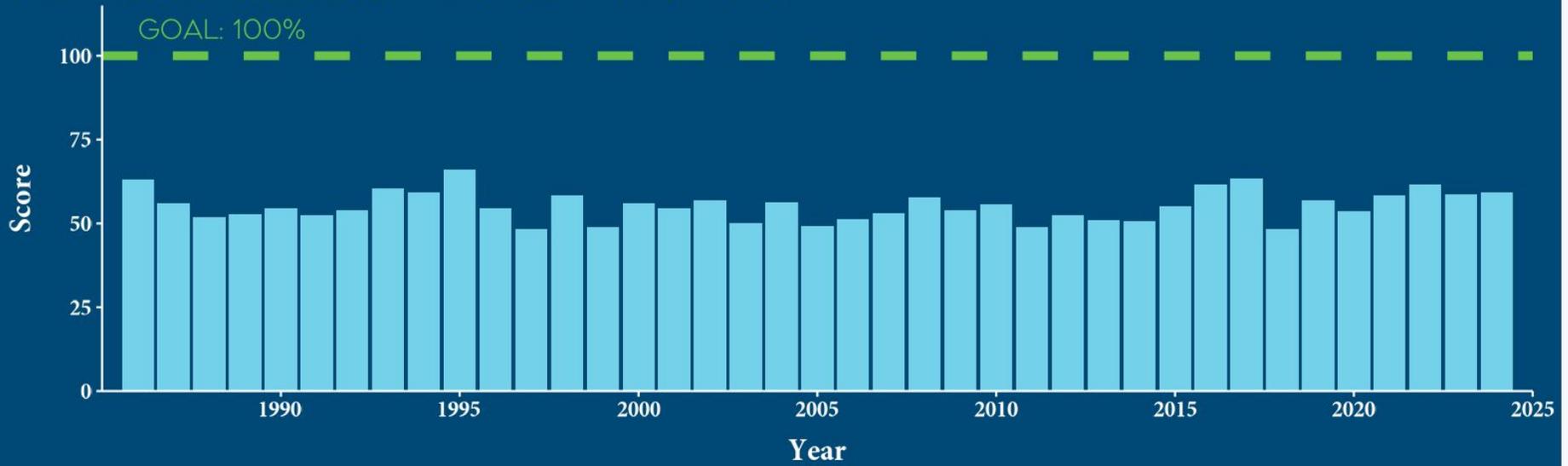
# STATE OF THE JAMES

## River Health *Habitat*

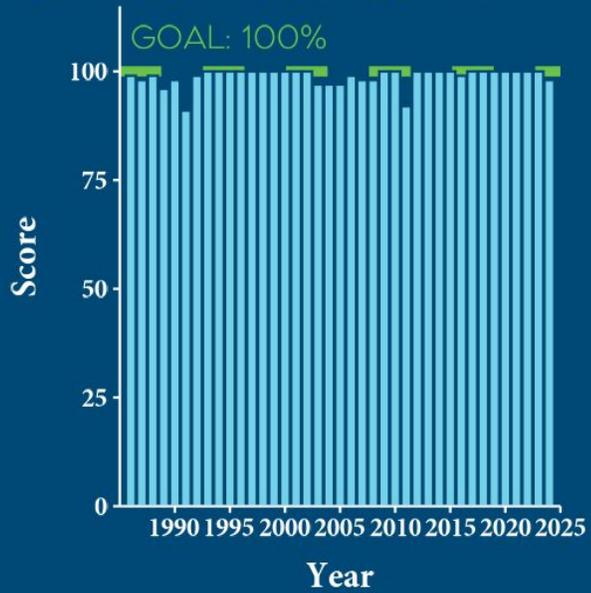
	<b>2025</b>	<b>2-yr Change</b>
<b>Underwater Grasses</b>	41%	-19
<b>Riparian Forests</b>	80%	+2
<b>Stream Health</b>	69%	+10
<b>Tidal Water Quality</b>	59%	-3
<b>Avg</b>	<b>62%</b>	<b>-3</b>
	<b>B-</b>	

# TIDAL WATER QUALITY

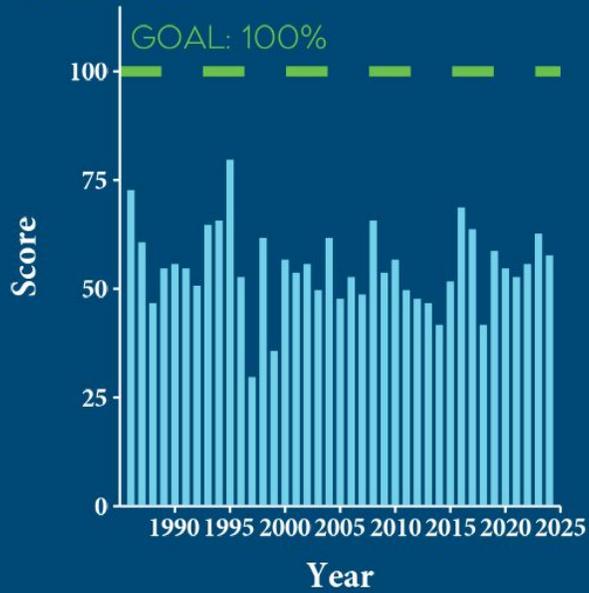
## AVERAGE OF DO, ALGAE AND WATER CLARITY



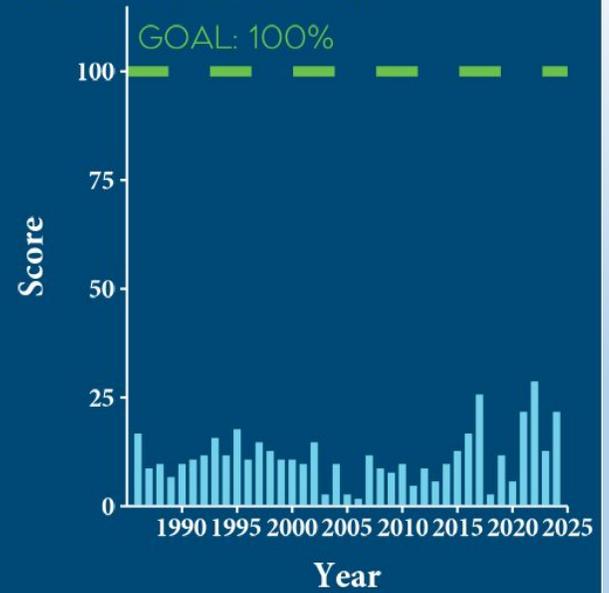
### DISSOLVED OXYGEN



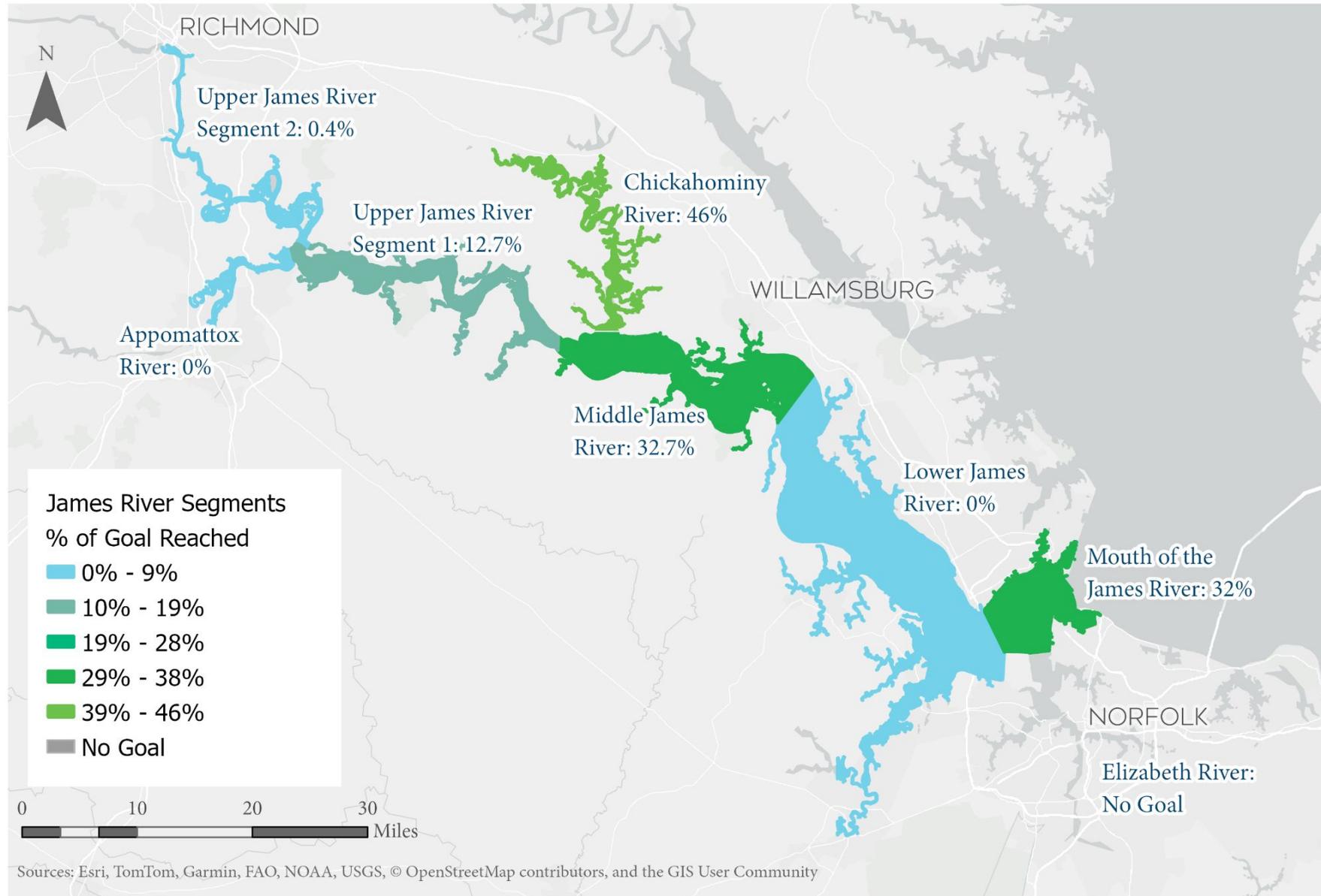
### ALGAE



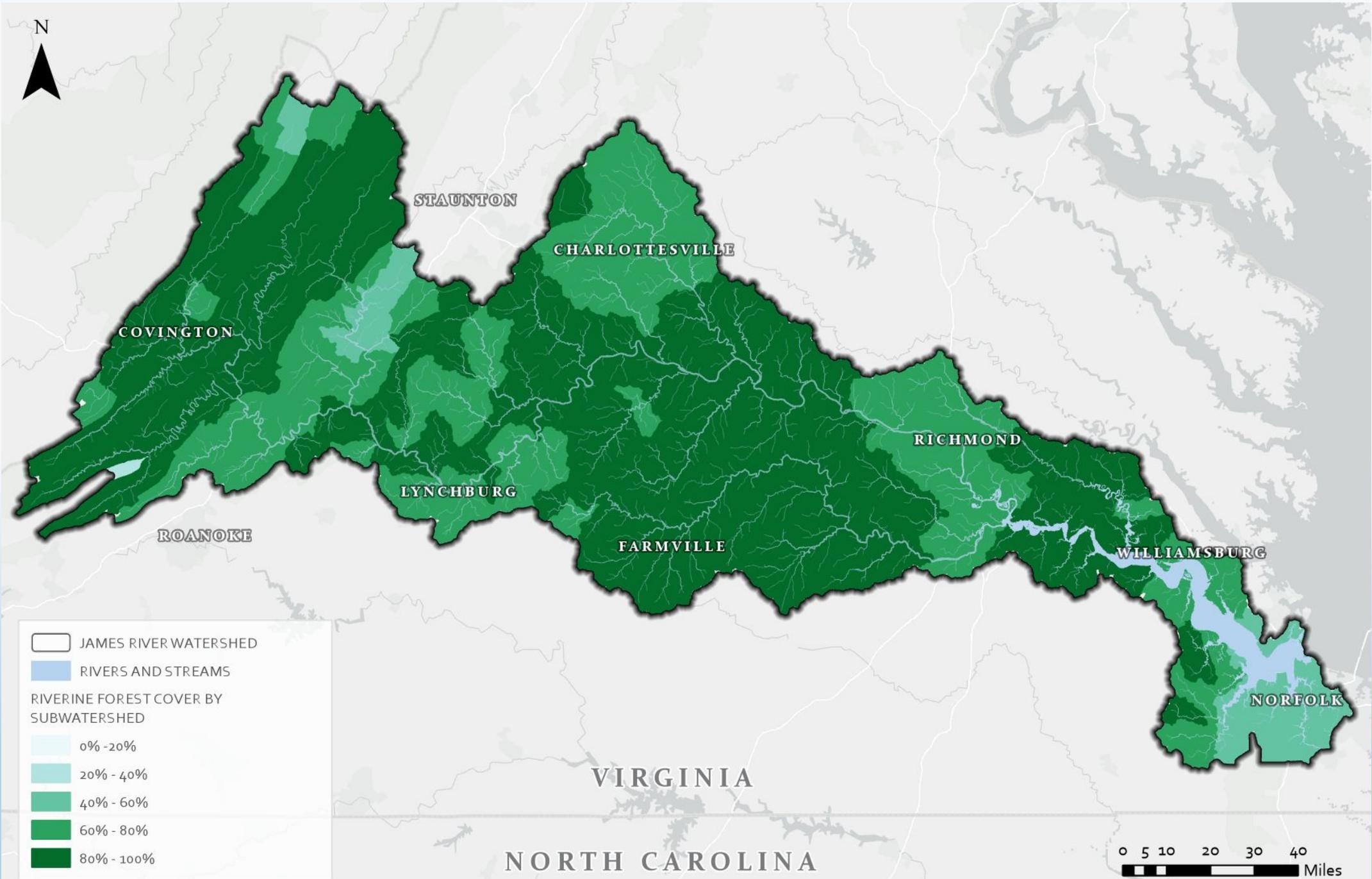
### WATER CLARITY



# PERCENTAGE OF UNDERWATER GRASSES GOAL REACHED



Source: Virginia Institute of Marine Science



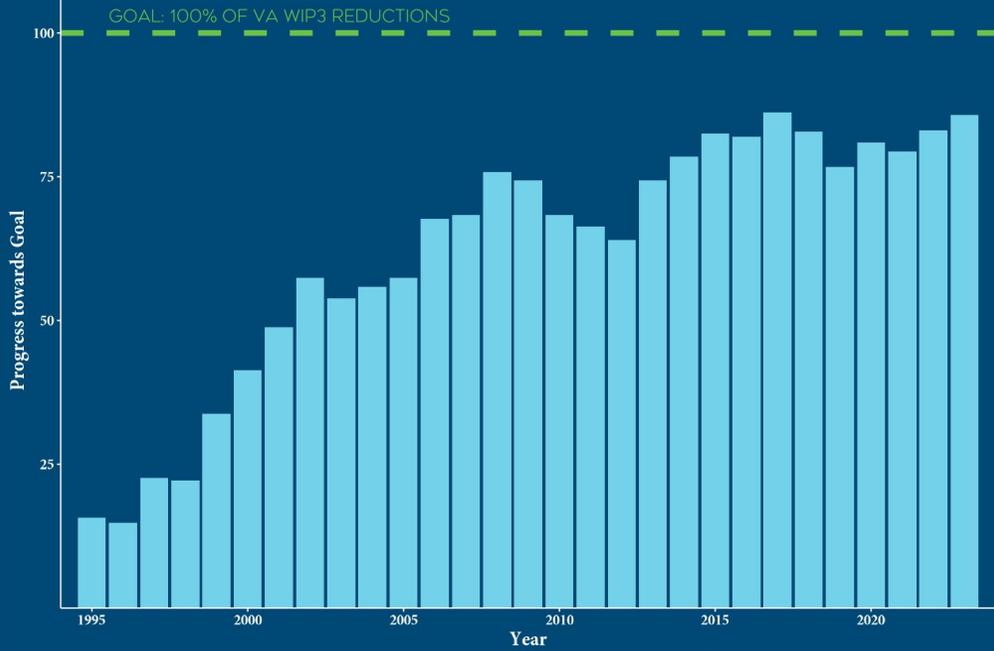


# STATE OF THE JAMES

## Restoration Progress *Pollution Reductions*

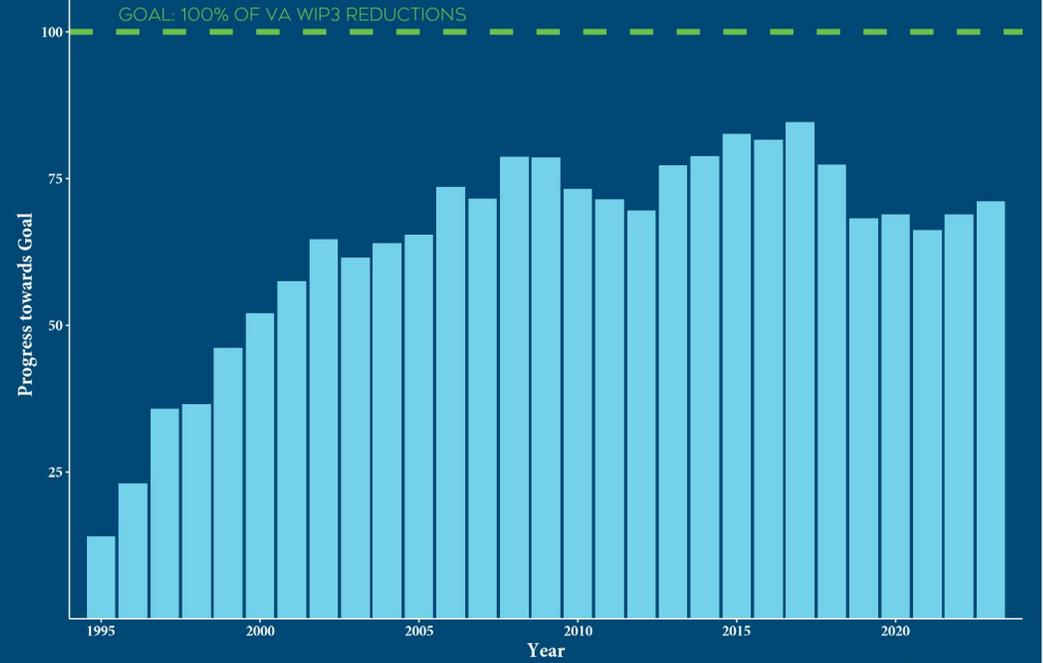
	<b>2025</b>	<b>2-yr Change</b>
<b>Phosphorus</b>	71%	+5
<b>Nitrogen</b>	86%	+7
<b>Sediment</b>	58%	+13
<b>Bacteria</b>	66%	+4
<b>Average</b>	<b>70%</b>	
	<b>B</b>	

## NITROGEN REDUCTIONS



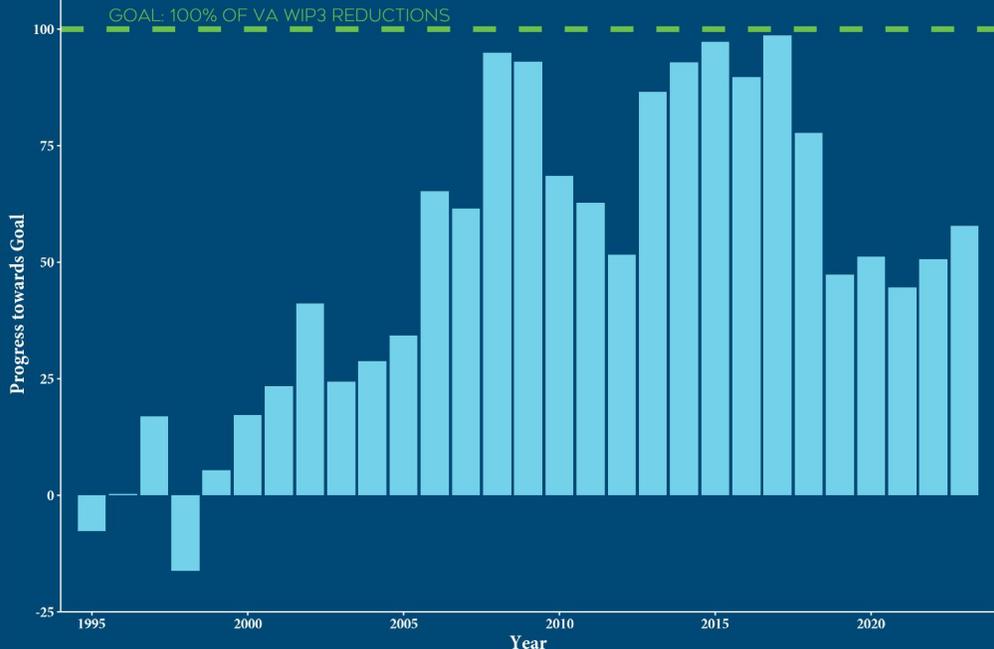
WIP3 - Virginia's Phase III Watershed Implementation Plan  
Data provided by USGS | Chesapeake Bay Program

## PHOSPHOROUS REDUCTIONS

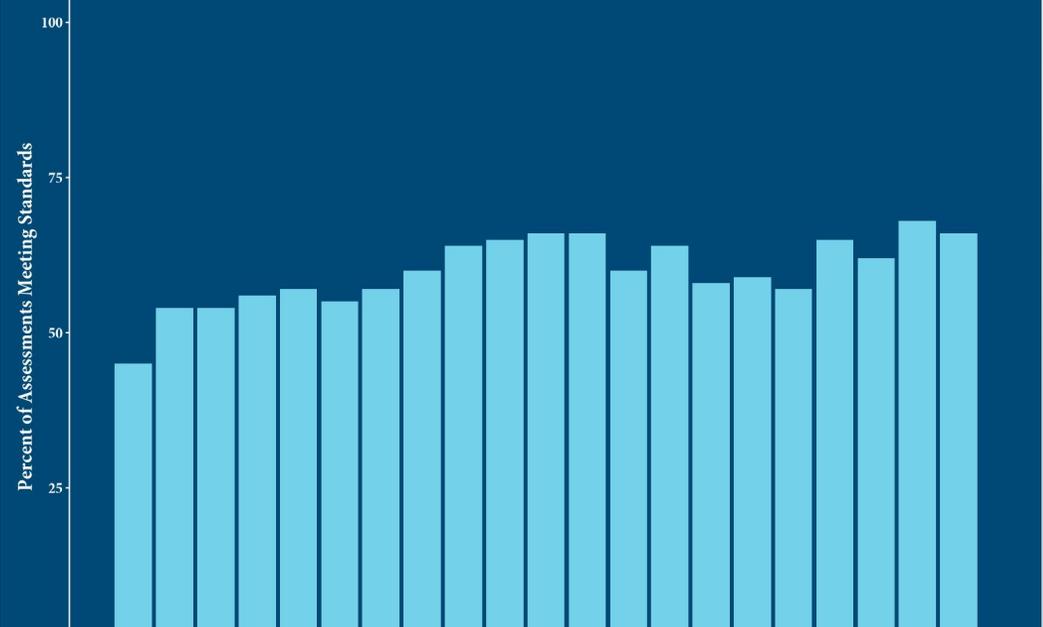


WIP3 - Virginia's Phase III Watershed Implementation Plan  
Data provided by USGS | Chesapeake Bay Program

## SEDIMENT REDUCTIONS



## BACTERIA REDUCTIONS: 6-YEAR ROLLING AVERAGES





# STATE OF THE JAMES

## Restoration Progress *Protection & Restoration Actions*

	2025	2-yr Change
Wastewater Pollution Controls	94%	-6
Agriculture Pollution Controls	64%	+10
Stormwater Pollution Controls	71%	+2
Land Protection	80%	+2
Average	77%	
	B+	