FRED TUTMAN
FRED@PAXRIVERKEEPER.ORG

Part RoboCop, part environmental lawyer, the "keeper" of the Patuxent says restoring the river is a job for Marylanders, not government alone.

DOUG KAPUSTIN : SUN STAFF PHOTOS

"The area is defined by the river," says Fred Tutman, first official "keeper" of Maryland's Patuxent River. "The geology, trees, even the people." Tutman hopes residents will get caught up in the river's abiding power.

WATCHING THE WATERS

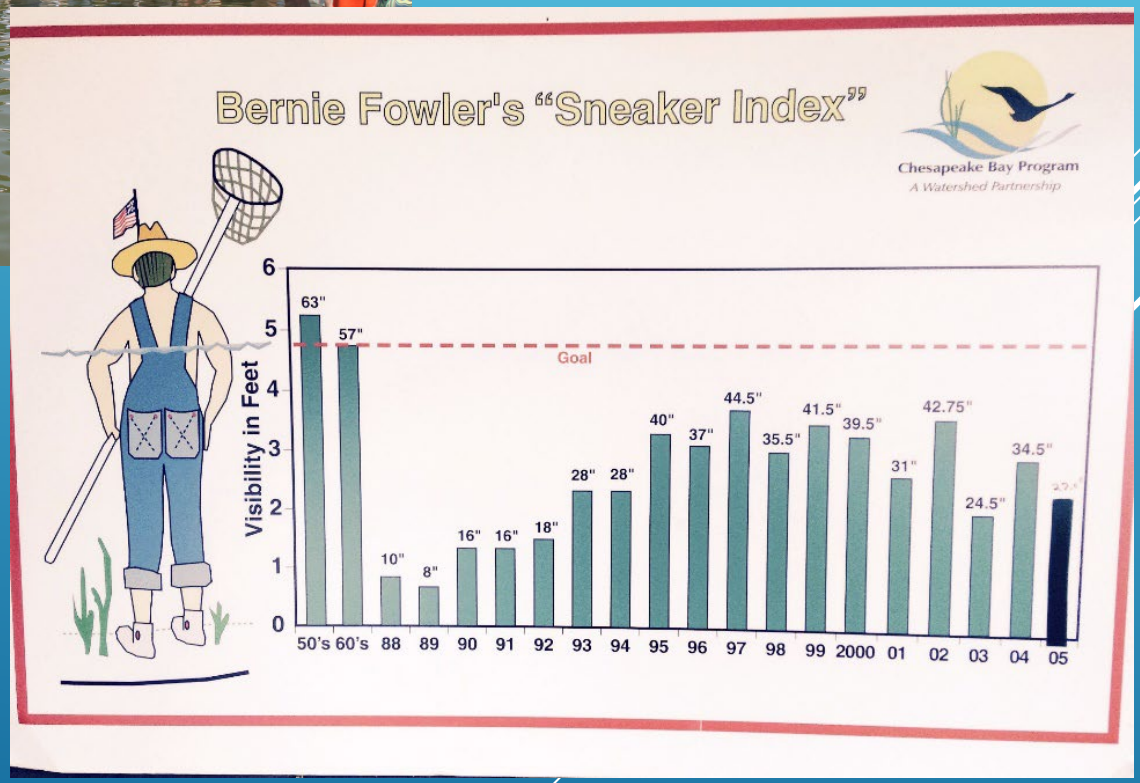
By Arthur Hirsch
SUN STAFF

UPPER MARLBORO — Near the headquarters of its first official "keeper," the Patuxent River cuts an olive-drab swath through a tumble of branches living and dead. Fred Tutman stood there one recent afternoon on a forlorn truss bridge built during the Patuxent's better days, chatting with a fisherman who told about perch running well as the sun sets.

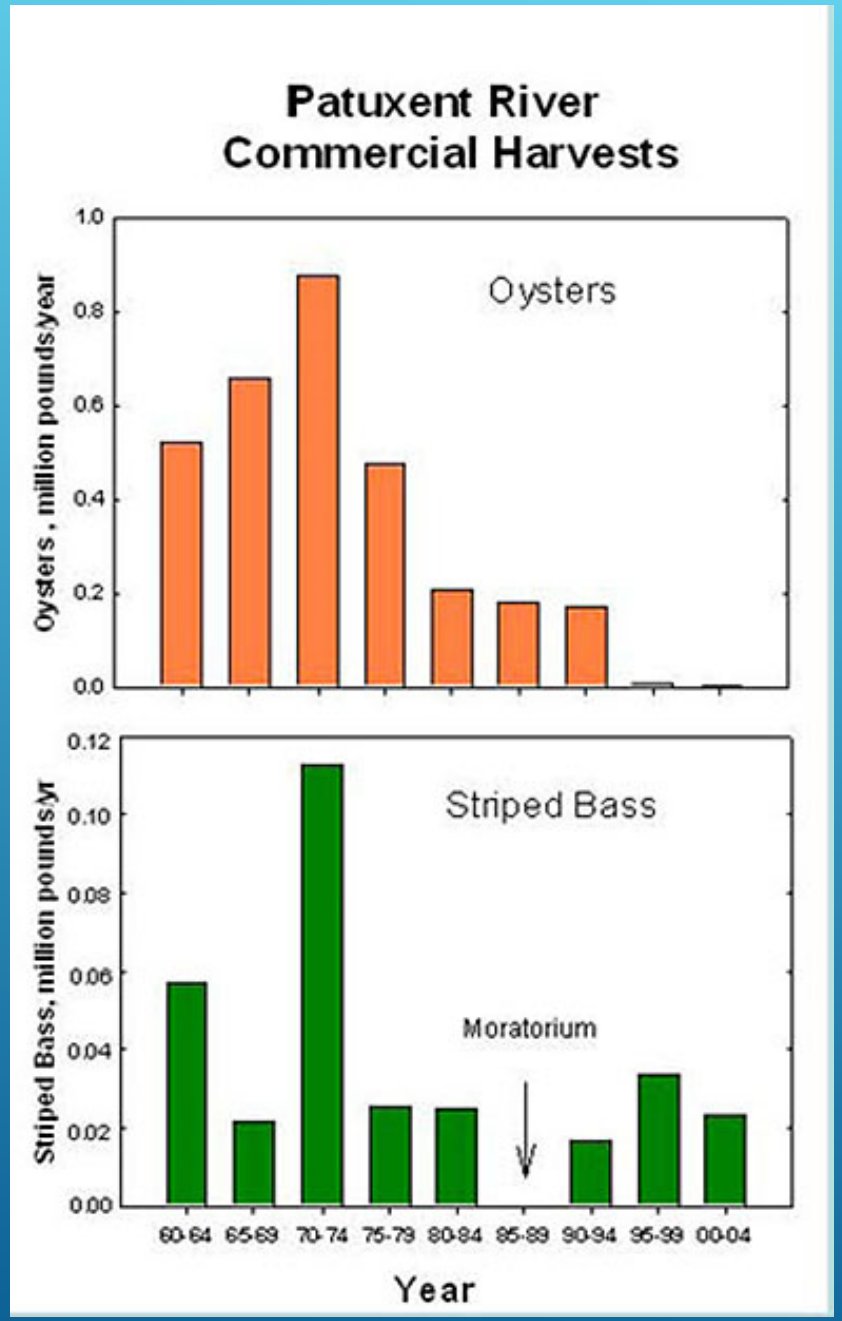
Tutman handed over a card with his name and number. "I'm the Patuxent riverkeeper," he said, urging the fisherman to get in touch if something seemed amiss along the water. That small gesture, an environmentalist's version of "community policing," might or might not improve daunting odds.

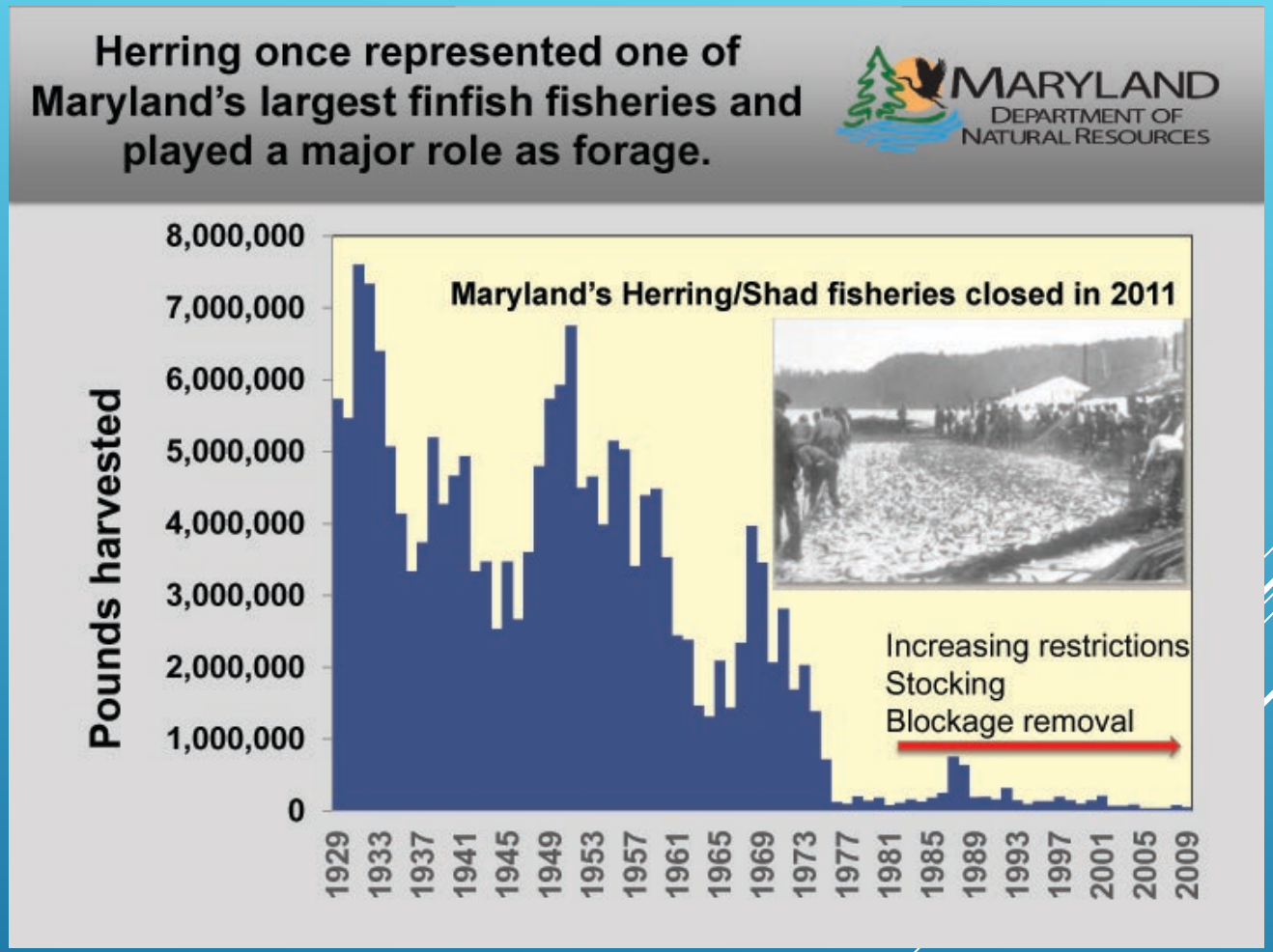
The largest river entirely in Maryland has a water- [See Keeper, 5A]

Riverkeeper Fred Tutman, a full-time clean-water advocate for the Patuxent River, paddles a stretch near his home in Upper Marlboro.



The Patuxent/Bernie Fowler Movement


Patuxent River
Commercial Harvests
Oysters
Oysters , million pounds/year
1.0
0.8
0.6
0.4
0.2
0.0
Striped Bass
Striped Bass, million pounds/yr
0.12
0.10
0.08
0.06
0.04
0.02
0.00
Moratorium
60-64
65-69
70-74
75-79
80-84
85-89
90-94
95-99
00-04
Year


Herring once represented one of Maryland's largest finfish fisheries and played a major role as forage.
MARYLAND
DEPARTMENT OF
NATURAL RESOURCES
Maryland's Herring/Shad fisheries closed in 2011
Pounds harvested
8,000,000
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
0
Increasing restrictions
Stocking
Blockage removal
1929
1933
1937
1941
1945
1949
1953
1957
1961
1965
1969
1973
1977
1981
1985
1989
1993
1997
2001
2005
2009

BIANNUAL PATUXENT RIVER REPORT CARD

Patuxent RIVERKEEPER®

This newsletter is the third edition of the Patuxent River ecosystem health report card. It provides grades for the three regions of the Patuxent River estuary (i.e., the tidal portion of the river). The grades are based on the frequency the river is able to meet six ecological targets during 2009 and 2010. The report card shows that the health of the Patuxent River is remaining consistent. Additionally, a narrative description of the non-tidal portion of the river based on the Patuxent Riverkeeper's citizen water quality monitoring program is provided.

D-

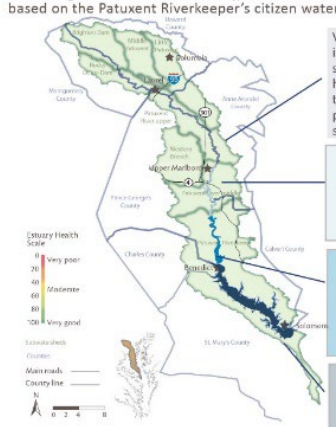


Figure 1. 2009/2010 report card grades for the three estuarine regions of the Patuxent River.

Volunteer sampling of the creeks (non-tidal) and embayments (tidal) indicated that nitrate concentrations at two northern non-tidal stations (Reddy Branch and Little Patuxent) tended to be consistently higher than those at other tidal and non-tidal stations. In contrast, the range of surface water temperatures was higher in the southern portion than in the northern, and turbidity tended to be higher in the southern non-tidal and northern tidal stations than elsewhere.

C- The upper estuary grade decreased slightly in 2009 due to the poor water clarity and benthic and phytoplankton communities. Increases in Chlorophyll a and aquatic grasses helped to balance the losses in the other areas. In 2010 declines in Chlorophyll a and aquatic grasses were mitigated by no score for benethic community health.

C **D+** The middle estuary grade improved in 2009 largely due to the increased benthic community score. The phytoplankton community health degraded as well as the aquatic grasses. In 2010 the grade declined significantly due to the loss of aquatic grasses and decreases in the health of the benthic and phytoplankton communities.The other indicators remained fairly stable.

D- The lower estuary saw a small improvement in 2009 due to the improved dissolved oxygen and water clarity grades. The drop in Chlorophyll a and benthic community scores largely balanced the improvements made in the other parameters. In 2010, improved benthic and phytoplankton community health mitigated the lower dissolved oxygen, clarity and Chlorophyll a scores.

A All water quality and biological health indicators meet desired levels. Quality of water in these locations tends to be very good, most often leading to very good habitat conditions for fish and shellfish.

B Most water quality and biological health indicators meet desired levels. Quality of water in these locations tends to be good, often leading to good habitat conditions for fish and shellfish.

C There is a mix of healthy and unhealthy water quality and biological health indicators. Quality of water in these locations tends to be fair, leading to fair habitat conditions for fish and shellfish.

D Some or few water quality and biological health indicators meet desired levels. Quality of water in these locations tends to be poor, often leading to poor habitat conditions for fish and shellfish.

F Very few or no water quality and biological health indicators meet desired levels. Quality of water in these locations tends to be very poor, most often leading to very poor habitat conditions for fish and shellfish.

WATER CONTACT ADVISORY

Vibrio Skin Infections have been reported to the Calvert County Health Department during the summer of 2010

Vibrio bacteria are natural inhabitants of salty water. A combination of warm water and increased salinity favors their growth. Since Vibrio species are normally found in the Chesapeake Bay and its rivers, do not to enter these water if you have an open wound of the skin. Consult a health care provider if signs and symptoms of skin infection, such as redness, soreness, swelling or drainage occur following water contact.

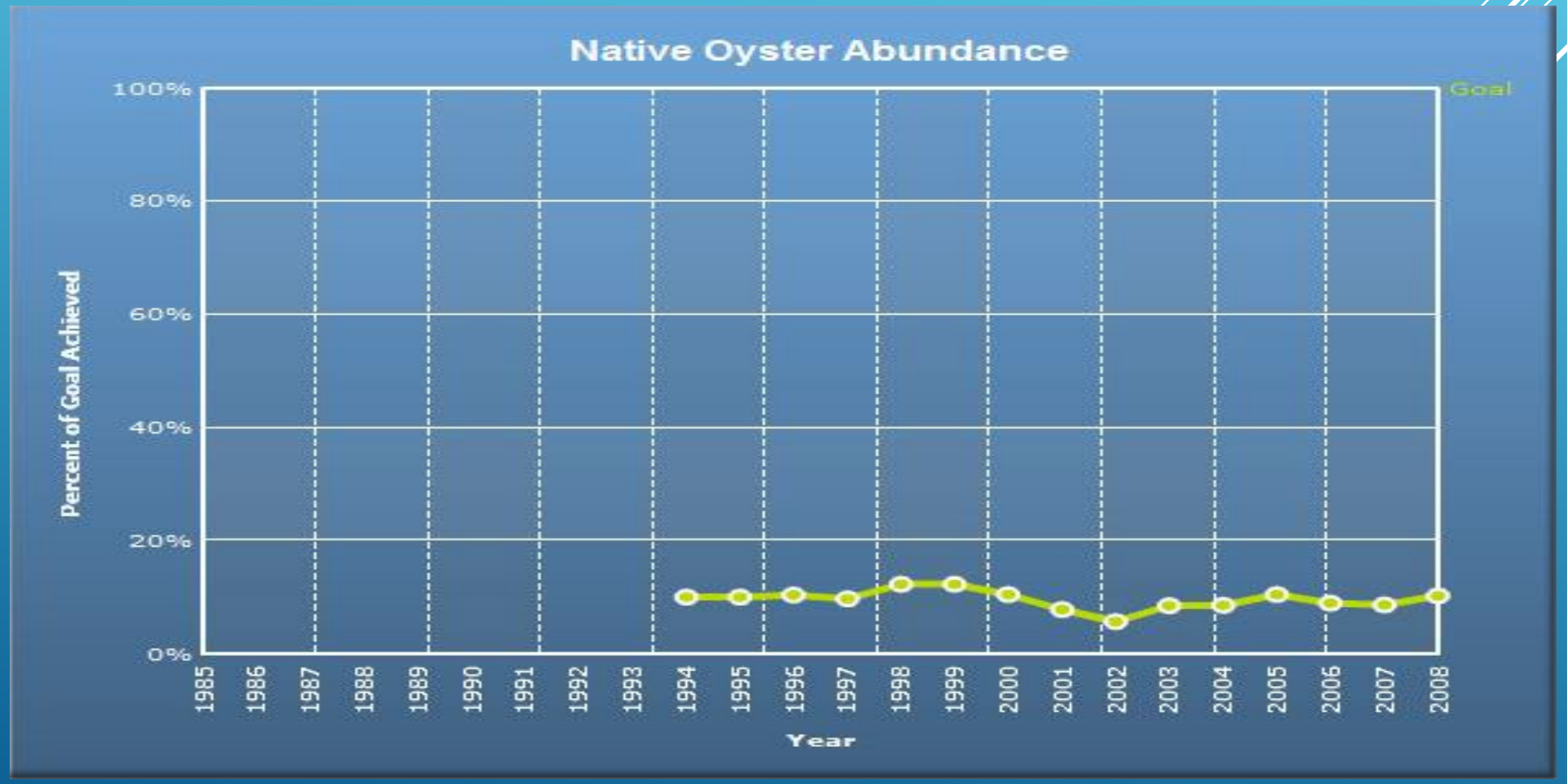
Avoid gastrointestinal illness caused by Vibrio by making sure that shellfish are thoroughly cooked.

For more information visit: www.calverthealth.org

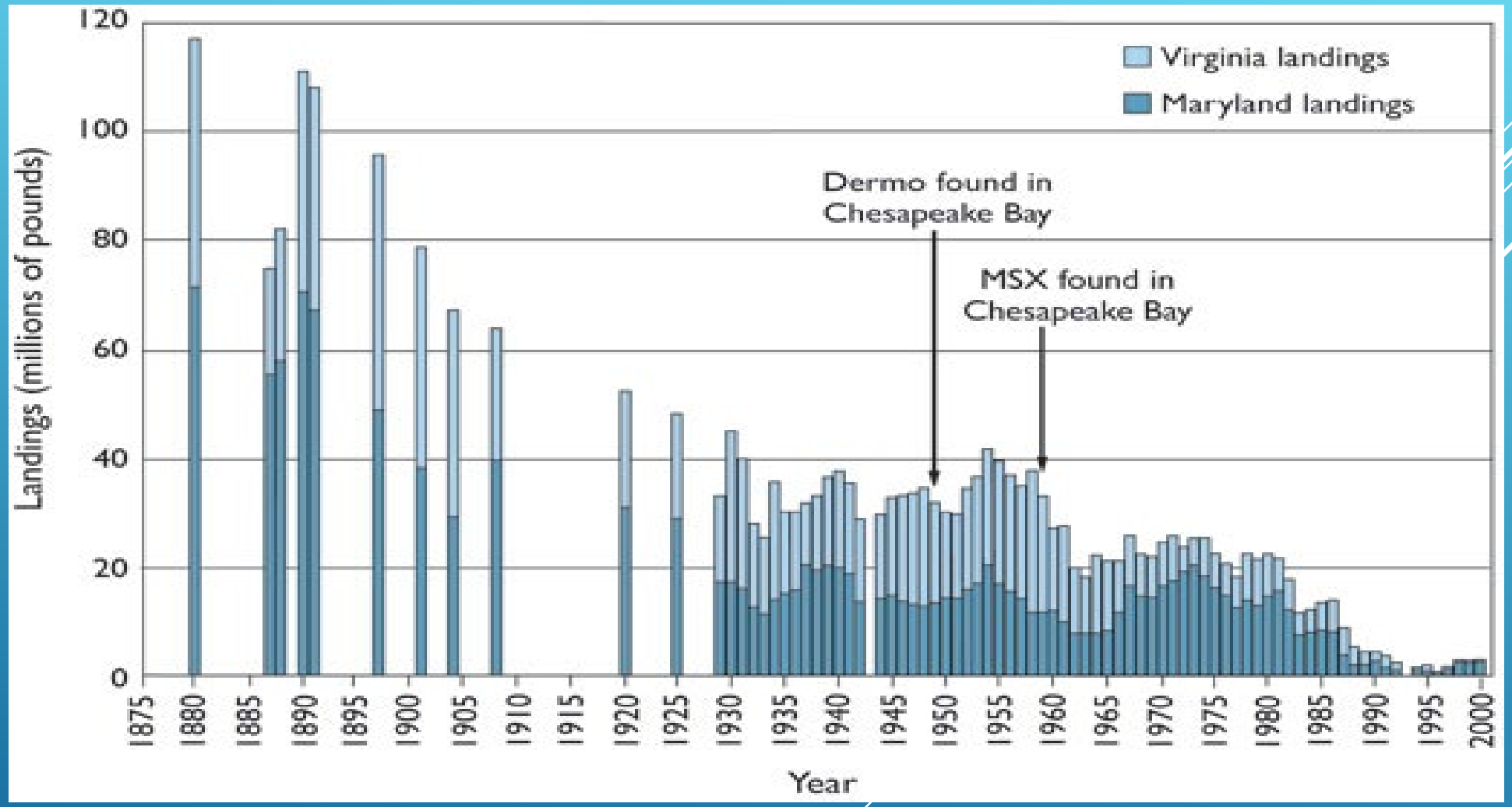
Posted by the authority of the

CALVERT COUNTY HEALTH OFFICER

COLLAPSE OF OYSTER POPULATION NOW TO ~1.5% OF HISTORIC POPULATION IS A CALAMITY. THEY ARE KEYSTONE SPECIES, FILTERING BAY WATERS TAKING OUT EXCESS NUTRIENTS & SETTLING SEDIMENT

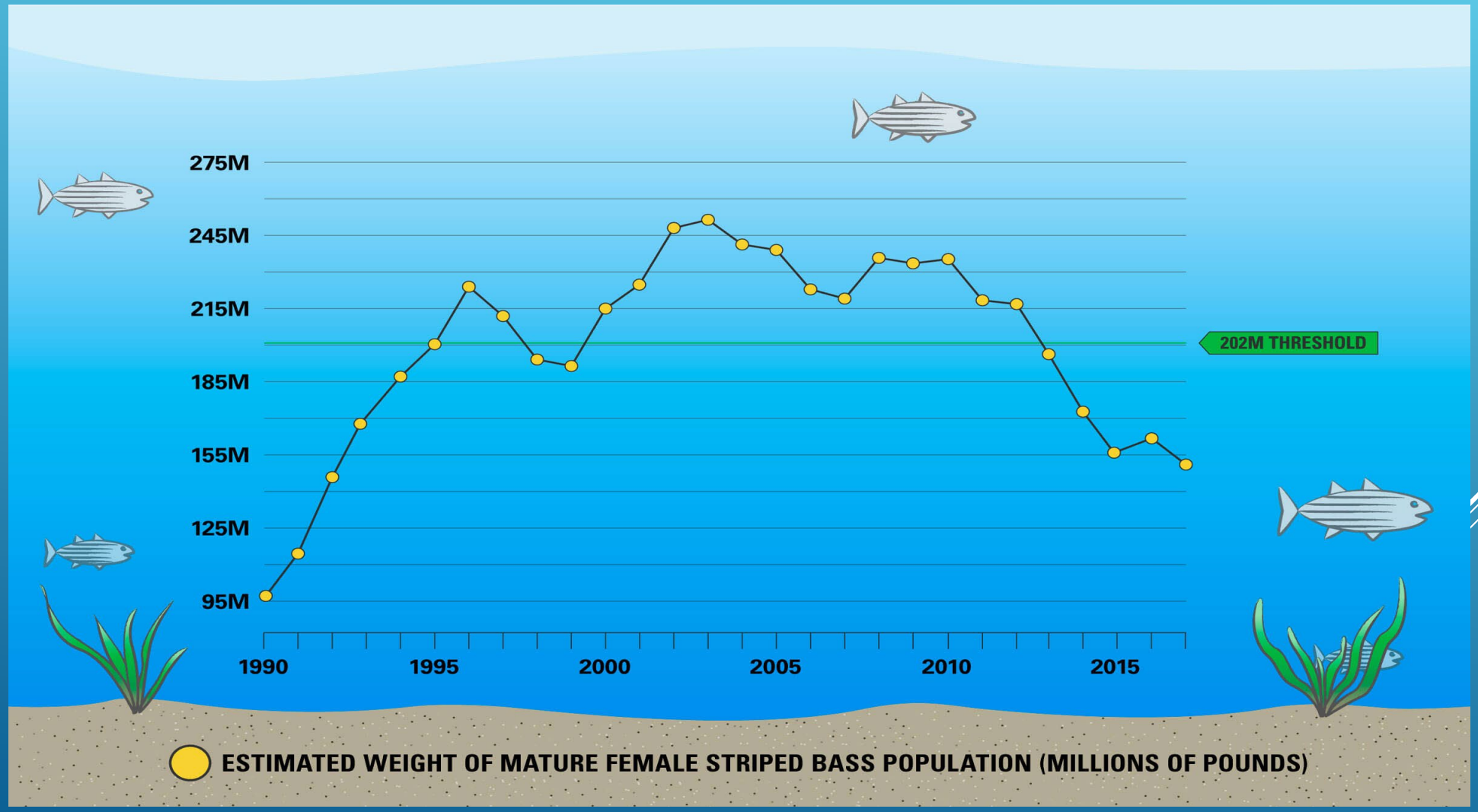


OYSTER LANDINGS

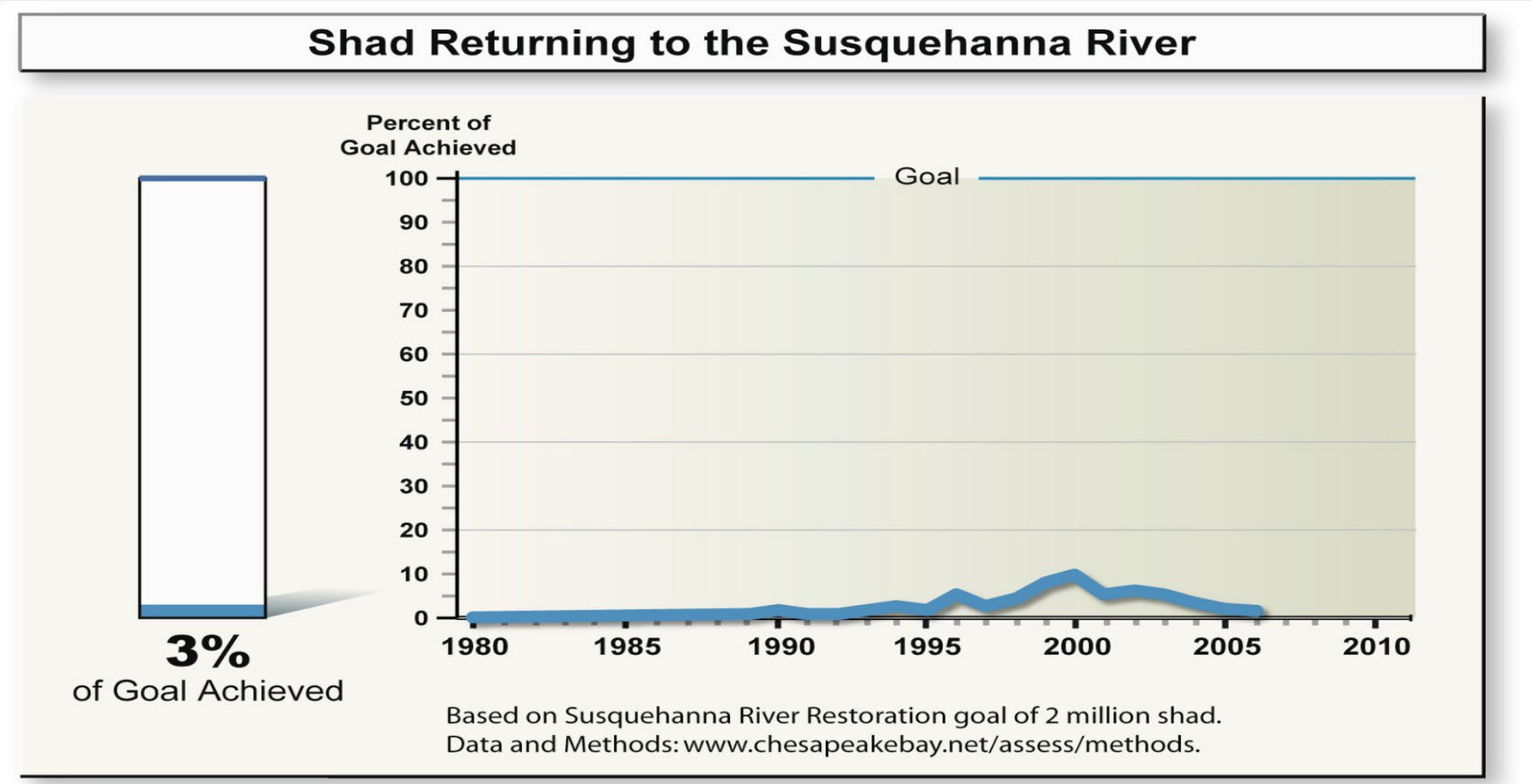


STATES AGREED TO INCREASE OYSTERS BY 10X BY 2010. DESPITE $400 MILLION SPENT, OYSTERS DECLINED. GOAL ABANDONED.

ROCKFISH ARE IN SERIOUS TROUBLE W/ASMFC FINDING THEY ARE OVERFISHED AND 60% BELOW 252 MILLION POUND FEMALE BIOMASS TARGET.



SHAD: A COLLAPSED FISHERY



SHAD FISHERY USED TO BE LARGEST IN BAY. 2015 SHAD COUNT AT THE CONOWINGO DAM WAS A MINISCULE 8,341 0.4% OF 2 MILLION GOAL. GOAL WAS ABANDONED.

BAY CRAB NUMBERS COLLAPSE TO RECORD LOW AS REGULATORS FAIL TO ACT

RECENTLY RELEASED WINTER DREDGE SURVEY DOCUMENTS LOWEST NUMBER OF BAY CRABS IN 33-YEARS OF SURVEYING--ONE-THIRD THE POPULATION OF 30 YEARS AGO. FEMALE SPAWNERS DECLINED TO LESS THAN HALF OF THE AGREED UPON TARGET SET BY MD & VA.

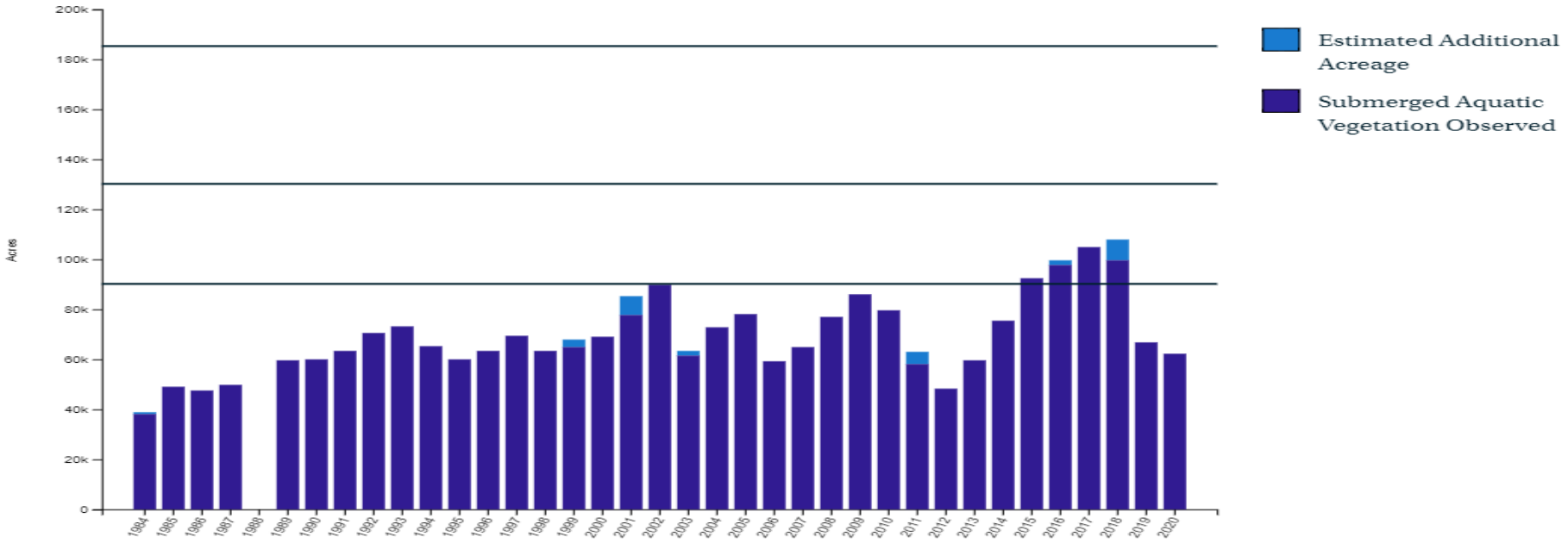
ADULT MALES AT LOWEST LEVEL OF SURVEY HISTORY AS REGULATORS ALLOW NO DAILY LIMITS & TAKE OF UP TO 30 BUSHELS OF FEMALES.

SAV ACREAGE IN CHESAPEAKE 1984-2020

Submerged Aquatic Vegetation (SAV) Abundance (1984-2020)

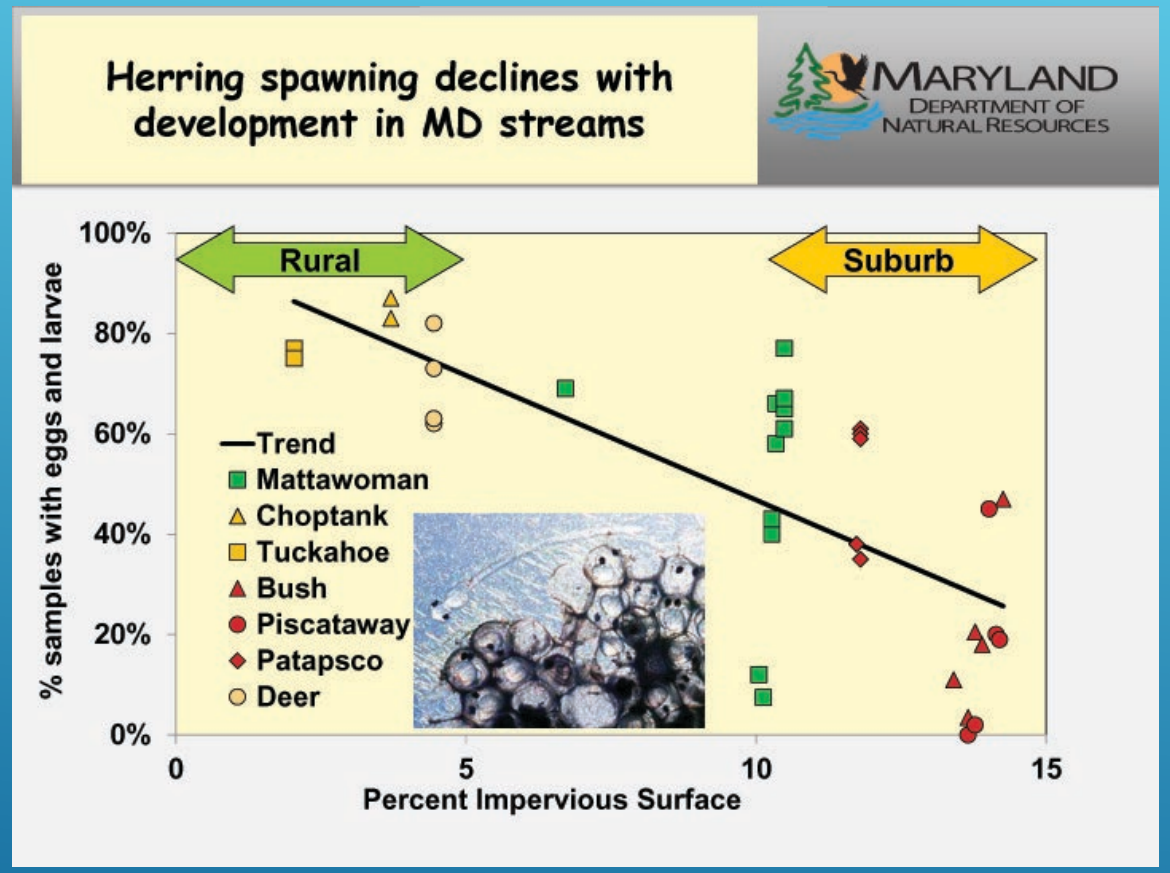
*Estimated Additional Acreage: Factors such as adverse weather conditions, water clarity, or security restrictions over military air space prevented researchers from collecting aerial imagery. For these unmapped areas, estimates of SAV acreage are based on the prior year's survey.

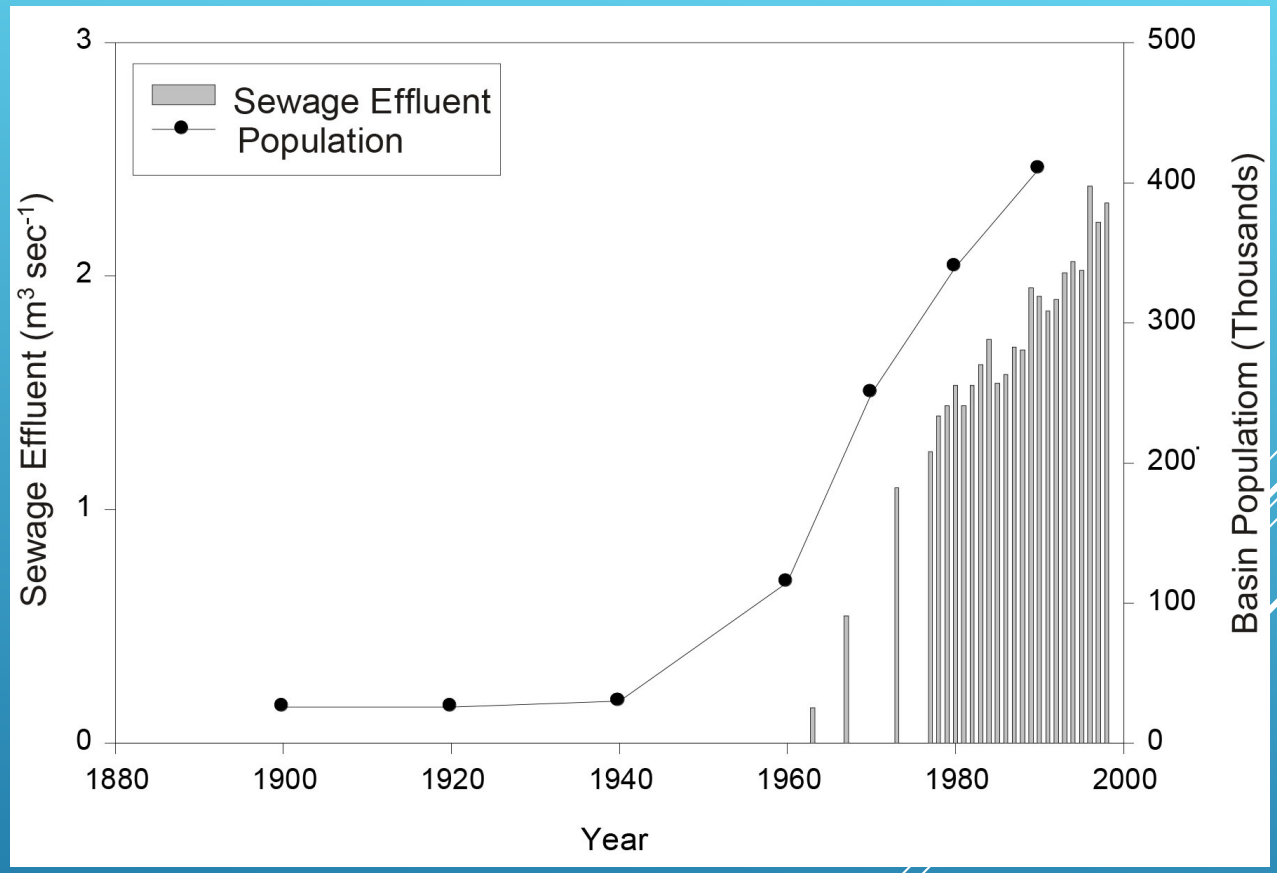
VIEW CHART VIEW TABLE



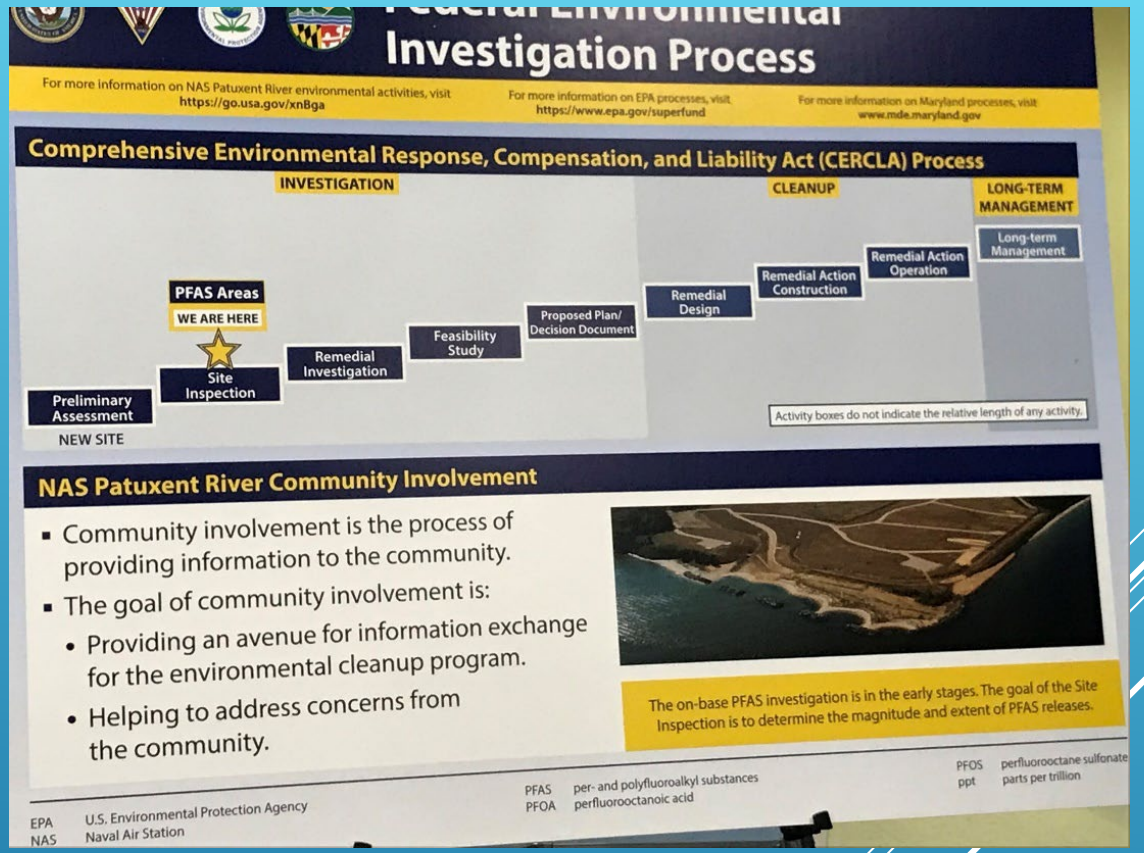
STATES AGREED IN 2000 TO BAY GRASS GOAL OF 185,000 ACRES BY 2010; IN 2020, 62,169 ACRES OF SAV EXISTED, A 42% DECREASE FROM 2018.

ALGAE BLOOMS IN PATUXENT RIVER STATE PARK


Herring spawning declines with development in MD streams
MARYLAND
DEPARTMENT OF NATURAL RESOURCES
Rural
Suburb
100%
80%
60%
40%
20%
0%
% samples with eggs and larvae
Trend
Mattawoman
Choptank
Tuckahoe
Bush
Piscataway
Patapsco
Deer
0
5
10
15
Percent Impervious Surface

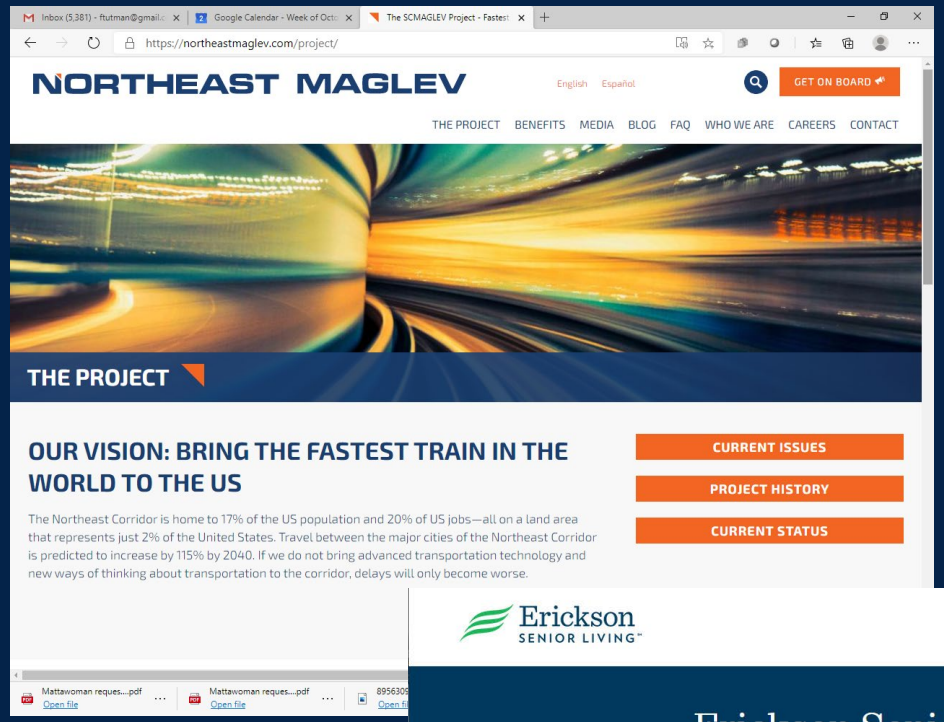

Sewage Effluent
Population
Sewage Effluent (m3 sec-1)
Basin Population (Thousands)
3
2
1
0
500
400
300
200
100
0
1880
1900
1920
1940
1960
1980
2000
Year

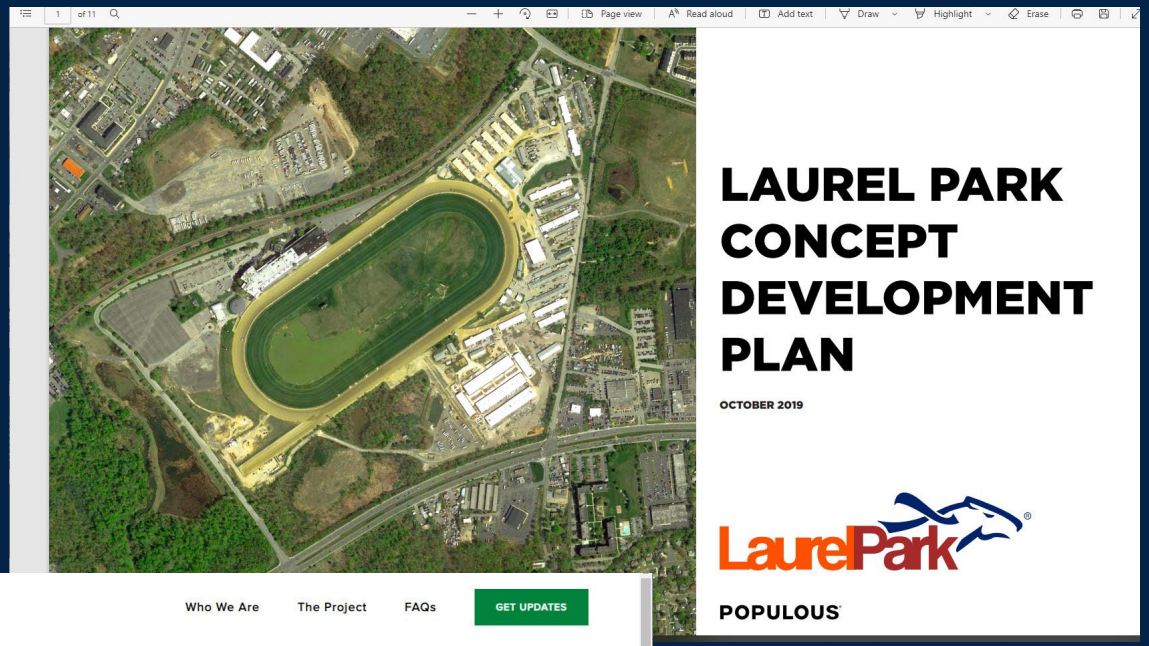

PFAS
PFAS


Investigation Process
For more information on NAS Patuxent River environmental activities, visit https://go.usa.gov/xnBga
For more information on EPA processes, visit https://www.epa.gov/superfund
For more information on Maryland processes, visit www.mde.maryland.gov
Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Process
INVESTIGATION
CLEANUP
LONG-TERM MANAGEMENT
Preliminary Assessment
NEW SITE
PFAS Areas
WE ARE HERE
Site Inspection
Remedial Investigation
Feasibility Study
Proposed Plan/ Decision Document
Remedial Design
Remedial Action Construction
Remedial Action Operation
Long-term Management
Activity boxes do not indicate the relative length of any activity.
NAS Patuxent River Community Involvement
Community involvement is the process of providing information to the community.
The goal of community involvement is:
Providing an avenue for information exchange for the environmental cleanup program.
Helping to address concerns from the community.
The on-base PFAS investigation is in the early stages. The goal of the Site Inspection is to determine the magnitude and extent of PFAS releases.
EPA U.S. Environmental Protection Agency
NAS Naval Air Station
PFAS per- and polyfluoroalkyl substances
PFOA perfluorooctanoic acid
PFOS perfluorooctane sulfonate
ppt parts per trillion

PFAS/PFOS

Intensive Growth in BRAC Areas


https://northeastmaglev.com/project/
NORTHEAST MAGLEV
English Español
GET ON BOARD
THE PROJECT BENEFITS MEDIA BLOG FAQ WHO WE ARE CAREERS CONTACT
THE PROJECT
OUR VISION: BRING THE FASTEST TRAIN IN THE WORLD TO THE US
The Northeast Corridor is home to 17% of the US population and 20% of US jobs—all on a land area that represents just 2% of the United States. Travel between the major cities of the Northeast Corridor is predicted to increase by 115% by 2040. If we do not bring advanced transportation technology and new ways of thinking about transportation to the corridor, delays will only become worse.
CURRENT ISSUES
PROJECT HISTORY
CURRENT STATUS


LAUREL PARK CONCEPT DEVELOPMENT PLAN
OCTOBER 2019
LaurelPark
POPULOUS


Erickson SENIOR LIVING
Who We Are
The Project
FAQs
GET UPDATES
Erickson Senior Living at Limestone Valley

TO REALLY CLEAN UP THESE WATERS..

- Set a *serious* deadline and stick to it
- Create a plausible plan for conservation and restoration & implement it
- Deeply regulate discharge polluters
- Regulate polluting facilities into upgrades
- Intensify enforcement actions & raise fines for persistent violators
- Set firm pollution limits, that won't get traded, mitigated or offset
- Mentor, promote and empower citizen activism to attack local pollution
- Change development patterns, no net loss of forests

Patuxent Riverkeeper Center
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Upper Marlboro,MD 20772
301-276-7913