

Baltimore's Annual

Healthy Harbor Report Card

2013



Kayakers brave the trash-strewn Gwynns Falls stream in Baltimore City.

ABOUT THE COVER AND THE STATE OF OUR STREAMS AND HARBOR

By Adam Lindquist | Healthy Harbor Project Manager, Waterfront Partnership of Baltimore

As I walked along the Gwynns Falls trail, enjoying this often missed opportunity to experience nature within the gray confines of Baltimore City, I came across a sign that read, "Urban streams are subject to pollutants and runoff. Contact with the water should be avoided." Given the nature of my work, I am well aware of this unfortunate fact and am actually glad to see the City posting signs that help protect people from water that may be harmful. But I was curious, so I left the trail and ventured down to the banks of the stream.

I immediately realized that saying the Gwynns Falls is "subject to pollutants" is an understatement. Everything was wrapped in trash, from the forest floor to the treetops. Shopping bags too numerous to count hung from the branches like fairies with shredded plastic wings. Polystyrene and plastic bottles crunched beneath my feet and when I knelt to photograph some intrepid kayakers, the smell of sewage and cigarette butts wafted up from the mud. The Clean Water Act is 41 years old but, in the Gwynns Falls, it looks like it never existed.

I snapped a couple photos (including the cover

of this report card) and shared them with my colleagues. I asked them what we should be doing if we ever hope to see a report card of A's and B's instead of D's and F's.

David Flores, the Baltimore Harbor **WATERKEEPER** with **Blue Water Baltimore**, told me, "The high fecal bacteria levels in our streams are due to chronic leaks and illegal connections with the sanitary sewer system. The most important thing we can do," he continued, "is investigate the storm drain system to find and fix leaks and cross connections."

Julie Lawson, director of **Trash Free Maryland**, said, "To tackle the trash problem we need people to change their behaviors. Baltimore should look at cities like Washington, DC, where a five-cent fee for disposable bags has dramatically reduced the amount of plastic in local streams."

Will Baker, president of the **Chesapeake Bay Foundation**, emphasized the importance of working together. "Cooperation is key," he said. "Communities upstream must work closely with the City to reduce polluted runoff, and the city

must reach out to all of its constituencies. Business, faith and civic leaders can all join with the City to ensure success."

But can it be done? **Michael Hankin**, president of **Brown Advisory**, chairman of the **Waterfront Partnership of Baltimore** board and champion of Healthy Harbor's goal of a swimmable and fishable Harbor believes that it can: "People think I'm crazy when I say we're going to do this. But we shouldn't be focused on whether or not it's crazy; we should be focused on how to fix it. Cities that offer the quality of life to which Baltimore aspires have figured it out because this is a solvable problem."

To that end, we know what needs to be done and our partnerships with government, businesses, nonprofits and foundations are strong and growing stronger. Still we need more. We need people like you to take a stand for clean water and to make your voices heard. For more information and to learn how you can get involved, please visit HealthyHarborBaltimore.org and BlueWaterBaltimore.org.

WATER QUALITY INDICATORS

Fecal bacteria levels help us determine the risk of getting sick from contact with water. Common sources of fecal bacteria are sewage overflows, broken sewer pipes and pet waste.

Chlorophyll a tells us if there is too much algae in the water. Too much algae can lead to low dissolved oxygen, which can harm fish and other living things.

Conductivity tells us if there are too many salts and chemicals in the streams that could harm fish and other organisms. Some common sources of conductivity pollutants are road salt, wastewater and industrial discharges.

Dissolved oxygen is important for all organisms that live in the water and need oxygen to breathe.

Total nitrogen and total phosphorus are nutrients that tell us how much stormwater pollution is coming off the land. Common sources are fertilizers, wastewater, urban runoff and the burning of fossil fuels.

Turbidity and **water clarity** are important because clear water allows fish to find their prey and underwater plants to thrive.

2013 OVERALL WATER HEALTH

In 2013, Baltimore's streams, river and Harbor scored between 51% and 57%. While this is a failing score, it is an improvement over the 2012 scores, which ranged from 40% to 42%. These modest improvements show that we are headed in the right direction, but there is still a lot of work to be done. Without significant infrastructure repair and environment restoration, areas dominated by urban and suburban development will continue to have poor water quality.

Water quality scores were lowest in Baltimore's streams and Harbor, where there was a high risk of becoming sick from recreating in the water. Scores were highest in the downstream portions of the Tidal Patapsco River, closest to the Chesapeake Bay.

Turbidity scored higher than expected, an A. This is because our streams are usually clear unless it is raining. Increases in turbidity are brief and typically occur during storm events when sediment is flushed quickly into the Harbor. Similarly, dissolved oxygen scored higher than expected in the Tidal Patapsco River because low dissolved oxygen events are short in duration and therefore not always captured by the sampling program.

Water body	2012 Score	2013 Score	2013 Grade
Baltimore Harbor	42%	51%	F
Tidal Patapsco River	40%	55%	F
Baltimore Streams	Not sampled	57%	F

How grades are assigned*	Grade
90% to 100%	A
80% to 89%	B
70% to 79%	C
60% to 69%	D
0% to 59%	F

*Note: In 2013 the grading process changed from a quintile-based system to an academic-based system

"While the failing grade may be discouraging, it serves as an effective call to arms. There are real solutions to the problems that are degrading our waterways and 2013 marked a renewed effort by both public and private partners. The mission to identify and resolve problems is gaining momentum. This trend gives me great hope that together we will restore our streams and Harbor to places that are safe and clean for all to enjoy."

Theodore E. Scott, PE, CPESC LEED AP,
Chairman of the Board, Blue Water Baltimore



Courtney Bannister and Ava Richardson kayak in the Inner Harbor as part of a program with Baltimore City Recreation and Parks. Photo credit: Adam Lindquist



Top: Jaylan, a 4th grader from Armistead Gardens School, removes trash from the Herring Run as part of the annual Project Clean Stream event.

Bottom: Michael Hankin, president of Brown Advisory and chairman of the Waterfront Partnership of Baltimore board speaks at the unveiling of the Inner Harbor Water Wheel Trash Interceptor. Photo Credit: Waterfront Partnership of Baltimore



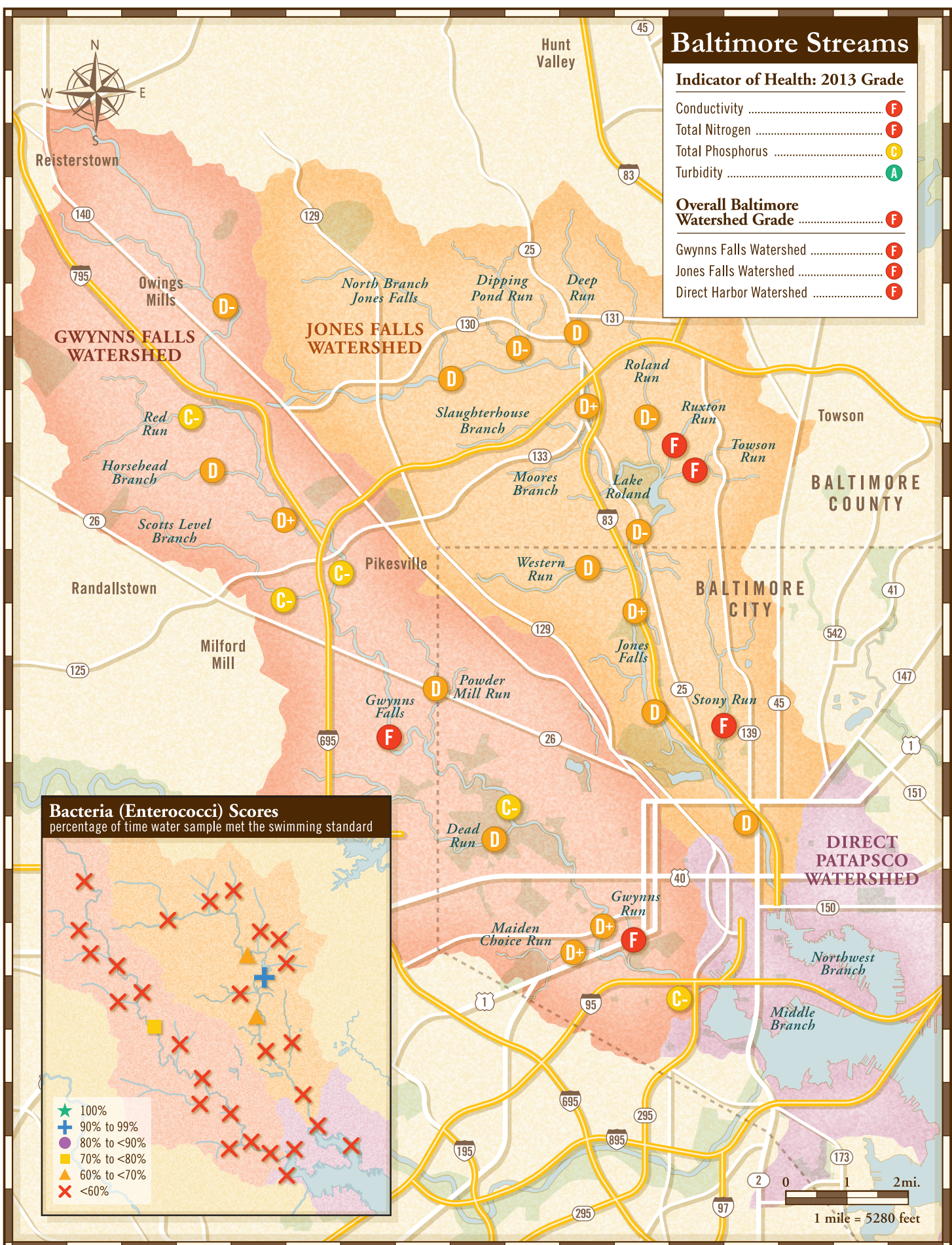
Baltimore Streams

Indicator of Health: 2013 Grade

Conductivity	F
Total Nitrogen	F
Total Phosphorus	C
Turbidity	A

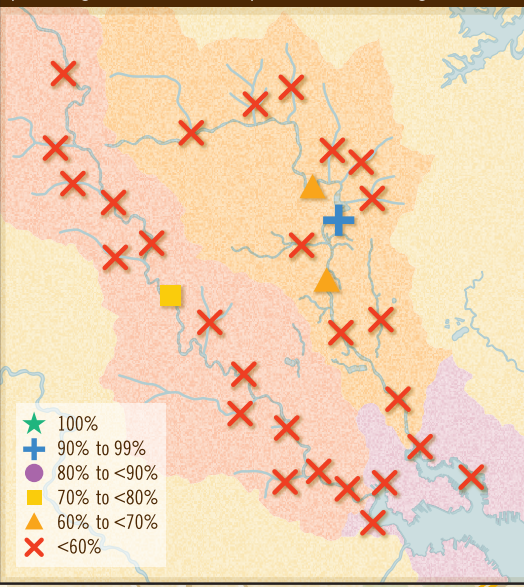
Overall Baltimore Watershed Grade

Overall Baltimore Watershed Grade	F
Gwynns Falls Watershed	F
Jones Falls Watershed	F
Direct Harbor Watershed	F

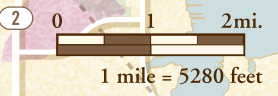


Bacteria (Enterococci) Scores

percentage of time water sample met the swimming standard



- ★ 100%
- ⊕ 90% to 99%
- 80% to <90%
- 70% to <80%
- ▲ 60% to <70%
- ✕ <60%



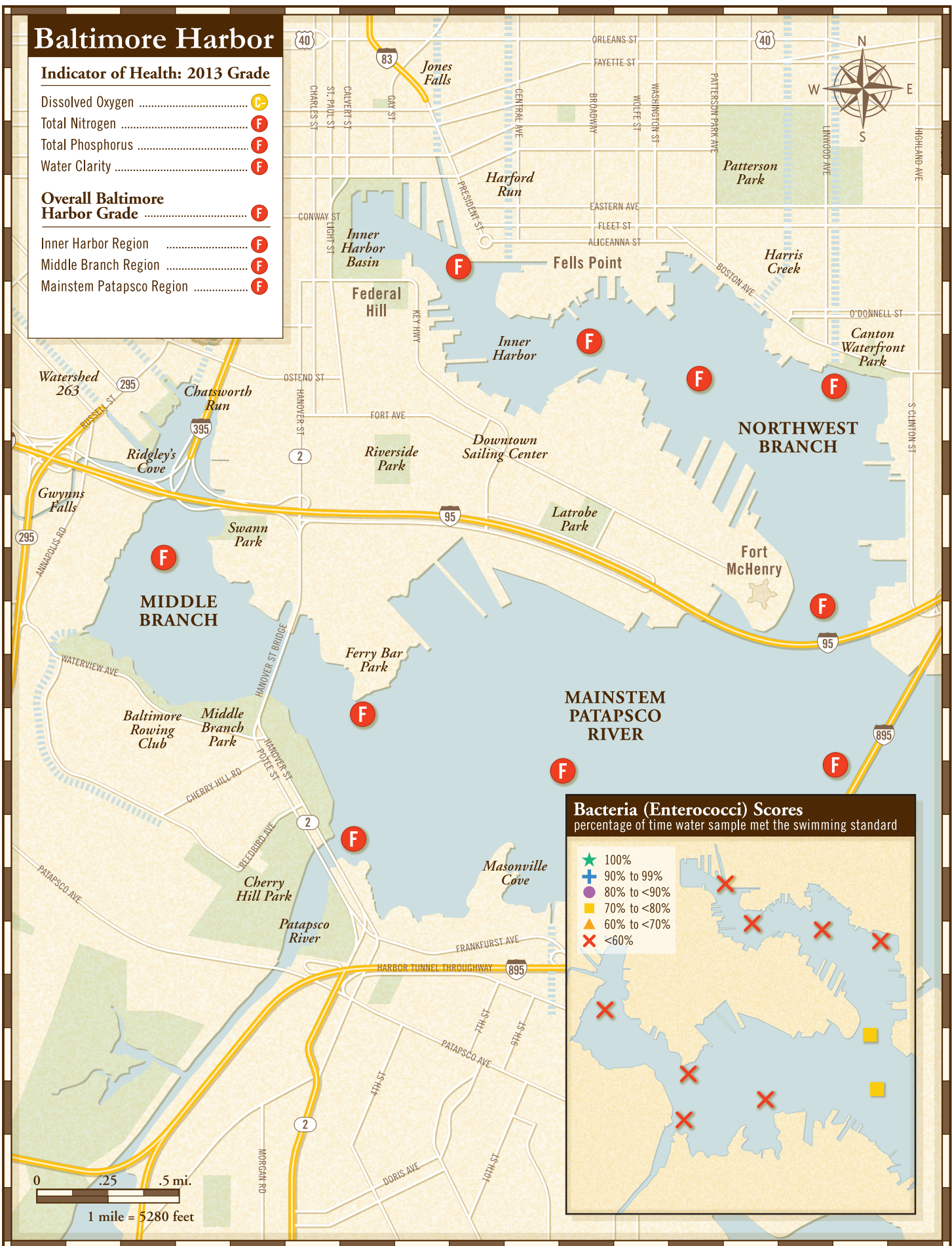
Baltimore Harbor

Indicator of Health: 2013 Grade

- Dissolved Oxygen (C)
- Total Nitrogen (F)
- Total Phosphorus (F)
- Water Clarity (F)

Overall Baltimore Harbor Grade

- Overall Baltimore Harbor Grade (F)
- Inner Harbor Region (F)
- Middle Branch Region (F)
- Mainstem Patapsco Region (F)



Bacteria (Enterococci) Scores

percentage of time water sample met the swimming standard

- ★ 100%
- ⊕ 90% to 99%
- 80% to <90%
- 70% to <80%
- ▲ 60% to <70%
- ✗ <60%

0 .25 .5 mi.
1 mile = 5280 feet

Tidal Patapsco River

Indicator of Health: 2013 Grade

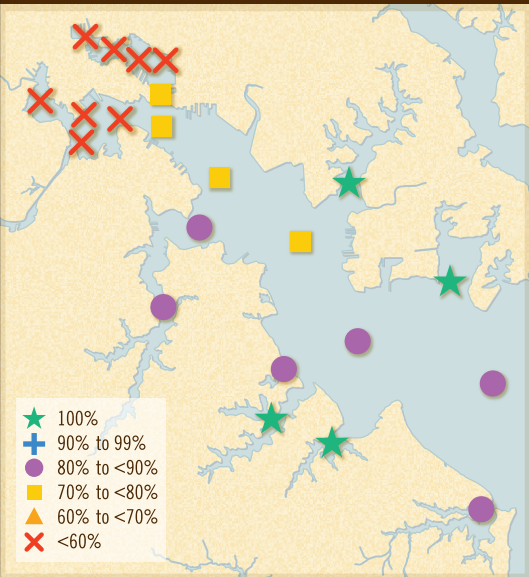
Chlorophyll <i>a</i>	F
Dissolved Oxygen	A
Total Nitrogen	F
Total Phosphorus	D-
Water Clarity	F

Overall Tidal Patapsco Grade **F**



Bacteria (Enterococci) Scores

percentage of time water sample met the swimming standard



What is the Healthy Harbor Report Card?

Healthy Harbor is a partnership of area businesses, nonprofits and local government who have come together with a goal of making the Baltimore Harbor swimmable and fishable. The Healthy Harbor Report Card is a tool to help us communicate this goal and track our progress.

This report card is the product of a partnership between the Waterfront Partnership of Baltimore and Blue Water Baltimore, two local nonprofits working to make Baltimore's streams and Harbor clean, safe and accessible to everyone. The data for this report card was collected by Blue Water Baltimore, Baltimore City and Baltimore County. EcoCheck provided scientific expertise and data analysis.

For more information, please visit www.HealthyHarborBaltimore.org and www.BlueWaterBaltimore.org.



2013 TRASH REDUCTION ACTIONS

- ↑ 10,191 tons of litter collection from street sweeping, a slight increase from 2012. (Source: Baltimore City)
- ↓ 94,873 miles of streets swept, a slight decrease from 2012. (Source: Baltimore City)
- ↑ 348 storm drains painted by 875 volunteers as part of 43 storm drain art projects, compared to 289 storm drains painted in 2012. (Source: Blue Water Baltimore)
- ★ 93,200 pounds of trash removed by volunteers. (Source: Blue Water Baltimore)
- ★ 100 stream cleanup events (Source: Blue Water Baltimore, Parks & People Foundation)

2013 STORMWATER REDUCTION ACTIONS

- ↑ 10,940 trees planted compared to 8,121 in 2012. (Source: TreeBaltimore, Parks & People Foundation)
- ↓ 55 Rain barrels installed compared to 173 in 2012. (Source: Blue Water Baltimore)
- ↓ 12 rain gardens installed. (Source: Blue Water Baltimore, Parks & People Foundation)

↓ 202 free water audits conducted, down from 395 in 2012. (Source: Blue Water Baltimore)

- ↑ 1 stream restoration project, an increase from 0 in 2012. (Source: Parks & People Foundation)
- ↑ 68,322 square feet of impervious surface removed. (Source: Blue Water Baltimore, Parks & People Foundation)

2013 BACTERIA REDUCTION ACTIONS

- ↓ There were 697 sewer overflows reported in Baltimore City and Baltimore County, down from 759 in 2012. (Source: Maryland Department of the Environment)
- ↓ 3.84 million gallons of sewage overflowed in Baltimore City and Baltimore County, down from 63.7 million gallons in 2012. (Source: Maryland Department of the Environment)
- ★ 200 pet waste yard signs distributed to Baltimore neighborhoods. (Source: Waterfront Partnership of Baltimore)



The Healthy Harbor Report Card is made possible by the generous support of our sponsors:



The Healthy Harbor Report Card is released annually and provides an opportunity for local companies to support environmental restoration. For information on sponsoring the Healthy Harbor Report Card, please contact Adam Lindquist at Adam@WaterfrontPartnership.org.



Legislative Update

Defending Maryland's Stormwater Law (HB987)

While we have come a long way in reducing overall pollution in the Chesapeake Bay, pollution from stormwater runoff actually continues to worsen. In 2012, the General Assembly passed a law requiring the 10 most populated jurisdictions to establish funding programs to pay for new projects to reduce flooding and polluted runoff during rain events. Most of these jurisdictions, including Baltimore City, opted to establish a fee based on the amount of impervious (i.e., hard) surface found on individual properties.

Over the course of the 2014 legislative session, over 20 bills aimed at undoing or weakening the legislation were introduced, but all fell short. Regardless, opponents of the law remain determined to undo efforts to keep polluted stormwater from entering the Bay. Advocates, including Blue Water Baltimore and the Waterfront Partnership of Baltimore, continue to work hard to ensure that the 2012 law, critical to protecting the health of Maryland's waters, remains firmly in place.

The continued opposition highlights the need for continued efforts to shore up the General Assembly's commitment to clean water. Additionally, a transparent system of reporting collected fees should be established to ensure that funds are spent on projects that directly improve water quality. Finally, a credit program that allows city residents to reduce their annual stormwater fees by installing or participating in greening projects must be promoted.

Strengthening Penalties for Littering (HB386/SB390)

Trash and litter continues to be a significant problem for Baltimore's harbor. During rain events, stormwater washes refuse into storm drains and out into the Harbor and Chesapeake Bay. To encourage residents to dispose of their solid waste properly and keep trash out of the water, the General Assembly passed a law that requires the Maryland Vehicle Authority to assess a penalty of two, three or five points, depending on the amount of litter being disposed of, against the license of anyone caught littering from a moving vehicle or dumping illegally on state- and city-owned properties.

"Business and civic leaders recognize that Baltimore's harbor is one of our region's most valuable assets. Ensuring a clean environment that impacts the harbor is critical to economic prosperity in the Greater Baltimore region."

Donald C. Fry, president and CEO of the Greater Baltimore Committee.