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Contact Information:

Julia Hopkins
Charles River Watershed Association
(401) 529-4006, jhopkins@crwa.org

On the 50th Anniversary of the Clean Water Act, Boston River Report Cards Reveal Grades Ranging from A to F

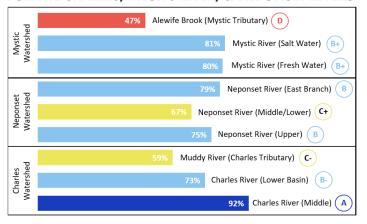
Rivers Are Cleaner, But Climate Change Threatens Backsliding on Progress That Has Been Achieved

BOSTON, MA – Today, three Boston-area watershed organizations, along with U.S. Environmental Protection Agency (EPA), announced the 2021 Water Quality Report Cards Grades for the three rivers that flow into Boston Harbor: the Neponset, the Charles, and the Mystic.

"This year, as we mark the 50th Anniversary of the Clean Water Act, EPA celebrates the excellent collaboration between all levels of government and our important partners – these watershed associations, as well as an informed and engaged public – all working together to achieve cleaner water and a healthier environment," said EPA New England Regional Administrator David W. Cash.

The 2021 Report Card Grades, which range from A to F, show vast improvement compared to decades before, yet present new challenges in ensuring our rivers are clean, healthy, and safe for all.

2021 SELECTED SEGMENTS & GRADES FOR THE CHARLES, MYSTIC RIVER, & NEPONSET RIVERS



"Today's reporting of water quality in the major urban rivers of Boston and surrounding communities underscores the hard work that has contributed to healthier waters, while also spotlighting locations and types of pollution that still need to be addressed. All of our citizens deserve to enjoy a clean and healthy environment, especially in historically underserved communities," said EPA New England Regional Administrator David W. Cash.

50th Anniversary of Clean Water Act: Significant Improvements, But More Work to be Done

This year marks the 50th anniversary of the Clean Water Act, the 1972 landmark legislation that called for all waterways in America to be "fishable and swimmable" by 1983, and the elimination of all discharges of pollutants into navigable waters by 1985.

While those ambitious goals are yet to be achieved, the Clean Water Act has been a game-changer for the Neponset, Charles, and Mystic Rivers. Before its passage, the three rivers that flow into Boston Harbor were industrial dumping grounds, awash with raw sewage and toxic pollutants, inhospitable to plant and animal life. By setting a broad vision for restored waterways and providing a regulatory framework to achieve it, the Clean Water Act provided the necessary leverage to hold polluters accountable and ensure clean, fishable, swimmable rivers for current and future generations. The Clean Water Act's power, coupled with decades of relentless, loving vigilance and advocacy from the three watershed associations, has transformed our rivers again into beautiful, living waterways.

"For fifty years, the Clean Water Act has stemmed the tide of pollution and improved water quality for communities across Massachusetts," says U.S. Senator Ed Markey. "The tremendous work of the Charles River, Mystic River, and Neponset River Watershed Associations is a testament to the vital partnership between federal, state, and local leaders in our mission to guarantee clean water, mitigate environmental injustice, and safeguard against climate change. Every community deserves access to clean, safe waterways. I am proud to support the Clean Water Act and all our partners who will ensure that Boston Harbor will thrive in the decades to come."

"MWRA's ratepayers have invested close to \$1 billion for water quality improvements in the Charles, Mystic, and Neponset, and the results have been remarkable," said Fred Laskey, MWRA's Executive Director. "Thanks to the strong support of our federal, state, and local elected officials, sewer overflows have been reduced by nearly 3 billion gallons a year with 93% of the remaining flows treated. We look forward to working with all the partners here today on the remaining challenges."

Climate Change Necessitates Urgent Action to Protect Water Quality

Greater Boston, and its three rivers, are already seeing the effects of climate change, especially in the form of heavier downpours, extreme heat, severe storms, and more frequent drought. In 2021, these watersheds saw fifty-two inches of rainfall, twenty-four days above 90°F, and several flash flooding events, all of which influenced water quality grades in the Mystic, Charles, and Neponset Rivers.

The grades, which are based on the percentage of time *E. Coli* bacterial levels are safe for recreation, precipitation data, and weighted with a three-year average, are influenced by increased precipitation. Additionally, grades for the Charles River account for the presence of cyanobacteria blooms and combined-sewer overflow discharges (CSO), two additional threats to public health, that are each respectively exacerbated by extreme heat and increased rainfall.

In the three highly urbanized watersheds, with over 80% impervious cover in some communities, the scale and consequences of stormwater runoff and sewer overflow due to heavier rainfall and extreme weather are stark, resulting in the degradation of ecosystem health in addition to public health concerns at a time when residents need clean water, resilient parks, and healthy rivers the most.

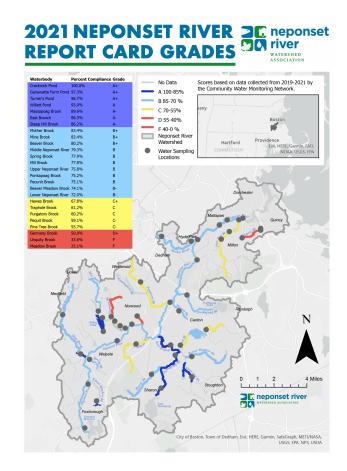
"For far too long, Boston's environmental justice communities have been bearing a disproportionate burden of climate change and environmental hazards," said Reverend Mariama White-Hammond, Chief of Environment, Energy, and Open Space for the City of Boston. "As a Dorchester resident, I dream of the day when residents along the Neponset River Watershed can swim in these waters with joy. I am grateful for Boston's partnership with the U.S. EPA and our three watershed organizations, and I look forward to our continued collaboration."

"The Baker-Polito Administration is proud to have invested or committed approximately \$56 million to address aging combined sewer overflows infrastructure in the Charles and Mystic River Watersheds, as well as over \$8 million in grant funding to all three watersheds to prevent impacts from stormwater," said Massachusetts Department of Environmental Protection Commissioner Martin Suuberg. "The Report Cards highlight the significant progress we've made, and MassDEP remains committed to the ongoing collaboration with our partners at the US EPA, local communities, and watershed advocacy groups to improve the rivers' water quality on behalf of the public we serve."

Report Card Grades for the Neponset River

In the Neponset River watershed, most streams and river segments earned grades of "A" or "B", and all monitored ponds earned "A's". Only Unquity Brook, Germany Brook, and Meadow Brook received grades of "D" or "F". In addition, the mainstem of the Neponset, where most recreation occurs, received grades in the "B" range, indicating that the river met boating standards and often swimming standards as well.

The biggest challenge in the Neponset is polluted stormwater runoff from streets, parking lots, and yards. When it rains, pollutants on our roadways and parking lots—oil, gas, bacteria, pharmaceuticals, and more— are washed directly into our waterways. In wet weather, water quality grades drop 22% on average, nearly two full letter grades, impairing water quality and rendering many areas of the river unsafe for recreation.



"The Neponset River has been completely transformed in the 50 years since the passage of the Clean Water Act, and it's great to see the explosion in the number of people recreating on and along the river," said Ian Cooke, Executive Director of the Neponset River Watershed Association. "However, polluted stormwater runoff from streets continues to be a huge problem, and we are working to educate residents and upgrade stormwater infrastructure systems to reduce pollution and prepare for climate change."

"Knowing what's ahead in terms of climate change makes it more important than ever to invest in restoring our waterways," added Sean McCanty, River Restoration Director. "The recent designation of the Lower Neponset River as a Superfund site to clean up contaminated river bottom sediments is a great example of the kinds of steps we need to be taking now to prepare for the future."

Report Card Grades for the Charles River

In the Charles River, grades ranged from "A"s in the middle reaches (Sherborn to Waltham) to a "C-" in the Muddy River, a tributary in Brookline and Boston. The Upper Watershed (Hopkinton to Medfield) received a "B+", mainly a result of low water levels and encroaching development in the area causing more polluted stormwater runoff. The Lower Basin of the Charles River, the popular boating reach between Watertown and Boston, received a "B-" due to persistent combined-sewer overflows.

In Summer 2021, due to a record thirty-five inches of precipitation, fifty-three known CSO events, over 126 million gallons of sewage and stormwater were discharged into the Charles, about the volume of 36 Olympic-sized swimming pools. CSOs are extremely dangerous, exposing river users and watershed residents to

2021 CHARLES RIVER
REPORT CARD GRADES

Charles River
Watershed Association

Town of
John Agricol

Town of
Hopinton

Town

pollutant-laden water, carrying bacteria, excess nutrients, pharmaceuticals, and even harmful PFAS compounds. The increased frequency and volume of CSO events alone dropped the Lower Basin's grade significantly, from a "B" to a "B-".

Additionally, patterns of erratic weather and heavy precipitation followed by extreme heat, as we saw in 2021, add stress to the river ecosystem. These conditions can be deadly for aquatic life, resulting in low dissolved oxygen levels and devastating fish kills like the one seen in the Medfield's Stop River tributary in July 2021.

"We are pleased that some areas of the Charles earn "A" grades," said Emily Norton, Charles River Watershed Association Executive Director. "But the poor grades in our more urban areas show how much work remains. We hope these grades will spur members of the public to join us in demanding that local, state, and federal government leaders commit to eliminating CSOs, reducing polluted stormwater runoff, and investing in nature-based solutions to return the Charles to a fishable, swimmable river, as the Clean Water Act envisioned."

Report Card Grades for the Mystic River

The Mystic River itself and the Mystic Lakes receive grades from "B+" to "A+", indicating that they meet boating standards almost all the time in dry weather; and some important tributaries, including Winn's Brook in Belmont, Alewife Brook in Cambridge and Arlington, and Mill Creek in Chelsea continue to show clear evidence of frequent contamination by wastewater, earning the lowest grades.

"This year's Report Card for the Mystic River Watershed reminds us how far we have come thanks to the 50-year-old Clean Water Act," says Patrick Herron, Executive Director of the Mystic River Watershed Association. "But it also reminds us that we have more to do to meet its full promise. Many waterways in the Mystic watershed are safe for recreation most of the time, and we should celebrate that. But we also need collectively to invest in urban

2021 MYSTIC RIVER
REPORT CARD GRADES

WITERSHED ASSOCIATION

Oracle

Water Segment Compliance Research

A* Upper Mystic Lake
A* Upper Mystic Edex 98.50%
A Upper Mystic River (Fresh) 98.50%
B* Mystic River (Fresh) 99.20%
B* Mystic River (Fresh) 99.2

infrastructure at scale, so that all city residents living along and near the Mystic and its tributaries can enjoy and access the clean water they deserve."

The Alewife Brook tributary stands out as a place where infrastructure improvements should be prioritized to protect Environmental Justice (EJ) communities. Stormwater from four urban municipalities, Cambridge, Somerville, Arlington, and Belmont, and frequent combined-sewer overflows in Cambridge and Somerville, all flow into Alewife Brook and pose significant health risks to residents. "For all of us to be true to our commitment to EJ, and to undo the disproportionate impacts of pollutants on disadvantaged populations, we need to focus our investments on areas where EJ populations are being directly impacted by poor water quality like Alewife Brook," says Patrick Herron.