



November 28, 2023

Via Email

Michele Barden
U.S. Environmental Protection Agency – Region 1
5 Post Office Square, Suite 100 (06-1)
Boston, MA 02109-3912

Claire Golden
MassDEP, Surface Water Discharge Program
150 Presidential Way,
Woburn, MA 01801

Re: 2023 Draft NPDES Permit No. MA0103284

Dear Ms. Barden and Ms. Golden:

Charles River Watershed Association (“CRWA”) appreciates the opportunity to review the Draft National Pollutant Discharge Elimination System (“NPDES”) Permit No. MA0103284 to be issued to the Massachusetts Water Resource Authority (“MWRA”) for its Deer Island Treatment Plant (“DITP”), four combined sewer overflow (“CSO”) treatment facilities, and six additional CSO outfalls. CRWA recognizes that this permit also identifies and applies to 43 MWRA member municipalities named as Co-permittees, including Boston, Cambridge, Chelsea, and Somerville, which are identified as CSO-responsible Co-permittees.

As one of the country’s oldest watershed organizations, CRWA protects, preserves, and enhances the Charles River and its watershed through science, advocacy, and the law. Our initiatives over the last five decades have dramatically improved water quality in the watershed, fundamentally changed approaches to water resource management, and protected the Charles River as a public resource for current and future generations. The issuance of this permit represents an opportunity to promote the goals of the Clean Water Act (“CWA”), resolve persistent problems with existing CSO public notification systems, promote environmental justice (“EJ”), and protect against emergent pollutants. However, this can only be accomplished through robust public participation, forward-thinking protections against climate change, and maximally protective language that implements requirements to the full extent of federal and state authority. Accordingly, CRWA has reviewed the draft permit and respectfully submits the following comments.

Part I, B. Combined Sewer Overflows

CRWA appreciates Attachment A’s comprehensive list of outfalls. However, this list appears to include many outfalls shown as closed by MWRA in their 2022 CSO report, including CAM009 and CAM011. Closed outfalls should be removed from Attachment A to prevent confusion and make it clear which outfalls are at issue.

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CRWA notes that Section B(2)(a) states that discharges from CSO outfalls “shall not cause or contribute to violations of federal or state Water Quality Standards,” which CRWA appreciates. However, currently, these discharges *do* contribute to violations. While CRWA acknowledges the intention behind this provision, including language that ignores the reality of discharge-related violations undermines the purpose of the permit.

Permit language should provide clear definitions for key terminology such as “wet weather”

The draft permit’s authorization of discharges from outfalls during “wet weather,” is insufficiently protective. The permit defines “wet weather” as any period with greater than 0.1 inches of rain. Sewer systems should be capable of handling a minimum of 1 inch of precipitation in 24 hours without producing overflows. However, importantly the “period” of time at issue here is left undefined. Clarity around the proper definition of “period” would be extremely helpful in evaluating this requirement.

The permit should include a mechanism for including provisions of updated Long-term Control Plans through incorporation by reference or through a reopener clause

CRWA joins our partner organizations in expressing concern that this permit be structured to incorporate future alterations to CSO long-term control plans (“LTCs”). The draft permit acknowledges the variances granted to CSO outfalls discharging into the Charles River Basin and Alewife Brook/Upper Mystic River but the language in the draft permit should recognize potential future alterations to the relevant LTCs and variances. This is particularly important because MWRA, Cambridge, and Somerville all requested an extension from MassDEP until November 30, 2025, for submitting the draft updated LTCs and until December 31, 2026, for submitting the final updated LTCs. This could lead to actual or apparent confusion over which regulatory requirements are governing, or worse, result in non-compliance.

Ideally, updated requirements would be automatically incorporated into this permit through language directly referencing these LTCs, as is found in Section B(5)(e), “...any related subsequent documents and the requirements of a CSO Variance.” Alternatively, EPA must create a way to re-issue or alter the terms of the final permit upon approval of these LTCs. The Fact Sheet at 5.7.3 (p 127) anticipates something along these lines where it states:

The Permit may be modified or re-issued upon the completion of a Long-term Control Plan. Such modification may include performance standards for the selected controls, a post-construction water quality assessment program, monitoring for compliance with water quality standards, and a reopener clause to be used in the event that the selected CSO controls fail to meet water quality standards. Section 301(b)(1)(C) requires that a permit include limits that may be necessary to protect water quality standards.

Similar language should be included in the final permit. In particular, CRWA supports the inclusion of the reopener clause as it provides the greatest latitude for updates.

As current requirements have been inadequate to protect public health from adverse impacts, permit requirements for public notification should be re-examined and improved

CRWA emphasizes the importance of proper public notification of CSO outfall locations and overflows. Section B(2)(b) references EPA's Nine Minimum Controls to be implemented for CSO control, one of which is the provision of "adequate notice to the public of CSO outfall occurrences and CSO outfall impacts." Section B(3)(j) of the draft permit provides guidance for the implementation of this minimum control.

However, the current Public Notification Plan has been inadequate to protect the public from CSO health impacts. This has been particularly - and publically - problematic for residents living near Alewife Brook. This past summer the Alewife Greenway was repeatedly flooded with sewage-impacted water. However, due to inadequate notice, nearby community members walked through this water with no sense of the potential danger that it posed. This situation has highlighted the two primary issues with the current laws and permit requirements:

- (1) While the draft permit incorporates the requirements of 314 CMR 16.00 "Notification Requirements to Promote Public Awareness of Sewage Pollution," there has clearly not been enough done to identify and plan for all of the waters potentially affected by CSO discharges. This is particularly important for flood events during which floodwaters flow to public areas otherwise not associated with CSO discharges such as the Alewife Greenway. As written, the permit states that "locations for the signage shall be established in the Permittee's or CSO-responsible Co-permittee's approved CSO Public Notification plan based on consultation with boards of health or health departments in the municipalities directly impacted by the discharge." This language should be updated by stating that each "Permittee and CSO-responsible Co-permittee shall install and maintain signage at public access points to waters **and areas** affected by a potential discharge...." The Permittee and Co-permittees all have access to flood models that must be used when determining signage locations. This will help encourage local boards of health and municipalities involved in this process to place signage in places that are only affected by CSO discharges during wet weather or flood events.
- (2) All CSO-related signs should reference and encourage the public to use and sign up for online notification systems.
- (3) All CSO-related signs should have a universal wet weather sewage symbol and be translated into languages commonly spoken in their communities. 314 CMR 16.00 requires translation and universal symbols for waters impacted by outfalls. The same must be true for CSO outfall structures and nearby areas.

Over three million people live in the MWRA district. Fewer than 500 subscribe to the electronic discharge notification system. It may be unrealistic to expect that more people sign up for these services directly on their own. It is therefore important to build public awareness of local CSO outfall locations and affected areas, both through accessible physical signage and a full campaign to promote online notification systems. Measures such as automated discharge lights should be considered wherever feasible and where requested by affected residents and communities.

Most importantly, CRWA emphasizes the importance of including an evaluation of how effective public notification has been. The April 30th annual report submitted by the Permittee and each CSO-responsible Co-permittee should include a section that provides (1) a summary of any complaints received by residents about discharges; (2) information about notification efforts including the number and location of signs; and (3) if relevant, the number of subscribers to any e-notification system.

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The disturbing correlation between CSO sewage pollution and environmental justice populations requires improvements to the public notification system. Dr. Nathan Sanders, a Berkman Klein Center Affiliate at Harvard University, has reported a strong and statistically significant relationship between linguistic isolation, poverty, and race. This is a violation of MWRA's environmental justice policy and a failure to meet federal and state commitments to environmental justice.

Part I, C. Unauthorized Discharges

While this section references CWA enforcement discretion for unauthorized bypassing of wastewater flows, it should do the same for unauthorized discharges that may affect water quality and/or public health.

Part I, E. Operation and Maintenance

CRWA applauds the inclusion of climate change adaptation and mitigation measures in this draft permit. We share EPA's conviction that given the clear connection between CSO discharges and climate change-induced changes in severe weather patterns, these requirements are necessary. The fifth National Climate Change Assessment reports that extreme precipitation has increased by about 60% in the Northeast, representing the largest increase in the United States. The 2023 Resilient Massachusetts State Hazard Mitigation and Climate Adaptation Plan ("SHMCAP") specifically identified "freshwater ecosystem degradation and water quality issues due to increased sediment, nutrient, and contaminant delivery from stormwater runoff and combined sewer overflows" as one of the primary ways that flooding from precipitation will impact Massachusetts. Section E's references to the National Climate Change Assessment and state and municipal climate resilience planning efforts are greatly appreciated.

CRWA supports EPA's efforts to include climate change mitigation and planning in this and other permits. In this draft permit, these requirements are especially important given the clear connection between storm events and the effects of CSO discharges on water quality. That said, while CRWA is certain that EPA has reviewed its permitting authority, there has been some question as to how much climate change planning and adaptation EPA can require of a facility as part of NPDES permitting.¹ To the degree that EPA can include such requirements, CRWA encourages their inclusion and recommends that EPA direct the Permittee to see how facility or system-specific resiliency planning can incorporate state or local efforts.

In particular, CRWA appreciates the draft permit's directive that the Permittee utilize state and local data to develop its Wastewater Treatment Facility ("WWTF") Major Storm and Flood Events Plan. To further incorporate state and local climate resilience planning the permit should include the identification of potentially beneficial state and local resilience initiatives as one of the minimum considerations for the Asset Vulnerability Evaluation identified in Section E(1)(a)(1). For example, the SHMCAP and the recently released report by the Massachusetts Climate Chief called for the development of a Floodplain

¹ In particular, CRWA is concerned about the effect of *NRDC v. EPA*, 859 F.2d 156 (D.C. Cir. Ct. of App., 1988), which notes that "EPA may not, however, under the guise of carrying out its responsibilities ... transmogrify its obligation to regulate discharges into a mandate to regulate the plants or facilities themselves. To do so would unjustifiably expand the agency's authority beyond its proper perimeters."

Management Coordination Framework and a Floodplain Management Plan. These plans reduce water pollution and create updated stormwater standards that require both management of increased volumes of stormwater from more extreme precipitation and increased levels of pollutant removal. These initiatives will certainly inform and impact the Permittee's efforts.

General Comments

Per- and polyflouroalkyl substances permit requirements should be as protective as legally permissible and anticipate changes in best practices, testing methodologies, and removal requirements

Per- and polyflouroalkyl substances ("PFAS") have tainted waters around the world and have been found to have significant negative environmental and human health impacts. Accordingly, CRWA supports the draft permit's inclusion of testing for PFAS analytes. However, CRWA notes that the Deer Island Treatment Facility is one of the largest wastewater treatment plants in the country. Given the high concentrations of PFAS in Deer Island-derived fertilizer², it is safe to assume that the facility represents a significant source of PFAS pollution. Massachusetts currently has a maximum contaminant level ("MCL") of 20 parts per trillion for the sum of six PFAS compounds. As EPA will know, in March 2023 EPA proposed an MCL of just 4 parts per trillion for two of the PFAS analytes on the draft permit's testing list. Given the potential harm and scale of the PFAS contamination problem, CRWA joins others in expressing disappointment that this permit does not address the problem of PFAS contamination levels beyond requiring monitoring.

CRWA recognizes that the problem of PFAS contamination is still being addressed, that scientific testing mechanisms are still expensive, and that control measures are still being established. CRWA appreciates that the permit itself anticipates testing methodology updates. Despite that, CRWA is confident that more can be done through this permit to protect against these pernicious pollutants. To begin with, EPA should note that these testing requirements are provisional: that both the analyte list and the testing frequency will be updated. EPA should provide an estimated timeframe by which it expects these updates to occur, or at the very least propose a review period halfway through the lifetime of this permit during which the PFAS requirements will be reconsidered. Additionally, if permitting authority is present for this requirement, land application of the sludge generated at the Deer Island Treatment Plant should be disallowed or only allowed after significant pre-treatment. Finally, there should be an increased frequency of testing for industrial discharges. While it is appropriate to test for known or suspected PFAS-contaminated sites, annual testing may only serve to capture the gravity of a travesty after it has occurred. At the very least, CRWA encourages EPA to include a statement that it is evaluating its permitting authority in this area and that the Permittee should anticipate the incorporation of further requirements for testing and removal either through a permit mechanism or through federal or state regulation.

The Co-permittee structure may expose this permit to legal challenges, hampering its effectiveness

² <https://www.wbur.org/news/2023/03/30/boston-massachusetts-pfas-forever-chemicals-sludge-deer-island>
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CRWA is concerned that this draft permit's structure may unduly expose it to legal challenges. As a permit nominally related to the operation of the Deer Island Treatment facility, it may not be appropriate to use it as a vehicle for regulating the other 43 Co-permittees. The permit may, as a result, face legal challenges.

CRWA appreciates that 43 Massachusetts municipalities send their wastewater to the Deer Island facility and that, as such, it may make sense to approach permitting them similarly. This may be especially true for the four CSO Co-permittees. CRWA generally supports this effort to recognize the interconnectedness of this system. CRWA also recognizes that this permitting approach may save administrative resources and allow EPA to cover more facilities more efficiently. However, this structure vastly complicates the permit and could lead to third-party legal challenges or conflicting regulatory requirements. There are likewise concerns that the permit's structure gives rise to the appearance of shared responsibility. CRWA encourages EPA to fully explore the ramifications of this permit structure to ensure that it will not result in legal challenges that will either delay its implementation, create impediments to its enforcement, or result in costly litigation.

The Outfall Monitoring Science Advisory Panel should be maintained and not disbanded. If it is disbanded, EPA should establish a regionally focussed Massachusetts Bay Science Advisory Board

The Outfall Monitoring Science Advisory Panel ("OMSAP") plays a crucial role in assessing the environmental impacts of these discharges and ensuring that monitoring efforts are scientifically sound and in compliance with regulatory requirements. OMSAP was formed in 2000 to advise EPA and MassDEP about the effects of MWRA's Boston Harbor outfall. They review monitoring reports and have weighed in on everything from algal blooms to climate impacts. While the 2023 Draft Permit includes requirements to continue ambient monitoring in the vicinity of the outfall, it no longer includes a requirement to establish or maintain OMSAP.

CRWA understands and appreciates that there have not been - to this point - problems with the outfall or troubling monitoring report for some time. EPA states that it considers that OMSAP has responded to the questions it was created to answer. However, CRWA emphasizes and echoes the concerns of other commenters who have noted that now is not the time to disband OMSAP. In fact, it is precisely the time to establish these sorts of scientific bodies. As climate change impacts worsen, it is entirely foreseeable that new problems in the Harbor may arise and it will no doubt be useful to have advisory panels able to track and respond to them.

As many of the panel's advocates make clear, OMSAP also improves MWRA's transparency and serves as a watchdog. OMSAP helps make data from outfall monitoring reports publicly accessible. They also serve as a forum for critically important scholarship, including PFAS studies cited in this permit's fact sheet. Given that OMSAP enjoys broad public support and the MWRA itself has praised its work, the panel should be maintained to ensure the continuing health of Boston Harbor. Having a dedicated body of scientists reviewing outfall monitoring reports and making recommendations is essential.

If OMSAP is to be disbanded, CRWA supports EPA's efforts - detailed in the Fact Sheet - to establish a regional Board that would review and comment on the results of ambient monitoring conducted by MWRA and others in the tributaries and waters of Massachusetts Bay.

CRWA deeply appreciates the efforts of EPA and the Massachusetts Department of Environmental Protection to improve and implement protective measures in this permit and submits these comments in the hope that the final permit will be as effective as possible. Thank you for your consideration.

Respectfully,

A handwritten signature in black ink, appearing to read "Zeus Smith", written in a cursive style.

Zeus Smith
Associate Attorney, CRWA