RESPONSE TO COMMENTS

NPDES Permit Modification # MA0000787 Massachusetts Port Authority (Massport) and Co-Permittees Logan International Airport East Boston, Massachusetts

The U.S. Environmental Protection Agency's Region 1 (EPA) is issuing a Final National Pollutant Discharge Elimination System (NPDES) Permit Modification to the Massachusetts Port Authority ("Massport" or the "Permittee") for the Logan International Airport (the Facility) located in East Boston, MA. This permit is being issued under the Federal Clean Water Act (CWA), 33 U.S.C., §§ 1251 et. seq.

In accordance with the provisions of 40 CFR §124.17, this document presents EPA's responses to comments received on the draft NPDES Permit Modification #MA0000787 (the "Draft Modification"). The Response to Comments explains and supports EPA's determinations that form the basis of the final permit modification (the "Final Permit Modification"). From March 21, 2025, through April 21, 2025, EPA solicited public comments on the Draft Modification for the Massport Final Permit issued on August 24, 2023, to discharge industrial stormwater discharges from Boston Logan International Airport to the Boston Harbor, Boston Inner Harbor, and Winthrop Bay.

EPA received comments from Conservation Law Foundation (CLF) and Massachusetts Division of Marine Fisheries (MassDMF).

Although EPA's decision-making process has benefited from the comments submitted, the information and arguments presented did not raise any substantial new questions concerning the permit modification that warrants EPA exercising its discretion to reopen the public comment period. EPA made certain minor changes in response to the public comments EPA received on the Draft Modification, listed in Part I, below. These changes are explained in the responses to individual comments in Part II, below, and are reflected in the Final Permit Modification.

A copy of the Final Permit Modification and this Response to Comments document will be posted on the EPA Region 1 web site: <u>https://www.epa.gov/npdes-permits/massport-logan-international-airport-npdes-permit</u>.

A copy of the Final Permit may be also obtained by contacting Danielle Gaito at phone#: (617) 918-1297 or email: <u>gaito.danielle@epa.gov</u>.

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I. Summary of Changes to the Final Permit

1. Part I.C.6.d of the Modification was revised to add a requirement to post plans and progress reports on a publicly available website.

II. Responses to Comments

Comments are reproduced below as received; they have not been edited.

A. Comments from Conservation Law Foundation.

Comment A.1

In EPA's own words, "[a]t issue here is the discharge of bacteria in stormwater runoff from an industrial point source to a waterbody that is impaired for that pollutant and for which there is an EPA-approved [Total Maximum Daily Load ("TMDL")]. Federal regulations prohibit the issuance of an NPDES permit when conditions of the permit do not provide for compliance with the applicable requirements of the [Clean Water Act ("CWA")] or regulations promulgated under the CWA. *See* 40 CFR § 122.4(a), (d)."² As proposed, the modifications **do not** provide for compliance with the CWA and its regulations. Massport is given **13 years** to fully comply with its effluent limitations for bacteria, during which time it will continue to pollute Boston Harbor and Winthrop Bay with harmful levels of fecal coliform and enterococcus. This pollution will have a disproportionate impact on the environmental justice populations that are adjacent and downstream from Boston Logan International Airport (hereinafter "Logan Airport"), including

Chelsea, Revere, and East Boston. EPA must shorten the proposed compliance schedule to comply with the requirements of the CWA and Massachusetts environmental justice laws.

² Response to Comments, NPDES Permit No. MA0000787, Massachusetts Port Authority, Logan International Airport, East Boston Massachusetts at 9-10, available at Response To Comments - Massport Logan International Airport NPDES Final Permit; MA0000787 [hereinafter, "Response to Comments"].

Response to Comment A.1

In Comment A.1, Conservation Law Foundation (CLF) asserts that the compliance schedule proposed in the Draft Permit Modification does not comply with the Clean Water Act (CWA) and Massachusetts environmental justice laws. EPA disagrees. The Final Permit Modification does not change the numeric, water quality-based effluent limits for fecal coliform and *Enterococcus* established in the 2023 Final Permit, which EPA maintains are warranted to comply with the applicable requirements of the CWA and regulations promulgated under the CWA. In this case, the numeric limits were established in accordance with state water quality standards to achieve a level of water quality necessary to support designated recreational uses of the receiving waters for all users. *See* CWA Section 301(b)(1)(C); 40 CFR §§ 122.4(d) and 122.44(d)(1). In addition, the numeric effluent limits for bacteria were established consistent with the requirements of the 2018 Final Pathogen TMDL for Boston Harbor. *See* 40 CFR § 122.44(d)(1)(vii)(B). The Final Permit Modification simply establishes a compliance schedule by which the Permittee must meet the same numeric limits that the 2023 Final Permit established.

Federal and state law allow schedules of compliance to give permittees additional time to achieve compliance with the CWA and applicable regulations. See 40 CFR § 122.47 and 314 CMR 4.03(1)(b). Schedules developed under 40 CFR § 122.47(a)(1) require compliance as soon as possible but may not extend the date for final compliance beyond the applicable statutory deadline under the CWA. Massachusetts surface water quality standards state that a permit may "include a schedule of compliance in a permit at the time of permit reissuance or modification where the permittee either cannot comply with such permit requirements or limitations, or there is insufficient information available to determine whether the permittee can comply with such permit requirements or limitations." 314 CMR 4.03(b)(1). In accordance with state standards, the schedule shall require compliance at the earliest practicable time. The Massachusetts Department of Environmental Protection (MassDEP) proposed for notice and comment a Draft Modification of its 2023 Massachusetts Permit to Discharge Pollutants to Surface Waters that includes an identical compliance schedule to EPA's proposal and a draft Water Quality Certification for the 2023 Final Permit as modified by the provisions of the 2025 Draft Permit Modification. See March 21, 2025, Letter. MassDEP's 401 Certification for the 2025 Draft Permit Modification confirms the State's position that the terms and conditions of the Permit Modification will ensure that the stormwater discharges will comply with the applicable provisions of the Federal Clean Water Act Sections 208(e), 301, 302, 303, 306, and 307, and with appropriate requirements of State law, including, without limitation, the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53, and the Massachusetts Surface Water Quality Standards published at 314 CMR 4.00 when all activities required by the compliance schedule

are successfully completed. EPA addresses specific comments about the compliance schedule and timeframes for the milestones in responses to comments below.

Comment A.2. EPA Should Shorten the Deadlines for Massport to Implement a Plan to Address Bacteria in Wet Weather Flows in the Storm Drainage System.

The deadlines and compliance schedule outlined in Section 6.c. are unreasonably long and will cause harm to the environment and human health in several environmental justice communities. As proposed, Massport will not achieve the required bacteria pollutant reductions until 13 years after the permit is finalized, long after the 2023 permit has expired.³ As EPA itself notes, "Massport's discharges at Outfalls 001, 002, 003, and 004 are frequently well above water quality standards for bacteria and have the potential to cause or contribute to an exceedance of water quality standards in segments of the Boston Harbor watershed already impaired for pathogens."⁴ Based on these facts, EPA established effluent limits for Massport's fecal coliform and enterococcus in stormwater discharges. In response, Massport has argued that the stormwater treatment necessary to meet the bacteria effluent limits is an "unprecedented requirement."⁵ This is false. For example, the San Francisco International Airport had similar effluent limits for fecal coliform and enterococcus in its 2018 NPDES permit and was able to comply with these limits.⁶

Given the significance of the potential harm from Massport's bacteria pollutant discharges, the deadlines in the compliance schedule must be shortened.

First, Massport is given a full year to implement a non-structural control plan after finalizing its plan for these controls. Massport can implement nonstructural control measures immediately (e.g., daily disinfection of hard surfaces, covering dumpsters, replacing leaking dumpsters, bird flock deterrent techniques, restricting wildlife access, minimizing conditions that attract nuisance wildlife, stormwater drainage system cleaning, and manhole and catch basin cleaning) and should be given, at most, six months to implement such controls.

Second, Massport is given 2 ½ years to complete wet weather field investigations in the North, Maverick, and Porter drainage areas and 3 ½ years to complete wet weather field investigations in the West area. Massport has already conducted investigations, and the results of these investigations suggest a direct sanitary source of the bacteria.⁷ While Massport points to the presence of klebsiella in samples as an indication that the source of the bacteria is natural, the presence of klebsiella bacteria in the outfalls sampling increases the probability that the source of the contamination is from illicit discharges to the stormwater system. Klebsiella is a genus of Gram-negative found in the human gut. Although klebsiella can be found in nature, when it is found alongside E. coli and enterococcus bacteria this indicates that the contamination is caused by illicit discharges into the stormwater system.⁸ Moreover, this specific site has limited vegetative cover to supply plant material for the potential growth of natural and non-fecal klebsiella. EPA has similarly concluded that there is likely a direct, sanitary-associated source of the bacteria because (1) concentrations of bacteria at Massport's outfalls were higher than expected from a natural source, and (2) there were high levels of enterococcus and the presence of pharmaceutical and personal care products (i.e., acetaminophen, caffeine, and cotinine) in bacteria sampling.⁹

There is no reason Massport should need an additional 2-3 years to complete its investigations into the sources of the bacteria. Moreover, as EPA explains, "whatever the source of bacteria, the Permittee [Massport] is ultimately responsible for what is discharged from its outfalls. That Massport has not, to date, identified an obvious source of the high levels of bacteria in the discharge does not obviate the need for permit conditions that ensure that the discharge will not cause or contribute to an excursion from Massachusetts water quality standards."¹⁰ The timeline to complete field investigations should thus be shortened to one year.

Third, Massport is given 5 ½ years to complete the priority bacteria mitigation project in one drainage area, 7 ½ years to complete the priority bacteria mitigation project for the second drainage area, and 8 ½ years to complete the priority bacteria mitigation project for the two remaining drainage areas. This is an unacceptable timeline for what are deemed priority mitigation projects. Massport need not identify all sources of bacteria pollution before it starts its mitigation efforts. As soon as a bacterial source is identified, Massport should be required to implement controls to address the source within six months. For example, EPA has suggested that areas of Massport's stormwater drainage system may be holding water back and potentially allowing the growth of existing bacteria to multiply between storm events.¹¹ If this is indeed the case, Massport could implement mitigation efforts for this bacteria source soon after confirming that it is a source.

Finally, after Massport finalizes a stormwater master plan to meet water quality-based effluent limits ("WQBELs") at all outfalls, it has an additional five years to meet the WQBELs at these outfalls. Massport should be able to meet the WQBELs soon after finalizing a master plan and implementing controls. It certainly does not need an additional five years to come into compliance.

Even assuming that Massport will need to install structural controls to address bacteria pollution, it should not need more than two years after the stormwater plan is finalized to meet the WQBELs.

³ The modified permit is set to expire October 31, 2028. Authorization to Discharge Under the National Pollutant Discharge Elimination System, Permit No. MA0000787, Draft Permit Modification, available at Logan International Airport; Draft Permit Modification; MA0000787.

⁴ Response to Comments at 13.

⁵ Response to Comments at 8.

⁶ San Francisco Bay Regional Water Quality Control Board, Order No. R2-2018-0045, NPDES No. CA0038318 at IV.C and IV.D (October 15, 2018), available at <u>California Regional Water Quality Control</u> Board.

⁷ Response to Comments at 12.

⁸ M. Neal Guentzel, *Chapter 26: Escherichia, Klebsiella, Enterobacter, Serratia, Citrobacter, and Proteus,* Medical Microbiology, 4th Edition (1996), available at Escherichia, Klebsiella, Enterobacter, Serratia, Citrobacter, and Proteus - Medical Microbiology - NCBI Bookshelf.

⁹ Response to Comments at 12. A 2018 monitoring study of stormwater discharges at the North Outfall for bacteria and pharmaceutical and personal care products indicated presence of the same, including acetaminophen, caffeine, and cotinine – suggesting that "animal and decaying plant matter" are not to blame. *See also*, Zachary R. Staley, *et al.*, *Comparison of Microbial Chemical Source Tracking Markers to Identify Fecal Contamination Sources in the Humber River (Toronto, Ontario, Canada) and Associated Storm Water Outfalls*, 82 Appl. Environ. Microbiol. 21 (October 14, 2016), available at https://pmc.ncbi.nlm.nih.gov/articles/PMC5066352/ (culturable bacteria were quantified and both microbial source tracking markers and chemical source tracking markers specific for human wastewater - including caffeine, cotinine, and acetaminophen – were quantified).

¹⁰ Response to Comments at 13.

¹¹ Response to Comments at 12.

Response to Comment A.2

Generally, Comment A.2 asserts that the compliance schedule proposed in the Draft Permit Modification is "unreasonably long and will cause harm to the environment and human health in several environmental justice communities." As explained below, EPA maintains that the compliance schedule will allow Massport to achieve compliance with the new, numeric limits for fecal coliform and Enterococcus established in the 2023 Final Permit as soon as possible in accordance with 40 CFR § 122.47(a) and 314 CMR 4.03(1)(b). EPA also notes that the total drainage area to the four outfalls to which the numeric bacteria limits in the 2023 Final Permit apply covers a total area of 817 acres, of which about 86% (about 704 acres) is impervious. The scale and scope of the drainage area addressed by the numeric limits is important to understanding the proposed compliance schedule's components and rationale. CLF lists several reasons why it believes the schedule is overly long and recommends different timelines for certain milestones. EPA addresses each of these points below. Ultimately, the compliance schedule that was developed during the Parties' lengthy participation in the EAB's Alternative Dispute Resolution (ADR) process is well-supported by technical evidence and the specific logistics of implementing such plan at an international airport. In contrast, CLF fails to provide a reasonable alternative schedule for implementing the comprehensive plan to address bacteria in dry and wet weather stormwater discharges described in the Modification that is supported by any evidence justifying a shorter timeline.

As a preliminary matter, CLF suggests that Massport falsely argues that stormwater treatment requirements to meet the bacteria limits are unprecedented and asserts that the 2018 NPDES Permit for the San Francisco International Airport (Permit No. CA0038318) includes similar numeric effluent limits for fecal coliform and *Enterococcus*. For clarification, the City and County of San Francisco operate the Mel Leong Sanitary Treatment Plant at San Francisco International Airport, which discharges treated sanitary wastewater, as well as treated industrial wastewater and stormwater discharges, from Discharge Point No. 002. The numeric effluent limits for fecal coliform and *Enterococcus* in the 2018 NPDES Permit (*See* Permit No. CA0038318, Part IV.A) apply to treated effluent from the Sanitary Plant and Industrial Plant at the effluent pump station (outfall EFF-001) prior to comingling with other flows to the North Bayside System Unit. This is not analogous to the industrial stormwater outfall numeric limits in the Massport permit, because Massport does not operate a sanitary wastewater at the San Francisco

International Airport have only a monitoring requirement for fecal coliform (see Permit No. CA0038318, Monitoring and Reporting Plan, Part IV.B). That being said, the San Francisco International Airport operates a number of detention basins that treat stormwater prior to discharge from various outfalls to San Francisco Bay. Thus, while the stormwater discharges from the San Francisco International Airport are not subject to numeric bacteria limits as CLF asserts, neither is the use of stormwater structural control measures prior to discharge at a large international airport unprecedented.

1) Timeline for implementing non-structural controls

The schedule in Part I.C.6 of the Draft Permit Modification proposes that Massport finalize a non-structural plan for controlling bacteria to Outfalls 001, 002, 003, and 004 by October 31, 2025, and provides one year to fully implement this plan. CLF argues that Massport should be allowed, at most, six months to implement a non-structural control plan. Further, CLF asserts that Massport can implement non-structural controls "immediately" and provides examples of such non-structural controls to include daily disinfection of hard surfaces, covering dumpsters, replacing leaking dumpsters, bird flock deterrent techniques, restricting or detracting wildlife access, stormwater drainage system cleaning, and manhole and catch basin cleaning.

EPA notes that Massport must update and continue implementing its Stormwater Pollution Prevention Plan (SWPPP) in accordance with Part I.C.1 of the 2023 Final Permit, which includes implementation of best management practices (BMPs) targeting potential sources of bacteria, including:

- Aircraft lavatory service (e.g., ensure proper operation and maintenance of on-site triturators);
- Solid waste management (e.g., rubbish bins and trash compactors through the airport must be covered and inspected regularly for leaks and faulty equipment replaced);
- Pavement cleaning/sweeping (e.g., use of dry cleaning techniques to avoid runoff and sweep areas with high pollutant loadings more frequently);
- Catch basin/storm drain cleaning and maintenance (e.g., catch basins are maintained at no more than 40% full, accumulated trash/debris is removed via vacuum truck, certain parking and paved areas employ particle separators based on drainage area and designed consistent with Boston Water and Sewer Commission Standard Design specifications); and
- Wildlife management (e.g., full-time Wildlife Technicians use a number of strategies to deter wildlife and prevent airline strikes).

See Massport SWPPP (Revised December 2021). EPA notes that the types of the non-structural controls that CLF references in its Comment (e.g., dumpster replacement, catch basin cleaning, wildlife management) already fall under the current SWPPP and, as such, are already being

implemented.¹ The non-structural controls proposed in the Draft Permit Modification are above and beyond the routine BMPs that Massport already implements through its SWPPP and will be designed specifically to address bacteria with the ultimate goal of achieving numeric limits at the outfalls. Massport will likely need to identify sources of bacteria throughout the drainage areas, examine existing non-structural controls, evaluate their effectiveness to reduce bacteria based on sampling, and iteratively refine controls over multiple cycles. In addition, Massport may need to explore new, innovative non-structural controls which may also involve implementation, sampling, and refinement. While EPA agrees that implementation of certain non-structural controls in accordance with the required plan can begin shortly after the plan is submitted, CLF has not provided any specific evidence to support its claim that Massport can <u>fully</u> implement the non-structural control plan in six months (as opposed to in one year provided in the Modification) or that fully implementing the plan six months earlier than the permit modification already would require will achieve compliance with the end-of-pipe numeric limits at the outfalls any faster.

CLF's argument that non-structural controls can be implemented "immediately" fails to recognize the difference between simple implementation of a source control like catch basin cleaning (which, as EPA explains above, Massport already does) and refining use of non-structural controls with a specific objective to measurably reduce bacteria in stormwater discharges and eventually achieve compliance with numeric bacteria limitations. EPA maintains that one year to fully assess existing controls and evaluate new, and potentially innovative, controls is reasonable. Moreover, CLF fails to recognize that Massport will be implementing new and refined controls over the course of the year, and, as a result, reductions in bacteria loads will be achieved during the implementation period and beyond (*i.e.*, it will not take a full year before *any* reductions from implementation of non-structural controls will be realized).

2) Timeline for completing wet weather field investigations

The schedule in Part I.C.6 of the Draft Permit Modification proposes that Massport complete wet weather investigations in two phases: the first (for Outfalls 001, 003, and 004) by October 2027 and the second (for Outfall 002, which accounts for more than half of the total impervious area) by June 2028. CLF comments that there is no reason for Massport to need an additional 2-3 years to complete its investigations into sources of bacteria when it has already conducted investigations and suggests that the timeline for field investigations should be shortened to one year. EPA agrees with CLF's assertion that Massport's failure to identify an obvious source of high levels of bacteria does not obviate the need for permit conditions that ensure the discharge will not cause or contribute to an excursion from water quality standards. To this end,

¹ In fact, the examples of non-structural controls listed in Comment A.2 for immediate implementation largely matches the examples provided in the 2023 Response to Comment (p. 11). EPA clearly identifies these BMPs in the 2023 Response to Comment A.1 as measures from Massport's SWPPP and, as such, further supports EPA's argument that these types of measures are already being implemented at the Facility and that the non-structural control plan required in the compliance schedule in the proposed Permit Modification goes above and beyond these routine BMPs.

the 2023 Final Permit (and this Final Permit Modification) established new, numeric water quality-based effluent limits for fecal coliform and *Enterococcus* that will ensure that water quality standards in the receiving waters are met. However, EPA disagrees that the timeline for wet weather investigations is drawn-out and that the investigations that Massport completed under the 2007 Permit are comparable to the wet weather investigations required by the Permit Modification.

EPA recognizes that Massport has executed a limited investigation of bacteria sources in drainage system and that the results of their investigation, to date, have been inconclusive.² In its Response to Comment on the 2023 Final Permit, EPA rejected Massport's argument that the primary sources of bacteria in the outfalls are naturally occurring and that the high fecal coliform counts in stormwater samples are due to elevated levels of Klebsiella. *See* 2023 Response to Comment A.1 (pp. 9-14). EPA maintains that the bacteria levels at these four outfalls at the time the 2023 Final Permit was issued demonstrate reasonable potential to cause or contribute to an exceedance of water quality standards in the receiving waters, and therefore that the numeric bacteria limits are justified. Massport has provided no new information to persuade EPA to alter its position on this point.

At the same time, EPA recognizes that the existing data is insufficient to isolate and eliminate sources of elevated bacteria levels and enable Massport to achieve immediate compliance with the numeric limits that are new as of the 2023 Final Permit. New information, including information gained from a comprehensive investigation of dry and wet weather bacteria sources, is necessary to identify and correct issues that result in elevated bacteria levels and/or identify areas where stormwater discharges require treatment to reduce bacteria levels to comply with the effluent limits in the 2023 Final Permit. The proposed compliance schedule balances the need for additional system investigation and monitoring at the necessary scale (i.e., a drainage area of more than 800 acres) and scope (including logistical challenges of executing a comprehensive sampling plan at an active international airport) with EPA's regulatory requirement to meet the numeric effluent limits as soon as possible. CLF has not provided any additional information to demonstrate that the necessary wet weather activities can be completed in a shorter time period or that the scope and scale of the existing information is sufficient to enable Massport to design and implement source controls and/or stormwater treatment to meet the numeric water quality standards. CLF has also not provided record evidence that EPA's proposed compliance schedule is unreasonable, or that an alternative schedule is more reasonable.

3) Timeline for priority bacteria mitigation projects

² EPA notes that Massport also completed additional dye testing, cleaning, and closed-circuit television investigations under the 2007 Permit that focused on the sanitary sewer system, which is not equivalent to the comprehensive wet weather investigation of the separate storm sewer system proposed in the Permit Modification. *See* 2008 Comprehensive Sewer Investigation Report.

In the Statement of Basis, EPA explained that full compliance with the water quality-based numeric bacteria limits will require considerable effort and time to determine where and when bacteria loads contribute to exceedances, followed by the development and implementation of a plan to reduce loads. See Statement of Basis pp. 15. At the same time, EPA recognized the need for Massport take action to implement controls and achieve reductions in bacteria as quickly as possible. For this reason, EPA proposed interim "priority mitigation projects" that would capitalize on opportunities to make near-term, measurable progress to reduce bacteria in stormwater runoff. See Id. The schedule in Part I.C.6 of the Draft Permit Modification proposed that Massport implement a minimum of one priority mitigation project in each of the four drainage areas with the first project completed by October 2030, the second project by October 2032, and the final two projects by October 2033. The projects would use data collected from the dry and wet weather investigative work to target areas of high potential bacteria load even before a comprehensive Master Plan is produced. These projects are consistent with the general objective of the proposed compliance schedule to achieve iterative, measurable reductions in bacteria levels over time while progressing towards meeting water quality limits in the long-term.

CLF asserts that allowing more than 5-8 years to complete the projects is an "unacceptable timeline for what are deemed priority mitigation projects." CLF suggests that as soon as a bacteria source is identified, Massport should be required to implement controls to address the source within six months. EPA recognizes the need to clarify both the requirements to address bacteria in each of the compliance milestones and what is meant by the term "priority" regarding these specific projects.

First, EPA agrees with CLF that Massport should take action to address bacteria sources as they are identified and, where appropriate, the compliance schedule requires immediate action. For example, Part I.C.6.b.3 of the Modification requires Massport to eliminate illicit discharges within 60 days of the date of verification. In other words, the Permit Modification requires immediate action upon discovering and confirming the source of an illicit discharge. Similarly, the Permit Modification requires Massport to take action to clean and remove sediment in the storm drain system if build-up is observed during system investigation. EPA expects that, if Massport observes that a new or refined non-structural control is effective at reducing bacteria at a particular source, Massport would apply that non-structural control to similar sources throughout the Facility as soon as possible. On the other hand, there may also be circumstances where immediate action is not possible. For example, if a particular drainage area is observed to contribute relatively high levels of bacteria during the wet weather investigation and a specific source cannot be isolated, Massport may need to design and implement structural controls in this area. At this time, EPA cannot definitively predict the necessary timeframe to implement an unidentified type or scale of control(s) appropriate for an unknown set of circumstances. The purpose of the "priority mitigation projects" is to ensure that Massport takes action to address areas with high potential to contribute bacteria in each drainage area as soon as possible and prior to completion of the Master Plan to meet the numeric limits. In this way, the compliance schedule is designed to promote action when appropriate and to result in

iterative, measurable progress towards meeting the numeric limits as soon as possible, in alignment with the NPDES compliance schedule regulations at 40 CFR § 122.47.

4) Timeline for Master Plan

The schedule in Part I.C.6 of the Draft Permit Modification proposes that Massport complete a Master Plan by October 2033 and requires Massport to comply with the numeric water qualitybased bacteria limits at all four outfalls by October 2038. CLF argues that Massport does not need 5 additional years after the Master Plan is developed to come into compliance; CLF suggests that Massport will be able to meet the limits "soon after finalizing a master plan and implementing controls" and proposes that Massport can meet the limits in two years after the Master Plan is finalized.

The compliance schedule proposed in the Draft Modification is designed in successive phases that build upon prior work, beginning with a comprehensive dry weather investigation to identify and eliminate illicit discharges followed by a comprehensive wet weather investigation to determine sources of bacteria in stormwater runoff from each of the drainage areas. During these investigations, Massport is also required to assess the availability of green infrastructure projects and pilot stormwater controls to evaluate effectiveness. In combination, the investigations and evaluations will inform the priority projects in each drainage area and, ultimately, the Master Plan to meet the numeric bacteria limits. It is premature, at the outset, to suggest that Massport will be able to meet the numeric limits "soon" after finalizing the Master Plan without understanding the scope of the actions that will be implemented under the Plan and considering the scale of the drainage area to the four outfalls (over 700 acres of impervious cover) that must be addressed to meet the numeric limits.

EPA acknowledges that it has proposed a long schedule; however, milestones are iterative and emphasize stepwise progress to reduce bacteria loads from the Facility's stormwater system. In other words, while the schedule provides Massport until 2038 to comply with the end-of-pipe numeric bacteria limits at the four outfalls, completion of each of the interim milestones will result in bacteria reductions in each drainage area well before the end of the compliance schedule. It is possible that achieving these interim milestones will allow Massport to comply with the end-of pipe numeric bacteria limits at some outfalls sooner than 2038. In addition, EPA will review the results of the comprehensive investigations and illicit discharge elimination completed during this permit term and, if warranted, may revisit the timelines for the later milestones for future reissuances.

Comment A.3. EPA's Grant of the NPDES Permit in 2023 Anticipated Immediate Compliance with Bacterial Effluent Limits.

The CWA's central goal is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."¹² Both states and the federal government share this

responsibility.¹³ In addition to state water quality standards, the CWA uses federal, technologybased effluent limitations on discharges of pollution into navigable waters.¹⁴

Logan Airport maintains NPDES permit authorization for an industrial point source stormwater discharge in compliance with CWA requirements. The EPA is granted authority from the CWA to require NPDES permit conditions to ensure compliance with water quality requirements.¹⁵ Stormwater discharges are subject to WQBELs when more stringent limits are necessary to maintain or achieve federal or state water quality standards pursuant to CWA § 301(b).¹⁶

Massport's 2023 NPDES Permit for Logan Airport contains bacteria limits that the EPA based on water quality standards applicable to all Class SB waters. As a result of Boston Harbor, Boston Inner Harbor, and Winthrop Bay (which all receive discharges from Massport's outfalls) receipt of a designation as "impaired" for both fecal coliform and enterococcus, the 2018 Final Pathogen TMDL for the Boston Harbor, Weymouth-Weir, and Mystic Watersheds ("Boston Harbor TMDL") was established to address such impairments from bacterial pathogens and fecal-related pollutants in the Boston Harbor watershed.¹⁷ While the Boston Harbor TMDL applies to segments of the watershed that receive industrial stormwater discharge from Massport's outfalls – even if the TMDL did not apply, water quality standards for Class SB (Boston Harbor and Winthrop Bay) and Class SB (CSO) (Boston Inner Harbor) waters, and the effluent limitations based on those water quality standards, would still apply to Massport's discharges.¹⁸

The EPA's grant of Massport's 2023 NPDES permit was subject to the condition that such permit would comply with applicable water quality requirements: "EPA expects that the action taken by the Permittee [Massport] to comply with the Enterococcus limits in the Final Permit will also control fecal coliform and the monitoring requirements will enable EPA and MassDEP to ensure that fecal coliform is maintained at levels necessary to achieve water quality standards."¹⁹ See 40 C.F.R. § 122.4(d)("No permit shall be issued...[w]hen the imposition of conditions cannot ensure compliance with the applicable water quality requirements of...affected States...").

The EPA's inclusion of bacteria effluent limits in Massport's 2023 NPDES Permit reflects its intent to ensure discharges from Logan Airport comply with applicable water quality standards. Despite Massport's claims attributing bacterial presence to natural sources, the EPA identified evidence suggesting potential sanitary-related contamination and imposed the effluent limits as permit conditions to not only address the current impairments in receiving waters but also to uphold the broader goals of the Clean Water Act. Ultimately, the EPA's approach underscores the importance of precaution and accountability in protecting public health and maintaining the integrity of the Nation's waters.

^{12 33} U.S.C. § 1251(a).

¹³ 33 U.S.C. § 1251(g).

¹⁴ 33 U.S.C. §§ 1311, 1314(b).

¹⁵ Arkansas v. Oklahoma, 503 U.S. 91 (1992).

¹⁶ Response to Comments at 9; See also 40 CFR §§ 122.4(d), 122.44(d)(1).

¹⁷ Response to Comments at 10; see also p10 fn1, "The Final Pathogen TMDL for Boston Harbor specifically lists Massport Authority Stormwater discharges to these impaired segments on pages 25, 27, and 36."
¹⁸ Response to Comments at 10-11; See also, Massachusetts Surface Water Quality Standards, 314 CMR 4.00 et seq.

¹⁹ Response to Comments at 56; *see also* Response to Comments at 9.

Response to Comment A.3

Comment A.3 summarizes the regulatory basis for the numeric, water quality-based bacteria limits from the 2023 Final Permit. EPA generally agrees with the comment and maintains that the numeric bacteria limits are appropriate and warranted. *See* 2020 Fact Sheet (pp. 41-44), 2023 Response to Comment (pp. 9-14, 55-56), and 2025 Statement of Basis (pp. 4-5). The text in Comment A.3 does not request any changes to or identify any issues with the Draft Permit Modification; however, the title of the comment suggests that the 2023 Final Permit "anticipated immediate compliance" with the numeric, bacteria limits. EPA disagrees and notes that the comment does not provide any reference from the record to support this claim. As explained in Response to Comment A.1, EPA concludes that the compliance schedule will ensure that Massport meets the water quality-based effluent limits for bacteria as soon as possible³ in accordance with 40 CFR 122.47(a)(1). *See* Statement of Basis p. 6.

Moreover, even if EPA did anticipate immediate compliance with the bacteria limits at the time of the 2023 Final Permit (which, as explained above, EPA does not concede), Massport provided new information after permit issuance demonstrating why it would need additional time to investigate and take action to meet these new limits. *See* Statement of Basis pp. 6-15. Causes for permit modification under 40 CFR § 122.62(a) include receiving new information that was not available at the time of permit issuance and would have justified the application of different permit conditions at the time of issuance. *See also* Statement of Basis p. 3. In fact, monitoring data since the 2023 Final Permit became effective indicates that the numeric bacteria limits for fecal coliform and/or *Enterococcus* would have been exceeded on multiple occasions had they been in effect.⁴ This new information was not available at the time of the 2023 Final Permit to include a schedule that will lead to compliance with the 2023 Final Permit's water quality-based numeric limits for bacteria as soon as possible.

³ Factors relevant to whether a compliance schedule in a specific permit is "appropriate" under 40 C.F.R. § 122.47(a) include: how much time the discharger has already had to meet the WQBEL(s) under prior permits; the extent to which the discharger has made good faith efforts to comply with the WQBELs and other requirements in its prior permit(s); whether there is any need for modifications to treatment facilities, operations or measures to meet the WQBELs and if so, how long would it take to implement the modifications to treatment, operations or other measures; or whether the discharger would be expected to use the same treatment facilities, operations or other measures to meet the WQBEL as it would have used to meet the WQBEL in its prior permit. See generally EPA Memorandum, "Compliance Schedules for Water Quality-Based Effluent Limitations in NPDES Permits," May 10, 2007, available at https://www3.epa.gov/npdes/pubs/memo_complianceschedules_may07.pdf. ⁴ The numeric bacteria limits at Outfalls 001, 002, 003, and 004 have been stayed pending resolution of Massport's Petition for Review with the Environmental Appeals Board.

Comment A.4. Conclusion

The Conservation Law Foundation opposes the proposed modifications to Massport's NPDES Permit No. MA 0000787 and urges the EPA to shorten the proposed compliance schedule for Massport to comply with the requirements of the CWA. The proposed 13-year schedule for Massport to fully comply with bacteria effluent limitations is unreasonable considering the length of time Massport has been aware of the bacterial pollutants in the Boston Harbor watershed, the investigations and reporting that have already occurred, the nonstructural control measures that can be immediately implemented by Massport, and the fact that EPA's grant of Massport's NPDES Permit in 2023 anticipated immediate compliance with bacterial effluent limits in alignment with state water quality standards and the CWA. In light of the significant environmental and public health harms that can occur due to Massport's bacterial pollutant discharges, including the cumulative impacts on environmental justice populations, it is imperative for EPA to either shorten proposed compliance schedule deadlines or reject proposed modifications to the NPDES permit entirely.

Response to Comment A.4

In Comment A.4, CLF reaffirms its position that the timelines proposed in the compliance schedule in the Draft Permit Modification should be shortened. According to CLF, the proposed schedule is "unreasonable" given that Massport has known that pathogens in the receiving waters are an issue; investigations and reporting have already occurred; non-structural controls can be implemented immediately; and because EPA anticipated immediate compliance when it issued the 2023 Permit. EPA has addressed each of these points in responses to comments above.

In summary, while the pathogen impairments in Boston Harbor have been known, the 2023 Final Permit established new, numeric bacteria limits at Massport's outfalls for the first time. After issuance of the 2023 Final Permit, Massport provided new information that demonstrated why it needs additional time to comply with the numeric limits. Based on this new information and discussions between the parties during the EAB's ADR process, EPA proposed a schedule to meet the 2023 Final Permit's water quality-based numeric limits for bacteria as soon as possible in accordance with 40 CFR § 122.47(a)(1). The investigations and reporting completed to date, including analyses undertaken as part of the 2007 permit, have been inconclusive and were not carried out with the objective of achieving end-of-pipe numeric limits in the storm sewer system, since no such limits existed in the 2007 permit. Comprehensive dry and wet weather investigations of sources and causes of bacteria in the storm drain system are warranted and, given the scale and scope, will require more time than EPA was aware of when it issued the 2023 Final Permit. In addition, although Massport currently implements certain non-structural controls targeting bacteria sources under the 2023 Final Permit, additional or refined controls will likely be necessary as new or unknown sources are identified, which will also require additional time to implement. Finally, meeting end-of-pipe, numeric bacteria limits may also require treatment of stormwater with structural controls. As described in the Statement of

Basis, after issuing the 2023 Final Permit, EPA received new information from Massport about the additional time it will take for Massport to design and construct these controls. Hence, EPA proposed this permit modification.

EPA recognizes that the levels of bacteria discharged from Massport's Outfalls 001, 002, 003, and 004 have reasonable potential to cause or contribute to contribute to exceedances of water quality standards, and EPA maintains that the 2023 Final Permit limits are justified and necessary to protect the designated uses of the receiving waters (including primary contact recreation and shellfishing) and meet the goals of the 2018 Boston Harbor TMDL for pathogens. At the same time, Massport has demonstrated that it cannot meet these new, numeric limits immediately and that additional time is warranted to acquire critical information about the sources of bacteria that contribute to exceedances and then install and/or implement necessary controls to eliminate or reduce these sources. CLF argues that Massport can achieve the milestones over shorter timeframes than EPA proposed, but did not offer specific justification or evidence supporting its claims that would counter the technical justification Massport provided about the complexity of the project during the ADR sessions. EPA summarized these justifications in the Statement of Basis (pp. 6-15). Considering the available information, including CLF's comments on the Draft Modification, EPA maintains that the compliance schedule in the Final Modification establishes clear, actionable goals and rigorous, regular milestones that allow EPA to ensure that Massport achieves incremental progress toward reducing bacteria in stormwater discharges over time and completes the necessary work to meet the numeric, water quality-based bacteria limits as soon as possible. To provide more transparency, EPA added a provision in Part I.C.6.d of the Modification requiring Massport to post Plans and progress reports (or an executive summary in cases where the Plan or report is confidential, proprietary, or sensitive) on Massport's dedicated Water Quality webpage at https://www.massport.com/environment/sustainability/water-quality.

B. Comments from Massachusetts Division of Marine Fisheries.

Comment B.1

As you know, the MA Division of Marine Fisheries (DMF) has been following this permit for some time and has expressed interest and support in improving the water quality of MassPort's stormwater discharges governed by this permit. While we supported the original compliance schedule proposed in the original NPDES permit issued on 8/24/23, we are pleased that DEP and EPA have reached a settlement agreement with MassPort that resulted in the new compliance schedule in Part I.C.6 which is the subject of this permit modification.

As you know, the area surrounding the Logan International Airport (The Airport) is among the most productive shellfish areas in Massachusetts and has supported a highly valuable commercial fishery for well over a century. As you are also aware, water quality standards for shellfishing are the highest of any designated use and are governed primarily by the bacteriological quality of the overlying water in the shellfish growing area. Hence, DMF is

particularly interested in the bacterial numerical discharge limits in the permit and strongly supports them. With regard to the proposed compliance schedule, while DMF would have preferred that the originally proposed schedule was implemented given the degree of impact, we are pleased with the settlement and strongly support the new schedule. Also, given that a defacto compliance extension has already occurred, we recommend against any further extensions so that the ongoing impacts to the bacteriological water quality from The Airport can be eliminated as soon as feasible.

In terms of the required bacteriological standards, we strongly support the segregation in the permit between so-called wet weather and dry weather discharges. While a certain level of bacterial contamination is acceptable for wet weather discharges because impacts to shellfishing from stormwater runoff specifically attributable to the Airport is a sub-set of all the other stormwater discharges in the highly developed areas around the Airport, no amount of bacteria is acceptable in dry weather discharges given the public health implications and the fact that adjacent shellfish growing areas must be closed if there are dry weather discharges above the shellfishing water quality standards.

We would also like to take this opportunity to bring to your attention a potentially exciting new development regarding water quality in the outer Boston Habor and Winthrop Bay areas which may influence conditions in future versions of this permit. Due to improving water quality, DMF is in the process of re-classifying the areas in the vicinity of the Airport to Conditionally Approved which would allow for the harvest of shellfish for direct human consumption. As such, we will likely advocate for numeric discharge standards of SA in future permits for this permitted in its 01A and any dry weather stormwater discharges and at least SB in ALL of its remaining outfalls.

In sum, DMF strongly supports the following specific conditions in the draft permit modification:

- Strict adherence to the proposed compliance actions and schedule with no slippage in the timetable.
- Remediation of and follow up monitoring for any cross-connections and dry weather discharges discovered above the numeric bacterial standards in the draft permit.
- Begin laying the groundwork for application of the SA water quality standard in the numeric conditions for bacteria in future permits for outfalls adjacent to shellfish growing areas meeting the Conditionally Approved classification.

Response to Comment B.1

EPA acknowledges and appreciates the Massachusetts Division of Marine Fisheries' (MassDMF's) support for the numeric, water quality-based limits and for the compliance schedule which will lead to compliance with the 2023 Final Permit limits as soon as possible. As the comment notes, the 2023 Final Permit established a numeric, water quality-based effluent

limit for *Enterococcus* at Outfalls 001, 002, 003, and 004 and a numeric, water quality-based effluent limit for fecal coliform at Outfall 001 with increased monitoring at the other outfalls. EPA established these new, water quality-based limits because monitoring data demonstrated reasonable potential to cause or contribute to an exceedance of water quality standards for bacteria in the receiving waters, including segments of Boston Harbor listed as impaired for pathogens for which there is an EPA-approved TMDL. *See* 2021 Fact Sheet pp. 41-44 and 2023 Response to Comment pp. 9-14.

Comment B.1 raises the importance of ensuring that dry weather discharges meet water quality standards for the protection of shellfishing designated uses and suggests remediation and follow up monitoring for cross-connections. Part I.C.6.b.4 of the Permit Modification requires confirmatory screening within 60 days following elimination of an illicit discharge. EPA also notes that MassDMF recommends that EPA not allow compliance schedule extensions in the future. EPA recognizes the importance of continuing to achieve stepwise progress to improve the bacteriological water quality of Massport's discharges to local shellfishing areas, particularly as MassDMF anticipates re-classifying areas in the vicinity of the Airport to Conditionally Approved in the future. EPA will review the existing permit limits and remaining milestones considering the best available information, including the status of the comprehensive investigations, green infrastructure assessments, and pilot studies, as well the applicable classification of each waterbody, when the permit is reissued.