Region 1

NPDES Program and Permit Quality Review

Maine

Final Report

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Contents

Executive Summary

EPA Region 1 conducted a National Pollutant Discharge Elimination System (NPDES) Program and Permit Quality Review (PQR) for Maine in May 2022. The PQR examined 16 individual permits along with 3 general permits issued by the Maine Department of Environmental Protection (ME DEP, "Department" or "State"), as well as State permitting policies. The PQR also focused on several national priority areas:

- Permit Controls for Nutrients in Non-Total Maximum Daily Load (TMDL) Waters,
- Effectiveness of Publicly Owned Treatment Works (POTW) NPDES Permits with Food Processor Contributions, and
- Small Municipal Separate Storm Sewer System (MS4) Permit Requirements.

EPA identified several strengths of the ME DEP permitting program. For one, ME DEP has succeeded in reducing the permit backlog even as there has been a significant increase in new permittees, namely new large-scale aquaculture facilities. Furthermore, ME DEP has implemented innovative approaches to developing permit effluent limitations, including watershed-based assessments for water quality-based effluent limitations (WQBELs) and case-by-case technology-based effluent limitations (TBELs) for the aquaculture and food processing industries.

However, EPA identified two program-level concerns that require significant attention. First, as discussed in the 2016 PQR report (published January 12, 2018), the 2001 authorization of the Maine NPDES program did not include authorization for implementing the Clean Water Act (CWA) Section 316(b) program, which regulates cooling water intake structures through NPDES permits. An April 25, 2000, memorandum of agreement between EPA and ME DEP stated that ME DEP "shall seek legislation no later than the 2001 legislative session to obtain clear authority to regulate such structures, including existing structures not being constructed, altered or repaired, in accordance with the standards specified in CWA 316(b)." However, Maine has not yet sought or obtained authorization to implement Section 316(b) permitting. During this PQR, EPA directed ME DEP to develop a meaningful roadmap to obtaining authorization to implement the Section 316(b) permitting program. Second, the State's Construction General Permit (which authorizes discharges of stormwater associated with construction activity), which is administered by the Bureau of Land Resources, expired in 2008. ME DEP must prioritize reissuance of that permit, which covers a large universe of dischargers.

In addition, EPA has significant concerns surrounding ME DEP's application testing requirements, development of both mass- and concentration-based effluent limitations to ensure protection of water quality, and certain assumptions for calculating wasteload allocations (WLAs) at the watershed level for multiple dischargers. Underlying many of the concerns identified in this PQR is the inadequate documentation of important permitting decisions, which posed challenges to EPA's review in determining the technical and regulatory basis behind permit conditions. These documentation deficiencies relate to the basis for WQBELs, incidents of potential backsliding, and antidegradation evaluations.

EPA Region 1's Regional Administrator, David Cash, transmitted a draft copy of the PQR report to the Commissioner of ME DEP, Melanie Loyzim, on December 1, 2022. In his transmittal letter (Appendix A), Administrator Cash requested that ME DEP prioritize addressing three of the most pressing action items identified in the draft report: (1) renewal of the Maine Construction General Permit, (2) taking over authorization for Clean Water Act section 316(b) permitting, and (3) correcting procedures for calculating WQBELs.

In addition, EPA requested comment on all new essential action items found in the draft report. On December 28, 2022, EPA received a request from ME DEP to extend the deadline for comment. On January 12, 2023, EPA granted the extension request and appended additional comments/requests related to issues found in Maine's general permit for the discharge of stormwater from small MS4s (Appendix B). ME DEP's responses are provided as an Appendix to this report (Appendix C). While there remains significant disagreement between the two agencies on the extent of program deficiencies, EPA is committed to working with ME DEP and has scheduled routine check-in meetings to work through the action items identified by this PQR.

I. PQR BACKGROUND

National Pollutant Discharge Elimination System (NPDES) Program and Permit Quality Reviews (PQRs) are an evaluation of a select set of NPDES permits to determine whether permits are developed in a manner consistent with applicable requirements established in the Clean Water Act (CWA) and NPDES regulations. Through this review mechanism, EPA promotes national consistency, and identifies successes in implementation of the NPDES program as well as opportunities for improvement in the development of NPDES permits.

EPA previously conducted a PQR of the Maine Department of Environmental Protection (ME DEP) NPDES permitting program on June 15–16, 2016. The PQR summary report is available at: https://www.epa.gov/sites/default/files/2019-08/documents/maine_2016.pdf. The PQR report identified various action items to improve the ME DEP NPDES permitting program. As part of the current PQR, EPA evaluated ME DEP's progress on those action items. In general, EPA found that minimal progress has been made on a significant number of action items, with substantial overlap found between the 2016 and 2022 PQRs. Of the 18 action items identified as "Essential"[1] during the last PQR, few have been resolved, with many items identified again during the current PQR. Several require longer-term activities and continual review to resolve. In addition, EPA identified 35 "Recommended" action items to improve ME DEP's program. Sections VI and VII of this report contain a detailed review of ME DEP's progress on action items identified during the last PQR.

This PQR report identifies action items to improve ME DEP's NPDES permit program. The action items are identified in sections III, IV, and V of this report and are divided into two categories to identify the priority that should be placed on each item and to facilitate discussions between Region 1 and ME DEP.

- **Essential Actions -** Essential action items address noncompliance with respect to a federal regulation, which EPA has cited for each essential action item. The permitting authority must address these action items in order to come into compliance with federal regulations.
- **Recommended Actions -** Recommended action items are recommendations to increase the effectiveness of the state's NPDES permit program.

New action items augment the existing list of action items currently tracked by EPA Headquarters on an annual basis and reviewed during subsequent PQRs.

EPA's review team, consisting of seven staff from EPA Region 1 and two EPA Headquarters contractor staff, conducted the PQR of the Maine NPDES permitting program. The PQR was conducted remotely, meaning a review of materials was conducted off-site, with materials ME DEP was able to provide electronically. Further, the remote PQR included interviews and

[1] During the 2012-2017 PQR cycle, these action items were known as "Category 1" and addressed deficiencies or noncompliance with respect to federal regulations. EPA is now referring to these action items as Essential. In addition, previous PQR reports identified recommendations as either "Category 2" or "Category 3" action items. EPA is now consolidating these categories of action items into a single category: Recommended.

discussions conducted via several conference calls. An opening interview was held on May 2 and 4, 2022, and a closing meeting on May 16, 2022.

The Maine PQR included reviews of core permit components and national topic areas, as well as discussions between the review team and ME DEP staff on their program status and permit issuance process. The permit reviews focused on core permit quality and included a review of the permit application, permit, fact sheet, and any correspondence, reports, or documents that provided the basis for the development of the permit conditions and related administrative process. The PQR also included conversations between EPA and the State on program status, the permitting process, responsibilities, organization, staffing, and program challenges the State is experiencing.

A total of 19 permits were reviewed as part of the PQR. Of these, 12 permits were reviewed for the core review and 13 permits were reviewed for national topic areas. Six permits were reviewed for both core and nutrient topic reviews. Permits were selected based on issuance date and the review categories that they fulfilled.

Core Review

The core permit review involved the evaluation of selected permits and supporting materials using basic NPDES program criteria. Reviewers completed the core review by examining selected permits and supporting documentation, assessing these materials using standard PQR tools, and talking with permit writers regarding the permit development process. Core topic reviews focus on the *Central Tenets of the NPDES Permitting Program*[2] and are intended to evaluate similar issues or types of permits in all states.

Core Review Permits:

- ME0100048 – City of Biddeford POTW
- ME0100021 – City of Bath POTW
- ME0101389 – Anson-Madison Sewer District POTW
- ME0100951 – Paris Utility District POTW
- ME0100790 – Wells Sanitary District POTW
- ME0101966 – Town of Searsport POTW
- ME0037559 – Kingfish Maine Land-based Aquaculture
- ME0001082 – Grand Lake Stream Fish Hatchery
- ME0037397 – Acadia Aqua Farms, LLC
- ME0002020 – ND OTM, LLC Industrial Manufacturer
- ME0002321 – S.D. Warren Company
- ME0002208 – Sprague Operating Resources, LLC

Topic Area Reviews

[2] https://www.epa.gov/npdes/central-tenets-npdes-permitting-program

The national topics reviewed for the Maine NPDES program were Permit Controls for Nutrients in Non-Total Maximum Daily Load (TMDL) Waters, Effectiveness of POTW NPDES Permits with Food Processor Contributions, and Small Municipal Separate Storm Sewer System (MS4) Permit Requirements.

Permit Controls for Nutrients in Non-TMDL Waters – Topic Area Permits:

- ME0100048 – City of Biddeford POTW
- ME0100021 – City of Bath POTW
- ME0100951 – Paris Utility District POTW
- ME0037559 – Kingfish Maine Land-Based Aquaculture
- ME0001082 – Grand Lake Stream Fish Hatchery
- ME0002321 – S.D. Warren Company

Effectiveness of POTW NPDES Permits with Food Processor Contributions – Topic Area Permits:

- ME0101222 – York Sewer District
- ME0101117 – City of Saco
- ME0100846 – Portland Water District, Westbrook
- ME0102075 – Portland Water District, East End

Small MS4 Permit Requirements – Topic Area Permits:

- MER041000 – General Permit for the Discharge of Stormwater from Small MS4s
- MER04200 – General Permit for the Discharge of Stormwater from Small State and Federally Owned MS4s
  MER043000 – General Permit for the Discharge of Stormwater from Maine Department of Transportation and Maine Turnpike Authority MS4s

Regional topic area reviews target Region-specific permit types or particular aspects of permits. EPA Region 1 did not conduct a regional topic review for this PQR.

II. STATE PROGRAM BACKGROUND

A. Program Structure

Within ME DEP's Bureau of Water Quality, the Division of Water Quality Management (DWQM) is responsible for administering the NPDES program within the State, referred to as the Maine Pollutant Discharge Elimination System (MEPDES). ME DEP's main office is located in Augusta, Maine. Within this office, DWQM performs all the core permitting functions, including permitting, compliance, enforcement, and data management. ME DEP has regional offices in southern Maine (Portland), northern Maine (Presque Isle), and eastern Maine (Bangor). These regional offices primarily address permit compliance.

ME DEP has five MEPDES permit writers. In addition, the DWQM coordinates with modelers, biologists, and toxicologists within the Division of Environmental Assessment (DEA) during permit development, for monitoring and modeling support. Permit writers compile the

information necessary to develop an internal draft permit, including reviewing the existing permit, the permit application, monitoring data from EPA's Integrated Compliance Information System (ICIS) , and receiving water information. Permit writers also conduct site visits of their assigned facilities. Various staff support computer activities involving permit tracking, discharge monitoring reports (DMRs), and ME DEP's ToxScan program. During permit development, each permit writer uses ToxScan to create stand-alone reports of existing data, including WET, individual pollutant evaluations, watershed evaluations, and mercury reports. These reports are evaluated during the permit development process. MEPDES permit writers are trained through attendance at EPA's NPDES Permit Writers' Course, regular internal meetings with MEPDES permit writers, and ME DEP's ToxScan User Group. MEPDES permit writers may also attend EPA's additional training, such as the NPDES WET course.

During the fall of each year, ME DEP develops a schedule of permits to be renewed or modified in each calendar year and shares the schedule with all DWQM staff, DEA staff, and EPA Region 1. The schedule includes permit assignments, which are determined based on staff knowledge, experience, and workload. Developing a full permit issuance schedule in advance allows permit writers to plan workload and permit development activities based on their knowledge of specific facilities and permitting complexities.

MEPDES permittees submit electronic DMRs using EPA's NetDMR system, from which the data then flows to ICIS-NPDES. MEPDES permit writers track permit development using the internal Application Tracking System (ATS) database. MEPDES permit writers use the ToxScan database and DeTox program to support permit development and evaluate whether a discharge causes, has the reasonable potential to cause, or contributes to an excursion above any applicable water quality standard, as well as the need for water quality-based effluent limitations (WQBELs). Data are collected from ToxScan and analyzed using DeTox. DEA staff use CORMIX and other models to conduct modeling for permit writers; models are selected based on whether the receiving water is ocean versus riverine and the type of pollutant being considered (e.g., toxic vs. nutrient).

MEPDES permit writers use templates for public notices but not for permits or fact sheets. MEPDES permit writers work from the previous permit or fact sheet, updating permit conditions and information as appropriate, as well as language from recently issued permits and fact sheets. MEPDES permit writers coordinate regularly and communicate language updates.

MEPDES permit writers share an internal draft of each permit with other Department staff to ensure there is internal consensus on the draft permit prior to sharing the draft with the permittee and the public. ME DEP's Enforcement and Compliance and DEA staff also participate in the review of internal draft permits. Upper-level DWQM management provide quality assurance/quality control (QA/QC) reviews on the internal drafts and subsequently public noticed draft permits. Final permits are signed by the ME DEP Commissioner. Permit administrative records are maintained in both paper and electronic copies.

B. Universe and Permit Issuance

As of the dates of the PQR, DWQM administers 662 individual MEPDES permits. This includes 298 publicly owned treatment works (POTW) permits (59 major POTW facilities and 239 non-major facilities), 358 non-municipal permits (10 major facilities and 348 non-major facilities), and 6 individual stormwater permits. Major industries in Maine include pulp and paper producers and aquaculture.

Stormwater general permits administered by DWQM include three MS4 permits (small MS4s, Maine Department of Transportation (MaineDOT) and Turnpike Authority MS4s, and state or federal MS4s) for which there are 40 permittees, a multi-sector general permit under which 496 permittees are authorized, and a Construction General Permit. Maine also administers a general permit for Post-Construction Discharge of Stormwater into the Long Creek Watershed for 95 permittees.

DWQM administers 8 non-stormwater general permits under which 31 permittees are authorized in the following categories:

- Antifouling Paint (AFP) Contaminated Wash Water, MEG170000
- Application of Herbicides for the Control of Invasive Aquatic Plants, MEG150000
- Application of Piscicides for the Control of Invasive Fishes, MEG180000
- Aquatic Pesticides for the Control of Mosquito-borne Diseases, MEG140000
- Discharge of Pesticides (Incidental and Unintended Discharges of Pesticides to Surface Waters), MEG230000
- Net Pen Aquaculture, MEG130000
- Discharge of Waste Snow to Certain Estuarine or Marine Waters, MEG210000
- Discharge of Waste Snow to Ground Waters, MEG220000

Maine's general MEPDES permits are available on ME DEP's website (General Permits, Water Quality, Maine Department of Environmental Protection).

Based on information obtained from ME DEP's responses to the PQR Advance Questionnaire in April 2022, approximately 141 permits of the total MEPDES universe are administratively continued. Of these, 6 are general permits and 135 are individual permits. Of the individual administratively continued permits, 36 are major permits (52 percent of all majors), and 99 are minor permits (17 percent of all minors).

C. State-Specific Challenges

ME DEP noted that the permitting universe has expanded due to several new aquaculture facilities seeking permit coverage. Permitting these new aquaculture facilities involves complex MEPDES program areas such as antidegradation reviews for new dischargers. Therefore, permit development requires greater effort by MEPDES permit writers as well as upper management during subsequent review of the draft permit.

III. CORE REVIEW FINDINGS

A. Basic Facility Information and Permit Application

1. Facility Information

Background

Basic facility information is necessary to properly establish permit conditions. For example, information regarding facility type, location, processes, and other factors required by NPDES permit application regulations (40 CFR 122.21) is essential for developing technically sound, complete, clear, and enforceable permits. Similarly, fact sheets must include a description of the type of facility or activity subject to a discharge permit.

Program Strengths

Maine's MEPDES permits and fact sheets that were reviewed during the PQR appropriately included permit issuance, effective and expiration dates, authorized signatures, and specific authorization-to-discharge information. MEPDES permits are issued as ME DEP orders and signed by the ME DEP Commissioner. They have four sections: *Application Summary, Permit Summary, Conclusions,* and *Action*. The *Action* section identifies the permit effective and expiration dates. The page following the Department Order signature page is titled "Special Conditions" and presents the Effluent Limitations and Monitoring Requirements followed by narrative permit conditions and requirements. The ME DEP permit fact sheets that were reviewed include a discussion of the permit history, which provides an important record for a facility. In addition, facility descriptions in the fact sheets reviewed provide a general description of facility location, facility operations, and wastewater treatment processes. Permits and fact sheets consistently identify the receiving waterbody by name and surface water classification.

Areas for Improvement

Maine's MEPDES permits do not consistently provide a clear identification of the physical location of discharge outfalls, such as stream reach and latitude/longitude. As identified in the 2016 PQR, this is an area in need of improvement.

Action Items

Essential	•The PQR did not identify any essential action items for this section.
Recommended	•ME DEP should consider including clear identification of the physical location of outfalls, such as stream reach and latitude/longitude coordinates, in permits.

2. Permit Application Requirements

Background and Process

Federal regulations at 40 CFR 122.21 and 122.22 specify application requirements for permittees seeking NPDES permits. Although federal forms are available, authorized states are also permitted to use their own forms provided they include all information required by the federal regulations. This portion of the review assesses whether appropriate, complete, and timely application information was received by the State and used in permit development.

ME DEP uses a combination of state MEPDES and federal NPDES application forms. ME DEP's website lists several MEPDES application forms, in addition to the General Application Form for Waste Discharge License/MEPDES Permit. The General Application Form, revised May 1, 2020, requires the submittal of supplemental state MEPDES and federal NPDES application forms based on specific activities listed in the Supporting Materials and Required Attachments section (item 13, p.4). ME DEP's website provides links to the following four EPA NPDES application forms: Concentrated Animal Feeding Operations and Concentrated Aquatic Animal Production Facilities (Form 2B), Existing Manufacturing, Commercial, Mining, and Silvicultural Operations (Form 2C), Manufacturing, Commercial, Mining, and Silvicultural Facilities Which Discharge Only Nonprocess Wastewater (Form 2E), and Stormwater Discharges Associated with Industrial Activity (Form 2F).

MEPDES permit writers conduct outreach to permittees approximately three months prior to the expiration date of the permit and prioritize outreach for permits that expire early in the calendar year. ME DEP focuses the application reminder window to approximately three months prior to permit expiration to ensure permittees submit timely applications, which ME DEP defines as permit applications received by the permit expiration date. ME DEP noted that in the past, when they would send application reminders to permittees earlier than three to six months prior to the expiration date of the permit (i.e., six to nine months prior to permit expiration as noted in the last PQR), many permittees would not respond timely and MEPDES permit writers would need to provide additional support to obtain the application as the due date approached. ME DEP achieved greater success in receiving timely applications by conducting the initial outreach at approximately three months prior to permit expiration. Permit writers send permittees an email with the application materials required for the specific discharge(s). MEPDES permit writers provide follow-up support to permittees as necessary to obtain timely and complete applications.

In accordance with 06-096 Code of Maine Rules (CMR) Chapter 2, *Concerning the Processing of Applications*, section 11.B, MEPDES permit writers have 15 working days to review an application and determine whether the application is complete for processing. As stated in the rule, the determination that the application is complete for processing is not an evaluation of the sufficiency of the information in the application; rather, it is a determination that the application fee is paid, the application is properly filled out, and information is provided for each of the required items. The completeness review period begins upon receipt of the

application and application fee. Permit writers conduct the technical review of the application and complete a cover sheet with the dates for application receipt and completeness review. The permittee publishes a public notice at the permit application stage.

Program Strengths

ME DEP's general application form and website clearly identify the application forms required for submittal, which is noteworthy because ME DEP uses both state MEPDES and federal NPDES application forms.

Areas for Improvement

ME DEP's application for POTWs (Form DEPLW0106, revised 05/18/2020) lacks a requirement for effluent testing data consistent with 40 CFR 122.21(j)(4) and lacks information required by 40 CFR 122.21(j)(6) about industrial discharges. The previous PQR identified this as an area for improvement and action item to ensure that state permit application forms contain all data requirements as stringent as federal application requirements. While ME DEP noted during the interview portion of the PQR that 06-096 CMR Chapter 530 section 2 establishes testing requirements for WET, analytical chemistry, and priority pollutants, this is separate from the MEPDES application requirements. The record provided to EPA did not include the required application testing requirements for POTWs. Some applications lacked required effluent testing data required by 40 CFR 122.21(j)(4). ME DEP indicated that waivers from certain application requirements are granted in accordance with 40 CFR 122.21(j), although the required documentation is not included in the permit record. In addition, an application for an industrial facility contained significant deficiencies, including not requiring updated information from new operations (including monitoring data). Some permits reviewed had applications that were submitted after the application due date that is in the federal regulations (180 days prior to permit expiration). While the 180-day application due date is not one of the provisions required to be adopted by states, EPA encourages adoption of an earlier application deadline to allow sufficient time for permits to be drafted and reissued prior to permit expiration. EPA's last note is that the application for an industrial facility discharging only non-process wastewater did not include all the information requirements of 40 CFR 122.21(h).

Action Items

Essential	•Ensure the application form for POTWs requires data and information consistent with 40 CFR 122.21(j). •Ensure that records contain documentation of waivers from application information requirements, as detailed in 40 CFR 122.21(j), where ME DEP determines they have access to substantially identical information. •Ensure that applications for industrial facilities discharging only non-process wastewater require data and information consistent with 40 CFR 122.21(h).
Recommended	•Recommend requesting updated facility information when ownership and operations change at industrial facilities. •Recommend ME DEP require permit applications be submitted 180 days prior to permit expiration to allow sufficient time for permit development and reissuance before the permit expires.

B. Developing Effluent Limitations

1. Technology-based Effluent Limitations

NPDES regulations at 40 CFR 125.3(a) require that permitting authorities develop technology-based requirements where applicable. Permits, fact sheets, and other supporting documentation for POTWs and non-POTWs were reviewed to assess whether technology-based effluent limitations (TBELs) represent the minimum level of control that must be imposed in a permit.

TBELs for POTWs

Background and Process

POTWs must meet secondary or equivalent-to-secondary standards (including limits for BOD [biochemical oxygen demand], TSS [total suspended solids], pH, and percent pollutant removal), and permits must contain numeric limits for all these parameters (or authorized alternatives) in accordance with the secondary treatment regulations at 40 CFR Part 133.

Maine's Rules, 06-096 CMR Chapter 524 contains criteria and standards for MEPDES permits under Sections 301(b) and 402 of the CWA, including technology-based treatment requirements. Subsection II(a)(1)(i) states that permits for POTWs shall contain effluent limitations based upon secondary treatment. In addition, Chapter 523 section 6(b) states that effluent limitations for POTWs shall be calculated based on design flow. Further, section 6(f)(2) of Chapter 523 states, "Pollutants limited in terms of mass additionally may be limited [in] terms of other units of measurement, and the permit shall require the permittee to comply with both limitations."

Program Strengths

Six POTW permits were reviewed as part of the PQR. All established TBELs for BOD_5 and TSS appropriately and in the correct limit averaging periods and units, consistent with federal secondary treatment standards. In addition to monthly average and weekly average effluent limitations, MEPDES permits also establish a daily maximum effluent limitation for BOD_5 and TSS. Permits reviewed included minimum percent removal requirements for BOD_5 and TSS, consistent with federal secondary treatment standards. Permit fact sheets contain clear and complete descriptions of municipal wastewater treatment processes.

Areas for Improvement

Fact sheets reviewed are inconsistent in their discussion of industrial discharges to the POTW. Fact sheets would be strengthened with consistent discussion of whether the POTW receives industrial discharges.

Action Items

Essential	•The PQR did not identify any essential action items for this section.
Recommended	•For POTW permits, ensure fact sheets consistently indicate whether the facility receives industrial discharges.

TBELs for Non-POTW Dischargers

Background and Process

Permits issued to non-POTWs must require compliance with a level of treatment performance equivalent to Best Available Technology Economically Achievable (BAT) or Best Conventional Pollutant Control Technology (BCT) for existing sources, and consistent with New Source Performance Standards (NSPS) for new sources. Where federal effluent limitations guidelines (ELGs) have been developed for a category of dischargers, the TBELs in a permit must be based on the application of these guidelines. If ELGs are not available, a permit must include requirements at least as stringent as BAT/BCT developed on a case-by-case basis using best professional judgment (BPJ) in accordance with the criteria outlined at 40 CFR 125.3(d).

Permit writers develop TBELs based on ME DEP rules Chapter 524 section 2, *Criteria and Standards for Imposing Technology-Based Treatment Requirements Under Sections 301(b) and 402 of the Act* and Chapter 525, *Effluent Guidelines and Standards*. ME DEP implements national ELGs in permits when applicable.

ME DEP has recently been developing TBELs for recirculating aquaculture systems (RAS) on a case-by-case basis using BPJ, as these facilities have been collecting BOD and TSS data for the past five years. ME DEP then evaluates the available effluent monitoring data and develops facility-specific TBELs. In addition, ME DEP also examines ELGs for similar operations to develop TBELs on a case-by-case basis using BPJ.

Program Strengths

The non-POTW permits reviewed contain TBELs appropriate for the discharge type and are expressed in appropriate units and forms. Fact sheets for non-POTW permits include a description of the facility operations and treatment process. ME DEP's initiative to develop site-specific TBELs, using BPJ, for discharges not covered by ELGs is commendable.

Areas for Improvement

Permit records reviewed for a new aquaculture facility lack documentation on whether the criteria in 40 CFR 125.3(d) for establishing TBELs based on BPJ were considered in the development of certain effluent limitations. In addition, fact sheets for two aquaculture facilities differ in discussion of whether the facility meets the threshold for designation as a concentrated aquatic animal production (CAAP) facility. One fact sheet reviewed includes a discussion of the CAAP threshold, while the second fact sheet does not mention the threshold. ME DEP did not consistently describe the applicability of ELG subparts to a specific discharge, to understand the implementation of specific technology-based standards (e.g., BPT, BCT, BAT, NSPS); this was also identified as an area for improvement during the last PQR. ELG-based TBELs for one paper mill permit reviewed were based on design production capacity rather than actual production at the facility. In addition, TBELs for a contributing wastestream subject to its own ELGs appears to have been erroneously removed from a renewed paper mill permit.

Action Items

Essential	•Ensure fact sheets discuss the evaluation of criteria contained in 40 CFR 125.3(d) for establishing TBELs based on BPJ. •TBELs shall be based upon a reasonable measure of actual production at the facility and not the designed production capacity, in accordannce with 40 CFR 122.45(b)(2)(i). •TBELs shall be carried forward in renewed permits unless material and substantial changes have taken place in accordance with 40 CFR 122.44(l)(1).
Recommended	•Ensure fact sheets adequately identify which subcategories and standards apply for facilities subject to ELGs and indicate the basis for categorization.

2. Reasonable Potential and Water Quality-Based Effluent Limitations

Background

The NPDES regulations at 40 CFR 122.44(d) require permits to include any requirements in addition to or more stringent than technology-based requirements where necessary to achieve state water quality standards (WQS), including narrative criteria for water quality. To establish such "water quality-based effluent limits" (WQBELs), the permitting authority must evaluate whether any pollutants or pollutant parameters cause, have the reasonable potential to cause, or contribute to an excursion above any applicable water quality standard. The PQR for ME DEP included the assessment of the processes employed to implement these requirements. Permits, fact sheets, and other documents in the administrative record were reviewed to evaluate how permit writers and water quality modelers:

- determined the appropriate WQS applicable to receiving waters,
- evaluated and characterized the effluent and receiving water, including identifying pollutants of concern,
- determined critical conditions,
- incorporated information on ambient pollutant concentrations,
- assessed any dilution considerations,
- determined whether limits were necessary for pollutants of concern, and, where necessary,
- calculated such limits or other permit conditions.

For impaired waters, reviewers assessed whether and how permit writers consulted and developed limits consistent with the assumptions of applicable EPA-approved TMDLs.

Process for Assessing Reasonable Potential

MEPDES permit writers evaluate the need for WQBELs in accordance with Chapter 584, *Surface Water Quality Criteria for Toxics* and Chapter 530, *Surface Water Toxics Control Program.* DEP also has developed a memorandum entitled *DEP's System for Evaluating Toxicity from Multiple Discharges* (October 2008). Maine's 06-096 CMR Chapter 530 section 3 requires ME DEP to establish effluent limitations and monitoring requirements for toxic parameters and WET in permits *"…if a discharge contains pollutants that are or may be discharged at levels that cause, have reasonable potential to cause, or contribute to an ambient excursion in excess of a numeric or narrative water quality criteria or that may impair existing or designated uses."*

MEPDES fact sheets identify the receiving stream, waterbody classification, and applicable WQS. Fact sheets do not describe the receiving water's designated uses; however, they do indicate the classification of such waters (e.g., AA, A, B or C), and the designated uses can be determined based on the water body classification as specified in Maine's WQS. In addition, fact sheets do not specifically discuss the selection of pollutants of concern, though they do address each pollutant for which the permit includes effluent limitations or monitoring requirements exist. Permit writers evaluate all available effluent monitoring data from the

permit term (i.e., data submitted with permit applications as well as routine monitoring data), all of which are available in the ToxScan database.

Under the MEPDES program, WQBELs are based on water quality criteria, dilution factors, ambient water quality data, and modeling analyses. All priority pollutants are evaluated for reasonable potential. ME DEP applies the statistical methodology contained in Section 3.3.2 and Table 3-2 of EPA's *Technical Support Document for Water Quality-Based Toxics Control (TSD)*[3]. Fact sheets generally indicate that a reasonable potential analysis was conducted consistent with the process outlined in EPA guidance and identifies pollutants for which reasonable potential was found. However, documentation of the actual analysis was sometimes absent. When available, ME DEP uses ambient data collected by the Department or, in rare cases, the permittee. If ambient data are not available, the default ambient concentration for toxics is set at 10 percent of the acute water quality criterion (Chapter 530 section 4(C), *Surface Water Toxics Control Program)*. In addition, Chapter 530 section 4(E) requires that when allocating assimilative capacity for toxic pollutants, ME DEP holds a portion of the total capacity (not less than 15 percent of the total assimilative capacity) in an unallocated reserve to allow for new or changed discharges and nonpoint source contributions.

ME DEP uses the ToxScan database to support the DeTox statistical analysis, which determines reasonable potential and calculates limits. ME DEP's 2008 memo describes that the DeTox program evaluates reasonable potential for multiple discharges, in three different ways, by assessing: *"1) the facility's past history of discharges, 2) its potential toxicity at the point of discharge on an individual basis, and 3) the facility's contribution to cumulative toxicity within a river segment in conjunction with other facilities."* ME DEP assesses all three scenarios to identify the most protective one (i.e., whether it is based on the individual facility or the watershed allocation) and proceeds with that allocation in DeTox. DeTox is a dynamic program in that it continuously updates with current monitoring data and recalculates on a rolling basis. In addition, the 2008 memo states that *"[i]n cases where a facility does not use all of its assimilative capacity, usually due to a more limiting individual water quality criterion, the unused quantity is rolled downstream and made available to other facilities."*

The use of DeTox is innovative relative to traditional methods for analyzing point source discharges. By analyzing multiple discharges to a waterbody, a holistic picture of water quality health can be developed. However, there are some methodological flaws in how the program is implemented. As mentioned previously, ME DEP often uses default values such as a fraction of the water quality criteria as estimates of ambient conditions. When not augmented by real monitoring data, this assumption has the potential to lead to an inaccurate assessment of water quality. For example, nonpoint source contributions may alter receiving water quality between two point source discharges; without ambient data collection taken directly upstream of the discharge, the DeTox program would not account for those alterations. Furthermore, the reallocation of "unused" assimilative capacity to other facilities does not appear protective, as it allows improvements in effluent water quality in one part of a waterbody to be offset by

[3] U.S. EPA. (March 1991). *Technical Support Document for Water Quality-based Toxics Control* (EPA/505/2-90-001). https://www3.epa.gov/npdes/pubs/owm0264.pdf

increases in pollution in other parts. EPA's review found permit examples where the reallocation method led to backsliding of permit limitations without further justification or analysis.

Section IV of this report contains additional comments relating to reasonable potential analysis for nutrients.

Process for Developing WQBELs

Maine's 06-096 CMR Chapter 530 section 4 specifies how ME DEP develops WQBELs. Permit writers develop WQBELs with modeling support from DEA staff. ME DEP uses DeTox to calculate WQBELs and follows the procedures in EPA's TSD.

MEPDES permit writers identify applicable WQS and TMDLs when evaluating the need for WQBELs. DEA staff review the fact sheet and draft permit with respect to impaired waters, ensuring the discussion and permit conditions include appropriate considerations and requirements. ME DEP permits implement wasteload allocations (WLAs) in accordance with approved and effective TMDLs, and fact sheets generally include documentation of TMDL implementation.

Where WQBELs are required, Chapter 530 section 3(D) specifies that limitations derived from acute water quality criteria be expressed as daily maximum values and limitations derived from chronic or human health criteria as monthly average values. Further, Chapter 530 section 3(D)(1) requires that effluent limitations for specific chemicals be expressed in total quantity that may be discharged and that *"[u]nless required by an applicable effluent limitation guideline adopted by the Department, all permit limitations for metals shall be expressed only as mass-based limits."*

Chapter 530 section 4(A) describes ME DEP's method for calculating dilution factors, specific to freshwater receiving waters (4(A)(1)) and estuaries and marine waters (4(A)(2)). ME DEP fact sheets consistently state the dilution allowance for a facility's discharge. However, further documentation on how the dilution factors were calculated is not provided. In most permits reviewed for this PQR, ME DEP carried forward the modeling analysis from the previous permit.

Section IV of this report provides additional comments relating to dilution factors and WQBELs for nutrients.

Program Strengths

ME DEP's approach for evaluating reasonable potential based on a watershed-level assessment that considers cumulative loads throughout the watershed is an innovative strategy and one that aims to consider broad-scale impacts to receiving waters. Permit fact sheets reviewed consistently identify the receiving stream, waterbody classification, applicable water quality criteria, and impairment status. Fact sheets discuss pollutants of concern on an individual basis. Fact sheets also discuss the reasonable potential evaluation and whether pollutants of concern demonstrate reasonable potential. Fact sheets include

clear references to Maine's rules containing water quality criteria and governing reasonable potential and the development of WQBELs.

Areas for Improvement

EPA recommends that ME DEP review and evaluate current assumptions for determining reasonable potential and developing WQBELs to assess whether assumptions are conservative and protective of water quality. As identified in the 2016 PQR, improvements in water quality should not be a reason for finding no reasonable potential and removing an existing limit or reallocating pollution; water quality improvements are expected to result from permit limits and will not be sustained if permit limits are then relaxed. Incorporating background data, collected by the department or the permittee, into DeTox assessments is one way to ensure water quality assumptions are accurate.

Chapter 530 section 3(D), requiring limitations derived from acute water quality criteria be expressed as daily maximum values and limitations derived from chronic or human health criteria as monthly average values, might not be consistent with the requirements in 40 CFR 122.45(d). The language in Chapter 530 does not explicitly require the inclusion of both limits, and instead implies there may be scenarios where only one limit is included in the permit, such as when there is only one criterion (acute or chronic) rather than both. Reviewers for this PQR also noted certain permits that included only one means of permit limit expression for some parameters. This is inconsistent with 40 CFR 122.45(d), which requires effluent limitations be expressed as both short-term (e.g., maximum daily/average weekly) and long-term (e.g., average monthly) limitations. Using only one expression might not be sufficiently protective of the WQS. For example, a long-term limitation (expressed as average monthly) might not be protective of a chronic criterion (which is based on a 4-day average), unless it is also supplemented by a short-term limitation. EPA's TSD provides guidance on how a permit writer may develop both short-term and long-term limits. An action item for this finding is addressed in Section III.B.3 (Final Effluent Limitations and Documentation) below.

ME DEP establishes solely mass-based effluent limitations for certain parameters. EPA finds the approach where effluent limitations for toxic pollutants are expressed only in terms of mass may result in excursions of the WQS, primarily because ME DEP's approach for calculating mass-based effluent limitations is often based on design flow rather than actual facility flow. If a facility were to discharge at a flow lower than that used in the calculations, the actual discharge concentrations could exceed WQS while not violating permit effluent limitations. In other words, the discharge on a day when there is low effluent flow could result in acute toxicity but not be seen as an effluent limit violation. EPA recommends that ME DEP use a more representative flow value (e.g., actual observed average facility flow) or implement mass *and* concentration-based limits to ensure that WQBELs are protective.

ME DEP does not currently save DeTox files to the administrative record and, due to the dynamic nature of the program where results are updated as new water quality data comes in every month, reproduction of past analyses is not possible. EPA strongly encourages ME

DEP to save a static printout of the DeTox analysis conducted for each permit in that permit's administrative record, preferably as an attachment to the fact sheet.

ME DEP's permit fact sheets are not consistent in their identification of the receiving stream's designated uses; some fact sheets simply reference Maine's rules for WQS (e.g., 38 MRS 465(3)).

Action Items

Essential	•<u>Reasonable Potential</u> •Procedures to assess reasonable potential in accordance with 40 CFR 122.44(d)(1)(i) and (ii) shall account for ambient receiving water conditions whenever possible. •<u>WQBEL Development</u> •Procedures for setting WQBELs shall be consistent with the goal of eliminating pollution into waters of the U.S., as described in ME WQS - 38 MRS 464(1)(a), CWA 101(a) and CWA 301(b)(1)(C). •Mass-based WQBELs should be set to ensure discharges will not cause or contribute to violations of WQS in accordance with Maine's Surface Waters Toxic Control Program. See 06-096 CMR Chapter 530 (i.e., they shall be set using actual facility flow or, if using design flow, shall be complemented with concentration-based limitations).
Recommended	•<u>Reasonable Potential</u> •Identify clearly in the fact sheet the designated uses of the receiving water body(ies). •Ensure that reasonable potential analyses are conducted for the purpose of determining whether a WQBEL is needed, not for evaluating whether an existing WQBEL remains protective of WQS. •<u>WQBEL Development</u> •Review and evaluate current assumptions for determining reasonable potential and developing WQBELs to assess whether assumptions are conservative and protective of water quality. •Consider developing mass-based effluent limitations using actual facility flow values rather than design or maximum flow values.

3. Final Effluent Limitations and Documentation

Background and Process

Permits must reflect all applicable federal statutory and NPDES regulatory requirements (and state laws), including technology standards and state WQS, and must include effluent limitations that ensure that all applicable CWA requirements are met. The permitting authority

must identify the most stringent applicable effluent limitations and establish them as the final effluent limitations in the permit. In addition, for reissued permits, if any of the limitations are less stringent than limitations on the same pollutant in the previous NPDES permit, the permit writer must conduct an anti-backsliding analysis, and if necessary, revise the limitations accordingly. In addition, for new or increased discharges, the permitting authority should conduct an antidegradation review, to ensure the permit is written to maintain existing high quality of surface waters, or if appropriate, allow for some degradation. The WQS regulations at 40 CFR 131.12 outline the common elements of the antidegradation review process.

In addition, permit records for POTWs and industrial facilities should contain comprehensive documentation of the development of all effluent limitations. Documentation for technology-based effluent limits should include an assessment of applicable standards, data used in developing effluent limitations, and actual calculations used to develop effluent limitations. The procedures to determine the need for WQBELs and the basis for establishing, or for not establishing, WQBELs should be clear and straightforward. The permit writer should adequately document changes from the previous permit, ensure draft and final limitations match (unless the basis for a change is documented), and include all supporting documentation in the permit file. The permit writer should sufficiently document determinations regarding anti-backsliding and antidegradation requirements.

MEPDES permit writers implement federal secondary treatment standards appropriately for POTWs. For non-POTWs, fact sheets are highly variable in their application of ELGs and explanation of TBELs. Permit writers must evaluate the applicability of federal ELGs and provide documentation for all TBELs.

ME DEP uses ToxScan and DeTox to evaluate reasonable potential and develop WQBELs. While permit fact sheets provide an adequate summary of the DeTox results, the administrative record should contain all of the details, including a record of the data used in the analysis.

In general, the fact sheets reviewed demonstrated that MEPDES permit writers compared TBELs and WQBELs and selected the most stringent as the final effluent limitation. A permit issued for a new facility was reviewed and the accompanying fact sheet included a discussion of ME DEP's antidegradation analysis and the determination that the discharge will meet the antidegradation requirements established in 38 MRS 464(4)(F).

Program Strengths

Permit fact sheets reviewed discussed individual pollutant requirements in detail and included accurate regulatory and statutory references. ME DEP established TBELs appropriately and provided calculations of effluent limitations. TBELs established for a new facility included those based on BPJ and the permit fact sheet discussed the basis for the effluent limitations.

Areas for Improvement

Certain permits reviewed included less stringent effluent limitations than the previous permit and, in some cases, omitted limits that were in the previous permit. Furthermore, in almost all cases, permit development records lacked demonstration of an anti-backsliding analysis and

lack sufficient justification for the less stringent effluent limitations. In cases where ME DEP reallocates an "unused" portion of the assimilative capacity to another discharger and meets anti-backsliding requirements, ME DEP should conduct an antidegradation review and maintain documentation of the evaluation in the permit record. Fact sheets for non-POTW permits to which ELGs applied lacked adequate discussion of facility categorization as it relates to determining which standards are applicable to the discharge. Multiple permits reviewed only included one of either short-term or long-term effluent limitations, which is not consistent with 40 CFR 122.45(d)(1) and (2). This is described in more detail in section III.B.2 (Reasonable Potential and Water Quality-Based Effluent Limitations) above.

Action Items

Essential	•Conduct and document anti-backsliding evaluations when reissued permits contain effluent limitations less stringent than those in the previous permit, per 40 CFR 122.44(l) and 40 CFR 124.56. •Conduct and document antidegradation evaluations when reissued permits allow for an increased pollutant loading, per 40 CFR 131.12 and 40 CFR 124.56. •Effluent limitations shall unless impracticable be stated as maximum daily and average monthly discharge limitations for non-POTWs and average weekly and average monthly discharge limitations for POTWs in accordance with 40 CFR 122.45(d).
Recommended	•Ensure the record documents the permit writer's determination of the applicability of ELGs and specifically, subcategories and performance standards (e.g., BPT, BCT, BAT, NSPS).

C. Monitoring and Reporting Requirements

Background and Process

NPDES regulations at 40 CFR 122.41(j) require permittees to evaluate compliance with the effluent limitations established in their permits and provide the results to the permitting authority. Monitoring and reporting conditions require the permittee to conduct routine or episodic self-monitoring of permitted discharges and where applicable, internal processes, and report the analytical results to the permitting authority with information necessary to evaluate discharge characteristics and compliance status.

Specifically, 40 CFR 122.44(i) requires NPDES permits to establish, at minimum, annual reporting of monitoring for all limited parameters sufficient to ensure compliance with permit limitations, including specific requirements for the types of information to be provided and the methods for the collection and analysis of such samples. In addition, 40 CFR 122.48(b) requires that permits specify the type, intervals, and frequency of monitoring sufficient to yield data that are representative of the monitored activity. The regulations at 40 CFR 122.44(i) also require reporting of monitoring results with a frequency dependent on the nature and effect of the

discharge. 40 CFR Part 127 requires NPDES-regulated entities to submit certain data electronically, including discharge monitoring reports and various program-specific reports, as applicable.

NPDES permits should specify appropriate monitoring locations to ensure compliance with the permit limitations and provide the necessary data to determine the effects of an effluent on the receiving water. A complete fact sheet will include a description and justification for all monitoring locations required by the permit. States may have policy or guidance documents to support determining appropriate monitoring frequencies; documentation should include an explicit discussion in the fact sheet providing the basis for establishing monitoring frequencies, including identification of the specific state policy or internal guidance referenced. Permits must also specify the sample collection method for all parameters required to be monitored in the permit. The fact sheet should present the rationale for requiring grab or composite samples and discuss the basis of a permit requirement mandating use of a sufficiently sensitive Part 136 analytical method.

ME DEP establishes monitoring requirements for determining compliance with effluent limitations and, for purposes of effluent characterization, based on monitoring requirements in existing permits as well as EPA's 1996 guidance regarding performance-based reductions of monitoring frequencies. In addition, 06-096 CMR Chapter 530 contains effluent monitoring requirements for WET and priority pollutants. Permits require the use of analytical methods approved by EPA in 40 CFR Part 136. Permit fact sheets generally refer to Maine's regulations as the basis for monitoring requirements. In addition to DMR reporting, POTW permittees are required to notify ME DEP of any introductions of pollutants to the wastewater collection and treatment system from an indirect discharger in a primary industrial category, and any substantial change in the volume or character of pollutants being introduced into the wastewater collection and treatment system by a source introducing pollutants into the system. Permittees are required to submit electronic DMRs to ME DEP monthly, and permits cite the requirements of 40 CFR part 127. Permits also specify the date by which documentation must be submitted electronically to ME DEP in support of the electronic DMR. Reported data is forwarded to ICIS.

ME DEP discussed during the PQR that when ToxScan was in development, ME DEP interviewed commercial analytical laboratories to ensure their ability to achieve necessary detection levels, then developed a list of method detection limits for all pollutants for the laboratories' use. ME DEP also developed a tool in ToxScan to enable permittees to quickly recognize whether a reported detection level appeared to be too high; this feature has helped resolve data quality issues that have historically affected the effluent limitation development process. ME DEP reviews minimum detection levels with respect to water quality criteria, when reviewing effluent monitoring data in ToxScan.

Program Strengths

ME DEP permits clearly identify monitoring requirements alongside effluent limitations; having a single location that aligns effluent limitations with monitoring requirements provides a clear and concise reference for requirements. Permits include thorough explanations of monitoring

details using footnotes to the table that identify effluent limitations and monitoring requirements. Permits establish appropriate monitoring frequencies and clearly identify reporting requirements.

Areas for Improvement

Permits reviewed generally lack identification of monitoring locations and outfall locations. Permits and fact sheets must contain a description of the specific location(s) for sampling, which helps ensure that all parties understand the point of compliance and sample at the appropriate location(s). Permits reviewed lack explicit influent monitoring requirements for BOD_5 and TSS to determine compliance with minimum percent removal requirements. Permits include a footnote that states, "The percent removal is calculated based on influent and effluent concentration values"; however, certain permits lack an explicit influent monitoring requirement. Permits must require the use of sufficiently sensitive methods in accordance with 40 CFR 122.44(i)(1)(iv) for pollutant monitoring. Certain fact sheets did not clearly justify monitoring frequencies for parameters for which the permit table requires monitoring.

Action Items

Essential	•Ensure permits and fact sheets identify the specific sampling location for all monitoring to ensure the monitoring location is representative of the activity and discharge, consistent with 40 CFR 122.41(j). •Establish explicit influent monitoring requirements to ensure compliance with permit limitations for the minimum percent removal requirements for BOD and TSS, consistent with 40 CFR 122.44(i)(1). •Ensure permits include appropriate language for requiring the use of sufficiently sensitive, EPA-approved analytical methods, consistent with 40 CFR 122.44(i)(1)(iv).
Recommended	•Ensure that permits clearly state and explain monitoring frequencies for all parameters required to be monitored for.

D. Standard and Special Conditions

Background and Process

Federal regulations at 40 CFR 122.41 require that all NPDES permits, including NPDES general permits, contain certain "standard" permit conditions. Further, the regulations at 40 CFR 122.42 require that NPDES permits for certain categories of dischargers must contain additional standard conditions. Permitting authorities must include these conditions in NPDES permits and may not alter or omit any standard condition, unless such alteration or omission results in a requirement more stringent than those in the federal regulations.

Permits may also contain additional requirements that are unique to a particular discharger. These case-specific requirements are generally referred to as "special conditions." Special conditions might include requirements such as: additional monitoring or special studies such as a mercury minimization plan; a toxicity identification evaluation (TIE) or toxicity reduction evaluation (TRE) to resolve measured toxicity; best management practices (BMPs) (see 40 CFR 122.44(k)); or permit compliance schedules (see 40 CFR 122.47). Where a permit contains special conditions, such conditions must be consistent with applicable regulations.

ME DEP uses boilerplate standard conditions, dated 2002, available on the Department's website. In addition, Chapter 523, *Waste Discharge License Conditions*, contains requirements for conditions applicable to most MEPDES permits under section 2, *Conditions applicable to all permits* and section 3, *Additional conditions applicable to specified categories of NPDES permits*. Chapter 523 references 40 CFR 122.41 and 122.42. The standard conditions included as an attachment to all permits reviewed are identified as "Revised July 1, 2002." Penalty language is not stated in permits directly; rather, it is referenced via 38 MRS section 349.

Maine's MEPDES permits have a section entitled "special conditions" that contains effluent limitations (numeric and narrative), monitoring requirements, and accompanying explanatory footnotes. In addition, the special conditions section contains specific narrative permit conditions such as treatment plant operator certification, operation and maintenance plan, notification requirements, wet weather management plan, electronic reporting, and a reopener condition.

Maine's rules, 06-096 CMR Chapter 523 section 7, *Schedules of Compliance*, contain requirements for establishing compliance schedules in MEPDES permits and the rule references 40 CFR 122.47. Maine's rules require compliance as soon as possible and establishment of interim requirements and dates for their achievement. In addition, MEPDES permits include the standard condition requiring reports of progress and compliance or noncompliance with the interim requirements within 14 days of each interim date. None of the permits reviewed contained compliance schedules for effluent limitations.

Program Strengths

ME DEP retains the boilerplate standard conditions on its website, providing wide access to required permit conditions. Standard conditions are clearly presented and organized.

Areas for Improvement

Permits reviewed included standard conditions dated July 1, 2002. Since federal NPDES regulations have been updated since 2002, ME DEP should review the current federal standard conditions to ensure MEPDES standard conditions are as stringent as the current federal standard conditions. For example, the MEPDES standard conditions for twenty-four hour reporting, other non-compliance, and notice of anticipated and unanticipated bypasses, lack the reference to 40 CFR Part 127 to submit reports electronically. As with effluent limitations, BMPs and other special conditions should be justified and documented in permit fact sheets or the administrative record.

Action Items

Essential	•Review the current version of MEPDES standard conditions (dated July 1, 2002) and ensure consistency with current federal standard conditions at 40 CFR 122.41.
Recommended	•In general, all permit conditions such as BMP requirements and special conditions should be justified in the fact sheet or administrative record.

E. Administrative Process

Background and Process

The administrative process includes documenting the basis of all permit decisions (40 CFR 124.5 and 40 CFR 124.6); coordinating EPA and state review of the draft (or proposed) permit (40 CFR 123.44); providing public notice (40 CFR 124.10); conducting hearings if appropriate (40 CFR 124.11 and 40 CFR 124.12); responding to public comments (40 CFR 124.17); and modifying a permit (if necessary) after issuance (40 CFR 124.5). EPA discussed each element of the administrative process with ME DEP, and reviewed materials from the administrative process as they related to the core permit review.

ME DEP's 06-096 CMR Chapter 2 section 14(A) requires applicants to give public notice of intent to file a new, renewal, amendment, or transfer application within 30 days prior to filing an application. The public notice must be mailed to abutters, the municipal office of the municipality where the project is located, and, in certain instances, the appropriate county commissioners. The notice must also be published in a newspaper circulated in the area where the project is located. Copies of the published notice and a list of abutters to whom the notice was provided must be submitted with the permit application. Comments are directed to ME DEP. Chapter 2 section 14(A) specifies the required content of the notice. The required information does not include all the contents required by 40 CFR 124.10(d), e.g., a description of the location of the discharge point and name of receiving water and description of sludge use and disposal practices. The general application form includes guidance on language that should be included in the public notice of intent document. Chapter 2 section 14(B) provides that, "*[a]fter an application has been filed, if the Department determines that the applicant submits significant new or additional information or substantially modifies its application at any time after acceptance of the application as complete, the applicant shall provide additional notice to abutters and interested persons. In the interest of due process, the Department may also require additional public notice at its discretion if a substantial period of time has elapsed since the original public notice.*" ME DEP indicated that interested stakeholders may request more information from ME DEP at any time.

Although there are clear public notice requirements for applications, state regulations do not include explicit language for soliciting public comments on the draft permits themselves. Federal regulations at 40 CFR 124.10(a)(1)(ii) require public notice when a draft permit has

been prepared. While ME DEP accepts comments on the draft permit, the 40 CFR 124.10 public notice requirements are not fully met. For example, 40 CFR 124.10(a) requires public notice of the preparation of a draft permit and 40 CFR 124.10(c)(2)(i) requires public notice in a local newspaper of draft major permits, and neither appears to be occurring. In general, significant public comments and ME DEP written responses were identified at the end of the fact sheets reviewed. Permit writers draft written responses to substantive comments on draft permits, and they are included in the response to comments section of the final permit and fact sheet. In most cases for the permits reviewed, the fact sheet indicated that no significant comments were received.

ME DEP rule 06-096 CMR Chapter 2 provides authority for a permit applicant or any person to request a hearing (including testimony and cross-examination) regarding any permit application at the time of that the permit application is public noticed. The ME DEP Commissioner must agree that the public interest has reached a specific threshold to justify the public hearing. Permit appeals can be brought before the Maine Board of Environmental Protection. ME DEP indicated permit appeals are rare.

Program Strengths

Applications reviewed included copies of the applicant's public notice of intent to file an application. Fact sheets clearly and consistently document whether comments were received on the draft permit.

Areas for Improvement

The 40 CFR 124.10 public notice requirements are not fully met because 40 CFR 124.10(a) requires ME DEP to provide public notice of draft permits. The MEPDES requirement for a permittee to provide public notice of intent to apply, although notable, does not suffice in lieu of this requirement. Further, 40 CFR 124.10(c)(2)(i) requires public notice in a local newspaper of draft major permits, which is not occurring consistently. ME DEP includes comments and responses to comments in the fact sheet; however, ME DEP should ensure that comments received on draft permits are maintained in the respective permit records.

Action Items

Essential	•Ensure that the public has adequate opportunity to review and comment on draft permits, consistent with 40 CFR 124.10(a) and (c).
Recommended	•Recommend that comments are reproduced in full but, at a minimum, comments should be maintained in the administrative record.

F. Administrative Record and Fact Sheet

Background and Process

The administrative record is the foundation that supports the NPDES permit. If EPA issues the permit, 40 CFR 124.9 identifies the required content of the administrative record for a draft permit and 40 CFR 124.18 identifies the requirements for a final permit. Authorized state programs should have equivalent documentation. The record should contain the necessary documentation to justify permit conditions. At a minimum, the administrative record for a permit should contain the permit application and supporting data; draft permit; fact sheet or statement of basis;[4] all items cited in the statement of basis or fact sheet including calculations used to derive the permit limitations; meeting reports; correspondence between the applicant and regulatory personnel; all other items supporting the file; final response to comments; and, for new sources where EPA issues the permit, any environmental assessment, environmental impact statement, or finding of no significant impact.

Current regulations at 40 CFR 124.8 and 124.56 require that fact sheets include information regarding the type of facility or activity permitted, the type and quantity of pollutants discharged, the technical, statutory, and regulatory basis for permit conditions, the basis and calculations for effluent limits and conditions, the reasons for application of certain specific limits, rationales for variances or alternatives, contact information, and procedures for issuing the final permit. Generally, the administrative record includes the permit application, the draft permit, any fact sheet or statement of basis, documents cited in the fact sheet or statement of basis, and other documents contained in the supporting file for the permit.

MEPDES permit writers develop fact sheets for all permits as permits are drafted. They typically use the previous version of the fact sheet as a template and modify it based on changes to the permit or changes to regulations, policy, or standard language for specific topics. Fact sheets reviewed are organized consistently, containing similar headings and boilerplate language.

ME DEP maintains the administrative record in both hard copy and electronic format. Electronic files are internal to ME DEP but are available upon request. ME DEP reported in the PQR Advance Questionnaire that permit development documentation, monitoring and reporting information, and correspondence is generally in hard copy, with efforts towards maintaining more in electronic format. DMR data is housed in ToxScan and compliance and enforcement records are generally in electronic format.

Program Strengths

Fact sheets are organized consistently and include references to Maine's rules and regulations for applicable TBELs, WQS, waterbody designated uses, dilution factors, and the basis for WET testing requirements. In addition, permit fact sheets provide a detailed discussion of permit

[4] Per 40 CFR 124.8(a), every EPA and state-issued permit must be accompanied by a fact sheet if the permit: Incorporates a variance or requires an explanation under 124.56(b); is an NPDES general permit; is subject to widespread public interest; is a Class I sludge management facility; or includes a sewage sludge land application plan.

history, which supports a strong permit record and history for a given facility. Fact sheets include statements regarding compliance with existing effluent limitations, based on a review of facility monitoring data. Fact sheets clearly identify MEPDES permit writers who can provide additional information, including complete contact information.

Areas for Improvement

Fact sheets lack sufficient detail for reviewers and the public to understand permitting decisions and the basis for requirements. Further, the permit administrative record lacks certain items cited in the fact sheet, such as calculations and model reports (i.e., DeTox reports) used to derive permit limitations. While fact sheets are not required to be comprehensive in containing all the information and the basis for requirements, there should be records to document important decisions, such as calculations used to derive effluent limitations (e.g., reasonable potential analyses). For example, fact sheets generally lack details on effluent monitoring data considered in the reasonable potential analysis; instead they include a generic summary of the type of effluent data considered (e.g., pollutant category and overall number of samples within that pollutant category). Further, permit records lack a copy of the DeTox report upon which effluent limitations are based and because the program is constantly recalculating allocations based on new data, a DeTox analysis upon which the permit is based cannot be replicated later; ME DEP's records should include a copy of the actual DeTox report considered final for the permit development process.

Permit records, including fact sheets, occasionally lacked justification for backsliding of effluent limitations in reissued permits. In addition, fact sheets do not consistently discuss the basis for which level of ELG performance standards are implemented in permits (e.g., BPT, BAT, BCT, or NSPS). ME DEP permit records also lack clear documentation of whether ME DEP determines a permit application is complete. EPA recommends ME DEP better document the application review process. EPA also recommends that ME DEP maintain clearer documentation of changes made between draft and final permits.

Action Items

Essential	•Ensure the permit record includes documents and information cited in the fact sheet, including the information used to derive final effluent limitations, as outlined in 40 CFR 124.8, 124.9 and 124.56. Examples of required information not currently provided for EPA's review are: •DeTox reports for a given permitting action •Effluent monitoring data considered in DeTox modeling •Justification for backsliding of effluent limitations •Antidegradation analysis for any new or increased discharges, including increases or removals of effluent limitations •Dilution factor modeling reports
Recommended	•Document the permit application review process clearly and retain documentation in the administrative record. •Document the basis for which level of ELG performance standards are implemented in permits (e.g., BPT, BAT, BCT, or NSPS). •Maintain clear documentation of changes made between draft and final permits.

IV. NATIONAL TOPIC AREA FINDINGS

National topic areas are aspects of the NPDES permit program that warrant review based on the specific requirements applicable to the selected topic areas. These topic areas have been determined to be important on a national scale. National topic areas are reviewed for all PQRs. The national topic areas are Permit Controls for Nutrients in Non-TMDL Waters, Effectiveness of POTW NPDES Permits with Food Processor Contributions, and Small Municipal Separate Storm Sewer System (MS4) Permit Requirements.

A. Permit Controls for Nutrients in Non-TMDL Waters

Background

Nutrient pollution is an ongoing environmental challenge; however, nationally, permits often lack nutrient limits. It is vital that permitting authorities actively consider nutrient pollution in their permitting decisions. Of the permits that do have nutrient limits, many are derived from wasteload allocations in TMDLs, since state criteria are often challenging to interpret. This section considers waters that do not have a nutrient TMDL. These waters may already be impaired by nutrient pollution or may be vulnerable to nutrient pollution due to their hydrology and environmental conditions. For the purposes of this program area, ammonia is considered as a toxic pollutant, not a nutrient.

Federal regulations at 40 CFR 122.44(d)(1)(i) require permit limits to be developed for any pollutant which causes, has the reasonable potential to cause, or contributes to an excursion of WQS, whether those standards are narrative or numeric.

To assess how nutrients are addressed in Maine's NPDES program, EPA Region 1 reviewed Maine WQS, three POTW permits, and three non-POTW permits:

- City of Bath (ME0100021)
- City of Biddeford (ME0100048)
- Grand Lake Stream Fish Hatchery (ME0001082)
- Kingfish (ME0037559)
- Paris Utility District (ME0100218)
- SD Warren (ME0002321)

Maine WQS do not currently stipulate numeric nutrient criteria. Instead, narrative criteria are the basis for nutrient assessments in permits. The narrative criteria come from the standards for the classification of different waterbodies, as determined in 38 MRS section 465, *Standards for classification of fresh surface waters*, which presents designated uses for classes AA, A, B, and C freshwater bodies. Class AA waters are required to have aquatic life and dissolved oxygen levels "*as naturally occurs*." The WQS for Class A, B, and C waters include numeric dissolved oxygen criteria and designate these waterbodies as habitat for fish and other aquatic life. Discharges that would lower the water quality are prohibited for Class A waters (38 MRS 465.2.C). For Class B waters, direct dischargers are permitted but they "*may not cause adverse impact to aquatic life in that the receiving waters must be of sufficient quality to support all aquatic species indigenous to the receiving water without detrimental changes in the resident biological community*" (38 MRS 465.3.C). Lastly, discharges to Class C waters "*may cause some changes to aquatic life, except that the receiving waters must be of sufficient quality to support all species of fish indigenous to the receiving waters and maintain the structure and function of the resident biological community*" (38 MRS 465.4.C).

In Maine's WQS, most lakes and ponds are classified as Class GPA waters. These waters are designated as suitable habitat for fish and other aquatic life and the following narrative criteria applies, "*Class GPA waters must be described by their trophic state based on measures of the chlorophyll 'a' content, Secchi disk transparency, total phosphorus content and other appropriate criteria. Class GPA waters must have a stable or decreasing trophic state, subject only to natural fluctuations and must be free of culturally induced algal blooms that impair their use and enjoyment*" (38 MRS 465-A.1.B). New discharges to Class GPA waters are prohibited except for specific exemptions such as aquatic pesticide use and stormwater discharges in compliance with state and local requirements.

Estuarine and marine waters are classified as either Class SA, SB, or SC. All waterbodies are designated as habitat for fish and other estuarine and marine life. Class SA waters require estuarine and marine life and dissolved oxygen to be as naturally occurs and prohibit direct discharges (38 MRS 465-B.1). Class SB prescribe numeric dissolved oxygen criteria and stipulate that discharges to Class SB waters "*may not cause adverse impact to estuarine and marine life in that the receiving waters must be of sufficient quality to support all estuarine and marine species indigenous to the receiving water without detrimental changes in the resident biological community"* (38 MRS 465-B.2). Lastly, Class SC waters also possess numeric dissolved oxygen

criteria and allow that "*[d]ischarges to Class SC waters may cause some changes to estuarine and marine life provided that the receiving waters are of sufficient quality to support all species of fish indigenous to the receiving waters and maintain the structure and function of the resident biological community*" (38 MRS 465-B.3).

ME DEP is in the process of adopting freshwater numeric nutrient criteria.[5] A draft of the proposed nutrient criteria rule has been put forward by ME DEP and public rulemaking is expected to begin in 2022. The criteria include numeric total phosphorus (TP) thresholds and several numeric response criteria including percent nuisance algal cover, water column chlorophyll-a concentration, and secchi disk transparency (among others). ME DEP's *Draft – Description of Nutrient Criteria for Class AA, A, B, and C Fresh Surface Waters*[6] describes the reasonable potential procedure that would be followed if the criteria were incorporated into law. See Table 3 in DEP's *Draft – Description of Nutrient Criteria for Class AA, A, B, and C Fresh Surface Waters*. The proposed criteria only apply to Class AA, A, B, and C waterbodies; they do not apply to lakes and ponds (Class GPA). Given the draft nature of these criteria, they are not currently used in Maine's reasonable potential analysis procedure; however, a few of the permits reviewed did present calculations using the numeric TP criteria, although none of those permits included permit conditions based on those reasonable potential calculations. Maine has not adopted numeric criteria for marine waters.

ME DEP staff currently use BPJ to interpret narrative criteria and determine if a waterbody no longer supports a designated or existing use. Interpretation and methodology vary between facilities and waterbody classifications. The various procedures used are discussed below.

Freshwater Examples

The permits for three different facilities discharging to fresh waterbodies were reviewed as part of this PQR. The first permit was for Paris Utility District (ME0100951), which discharges 0.65 million gallons per day (MGD) of POTW effluent to the Little Androscoggin River, a Class C waterbody. The 2020 permit includes a monthly average total orthophosphate limit of 2.0 lbs/day monitored weekly. This limit was carried forward from the previous permit and originated from concerns of excess algal growth in the Little Androscoggin River. The receiving water section indicated that ME DEP had insufficient data to assess the receiving water status for the 2016 Integrated Water Quality Monitoring and Assessment Report. No new assessment or calculations of the protectiveness of the permit limit were conducted for this permit. A 2021 modification to the permit changed the orthophosphate limit to a 3.0 lbs/day total phosphorus limit, a change requested by the permittee because of the additional logistical expense required by the previous parameter. The change in the magnitude of the limit was based on 12 samples collected during the summer of 2020 that found that the average total phosphorus concentration was 1.5 times higher than the average orthophosphate concentration. The

[5] More information can be found at the following ME DEP webpage, https://www.maine.gov/dep/water/nutrient-criteria/index.html.
[6] https://www.maine.gov/dep/water/nutrient-criteria/description-of-nutrient-criteria-2021.04.12.pdf.

record did not include an analysis to determine if the correlation between these parameters was linear as assumed by the multiplication factor approach.

Grand Lake Stream Fish Hatchery (ME0001082) discharges 2.9 MGD of hatchery effluent to Grand Lake Stream, a Class A waterbody. Grand Lake Stream discharges into Big Lake, a Class GPA waterbody. The permit included an annual maximum phosphorus load limit of 504 lbs/year and a monthly average concentration limit of 0.14 mg/L. The annual load limit had been carried forward from previous permit issuances to protect the downstream Class GPA water. No assessment or discussion was provided in the fact sheet to indicate whether that load limit remains protective. The concentration-based limit was derived based on a downstream water quality target of 0.035 mg/L and a chronic dilution factor of 3.9 (the product of the two of these values became the limit). No ambient data was used in this WQBEL calculation or in assessing the ability of the receiving water to assimilate the phosphorus discharge.

S.D. Warren Company (ME0002321) discharges paper mill process water, stormwater, filter backwash water, non-contact cooling water, and other miscellaneous waters to the Presumpscot River, a Class C waterbody. This permit did not contain any phosphorus limitations or monitoring requirements. The permit writer assessed whether the permitted discharge caused, had the reasonable potential to cause, or contribute to an excursion of WQS using EPA's Quality Criteria for Water 1986 (Gold Book), specifically the 0.100 mg/L TP criteria for flowing waters not discharging directly to lakes or impoundments. In addition, the permit writer assessed reasonable potential based on the proposed DEP criteria for Class C waters, 0.033 mg/L.[7] No reasonable potential was found using the Gold Book Criteria, while reasonable potential was found using the proposed TP criteria. The ambiguous reasonable potential analysis results did not lead the permit writer to include effluent limitations or monitoring requirements in the final permit.

Marine/Estuarine Examples

Two POTW permits and a permit for a proposed aquaculture facility discharging to marine/estuarine waters were reviewed. As discussed in fact sheets for marine/estuarine dischargers, ME DEP was requested by EPA to evaluate whether the discharge of total nitrogen causes, has the reasonable potential to cause, or contributes to an excursion (e.g., non-attainment) of applicable WQS in marine waters, specifically for dissolved oxygen (DO) and marine life support. The numeric total nitrogen criteria considered are a 0.45 mg/L threshold for the protection of aquatic life in marine water using DO as the indicator, and a 0.32 mg/L threshold for the protection of aquatic life using eelgrass as the indicator. Typically, these numeric nitrogen criteria are treated on a site-specific, single-facility basis by calculating a mass balance using effluent flow and concentration data, a dilution factor, and receiving water concentration data. Further information on the basis for the thresholds is provided in the permit fact sheets.

Even with the standard mass-balance approach outlined above, permits still vary in how they reflect reasonable potential assessment for these nitrogen criteria. One example is the dilution

[7] This value has since been lowered to 0.04 mg/L in the Draft Proposed Criteria Rule discussed above.

factors used in the mass-balance calculation. Except where facilities provide their own dilution studies or modeling, ME DEP staff use BPJ to determine dilution factors. The judgment used in selecting the dilution factor is not well documented and at times seems arbitrary. Permits reviewed used far-field dilution factors ranging from 173:1 to 1000:1 and none of the analysis used to derive these dilutions was provided to EPA during the PQR process. Public comments on a recent permit issued by ME DEP (the Nordic Aquafarms, Inc. Permit (ME0002771)) have raised concerns over the transparency of the Department's approach to dilution.

Another significant variation in the nutrient implementation procedure between permits is whether the eelgrass indicator threshold of 0.32 mg/L is assessed for reasonable potential analyses. Permits indicated that this threshold is only applicable when eelgrass has been mapped within 0.5 km of the outfall. Sometimes, but not always, permit writers use other information to justify the application of the eelgrass threshold when eelgrass hasn't been mapped near the outfall but has been mapped further afield (e.g., see Kingfish permit as an example where it was used and Bath permit where it was not used). Even when historical information indicated eelgrass was present, permits did not necessarily use the criteria to evaluate reasonable potential or set effluent limits. Specific permitting examples are elaborated below.

The City of Bath (ME0100021) discharges 3.5 MGD of POTW effluent to the Kennebec River, a Class SB waterbody. The final permit did not include any monitoring requirements or effluent limitations for nutrients. ME DEP assessed reasonable potential using the DO-threshold (0.45 mg/L). Since no eelgrass surveys existed in the proximity of the outfall, the eelgrass threshold was not used; in addition, ME DEP inferred that the low salinity of the receiving water near the discharge precludes the presence of eelgrass habitat. The fact sheet does state that eelgrass is known to occur in the lower Kennebec estuary, downstream of the discharge. The fact sheet further explains that since nitrogen is not acutely toxic and its effects on the marine environment "manifest in a broader, more systemic scope," a far-field dilution is more appropriate for evaluating the relative impacts of total nitrogen on the ambient environment. The chosen far-field dilution (1,000:1) appears to be based on best professional judgment and not grounded in a dye study or modeling. The chosen value is 3-4 times greater than the chronic dilution factor (284:1) derived from a CORMIX model. Given that this is a far-field analysis, the eelgrass threshold of 0.32 mg/L appears applicable because eelgrass is known to occur in the far field. The ambient receiving water already exceeded the eelgrass threshold (mean concentration of 0.36 mg/L), but given the significant dilution, reasonable potential was not found for the DO threshold of 0.45 mg/L. As a result, the permit did not include any nutrient-related conditions. Had the analysis properly applied the eelgrass threshold, it would have been clear that the discharge was contributing to an excursion of the threshold and a WQBEL for nitrogen would have been necessary to protect designated uses of the far-field waterbody.

The City of Biddeford (ME0100021) discharges 6.5 MGD of POTW effluent to the Saco River, a Class SC waterbody. To assess whether there was reasonable potential for total nitrogen, ME DEP conducted a procedure similar to that for the City of Bath's permit. Again, given the closest known eelgrass habitat is 7 km downstream, ME DEP determined that application of the

eelgrass threshold was not appropriate. Far-field dilution was also considered (200:1). The mean background concentration in the Saco River was determined as 0.41 mg/L, very close to the DO threshold (0.45 mg/L), and the effluent concentration was represented as 6.3 mg/L. While the fact sheet does not show the reasonable potential calculation, it states "it is reasonable to expect that there will be regular excursions above the 0.45 mg/L threshold value until dilutions are significantly increased in the lower portion of the estuary." This conclusion indicates there is reasonable potential but does not result in a WQBEL. The final permit requires twice-monthly seasonal nitrogen monitoring but no effluent limits. In summary, the analysis appropriately translates the narrative criteria into a numeric target concentration, then indicates that the discharge is likely to cause or contribute to regular exceedances of that numeric target; but, in the end, concludes that limits are not necessary without evidence of nitrogen-related water quality problems. EPA notes that this procedure is not consistent with 40 CFR 122.44(d)(1)(v) and (vi).

Lastly, EPA reviewed the permit for the proposed Kingfish aquaculture facility (ME0037559). Kingfish is applying to discharge 28.7 MGD of aquaculture effluent to Chandler Bay, a Class SB waterbody. Maine DEP calculated what percentage of the remaining receiving water assimilative capacity for the two thresholds (DO and eelgrass) would be taken by the proposed nitrogen discharge concentration. Given that the discharge would take up a greater percentage (>20%) of the assimilative capacity for the eelgrass threshold than State WQS allow, an antidegradation review was triggered. The review found that while water quality would be lowered as a result of the discharge (specifically as it relates to eelgrass habitat), the social and economic benefits of the proposed project would ensure compliance with the State's antidegradation regulations. The final permit included a monthly average total nitrogen load limitation based on the applicant's proposed nitrogen concentration, for which the nitrogen analyses were made.

Program Strengths

- In general, permits discussed the impairment status of the waterbodies. None of the permits reviewed were direct discharges to nutrient-impaired waterbodies, i.e., waterbodies on the State's CWA 303(d) list for nutrients.
- The Department utilizes best professional judgment to interpret its narrative nutrient criteria into numeric nutrient criteria that can be used for reasonable potential analyses.
- The bases for all nutrient limits were explained in either the current permit or were noted as being carried forward from previous issuances.
- Reasonable potential analyses were explicitly detailed in the fact sheet providing transparent analysis, in contrast with the analysis procedure for toxics.
- The Department is adopting numeric nutrient criteria in their WQS and permits have begun to use proposed criteria in their assessments.

Areas for Improvement

EPA's findings from the nutrient topic review mirrored the findings from the core review. In general, ambient data is rarely used in nutrient reasonable potential analyses and documentation of permitting decisions was not always provided.

EPA identified issues specific to the nutrient review. ME DEP was inconsistent in its approach to applying eelgrass criteria. In most cases, permitting decisions defaulted to the least protective application of eelgrass criteria. When ambient data is assumed or outdated, ME DEP permits default to not including monitoring requirements for nutrients, even when reasonable potential analyses were built on uncertain assumptions of ambient water quality. One of the most significant documentation omissions was information related to the derivation of far-field dilution factors used to assess nutrient reasonable potential. EPA was not provided with these as part of its PQR review and the procedures for updating these are not clear. Lastly, as discussed above, EPA identified an example where ME DEP found reasonable potential for nitrogen discharges to violate WQS, but permit limits were not established.

Action Items

Essential	•Ensure that WQBELs are developed for nutrient parameters that demonstrate reasonable potential, consistent with 40 CFR 122.44(d)(1)(i).
Recommended	•Recommend requiring permittees to collect ambient data where reasonable potential results are based on data older than the permit term or assumed conditions. •Recommend developing implementation guidance for evaluating reasonable potential for nitrogen discharges, including assessments of dilution.

B. Effectiveness of POTW NPDES Permits with Food Processor Contributions

The general pretreatment regulations (40 CFR Part 403) establishes responsibilities of federal, state, and local government, industry, and the public to implement pretreatment standards to control pollutants from industrial users which may cause pass through or interfere with POTW treatment processes, or which may contaminate sewage sludge.

Background

Indirect discharges from food processors can be a significant contributor to noncompliance at recipient POTWs. Food processing discharges contribute to nutrient pollution (e.g., nitrogen, phosphorus, ammonia) to the nation's waterways. Focusing specifically on the Food Processing Industrial Sector will synchronize PQRs with the Office of Enforcement Compliance and Assurance (OECA)'s Significant Non-compliance (SNC)/National Compliance Initiative (NCI).

One of the goals of this PQR was to identify successful and unique practices with respect to the control of food processor discharges. This was done by evaluating whether appropriate controls were included in certain receiving POTW NPDES permits and documented in their fact sheets,

as well as by compiling information to develop or improve permit writers' tools to be used to improve both POTW and industrial user compliance.

During the PQR, EPA also assessed the status of the pretreatment program in the State of Maine as well as specific language in POTW NPDES permits. With respect to NPDES permits, focus was placed on the following regulatory requirements for pretreatment activities and pretreatment programs:

- 40 CFR 122.42(b) (POTW requirements to notify Director of new pollutants or change in discharge);
- 40 CFR 122.44(j) (Pretreatment programs for POTWs);
- 40 CFR 403.8 (Pretreatment Program Requirements: Development and Implementation by POTW), including the requirement to permit all significant industrial users (SIUs);
- 40 CFR 403.9 (POTW pretreatment programs and/or authorization to revise pretreatment standards: Submission for approval);
- 40 CFR 403.12(i) (Annual POTW reports); and
- 40 CFR 403.18 (Modification of POTW pretreatment programs).

In addition to its authorization for the NPDES program, the State of Maine is authorized to administer the National Pretreatment Program. There is a dedicated industrial pretreatment coordinator who carries out the responsibilities of the IPP as well as other NPDES tasks to include NPDES compliance, stormwater, and all per- and poly-fluoroalkyl substances (PFAS)-related activities.

The pretreatment universe in Maine includes 11 approved local industrial pretreatment programs, which regulate 110 SIUs and 45 categorical industrial users (CIUs).

Neither EPA nor Maine has the authority to issue permits to significant industrial users (SIUs) in non-approved programs. However, there are 13 SIUs in non-approved programs that report monitoring results to Maine at least twice per year. Many of the SIUs report as frequently as quarterly or even monthly upon notification by Maine that they must report.

Maine has a Performance Partnership Agreement (PPA) with EPA that requires Maine to perform two pretreatment audits and four pretreatment compliance inspections (PCIs) of the 11 approved pretreatment programs on an annual basis. In FY 2021, Maine completed three audits and one compliance inspection. In FY 2022, four audits and three PCIs were completed. The national goal of auditing 20% of the universe was accomplished by auditing 36% of the universe for FY2022 and 27% of the universe for FY2021. Maine also conducted two SIU inspections of facilities in non-approved pretreatment programs during FY2022. The industrial pretreatment coordinator is also the compliance coordinator in the NPDES program. Therefore, all compliance milestones and or NPDES deliverables are closely tracked and monitored.

ME DEP maintains a master template for the pretreatment section of permits, with language containing standard wording for all new and reissued MEPDES permits for POTWs with approved IPPs.

Four NPDES permits were evaluated for this review; two have approved industrial pretreatment programs while two do not. For each of the approved programs, one food processing SIU file was reviewed. Only one of the non-approved programs had a food processor. Therefore, a total of three SIU food processor files were reviewed.

York was the only non-approved pretreatment program with a food processor IU. Portland East End has 26 industrial users, broken down as follows: 9 BMP-only permittees and 17 SIUs (of which, 7 are CIUs). Portland Westbrook currently has 17 industrial users: 2 BMP-only permittees and 15 SIUs (of which, 4 are CIUs and 2 are zero-discharging CIUs that have BMP-only permits).

See the following table for more information related to the POTW NPDES permits:

Permittee	Permit No.	Approved Pretreatment Program?	Design Flow Average (MGD)	No. of SIUs	No. of Food Processors	Controls on Conventional Pollutants or Nutrients in SUO?
York Sewer District	ME0101222	No	7.5	1	1	BOD and TSS local limits and surcharge limits
City of Saco	ME0101117	No	4.2	1	0	BOD and TSS surcharge
Portland Water District - Westbrook	ME0100846	Yes	4.5	15	1	BOD and TSS limits
Portland Water District – East End	ME0102075	Yes	36.8	17	1	BOD and TSS limits

Three food processing industrial user permits were also reviewed as part of the PQR; they are identified in the table below.

Facility Name	Permit Number	Receiving POTW	Type of Food Processor	Classification by POTW	Average Process Wastewater Discharge (gallons per day [gpd])	Monitored Pollutants
Stonewall Kitchen	001	City of York	Food Processing	SIU	25,000	BOD, TSS, oil and grease (O&G),

						pH and temperature
Schlotterbeck and Foss	001	Portland - Westbrook	Fruits and vegetable processing	40 CFR 407 Subpart H	36,000	Flow, pH, BOD, TSS, O&G and caustic alkalinity
Tyson/Barber Foods	001	Portland – East End	Poultry processing	40 CFR 432 Subpart L	105,000	Flow, pH, BOD, TSS, O&G, non polar O&G and caustic alkalinity

EPA found that limitations on conventional pollutants were included in each of the Sewer Use Ordinance (SUO) or Rules and Regulations that were briefly reviewed for each POTW.

Portland East End

The Portland East End SUO contains a BOD limit of 3,000 mg/l and a TSS limit of 1,500 mg/l, both daily maximums, including the following language:

> Industrial users permitted in the Industrial Pretreatment Program and discharging effluent which exceeds a de minimis level of biochemical oxygen demand (BOD) and/or total suspended solids (TSS) are individually allocated a pounds per day limit for these parameters. The de minimis levels are 250 mg/L and/or 375 lbs/day for BOD and 300 mg/L and/or 425 lbs/day for TSS. The control authority reserves the right to issue permit limits to users based on their potential to discharge high-strength BOD/TSS waste. Industrial users permitted for BOD and TSS must report a certified discharge flow number with each monitoring event.

Portland East End also developed a Maximum Allowable Industrial Headworks Loading (MAIHL) for the following:

Portland BOD MAIHL: 30,374 lbs/day
Portland TSS MAIHL: 20,719 lbs/day

Portland Westbrook

BOD and TSS limits are technically based and the POTW uses the MAIHL as a starting point and then allocates that loading to IUs as needed based on the average result of their monitoring history with the following MAIHLs:

Westbrook BOD MAIHL: 2,180 lbs/day
Westbrook TSS MAIHL: 3,080 lbs/day

York Sewer District

The York Sewer District SUO contains 250 mg/l limits for both BOD and TSS and 100 mg/l for O&G. These limits are technically based values that were developed by a consultant.

Program Strengths

PCIs and Audits - MEPDES has consistently and diligently met its EPA PPA commitments for conducting PCIs and pretreatment audits. Maine has 11 approved IPPs and a quarterly PCI or audit has been conducted for each without exception over the past 15 years. For the 2021 fiscal year, four oversight events were performed (1 PCIs and 3 audits). For the 2022 fiscal year, seven oversight events were performed (3 PCIs and 4 audits). Therefore, 22% and 27% of the approved POTW program universe was audited for FY 2021 and FY2022, respectively. This far exceeds the compliance monitoring strategy inspection goal of 20% annual coverage.

Mercury Dental Amalgam Program – In 2003, Maine's statute 38 MRS Chapter 16-B, *Mercury-added Products and Services*, was modified. Subsection 1667.3 includes requirements for amalgam separator systems which stipulates that existing, applicable dental practices are required to have separators installed and operational no later than December 31, 2004. Maine was one of the first states in the country to mandate amalgam legislation. The earliest information from dental facilities regarding the use and maintenance of dental amalgam separator units was tracked by ME DEP.

NPDES permits for POTWs with approved programs have specific timeframes for reviewing and revising local limits following permit reissuance, in accordance with 40 CFR 122.44(j)(2)(ii).

The SIU permits that were issued by POTWs and reviewed by EPA contained adequate justification of pollutants to be monitored and adequate monitoring frequencies. The SIU permits reviewed included conventional monitoring and reporting requirements, in addition to numerical permit limits.

In addition, SIU fact sheets developed by the POTWs were found to be very informative.

Furthermore, SIU permit applications were completed by the SIUs and found to contain all required information in order to develop SIU permits.

Areas of Improvement

Although all the POTW NPDES permits reviewed require dischargers to meet the notification requirements of 40 CFR 122.42(b), none of the permits identify the timeframe for "adequate" notice under 40 CFR 122.42(b). While a timeframe for this notification is not required by federal regulations, a timeframe in the permit would improve POTW accountability and permit enforceability. It is recommended that permit writers include a timeframe for notification of any new introduction of pollutants and substantial changes in the volume or character of pollutants being introduced into that POTW.

"Significant industrial user" is not defined in the definitions sections of the Standard Conditions attached to all permits. It is recommended that permit writers include the definition of SIU in the definitions section.

The NPDES permit fact sheets for POTWs do not specify the basis for requiring the POTW to implement a pretreatment program. Inclusion of this information in the POTW NPDES permit fact sheets is important for documenting the rationale for the POTW's monitoring and sampling requirements. Fact sheets should specify the basis for requiring a pretreatment program (see 40 CFR 403.8(a)).

The fact sheets for the POTWs without approved programs do not discuss the rationale for not requiring a pretreatment program. Additionally, permit writers should ensure that POTWs without approved programs conduct a local limit technical evaluation if there are any instances of pass through and/or interference at the treatment plant or if local limits are referenced in the SUO where there is no technical basis for such limits.

Action Items

Essential	•The PQR did not identify any essential action items for this section.
Recommended	•Permit writers should include a timeframe for notification of any new introduction of pollutants and substantial changes in the volume or character of pollutants being introduced into that POTW (see 40 CFR 122.42(b)). •Permit writers should include the definition for SIU in the Definitions section of the permits. •Permit writers should specify the basis for requiring a pretreatment program (see 40 CFR 403.8) in the permit fact sheet. Conversely, the fact sheet should also explain the rationale for not requiring a pretreatment program, especially when SIUs are present in a nonapproved program. •Permit writers should specify the most recent modification dates of pretreatment programs, including evaluation and modification of local limits, in the permit fact sheet, when applicable. •Permit writers should revise the permit reopner clause for nonapproved POTWs to state that the permit could be reopened to require a pretreatment program, if deemed necessary. •Permit writers should ensure that POTWs without approved programs conduct a LL technical review to ensure that the LLs continue to be protective of the POTW.

C. Small Municipal Separate Storm Sewer System (MS4) Permit Requirements and Permitting Process

Background and Review Process

As part of this PQR, EPA reviewed ME DEP's General Permit for the Discharge of Stormwater from Small MS4s (MER041000), General Permit for the Discharge of Stormwater from Small State and Federally Owned MS4s (MER042000), and General Permit for the Discharge of Stormwater from MaineDOT and Maine Turnpike Authority (MTA) MS4s (MER043000) for

consistency with the Phase II stormwater permit regulations. EPA recently updated the small MS4 permitting regulations to clarify: (1) the procedures to be used when coverage is by general permits (see 40 CFR 122.28(d)); (2) the requirement that the permit establish the terms and conditions necessary to meet the "MS4 permit standard" (i.e., "to reduce the discharge of pollutants from the MS4 to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act"), including conditions to address the minimum control measures, reporting, and, as appropriate, water quality requirements (see 40 CFR 122.34(a) and (b)); and (3) the requirement that permit terms must be established in a "clear, specific, and measurable" manner (see 40 CFR 122.34(a)).

EPA also evaluated whether the process that ME DEP utilizes to review the two-step Phase II MS4 general permit issuance conforms to the steps required by the federal regulations found at 40 CFR 122.28(d)(2)(ii). EPA examined the steps that ME DEP followed in reviewing and commenting on the notice of intent (NOI), stormwater management plan (SWMP), and other supporting materials submitted by the City of Brewer (Permittee ID MER041008) in compliance with the General Permit for the Discharge of Stormwater from Small MS4s (MER041000). The evaluation included an analysis of available review documentation (e.g., emails and comment summaries) and the submitted SWMP to determine if any required general permit elements were omitted in the SWMP and/or if the elements were not adequately 'clear, specific and measurable,' if the state required the deficiency be addressed.

Description of General Permits

ME DEP's General Permit for the Discharge of Stormwater from Small MS4s is applicable to discharges from Phase II, traditional small MS4s (e.g., cities, townships, parishes, counties, boroughs) located within an urbanized area. ME DEP's General Permit for the Discharge of Stormwater from Small State and Federally Owned MS4s is applicable to discharges from small MS4s owned or operated by state or federal entities located within an urbanized area. ME DEP's General Permit for the Discharge of Stormwater from MaineDOT and MTA is applicable to discharges from both MaineDOT and MTA small MS4s.

The MS4 General Permit Remand Rule (referred to as the "Remand Rule") establishes two alternative approaches a permitting authority can use to issue NPDES general permits for small MS4s and meet the requirements of a remand from the United States Court of Appeals for the Ninth Circuit in Environmental Defense Center, et al. v. EPA, 344 F.3d 832 (9th Cir. 2003). The first option is to establish all necessary permit terms and conditions to require the MS4 operator to comply with the MS4 permit standard upfront, in one comprehensive permit. The second option allows the permitting authority to establish the necessary permit terms and conditions in two steps: a first step to issue a base general permit that contains terms and conditions applicable to all small MS4s covered by the permit and a second step to establish necessary permit terms and conditions for individual MS4s that are not in the base general permit. All three MS4 permits reviewed generally comply with the requirements of the Remand Rule specific to the two-step process, but not necessarily the format or structure of the template of the Remand Rule.

All entities covered by the two-step general permits are required to develop and implement a SWMP in order to obtain coverage to discharge under the applicable general permit. The SWMP, in combination with any permittee-specific order ultimately issued by ME DEP, must be consistent with the requirement to reduce pollutants under ME DEP's standards to protect water quality and to satisfy the appropriate water quality requirements of the CWA. The SWMP must describe how the permittee will implement the six minimum control measures (MCMs), for which requirements are outlined in section IV of the general permits. Further, the MaineDOT and MTA general permit recognizes mechanisms within the *Memorandum of Agreement for Stormwater Management Between MaineDOT, Maine Turnpike Authority, and MDEP* (MOA) for meeting the MCM4 (Construction Site Stormwater Runoff Control) and MCM5 (Post-Construction Stormwater Management in New Development and Redevelopment) requirements. Dischargers must submit an updated SWMP as an attachment to the NOI and publish a public notice that the NOI and a SWMP are being filed with ME DEP within the 30 calendar-day period prior to the NOI being sent to ME DEP.

The general permits provide for flexibility in allowing third parties, including those under another NPDES or MEPDES permit, to take on responsibility for one or more permit required SWMP elements. In these cases, the permittee is required to note the responsibility of the third party or reference the qualifying program in the SWMP and Annual Compliance Report. If the third party fails to implement the BMPs, the permittee remains responsible for its implementation. The general permits also require permittees to identify interconnections within the regulated small MS4 communities and find ways to cooperate with other regulated or non-regulated entities. Where a portion of the MS4 is owned, operated or otherwise the responsibility of another regulated small MS4, the two entities may coordinate the development and implementation of their respective SWMP to address all elements of the MCMs.

The general permits identify measurable outcomes or required performance requirements explicitly in some cases, but in others, quantifiable goals and metrics are to be defined in the SWMP. The general permits clearly state the specific program elements that need to be developed, and in some cases provide definitive implementation strategies and metrics. However, in some cases, the general permits allow the permittees to develop their own elements, procedures, and goals, which are defined in the SWMP and incorporated as part of the two-step permitting process.

The "Discharges to Impaired Waterbodies" section of the general permits requires permittees to propose clear, specific, and measurable actions within the SWMP to comply with applicable TMDL WLAs and any implementation plans. Furthermore, the general permits provide a clear approach and metrics for addressing discharges to urban impaired streams (UISs), which are defined as receiving waters that fail to meet WQS because of the effects of stormwater runoff from developed land (not necessarily subject to a TMDL), by requiring permittees to propose and fully implement at least three structural or non-structural BMPs to be considered for inclusion in the permittee specific order.

Program Strengths

In general, the general permits and fact sheets sufficiently describe the two-step process by outlining the expectations for the permittee to complete the NOI and develop a SWMP for public review and comment. The evaluation of ME DEP's process for reviewing the two-step Phase II MS4 general permit issuance confirmed that the agency takes the appropriate steps required by the federal regulations found at 40 CFR 122.28(d)(2)(ii). Furthermore, ME DEP provides sufficient review of the submitted SWMP, returns thorough comments, and requires submittal of an updated SWMP that conforms to ME DEP's recommendations to ensure that all general permit requirements are met. Upon ME DEP's determination that a SWMP is consistent with and fully articulates what is required to meet the MS4 permit standard, consistent with 40 CFR 122.28(d)(2)(iii), ME DEP notifies the permittee and informs the public of the decision to authorize the permittee to discharge under the applicable general permit through issuance of a permittee specific order. The permittee specific order incorporates the clear, specific, and measurable components of the SWMP as enforceable conditions and requires the permittee to fully implement the BMPs described in the SWMP.

As noted above, the MaineDOT and MTA general permit works well to recognize mechanisms within the MOA for meeting the MCM4 (Construction Site Stormwater Runoff Control) and MCM5 (Post-Construction Stormwater Management in New Development and Redevelopment) requirements.

In addition, section IV of the general permits clearly outlines the BMPs to be included in the SWMP for each MCM. Of note, MCM1 (Education/Outreach Program) of the small MS4 and state and federally owned MS4 general permits contain particularly innovative language that identifies social media as an outreach tool that can be used to deliver the awareness and outreach to change behavior campaigns.

Further, the permits appear to provide a flexible yet rigorous approach for addressing water quality concerns by allowing the permittees to propose clear, specific, and measurable actions within the SWMP to comply with applicable TMDL WLAs and any implementation plans. ME DEP then has the ability to validate that the actions listed in the SWMP are clear, specific, and measurable through the two-step review process described above. The "Discharges to Impaired Waterbodies" section also provides a clear approach and metrics for addressing discharges to UISs that may not be subject to an EPA-approved TMDL.

Areas for Improvement

1. The general permits do not include specific language to ensure that, in cases where third parties are taking on responsibility for one or more permit-required SWMP elements, the third party must in fact implement the required actions; the particular control measure must be at least as protective as the corresponding permit requirement and the third party agrees to carry out the required action on the permittee's behalf, consistent with 40 CFR 122.35(a)(1)-(3).

2. The general permit for state and federally owned MS4s does not explicitly state that the permit covers state or federally owned or operated small MS4s in section I.B (Permit

Coverage). Note that section I.A (Permit Coverage) of the 2013 general permit for state and federally owned MS4s specifies that the permit "authorizes the direct discharge of stormwater from a regulated small MS4 operated by a State or Federally Owned regulated small MS4 to a MS4 or waters of the State other than groundwater." Similar language was not transferred to the general permit issued in 2021.

3. All three general permits do not specify that the public notice reference that an NOI and SWMP are being filed with ME DEP, consistent with 40 CFR 124.10(d) requirements.

4. The general permits give permittees flexibility to submit the NOI and SWMP either electronically or in hardcopy via mail, which may not sufficiently address e-Reporting consistent with 40 CFR Part 127 and the Final MS4 General Permit Remand Rule. Permittees should be required to submit these materials electronically.

5. Section II.C of the fact sheets to the general permits state that ME DEP has determined that implementation of the conditions required by section IV of the general permits will meet the maximum extent practicable (MEP) standard of the CWA and will be protective of water quality. Similarly, the small MS4 and state and federally owned MS4 general permits include requirements to reduce stormwater pollution to the "maximum extent practicable" for MCM5 (Post-Construction Stormwater Management in New Development and Redevelopment) and MCM6 (Pollution Prevention/Good Housekeeping). The MaineDOT and MTA general permit also includes requirements referencing MEP in MCM6. EPA recommends removing the language referencing MEP from MCM5 and MCM6 of the small MS4 and state and federal owned MS4 general permits, and MCM6 of the MaineDOT and MTA general permit. As described in 40 CFR 122.34, it is the role of the permitting authority to articulate in the permit what requirements are necessary "to reduce the discharge of pollutants to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the CWA," which is referred to as "the MS4 permit standard."

6. Section II.C.2.e. of the fact sheet to the small MS4 general permit indicates that "Permittees must…conduct site inspections; and enforce local requirements within their jurisdictional powers," but these requirements are not described in the permit. Reinstating the inspection requirements for MCM5 outlined in the 2013 version of the small MS4 general permit would ensure adequate long-term operation and maintenance consistent with 40 CFR 122.34(b)(5)(i). If ME DEP intentionally removed the inspection requirements, no explanation was provided in the fact sheet as to why the requirements were removed.

7. MCM2 requirements in the 2022 version of the MaineDOT and MTA general permit remain unchanged from the 2013 version and once again the permittees are required to "develop a strategy for involvement, mutual cooperation, and coordination with the regulated small MS4 municipalities." In cases where a strategy has already been developed, a permit condition (e.g., one annual event per year as described in the state

and federally owned MS4 general permit) to ensure continued implementation may be more appropriate.

8. MCM4 of the MaineDOT and MTA general permit does not specifically require procedures for receipt and consideration of information submitted by the public (nor is this requirement mentioned in the MOA).

9. The small MS4 and state and federally owned MS4 general permits require permittees to include in their procedures for site plan review the ability for the public to comment on such reviews at publicly noticed meetings, and procedures to consider information submitted by the public. Section IV.E (Discharges to Impaired Waterbodies) of the general permits includes a link to EPA approved TMDLs; however, the information in the linked table does not specify WLAs that apply to specific dischargers covered under the permit, specific MS4s affected by the WLAs, or long-term compliance deadlines for achieving the WLAs. Based on the nature of the general permit and the two-step process, it may not be realistic to list this information for all current and future permittees covered under the general permits. However, the language in section IV.E should at least state that those elements should be captured in the SWMPs.

10. Attachment B to the general permits includes a list of UISs and the applicable townships; however, neither the general permits nor Attachment B identify the specific pollutants of concern, the applicable WQS (including any numeric criteria for the associated pollutants of concern), or the specific MS4s discharging to the impaired waters. If this information is available, it should be included as part of Attachment B.

Action Items

Essential	•ME DEP must ensure that the permits include requirements to address e-Reporting consistent with 40 CFR Part 127 and the Final MS4 General Permit Remand Rule. •ME DEP must describe the information that is to be included in the public notice that an NOI and SWMP are being filed with ME DEP, consistent with 40 CFR 124.10(d) requirements. •For the Small MS4 permit, ME DEP must reinstate the MCM 5 requirement to conduct site inspections and enforce local requirements within the permittee's jurisdictional powers to ensure adequate long-term operation and maintenance consistent with 40 CFR 122.34(b)(5)(i).
Recommended	•ME DEP should require permittees to identify applicable WLAs and long-term compliance deadlines for achieving the WLAs within the SWMP. •ME DEP should identify specific pollutants of concern, applicable WQS, and specific MS4s discharging to the impaired waters as part of Attachment B (UISs), as this information is available. •ME DEP should add language to section IV.D to state that entities sharing responsibility must implement the required actions; the particular control measure must be at least as protective as the corresponding permit requirement; and the other entity agrees to carry out the required action on the permittee's behalf, consistent with 40 CFR 122.35(a)(1)-(3). •For the State and Federally Owned MS4 permit, ME DEP should explicitly state that the permit covers state or federally owned or operated small MS4s in section I.B (Permit Coverage). •For the MaineDOT and MTA MS4 permit, ME DEP should add a measurable goal to MCM 2 requirements (e.g., one annual event per year as described in the state and federally owned MS4 general permit) to ensure implementation of existing strategies for involvement, mutual cooperation, and coordination with regulated small MS4 municipalities. •For the MaineDOT and MTA MS4 permit, ME DEP should require procedures for receipt and consideration of information submitted by the public as part of the MCM 4 requirements. •For the Small MS4 permit, ME DEP should remove the language referencing MEP from MCMs 5 and 6 requirements and section II.C of the fact sheet, consistent with "the MS4 permit standard."

V. REGIONAL TOPIC AREA FINDINGS

EPA Region 1 is highlighting significant findings from the previous PQRs: specifically, ME DEP's failure to reissue the 2006 Maine Construction General Permit (2006 MCGP) that expired on January 20, 2008, and Maine's failure to apply for authorization to permit cooling water intake structures under CWA section 3016(b). These two items were identified as early as the 2010 Maine PQR[8] and are highlighted here as priority action items that must be addressed as soon as possible.

Maine Construction General Permit

EPA reviewed the 2006 MCGP during the 2010 and 2016 PQRs. The MCGP has been expired for over a decade. The following technical issues have been identified with respect to the expired general permit:

- The Construction and Development Point Source Category Effluent Limitation Guidelines (C&D Rule) became effective on February 1, 2010. The expired permit does not clearly address the following elements of the C&D Rule:
    - 40 CFR 450.21(f) – Surface outlets – When discharges from basins and impoundments, utilize outlet structures that withdraw water from the surface, unless infeasible.
    - 40 CFR 450.21(d) – Pollution prevention measures – requirement for wash waters be treated in sediment basin or alternative control, minimize exposure of materials, and minimize the discharge of pollutants from spills and leaks and implementation of chemical spill and leak prevention and response procedures.
    - 40 CFR 450.21(e)(1-4) – Prohibitions of specific discharges such as, but not limited to, washout of concrete, washout and clean out of stucco, paint, release oils, curing compounds, other construction materials, fuels, and soaps or solvents.
    - 40 CFR 450.21(a) – The permit should include design, installation and maintenance requirements for BMPs.
- In addition to the technology standards, the permit should include anti-degradation provisions for discharges to Tier 2 or Tier 3 waters.

The technical deficiencies outlined above are only those identified in the previous PQRs. Given the expiration date of the permit, EPA finds it important to highlight that all new construction activity in Maine since the permit's expiration in 2008 has not been covered by a Clean Water Act NPDES permit. Therefore, reissuance of this permit is extremely important.

ME DEP has highlighted that while the MCGP has not been updated since 2006, the State Stormwater Management Law has been. While EPA recognizes that State Stormwater Management Law does cover similar program elements as the NPDES stormwater program, it is

[8] https://www.epa.gov/sites/default/files/2015-09/documents/pqr_region_1_report.pdf

not a replacement for NPDES permit coverage. Both state regulations and federal regulations must be adhered to.

Permitting of Cooling Water Intake Structures (CWIS) under CWA 316(b)

ME DEP received partial authorization to administer the NPDES program on January 12, 2001. Authorization for CWA 316(b) permitting was not part of that delegation, as described in the Memorandum of Agreement (MOA):

> The initial authorization does not include the program element regulating the location, design, construction and capacity of cooling water intake structure established by CWA 316(b). The DEPARTMENT shall seek legislation no later than the 2001 legislative session to obtain clear authority to regulate such structures, including existing structures not being constructed, altered or repaired, in accordance with the standards specified in CWA 316(b). Upon obtaining such legislation, the DEPARTMENT shall promptly apply to operate this element of the program. Until such time as legislation is enacted, and the EPA approves the DEPARTMENT to operate this element of the program, sources in Maine with cooling water intake structures subject to CWA 316(b) will continue to be regulated by EPA. They will need to obtain a NPDES permit from the EPA regarding the intake structures in addition to obtaining a NPDES permit from the DEPARTMENT covering their discharges (including those regulated pursuant to CWA 316(a)). *2001 MOA (p. 2).*

DEP has not yet passed legislation to regulate CWIS, nor has it applied to EPA to obtain authorization for this program element. Facilities with CWIS are currently inefficiently covered with two partial NPDES permits being required, one from DEP and one from EPA. CWA 316(b) permitting has significant environmental implications and failure to obtain authorization could lead to significant permitting delays.

Action Items

Essential	• ME DEP must reissue the CGP, which expired January 20, 2008. • ME DEP must obtain authorization to regulate cooling water intake structures under CWA 316(b), in accordance with the 2001 MOA between EPA and Maine.
Recommended	• The PQR did not identify any recommended action items for this section.

VI. REVIEW OF PROGRESS ON ESSENTIAL ACTION ITEMS FROM LAST PQR

This section provides a summary of the main findings from the last PQR and provides a review of the status of the State's efforts in addressing the action items identified during the last PQR, conducted June 2016. As discussed previously, during the 2012-2017 PQR cycle, EPA referred to action items that address deficiencies or noncompliance with respect to federal regulations as "Category 1". EPA is now referring to these action items as "Essential."

Table 1. Essential Action Items Identified During 2016 PQR

Program Area	Action Item Title	Status Update
Stormwater	*Reissue the CGP, which expired January 20, 2008.*	**(** Not started **)** This continues to be an action item that EPA plans to work with the State to resolve.
	Eliminate vague phrases such as 'recommended', 'may wish', 'suggested', 'could', and 'should in stormwater permits.	**(** Resolved **)**
	Reissued permit must be consistent with revised stormwater regulations at 40 CFR §§ 122.33, 122.34 and 122.35.	**(** Resolved **)**
	Clarification regarding a permittee's ability to rely on the state's CGP or the Chapter 500 laws for meeting the requirements of 40 CFR 122.34(b)(4) must be included in the reissued permits. DEP must document how these referenced programs adequately comply with the requirements of 40 CFR 122.34(b)(4).	**(** In progress **)** Part of an ongoing review of the State's program.
	All permit terms in the reissued permits must be expressed in clear, specific, and measurable terms.	**(** In progress **)** This item is partially met, but the new MS4 is missing this in parts. EPA will continue to work with the State to resolve this item.
	In the absence of including benchmark monitoring for several sectors, permits must include adequate and objective means to assess the adequacy of a facility's stormwater pollution prevention plan.	**(** Resolved **)**
	All of the requirements of the Construction and Development (C&D) rule, which became effective on February 1, 2010, must be included in the reissued permit.	**(** In progress **)** Part of an ongoing review of the State's program.

Program Area	Action Item Title	Status Update
CWA 316(b)	*Obtain authorization to regulate cooling water intake structures under CWA § 316(b),* in *accordance with the 2000 MOA between EPA and Maine.*	**(** Not started **)** This action item has been identified again in the 2022 PQR.
Basic Facility Information and Permit Application	*All permits must identify the physical location (i.e., latitude and longitude) of every permitted outfall.*	**(** Not started **)** This action item has been identified again in the 2022 PQR.
	State permit application forms must contain data collection requirements as stringent as federal application forms including required effluent testing results, latitude and longitude.	**(** Not started **)** This action item has been identified again in the 2022 PQR.
	All administrative records must contain documentation of waivers of the requirements in EPA application Form 2A due to having access to previously submitted information, which is substantially identical to the information required by Form 2A.	**(** Not started **)** This action item has been identified again in the 2022 PQR.
Documentation	*Fact sheets must provide justification of anti-backsliding when effluent limitations are less stringent than those in the previous permit, or not carried forward from the previous permit, including a discussion of consistency with applicable anti-backsliding exceptions.*	**(** Not started **)** This action item has been identified again in the 2022 PQR.
	Fact Sheets should include justification for the selection of a technology-based permit limit over a water quality-based limit, when the TBEL is more stringent.	**(** In progress **)** Part of an ongoing review of the State's program.
	Fact sheets should discuss antidegradation when new or increased discharges are permitted. Discussion should address applicability of antidegradation and describe how antidegradation requirements have been met.	**(** Resolved **)**
Nutrients	*Fact Sheets should include up to date reasonable potential analyses conducted using current receiving water and effluent data and, where appropriate, limitations and/or monitoring requirements should be included in permits when the currently available information indicates such*	**(** In progress **)** This action item has been identified again in the 2022 PQR.

Program Area	Action Item Title	Status Update
	requirements are necessary to prevent water quality impairments and/or to restore water quality.	
Bacteria	*Permits should include limits for all bacterial indicator organisms for which criteria have been established for the protection of all designated uses assigned to the class of the receiving water into which the discharge(s) occur.*	**(** Resolved **)**
	Limits should more closely reflect the WQS for recreational and shellfishing designed uses.	**(** Resolved **)**
WET	*Permits should specify the use of only EPA-promulgated WET test species (40 CFR Part 136). The state should seek EPA R1's approval to use an alternate test species when a determination has been made that use of test species with a higher degree of sensitivity is appropriate. Documentation of EPA's approval of the use of an alternate test species should be included in the permit's fact sheet and administrative record. Any references to the use of an alternative test species or other deviations from EPA's WET test methods sampling protocols without having received approval by EPA should not be included in permits.*	**(** Not started **) Brook Trout are still used**
	All relevant (and in some cases more) documentation should be included in fact sheets or administrative records in order to substantiate permit decisions such as monitoring frequency reductions, reasonable potential determinations, and choice of statistical analyses selected.	**(** In progress **)**

VII. RECOMMENDED ACTION ITEMS FROM LAST PQR

This section provides a summary of the recommendations from the last PQR, conducted in June 2016, and notes any State efforts to act on those recommendations. As discussed previously, during the 2012-2017 PQR cycle, EPA referred to action items that are

recommendations to strengthen the state's program as either "Category 2" or "Category 3" action items. EPA is consolidating these two categories of action items into a single category: Recommended.

Table 2. Recommended Action Items Identified During 2016 PQR

Program Area	Action Item Title	Status*
TBELs	*For non-POTW permits, ensure that fact sheets adequately identify which subcategories and standards apply for facilities subject to ELGs and indicate the basis for categorization.*	**(** Not pursuing **)**
WQBELs	*Ensure that reasonable potential analyses are conducted for the purpose of determining whether a water quality-based effluent is needed, not for evaluating whether an existing water quality based effluent limitation remains protective of WQS.*	**(** Not pursuing **)**
Monitoring and Reporting	*Monitoring/sampling locations should be specified in permits to ensure samples are representative and that monitoring results can be used to assess compliance.*	**(** Resolved **)**
	Ensure that all permits require use of sufficiently sensitive 40 CFR Part 136 method capable of quantifying pollutants at concentrations equal to or less than the limits. Existing permit language does not reflect EPA's Sufficiently Sensitive Methods rule.	**(** Resolved **)**
	Recommend more explicitly requiring monitoring of influent for BOD and TSS.	**(** Not pursuing **)**
Standard and Special Conditions	*Ensure that standard conditions clearly identify applicable civil and criminal penalties.*	**(** In progress **)**
	Update relevant standard conditions consistent with the schedule specified in 40 CFR 123.62(e) to be consistent with EPA Electronic Reporting Rule.	**(** In progress **)**
Administrative Process	*Over the next several years, EPA will work with Maine on revising certain parts of Maine's state permitting regulations. This will provide the opportunity to ensure that Maine's regulations provide for adequate public notice of DEP's draft major permits as required by 40 CFR 124.10(a).*	**(** In progress **)**
	Maintain the public notice for each MEPDES permit in the respective permit file to document compliance with public participation requirements.	**(** Not pursuing **)**
	Maintain comments received on each draft permit in respective the permit file or indicate where such comments are maintained.	**(** In progress **)**
Documentation	*Ensure that correct, completed permit application forms are maintained in permit files.*	**(** Not pursuing **)**
	Ensure that the derivation of all TBELs is discussed in the pertinent fact sheet.	**(** Not pursuing **)**

	Include in the permit fact sheet or file a summary of data evaluated in the reasonable potential analysis and discuss results of the reasonable potential analysis (DETOX report summary).	**(** Not pursuing **)**
	When applicable, include or reference in the permit file documentation any mixing zone analysis.	**(** Not pursuing **)**
	Where an ELG is applicable, fact sheets should provide a quantitative comparison of the technology-based limit derived from the ELG to the corresponding water-quality based limit, rather than merely a conclusory statement on the relative stringency.	**(** Not pursuing **)**
	Recommend describing the receiving water designated use in the fact sheet rather than relying on classification codes.	**(** Not pursuing **)**
	Recommend that all fact sheets indicate who commented on the relevant draft permit, even if comments are not deemed significant.	**(** In progress **)**
	Ensure that documentation of improvements in water quality is not a sufficient reason for invoking the anti-backsliding exception of "new information." Improvements in water quality, with the reasons indicating no reasonable potential, should not be reason for removing an existing limit. Water quality improvements are expected by permit limits and will not be sustained if permit limits are then relaxed.	**(** Not pursuing **)**
	Recommend that standard language regarding anti-degradation requirements be added to fact sheets.	**(** In progress **)**
	Recommend including in fact sheets a discussion of how WQS will be met when a limit based on an ELG is selected for inclusion in a permit over a WQBEL that would be more stringent.	**(** In progress **)**
Nutrients	*Existing permit limits based on waste load allocations developed years earlier should be re-evaluated to determine whether such limits remain sufficient for ensuring adequate protection of the quality of the receiving water.*	**(** In progress **)**
	Appropriate instream Gold Book target values should be applied to reasonable potential analyses and limit calculations for total phosphorus, or another sound technical basis, should be used and documented for translating narrative nutrient criteria for reasonable potential analyses and limit calculations.	**(** In progress **)**
	ME DEP should ensure the ambient water quality and effect data is collected during the next permit term to enable a more robust reasonable potential determination in the next permit cycle.	**(** Not pursuing **)**

	Monitoring requirements for total phosphorus should be included in permits in order to establish a robust data set for assessing treatment efficiency and for characterizing the effluent.	**(** In progress **)**
Stormwater	*The reissued permit should be more prescriptive regarding illicit discharge detection and elimination including schedules and milestones.*	**(** In progress **)**
	Post construction performance standard should be included in the reissued permit. Refer to EPA's Compendium of Permitting Approaches (EPA 830-S-16-002, Nov 2016) for examples.	**(** In progress **)**
	Include specific provisions for discharges to impaired waters and waters with approved TMDLs.	**(** In progress **)**
Mixing Zones	*All data, models and calculations used to derive mixing zones should be provided in Fact Sheets along with an explanation of whether the mixing zone is reasonable and protective of designated uses and are otherwise consistent with state statute (Title 38 § 451) and Department regulations (Chapter 530).*	**(** In progress **)**
Bacteria	*Fact Sheets should clearly articulate how limits are consistent with, and will ensure attainment of, applicable criteria.*	**(** In progress **)**
	Fact Sheets and/or administrative records should include an explanation of how reduced monitoring frequencies are sufficient for ensuring adequate protection of WQS.	**(** In progress **)**
WET/Toxics	*Recommend revising the regulatory language pertaining to reasonable potential that is set forth in state law (38 MRS Section 414-A, Section 420 and* 06-096 *CMR 530(2)) to include "reasonable potential to cause" in addition to "cause or contribute" so that it is consistent with EPA's regulations at 40 CFR Part 122.44(d)(1).*	**(** Not pursuing **)**
	Recommend revising the language in future permits pertaining to reasonable potential to include "reasonable potential to cause" in addition to "cause and contribute" so that it is consistent with EPA's regulations at 40 CFR Part 122.44(d)(1).	**(** Not pursuing **)**
	Recommend including in fact sheets the basis for how minimal monitoring frequencies, especially where surveillance monitoring is waived, will yield representative data that will allow for an adequate evaluation of the toxic effects of the discharge.	**(** Not pursuing **)**

**EPA's request to ME DEP on a status update for these action items was not responded to. The statuses provided are EPA's best approximation and may be out of date or incorrect.*

VIII. ACTION ITEMS FROM FY 2018–2022 PQR CYCLE

This section provides a summary of the main findings of the PQR and provides action items to improve Maine's NPDES permit programs, as discussed throughout sections III, IV, and V of this report.

The action items are divided into two categories to identify the priority that should be placed on each Item and facilitate discussions between regions and states.

- **Essential Actions -** "Essential" action items address noncompliance with respect to a federal regulation. The permitting authority is expected to address these action items in order to come into compliance with federal regulations. As discussed earlier in the report, prior PQR reports identified these action items as Category 1. Essential Actions are listed in Table 3 below.
- **Recommended Actions -** "Recommended" action items are recommendations to increase the effectiveness of the state's or Region's NPDES permit program. Prior reports identified these action items as Category 2 and 3. Recommended Actions are listed in Table 4 below.

The following tables summarize only those action items that were identified in sections III, IV, and V of the report.

Table 3. Essential Action Items from FY 2018-2022 PQR Cycle

Topic	Action(s)
Permit Application Requirements	• Ensure the application form for POTWs requires data and information consistent with 40 CFR 122.21(j). • Ensure that records contain documentation of waivers from application information requirements, as detailed in 40 CFR 122.21(j), where ME DEP determines they have access to substantially identical information. • Ensure that applications for industrial facilities discharging only non-process wastewater require data and information consistent with 40 CFR 122.21(h).
TBELs for Non-POTW Dischargers	• Ensure fact sheets or the administrative record discuss the evaluation of criteria contained in 40 CFR 125.3(d) for establishing TBELs based on Best Professional Judgment. • TBELs shall be based upon a reasonable measure of actual production at the facility and not designed production capacity, in accordance with 40 CFR 122.45(b)(2)(i). • TBELs shall be carried forward in renewed permits unless material or substantial changes have taken place in accordance with 40 CFR 122.44(l)(1).
Reasonable Potential Analysis	• Procedures to assess reasonable potential in accordance with 40 CFR 122.44(d)(1)(i) and (ii) shall account for ambient receiving water conditions whenever possible.
WQBELs	• Procedures for setting WQBELs shall be consistent with the goal of eliminating pollution into waters of the U.S., as described in ME WQS - 38 MRS 464(1)(a), CWA 101(a), and CWA 301(b)(1)(C). • Mass-based WQBELs should be set to ensure discharges will not cause or contribute to violations of WQS in accordance with Maine's Surface Waters Toxic Control Program. See 06-096 CMR Chapter 530 (i.e., they shall be set using actual facility flow or, if using design flow, shall be complemented with concentration-based limitations).
Final Effluent Limitations and Documentation	• Conduct and document anti-backsliding evaluations when reissued permits contain effluent limitations less stringent than those in the previous permit, per 40 CFR 122.44(l) and 40 CFR 124.56. • Conduct and document antidegradation evaluations when reissued permits allow for an increased pollutant loading, per 40 CFR 131.12 and 40 CFR 124.56.

	• Effluent limitations shall unless impracticable be stated as maximum daily and average monthly discharge limitations for non-POTWs and average weekly and average monthly discharge limitations for POTWs in accordance with 40 CFR 122.45(d).
Monitoring and Reporting Requirements	• Ensure permits and fact sheets identify the specific sampling location for all monitoring to ensure the monitoring location is representative of the activity and discharge, consistent with 40 CFR 122.41(j). • Establish explicit influent monitoring requirements to ensure compliance with permit limitations for the minimum percent removal requirements for BOD and TSS, consistent with 40 CFR 122.44(i)(1). • Ensure permits include appropriate language for requiring the use of sufficiently sensitive, EPA-approved analytical methods, consistent with 40 CFR 122.44(i)(1)(iv).
Standard and Special Conditions	Review the current version of MEPDES standard conditions (dated July 1, 2002) and ensure consistency with current federal standard conditions at 40 CFR 122.41.
Administrative Process	Ensure that the public has adequate opportunity to review and comment on draft permits, consistent with 40 CFR 124.10(a) and (c).
Administrative Record and Fact Sheet	Ensure the permit record includes documents and information cited in the fact sheet, including the information used to derive final effluent limitations, as outlined in 40 CFR 124.8, 124.9 and 124.56. Examples of required information not currently provided for EPA's review are: • DeTox reports for a given permitting action • Effluent monitoring data considered in DeTox modeling • Justification for backsliding of effluent limitations • Antidegradation analysis for any new or increased discharges, including increases or removals of effluent limitations • Dilution factor modeling reports
Nutrients	Ensure that WQBELs are developed for nutrient parameters that demonstrate reasonable potential, consistent with 40 CFR 122.44(d)(1)(i).
Municipal Separate Storm Sewer Systems (MS4s)	• ME DEP must ensure that permits include requirements to address e-Reporting consistent with 40 CFR Part 127 and the Final MS4 General Permit Remand Rule. • ME DEP must describe the information that is to be included in the public notice that an NOI and SWMP are being filed with ME DEP, consistent with 40 CFR 124.10(d) requirements.

	• For the Small MS4 permit, ME DEP must reinstate the MCM 5 requirement to conduct site inspections and enforce local requirements within the permittee's jurisdictional powers to ensure adequate long-term operation and maintenance consistent with 40 CFR 122.34(b)(5)(i).
Construction General Permit	• ME DEP must reissue the CGP, which expired January 20, 2008. • ME DEP must obtain authorization to regulate cooling water intake structures under CWA § 316(b), in accordance with the 2001 MOA between EPA and Maine.

Table 4. Recommended Action Items from FY 2018-2022 PQR Cycle

Topic	Action(s)
Permit Application Requirements	• Recommend Requesting updated facility information when ownership and operations change at industrial facilities. • Recommend requiring applications be submitted prior to the expiration date of the permit to ensure sufficient time for review of application completeness.
Facility Information	ME DEP should consider including clear identification of the physical location of outfalls in permits.
TBELs for POTWs	For POTW permits, ensure fact sheets consistently indicate whether the facility receives industrial discharges.
TBELs for Non-POTW Dischargers	Ensure fact sheets adequately identify which subcategories and standards apply for facilities subject to ELGs and indicate the basis for categorization.
Reasonable Potential	• Identify clearly in the fact sheet the designated uses of the receiving water body(ies). • Ensure that reasonable potential analyses are conducted for the purpose of determining whether a WQBEL is needed (as required under 40 CFR Part 122.44(d)(1)), not for evaluating whether an existing WQBEL remains protective of WQS.
WQBELs Development	• Review and evaluate current assumptions for determining reasonable potential and developing WQBELs to assess whether assumptions are conservative and protective of water quality (as required under CWA 301(b)(1)(C) and 40 CFR Part 122.44(d)(1)). • Consider developing mass-based effluent limitations using actual facility flow values rather than design or maximum flow values.
Final Effluent Limitations and Documentation	Ensure the record documents the permit writer's determination of the applicability of ELGs and specifically, subcategories and performance standards (e.g., BPT, BCT, BAT, NSPS).
Monitoring and Reporting Requirements	Ensure that permits clearly state and explain monitoring frequencies for all parameters required to be monitored for and that the monitoring done will yield data that is representative of the permitted discharge (40 CFR 122.48(b)).
Administrative Process	Recommend that comments are reproduced in full but, at a minimum, comments should be maintained in the administrative record.
Administrative Record and Fact Sheet	• Document the permit application review process clearly and retain documentation in the administrative record. • Document the basis for which level of ELG performance standards are implemented in permits (e.g., BPT, BAT, BCT, or NSPS)

	• Maintain clear documentation of changes made between draft and final permits.
Nutrients	• Recommend requiring permittees to collect ambient data where reasonable potential results are based on data older than the permit term or assumed conditions. • Recommend developing implementation guidance for evaluating reasonable potential for nitrogen discharges, including assessments of dilution.
Pretreatment: Food Processing Sector	• Permit writers should include a timeframe for notification of any new introduction of pollutants and substantial changes in the volume or character of pollutants being introduced into that POTW (see 40 CFR 122.42(b)). • Permit writers should include the definition for SIU in the Definitions section of the permits. • Permit writers should specify the basis for requiring a pretreatment program (see 40 CFR 403.8) in the permit fact sheet. Conversely, the fact sheet should also explain the rationale for not requiring a pretreatment program, especially when SIUs are present in a nonapproved program. • Permit writers should specify the most recent modification dates of pretreatment programs, including evaluation and modification of local limits, in the permit fact sheet, when applicable. • Permit writers should revise the permit reopener clause for nonapproved POTWs to state that the permit could be reopened to require a pretreatment program, if deemed necessary. • Permit writers should ensure that POTWs without approved programs conduct a LL technical review to ensure that the LLs continue to be protective of the POTW.
Municipal Separate Storm Sewer Systems (MS4s)	• ME DEP should require permittees to identify applicable WLAs and long-term compliance deadlines for achieving the WLAs within the SWMP. • ME DEP should identify specific pollutants of concern, applicable WQS, and specific MS4s discharging to the impaired waters as part of Attachment B (UISs), as this information is available. • ME DEP should add language to section IV.D to state that entities sharing responsibility must implement the required actions; the particular control measure must be at least as protective as the corresponding permit requirement; and the other entity agrees to carry out the required action on the permittee's behalf, consistent with 40 CFR 122.35(a)(1)-(3).

	• For the State and Federally Owned MS4 permit, ME DEP should explicitly state that the permit covers state or federally owned or operated small MS4s in section I.B (Permit Coverage). • For the MaineDOT and MTA MS4 permit, ME DEP should add a measurable goal to MCM 2 requirements (e.g., one annual event per year as described in the state and federally owned MS4 general permit) to ensure implementation of existing strategies for involvement, mutual cooperation, and coordination with regulated small MS4 municipalities. • For the MaineDOT and MTA MS4 permit, ME DEP should require procedures for receipt and consideration of information submitted by the public as part of the MCM 4 requirements • For the Small MS4 permit, ME DEP should remove the language referencing MEP from MCMs 5 and 6 requirements and section II.C of the fact sheet, consistent with "the MS4 permit standard."

Appendix A.

Transmittal Letter for Draft PQR Report to ME DEP

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912

December 1, 2022

Melanie Loyzim, Commissioner
State of Maine – Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

Re: Maine 2022 National Pollutant Discharge Elimination System (NPDES) Permit Quality Review (PQR) Draft Report

Dear Commissioner Loyzim:

The United States Environmental Protection Agency, Region 1 (EPA) is in the process of completing the 2022 Permit Quality Review of Maine's National Pollutant Discharge Elimination System (NPDES) program. Attached is EPA's Draft Report that details the findings from interviews with Maine Department of Environmental Protection (DEP) staff and from reviews of DEP-issued permits.

The findings in the Draft Report reveal substantial deficiencies in Maine's NPDES program. EPA has identified 22 Essential Action Items, meaning program elements that are in noncompliance with respect to federal regulations. See Section VIII of the Draft Report. In addition, EPA has proposed 30 Recommended Action Items, meaning improvements that would increase the effectiveness of Maine's permit program. These 52 items are in addition to those action items from previous PQRs that have not yet been closed out. See Section VII of the Draft Report.

While EPA expects DEP to make progress on remedying all the Essential Action Items, the following have been identified as needing immediate attention.

1. **Construction General Permit (CGP)**. The CGP has now been expired since January 2008. This is an essential stormwater permit covering a large universe of permittees and all new construction discharges since permit expiration have been discharging without a Clean Water Act NPDES permit.

2. **Cooling Water Intake Structure (CWIS) Permit Delegation**. Clean Water Act (CWA) 316(b) regulates the impacts of CWIS. DEP's NPDES delegation in 2001 did not include authorization to regulate CWIS under CWA 316(b) and DEP has not sought to obtain authorization as it agreed to in its 2001 Memorandum of Agreement (MOA) with EPA for program delegation. DEP must apply for delegation of CWA 316(b) and fulfill its obligations under the MOA.

3. **Water Quality-Based Effluent Limits (WQBELs)**. The PQR identified multiple related issues with how DEP determines the need for and sets WQBELs. Among these are issues with reasonable potential analysis procedures, dilution factor determinations for coastal dischargers, commonplace backsliding of permit limitations, and general lack of documentation tracking important permit decisions. For discharge permits to be consistent with the CWA and avoid causing or contributing to violations of Water Quality Standards, DEP permitting procedures must be updated to address this topic.

Given the substantial number of Essential Action Items, EPA is requesting that DEP first review the Draft Report and identify any factual inaccuracies or substantive disagreements. Next, DEP should develop and submit to EPA a plan to remedy the 3 priority items identified above including a schedule for passing any necessary state legislation and conducting any follow up meetings with EPA staff. Both comments on the Draft Report and the Action Item Plan should be provided to the staff contact below within 30 days of receipt of this letter. Last, DEP should schedule regular bi-monthly (every two month) check-ins between DEP and EPA permitting staff to track progress on addressing essential action items with the first check-in scheduled for January.

Please reach out to Lynne Jennings of my staff to coordinate follow up meetings and to address any questions you have on the Draft Report at (617) 918-1210 or Jennings.Lynne@epa.gov.

Sincerely,

David W. Cash
U.S. EPA
New England Regional Administrator

Attachments: Draft PQR Report

cc: Brian Kavanah (DEP); Marybeth Richardson (DEP); Gregg Wood (DEP); Mark Stebbins (DEP); Mark Margerum (DEP); Matt Hight (DEP); Kerem Gungor (DEP); Ken Moraff (EPA); Thelma Murphy (EPA); Lynne Jennings (EPA); Ellen Weitzler (EPA); Damien Houlihan (EPA); Samir Bukhari (EPA); Michael Curley (EPA); Nathan Chien (EPA)

Appendix B.

EPA Follow-up on MS4 Action Items

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
5 Post Office Square – Suite 100
BOSTON, MA 02109-3912

VIA EMAIL

Dated by Signature

Gregg Wood
MS4 Program Manager
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

RE: MEDEP Permit Quality Review Follow-up

Dear Mr. Wood:

On December 1, 2022, the United States Environmental Protection Agency, Region 1 (EPA) transmitted the 2022 Permit Quality Review Draft Report to Maine Department of Environmental Protection (MEDEP). The transmittal included a request to review the Draft Report within 30 days, provide comments and submit a plan to address major action items. EPA received a letter from DEP on December 28, 2022, requesting an extension of the 30-day review window. As detailed in Ken Moraff's email response on December 29, 2022, as well as in this letter, EPA has granted an extension of this request with a new deadline of the close of business on February 3, 2023. EPA has also extended the date range for the first bi-monthly check-in to February from January. In addition, this letter also modifies the PQR findings and action items based on recent information received from MEDEP as further discussed below.

The Draft Report included an action item carried forward from the 2016 PQR for Stormwater Permits stating that "all permit terms in reissued permits must be expressed in clear, specific, and measurable terms". The 2022 PQR noted the status of this action item as "(In progress) This item is partially met, but the new MS4 is missing this in parts. EPA will continue to work with the State to resolve this item" (See Part VI of the PQR dated July 2022). However, recent actions taken by MEDEP have raised serious concerns for EPA on how the state is addressing this action item, and EPA has concluded that immediate action is needed to correct the issues recently created.

As noted previously by EPA, MEDEPs General Permit for the Discharge of Stormwater from Small MS4s (MS4 General Permit) did not contain the requirements for Minimum Control Measure (MCM) 5: Post Construction Stormwater Management. The Final permit modification for the MS4 General Permit, issued November 23, 2021, states the following for MCM 5:

> *"On or before September 1, 2022, each permittee must develop a Model LID Ordinance for stormwater management on new and redevelopment sites which establishes performance standards for each of the LID Measures contained in Table 1 of Appendix F. The Model LID ordinance should, at a minimum, refer to Appendix F for guidance.*
>
> *The Model LID Ordinance shall be submitted to the Maine DEP for review by September 1, 2022. DEP will post the model ordinance for public comment and approve it, with or without modifications, on or before November 1, 2022.*
>
> *On or before July 1, 2024, each permittee shall adopt an ordinance or regulatory mechanism that is at least as stringent as the required elements of the Model LID Ordinance or incorporate all of its required elements into the permittee's code of ordinances or other enforceable regulatory mechanism."*

The model LID ordinances and MEDEP's approval of the Model LID ordinances were not available to EPA for review prior to the drafting of the PQR Report. However, since that time, MEDEP has approved model LID ordinances for each MS4 under the MS4 General Permit. Upon EPA review of the approved model LID ordinances and MEDEP's response to the public comments received during the comment period for each model LID ordinance, EPA finds that the approved ordinances do not meet the regulatory requirements found at 40 CFR 122.34, or the terms of the MS4 General Permit. Specifically, MEDEP approved model LID ordinances that did not establish performance standards for LID measures contained in Table 1 of Appendix F of the MS4 General Permit. Consequently, MEDEP's approval results in permit requirements that are not in compliance with the MS4 General Permit and do not adhere to the regulations found at 40 CFR 122.34, requiring each MCM condition to contain clear, specific, and measurable terms.

MEDEPs December 16, 2022 response to comments to the Friends of Casco Bay on the draft LID ordinances acknowledges the issue and states:

> *"A number of those communities did not establish clear, specific and measurable performance standards in their proposals knowing that the Department is preparing to begin the stakeholder process to make revisions to Department rule Chapter 500, Stormwater Management. Establishing clear, specific and measurable LID measures and techniques will likely be established in the revised rule*
>
> *. . .*
>
> *The Department has no objection to the proposed ordinances as written to date but has advised the MS4 communities to participate in the Chapter 500 rulemaking and incorporate clear, specific and measurable techniques that are established in the final rule into their final LID Ordinances."*

However, the December 14, 2022 approval letters from MEDEP to each of the communities provide vague direction on this matter indicating the communities have an option to include clear, specific and measurable LID measures and techniques by stating:

> *"The final rule is likely to contain clear, specific and measurable LID measures and techniques that the City may want to incorporate into the final LID Ordinance to clarify expectations and the enforceability of the ordinance."*

By stating "that the City may want to…", Maine's approval letters provide the community a choice in whether to incorporate clear, specific and measurable LID measures and techniques. In summary, MEDEP's recent authorizations to MS4 permit holders under the MS4 General Permit have created permit requirements that do not adhere to the regulations found at 40 CFR 122.34. EPA considers this matter serious and requests that MEDEP provide a plan to EPA to rectify this issue as part of its response to the PQR.

Given the significance of the issue, EPA requires that MEDEP propose one of the following actions:

1. MEDEP can revoke approval of the model LID ordinances submitted by those permit holders that did not contain clear, specific and measurable terms for each LID measure found in Table 1 of Appendix F of the MS4 General Permit and issue new approval letters that contain performance standards for each LID measure found in Table 1 of Appendix F of the MS4 General Permit that those permit holders must adopt in their LID ordinance as required by the MS4 General Permit
2. Modify the MS4 General Permit to contain performance standards for each LID measure found in Table 1 of Appendix F of the MS4 General Permit that all permit holders must adopt in their LID ordinance

If you have any questions regarding this latest issue, please feel free to reach out to Newton Tedder of my staff at tedder.newton@epa.gov

Sincerely,

LYNNE JENNINGS Digitally signed by LYNNE JENNINGS
Date: 2023.01.12 16:37:10 -05'00'

Lynne Jennings, Chief
Water Permits Branch

cc: Melanie Loyzim (DEP); Brian Kavanah (DEP); Marybeth Richardson (DEP); Gregg Wood (DEP); Mark Stebbins (DEP); Mark Margerum (DEP); Matt Hight (DEP); Kerem Gungor (DEP); David Cash (EPA) Ken Moraff (EPA); Thelma Murphy (EPA); Ellen Weitzler (EPA); Damien Houlihan (EPA); Samir Bukhari (EPA); Michael Curley (EPA); Nathan Chien (EPA)

Appendix C.

ME DEP Response to Draft PQR Report

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNOR

MELANIE LOYZIM
COMMISSIONER

February 3, 2023

Mr. David Cash
U.S. EPA
New England Regional Administrator
5 Post Office Square, Suite 100
Boston, MA. 02109-3912

RE: Maine 2022 National Pollutant Discharge Elimination System (NPDES) Permit Quality Review (PQR) Draft Report

Dear Administrator Cash:

The Maine Department of Environmental Protection (DEP) is in receipt of your December 1, 2022 letter regarding the draft PQR report. The letter states that comments on the draft report and an Action Item Plan were to be provided to USEPA staff within 30-days of receipt of the letter. On December 28, 2022, the DEP submitted a letter to USEPA requesting and extension to February 3, 2023 to prepare comments on the draft report and prepare an Action Item Plan. The extension was acceptable to the USEPA. The December 1, 2022 letter requests "…the DEP first review the Draft Report and identify any factual inaccuracies or substantive disagreements. Next, DEP should develop and submit to EPA a plan to remedy the 3 priority items identified above including a schedule for passing any necessary state legislation and conducting any follow up meetings with EPA staff." The Department appreciates USEPA's review to ensure Maine's Pollutant Discharge Elimination System is consistent with federal regulations.

DEP submits all MEPDES permits to EPA for review. DEP submits preliminary drafts to EPA NPDES staff for review before publishing draft permits for 30 days of public comment, enabling our agencies to ensure draft permits are consistent with federal regulations prior to publishing them. The 30-day formal public comment period also provides EPA with an opportunity to identify any remaining or new issues that may not have been resolved from the preliminary draft. DEP appreciates the feedback and assistance EPA NPDES staff provide through those processes, particularly when dealing with unique technology, pollutants and regulatory provisions. DEP has submitted five preliminary or proposed draft MEPDES permits and five Maine Waste Discharge Licenses to EPA for review since receiving the draft PQR report, in which you will see many of EPA's recommended changes have already been implemented.

Despite these individual permit reviews, the findings of the PQR highlight the need for improved communication between DEP and EPA. DEP agrees that regularly scheduled meetings would be helpful to apprise EPA of DEP's ongoing efforts to comply with federal regulations in implementation of the NPDES program as well as other efforts that overlap with the NPDES program, such as revisions to regulations issued under Maine's stormwater management law for projects that disturb more than one

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acre. As you are aware, state laws often create responsibilities for state agencies that align with some federal requirements, but may also be disconnected from federal laws and establish different, additional responsibilities. DEP appreciates EPA's cooperative federalism approach to help state agencies implement the most effective strategies to satisfy both federal and state-specific objectives for water quality protection.

The Department has prepared the following Action Item Plan to address more specific items identified in the draft PQR report:

Immediate Action Items

1. **EPA comment** - Construction General Permit (CGP). The CGP has now been expired since January 2008. This is an essential stormwater permit covering a large universe of permittees and all new construction discharges since permit expiration have been discharging without a Clean Water Act NPDES permit.

   DEP response – The Department proposes to have a preliminary draft CGP for EPA to review and comment on by August 1, 2023. The Department plans to revise regulations that directly inform standards in the CGP, but acknowledges that EPA is requiring DEP to provide a CGP sooner than rule revisions will be completed. The Department implements stormwater management requirements through Maine law that overlaps with, but does not mirror, federal regulations. The Department plans to meaningfully engage with stakeholders, particularly disadvantaged communities, to revise Maine's stormwater management standards to consider impacts from climate change and strategies to improve resiliency. The Department will provide EPA with a CGP that meets the current minimum federal requirements, and will later submit revisions to the CGP when Maine's stormwater management rule is updated.

   Mr. Mark Stebbins of the DEP's Bureau of Land Resource Regulation will be responsible for coordinating the drafting of the permit. Mr. Stebbins can be reached by phone at (207) 592-4810 or e-mail at mark.n.stebbins@maine.gov.

2. **EPA comment** - Cooling Water Intake Structure (CWIS) Permit Delegation. Clean Water Act (CWA) 316(b) regulates the impacts of CWIS. DEP's NPDES delegation in 2001 did not include authorization to regulate CWIS under CWA 316(b) and DEP has not sought to obtain authorization as it agreed to in its 2001 Memorandum of Agreement (MOA) with EPA for program delegation. DEP must apply for delegation of CWA 316(b) and fulfill its obligations under the MOA.

   DEP response – The DEP is in the process of updating 06-096 Chapters 520-529 which are the operating regulations of the MEPDES program. The EPA has requested the DEP update those rules to be consistent with changes in federal regulations that have been adopted subsequent to delegation of the NPDES program on January 12, 2001. The DEP anticipates submitting a draft of the amended

rules to the EPA for review on or before June 30, 2023. Simultaneously, DEP will prepare a stand-alone rule to regulate CWIS under CWA 316(b). DEP anticipates submitting a draft of the 316(b) rule to EPA for review on or before June 30, 2023. Mr. Mark Margerum of my staff will be responsible for coordinating the drafting of the amended rules. Mr. Margerum can be reached by phone at (207) 287-7842 or e-mail at mark.t.margerum@maine.gov.

3. **EPA comment** - Water Quality-Based Effluent Limits (WQBELs). The PQR identified multiple related issues with how DEP determines the need for and sets WQBELs. Among these are issues with reasonable potential analysis procedures, dilution factor determinations for coastal dischargers, backsliding of permit limitations, and general lack of documentation tracking important permit decisions. For discharge permits to be consistent with the CWA and avoid causing or contributing to violations of Water Quality Standards, DEP permitting procedures must be updated to address this topic.

   DEP response – See responses #10, #11, #12, #21 and #22 for specific responses to address the issues cited above.

Essential Action Items

4. **EPA comment -** Ensure the application form for POTWs requires data and information consistent with 40 CFR 122.21(j).

   DEP response – The DEP has reviewed the data and information requirements in 40 CFR 122.21(j). The DEP will compare its application forms with EPA's Form 2A to make modifications if necessary to ensure applicants are submitting the data and information requirements specified in 40 CFR 122.21(j).

5. **EPA comment** - Ensure that records contain documentation of waivers from application information requirements, as detailed in 40 CFR 122.21(j), where ME DEP determines they have access to substantially identical information.

   DEP response – The DEP will provide better documentation in the record any time a permittee is granted a waiver for application information requirements and will specifically identify the information that was used to grant the waivers.

6. **EPA comment** - Ensure that applications for industrial facilities discharging only non-process wastewater require data and information consistent with 40 CFR 122.21(h).

   DEP response – The DEP has reviewed the data and information requirements in 40 CFR 122.21(h). The DEP will compare its application forms with EPA's Form 2E to make modifications if necessary to ensure applicants are submitting the data and information required in 40 CFR 122.21(h).

7. **EPA comment** - Ensure fact sheets discuss the evaluation of criteria contained in 40 CFR 125.3(d) for establishing TBELs based on BPJ. The DEP did not consistently describe the applicability of the ELG subparts to a specific discharge to understand the implementation of specific technology-based standards (e.g. BPT, BCT, BAT, NSPS).

   DEP response – This comment is in reference to two new aquaculture facilities in which the Department established industry specific numeric TBELs based on a BPJ given the ELGs for this industry sector are narrative only. In future permitting actions, the DEP will go into a more detailed discussion regarding the applicability of ELG subparts and the criteria in 40 CFR 125.3(d).

8. **EPA comment** - TBELs shall be based upon a reasonable measure of actual production at the facility and not the designed production capacity, in accordance with 40 CFR 122.45(b)(2)(i).

   DEP response – This comment is based on the review of a paper mill permit. 40 CFR 122.45(b)(2)(ii)(A)(1) also allows the permitting agency to establish alternate TBELs based on anticipated increases in production but not to exceed maximum production. The DEP takes into consideration both the actual production over the five-year period of the previous permit as well as the design level production of a facility. Given the volatility of pulp and paper markets, many of the mills have major swings in their production levels because of temporary or prolonged downturns in product orders. These major swings can skew production levels well below design levels. The DEP is cautious about penalizing a mill for these downturns in markets. The DEP discusses production levels with the permittees at the time of permitting and if deemed appropriate, the DEP adjusts the TBELs based on actual production levels provided they are an accurate projection of the production levels for the next five-year permit term.

9. **EPA comment** - TBELs shall be carried forward in renewed permits unless material and substantial changes have taken place in accordance with 40 CFR 122.44(l)(1).

   DEP response – See response #8 above.

10. **EPA comment** - Procedures to assess reasonable potential in accordance with 40 CFR 122.44(d)(1)(i) and (ii) shall account for ambient receiving water conditions whenever possible.

    DEP response – The DEP does take into account background in every reasonable potential (RP) calculation. If ambient data specific to a waterbody is available then that data is entered into the calculation. In accordance with 06-096 Chapter 530, if no ambient data are available, the DEP utilizes 10% of the AWQC for each pollutant in the calculation. This figure was derived over 15 years ago based on a statistical analysis of clean sampling data obtained from rivers and streams unimpacted by human activity for the suite of metals in the analytical chemistry specified in 06-096 Chapter 530.

11. **EPA comment** - Procedures for setting WQBELs shall be consistent with the goal of eliminating pollution into waters of the U.S., as described in ME WQS - 38 MRS 464(1)(a), CWA 101(a) and CWA 301(b)(1)(C). Improvements in water quality should not be a reason for finding no reasonable potential and removing an existing limit or reallocating pollution; water quality improvements are expected by permit limits and will not be sustained if permit limits are then relaxed.

DEP response – 06-096 Chapter 530 establishes the protocols on conducting the reasonable potential analysis and the reallocation of mass limitations for pollutants of concern.

DeTox statistical evaluations are conducted on the most current 60-months of data for a facility when the permit is being drafted for renewal. The statistical evaluation is conducted on the entire watershed which may include as many as ten dischargers in a watershed. The evaluation identifies which facilities in the watershed have common pollutants that have a reasonable potential to exceed applicable AWQC, and WQBEL are established using an allocation based on a dischargers' historical discharge levels. The higher the historic discharge level the higher portion of the assimilative capacity of the receiving water for a pollutant of concern is reflected in the establishing of the WQBEL for that pollutant in a permit(s).

If the statistical evaluation upon permit renewal indicates a discharger does not have a reasonable potential to exceed applicable AWQC for pollutant "X", no WQBELs are established in the permit. If a discharger has a WQBEL for pollutant "X" established in the previous permit, the WQBEL is not carried forward in the permit as there is no justification for carrying forward the limit. New information (test data for the previous five-year period) and a new statistical evaluation qualify for antibacksliding in accordance with 40 CFR, §122(l) as being new information that is available that was not available at the time the original WQBEL for pollutant "X" was established. This methodology is protective of all numeric AWQC and narrative standards associated with waterbody classification.

12. **EPA comment** - Mass-based WQBELs should be set to ensure discharges will not cause or contribute to violations of WQS in accordance with Maine's Surface Waters Toxic Control Program. See 06-096 CMR 530 (i.e., they shall be set using actual facility flow or, if using design flow, shall be complemented with concentration-based limitations).

    DEP response – All mass based WQBELs in permits issued by the DEP were derived to prevent a discharge from causing or contributing to a violation of water quality standards. Concentration limits are also established for facilities with extremely low dilution factors to prevent acute toxicity.

13. **EPA comment** - Conduct and document anti-backsliding evaluations when reissued permits contain effluent limitations less stringent than those in the previous permit, per 40 CFR 122.44(l) and 40 CFR 124.56.

    DEP response – The DEP has been drafting all permits with an antidegradation section in the Fact Sheets attached to the permit with a justification for less stringent or elimination of effluent limitations than those in the previous permit. The DEP will provide additional specificity documenting DEP's evaluation in future permits.

14. **EPA comment** - Conduct and document antidegradation evaluations when reissued permits allow for an increased pollutant loading, per 40 CFR 131.12 and 40 CFR 124.56.

    DEP response – See response #13 above.

15. **EPA comment** - Effluent limitations shall unless impracticable be stated as maximum daily and average monthly discharge limitations for non-POTWs and average weekly and average monthly discharge limitations for POTWs in accordance with 40 CFR 122.44(d).

    DEP response – DEPs permits are consistent with 40 CFR 122.44(d). POTW permits issued by the DEP are more stringent than 40 CFR 122.44(d) in that daily maximum mass and or concentration TBELs are established for BOD5, TSS, settleable solids and daily maximum mass and/or concentration WQBELs are established for bacteria, total residual chlorine and pollutants of concern that exceed or have a reasonable potential to exceed acute AWQC.

16. **EPA comment** - Ensure permits and fact sheets identify the specific sampling location for all monitoring to ensure the monitoring location is representative of the activity and discharge, consistent with 40 CFR 122.41(j).

    DEP response – All permits contain a footnote that effluent sampling must be sampled after the last treatment unit on a year-round basis. This ensures the permittee is obtaining samples that are representative of the final effluent being discharged to a receiving water.

17. **EPA comment** - Establish explicit influent monitoring requirements to ensure compliance with permit limitations for the minimum percent removal requirements for BOD and TSS, consistent with 40 CFR 122.44(i)(1).

    DEP response – DEP permits contain common footnotes such as **"**Sampling – All influent monitoring must be conducted from the influent flow splitter chamber located prior to Lagoon #1." All effluent monitoring must be conducted at a location following the last treatment unit in the treatment process as to be representative of end-of-pipe effluent characteristics.

18. **EPA Comment** - Ensure permits include appropriate language for requiring the use of sufficiently sensitive, EPA-approved analytical methods, consistent with 40 CFR 122.44(i)(1)(iv).

    DEP response – The Department has been remiss in not including this language in permits and will begin doing so.

19. **EPA comment** - Review the current version of MEPDES standard conditions (dated July 1, 2002) and ensure consistency with current federal standard conditions at 40 CFR 122.41.

    DEP response – The Department will undertake this task simultaneously with the updating of the MEPDES operating rules Chapter 520-529.

20. **EPA comment** - Ensure that the public has adequate opportunity to review and comment on draft permits, consistent with 40 CFR 124.10(b) and (c).

    DEP response – In accordance with 06-096 Chapter 522 and Chapter 2, when filing any application with the DEP, the permittee is required to publish a public notice in a newspaper with circulation in the vicinity of the discharge. In addition, permittees are required to notify abutting landowners to their property via certified mail or mailings that they are applying for a permit for the discharge. The Department receives numerous phone calls and e-mails from members of the public regarding the applications and the DEP always inquires as to whether the interested party is interested in reviewing draft permits. The DEP provides draft permits to any member of the public who contacts the DEP and affirms their interest in receiving a draft. In addition, all draft permits sent out for a formal 30-day public comment are sent to EPA Region I for posting on their website.

21. **EPA comment** - Ensure the permit record includes documents and information cited in the fact sheet, including the information used to derive final effluent limitations, as outlined in 40 CFR 124.8, 124.9 and 124.56. Examples of required information not currently provided for EPA's review are:
    - DeTox reports for a given permitting action
    - Effluent monitoring data considered in DeTox modeling
    - Justification for backsliding of effluent limitations
    - Antidegradation analysis for any new or increased discharges, including increases or removals of effluent limitations
    - Dilution factor modelling reports

    DEP response – The DEPs electronic permit records contain all the WET, analytic chemistry and priority pollutant test results and DeTox reports for each facility subject to 06-096 Chapter 530 requirements. The electronic records/reports can be made available to EPA or public at any time.

    Removal of limitations from a permit upon renewal is most commonly associated with the DeTox statistical evaluations in which a facility may have a WQBEL for pollutant "X" given a past statistical evaluation indicated the discharge had a reasonable potential to exceed the acute, chronic or human health AWQC for pollutant "X". When the permit was renewed, the new statistical evaluation indicates the discharge no longer has a reasonable potential to exceed the AWQC. Under the antibacksliding provisions in 40 CFR, §122(l), the justification for the backsliding is that information is available in the most current statistical evaluation that was not available at the time the original WQBEL that warrants the removal of the limitation. The DEP is now including an antibacksliding section in each of the Fact Sheets of permits that concludes the removal or increase in a limitation was justified or that all the limitations in the permit are equally or more stringent than the previous permit.

    As for dilution modeling reports, the DEP can provide the EPA with a list of model input values and output numbers for each modeling exercise.

22. **EPA comment** - Ensure that WQBELs are developed for nutrient parameters that demonstrate reasonable potential, consistent with 40 CFR 122.44(d)(1)(i).

    DEP response – All permits issued by the DEP are evaluated for the reasonable potential to exceed thresholds for nutrients. For freshwater systems, total phosphorus is the limiting parameter and for estuarine/marine systems total nitrogen is the limiting parameter. For freshwater systems, the evaluations are based on the Gold Book value of 100 ug/L and DEP draft criteria (Class A – 18 ug/L, Class B – 30 ug/L and Class C – 40 ug/L) and for estuarine/marine systems, evaluations are conducted utilizing a threshold of 0.45 mg/L for the protection of aquatic life in marine waters using dissolved oxygen as the indicator, and 0.32 mg/L for the protection of aquatic life using eelgrass as the indicator.

    The DEP is currently working on drafting rules to adopt numerical standards for both total phosphorus and total nitrogen. Once adopted, the DEP will conduct reasonable potential calculations for discharges of nutrients consistent with the requirements in 40 CFR 122.44(d)(1)(i) using the new criteria adopted by rule. Applicable limitations and monitoring requirements will be established in permits that cause or have a reasonable potential to cause a violation of water quality standards.

23. **EPA comment** - ME DEP must ensure that the permits include requirements to address e-Reporting consistent with 40 CFR Part 127 and the Final MS4 General Permit Remand Rule.

    DEP Response – The DEP has been working with Carey Johnston at EPA to implement the electronic reporting requirements based on reporting tools being developed by the EPA. Once the appropriate reporting requirements are in place, the DEP will incorporate them into a permit requirement. As you are aware, the DEP already has electronic reporting protocols in place to convey DMR data to EPA on a monthly basis.

24. **EPA comment** - ME DEP must describe the information that is to be included in the public notice that an NOI and SWMP are being filed with ME DEP, consistent with 40 CFR 124.10(d) requirements.

    DEP response – The DEP will revise Part III (3)(A)(1) on page 16 of the permit to provide more specificity as to the information that is to be included in the public notice.

25. **EPA comment** - For the Small MS4 permit, ME DEP must reinstate the MCM 5 requirement to conduct site inspections and enforce local requirements within the permittee's jurisdictional powers to ensure adequate long-term operation and maintenance consistent with 40 CFR 122.34(b)(5)(i).

    DEP response – The text below is in the final permit for Small MS4 and adequately addresses EPA's comment.

    b. To ensure adequate long-term operation and maintenance of post construction BMPs, each permittee must have and implement a post construction discharge ordinance, or other regulatory mechanism. This ordinance or other regulatory mechanism must contain provisions as follows:

        i. Require that the owner or operator of a post construction BMP provide the permittee with an annual report, completed by a qualified inspector documenting that all on-site BMPs are adequately maintained and functioning as intended, and

        ii. Require that if a post construction BMP requires maintenance, the owner or operator must provide to the permittee, a record of the deficiency and corrective action(s) taken in no later than 60 days following the date the deficiency was identified. If 60 days is not possible, then the permittee must establish an expeditious schedule to complete the maintenance and establish a record of the deficiency and corrective action(s) taken.

26. **EPA comment** – Regarding the MS4 permit, EPA recommends that MEDEP propose one of the following actions:

    a. MEDEP can revoke approval of the model LID ordinances submitted by those permit holders that did not contain clear, specific and measurable terms for each LID measure found in Table 1 of Appendix F of the MS4 General Permit and issue new approval letters that contain performance standards for each LID measure found in Table 1 of Appendix F of the MS4 General Permit that those permit holders must adopt in their LID ordinance as required by the MS4 General Permit

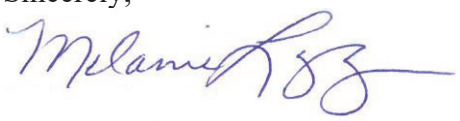
    b. Modify the MS4 General Permit to contain performance standards for each LID measure found in Table 1 of Appendix F of the MS4 General Permit that all permit holders must adopt in their LID ordinance.

    DEP response – As of the date of this letter, the Friends of Casco Bay (FOCB) has filed an appeal with the Maine Board on Environmental Protection regarding the letters sent to 12 municipalities indicating the DEP had no objection to the proposed draft LID Ordinances as written. The DEP cannot take the actions directed by EPA while the approvals are under review by the Board. The DEP will inform the Board of the actions directed by EPA, and the Board may direct the DEP to take one of those actions to resolve the appeal.

Thank you for the opportunity to provide comments on the draft PQR report.

Should you have questions regarding this matter feel free to contact Gregg Wood of my staff at (207)-287-7693 or gregg.wood@maine.gov.

Sincerely,



Melanie Loyzim
Commissioner
Maine Department of Environmental Protection

cc: Brian Kavanah (DEP)
Rob Wood (DEP)
Gregg Wood (DEP)
Mark Stebbins (DEP)
Mark Margerum (DEP)
Matt Hight (DEP)
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