UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND - REGION 1
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BOSTON, MASSACHUSETTS 02109-3912

FACT SHEET

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR DEWATERING AND REMEDIATION DISCHARGES TO CERTAIN WATERS OF THE COMMONWEALTH OF MASSACHUSETTS AND THE STATE OF NEW HAMPSHIRE

NPDES PERMIT NUMBERS: MAG910000 and NHG910000
CTG910000 and RIG910000, Indian Country Lands only
VTG910000, Federal facilities only

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1. Applicability and Coverage

1.1 Proposed Action

The United States Environmental Protection Agency, Region 1 (EPA and EPA Region 1) is issuing the draft National Pollutant Discharge Elimination System (NPDES) general permits for discharges of pollutants to Waters of the United States in waste waters from certain dewatering- and remediation- related activities. This Dewatering and Remediation General Permit (DRGP) covers discharges to certain waters in the Commonwealth of Massachusetts and the State of New Hampshire, sites in Connecticut and Rhode Island located on Indian Country lands, and federal facilities in Vermont. This DRGP is a combined reissuance of the Remediation General Permit (RGP) that became effective on April 8, 2017 and expires on April 8, 2022, and the Dewatering General Permit (DGP) that became effective on April 25, 2015 and expired on April 7, 2022.

To obtain authorization to discharge under the DRGP, a discharge must:

- Be located in the areas listed in Part 1.1 of the DRGP;
- Be an eligible discharge listed in Part 1.2 of the DRGP;
- Submit a complete and accurate Notice of Intent (NOI) in accordance with the requirements of Part 1.4 of the DRGP; and
- Receive a written authorization to discharge from EPA in accordance with Part 1.5 of the DRGP.[1]

Once authorized to discharge under this general permit, the discharge must meet the limitations and monitoring requirements included in Part 2 and, if applicable, Part 6 of the DRGP and applicable Federal and State water quality standards (WQSs). All operators are also subject to the reporting requirements included in Part 4 of the DRGP. To terminate coverage under the DRGP, operators must submit a complete Notice of Termination (NOT) in accordance with the requirements of Part 5 of the DRGP. Failure to comply with the limitations and conditions of the DRGP could result in penalties generally described in Attachment 2, Standard Conditions. The DRGP may be modified, or revoked and reissued in accordance with 40 CFR §122.62.

This fact sheet contains a summary of the following:

- Description of the activities and discharges eligible for coverage under the DRGP;
- Proposed limitations;
- Proposed monitoring requirements;
- Reporting requirements;
- Record-keeping requirements;
- Rationale supporting the terms and conditions of the DRGP; and
- Instructions for public participation.

[1] Where the DRGP or this fact sheet refer to correspondence in writing from EPA, such correspondence may be by mail, email and/or facsimile transmittal and may or may not be auto-generated.

The DRGP is largely the same as the 2017 RGP. EPA has generally proposed revisions such as correcting errors, removing redundancies, and standardizing the formatting and language used throughout the permit, or changes that update the limitations, the basis for limitations, and revise information or procedures for administrative components based on the 2015 DGP, changes to State WQSs and/or Federal regulations, and modernization of electronic application, reporting, and notification requirements.

The Clean Water Act (CWA) prohibits the discharge of pollutants to waters of the United States without a NPDES permit unless such a discharge is otherwise authorized by the CWA. See §301(a), 33 USC §1311(a). Although such permits are often issued to individual discharges, EPA's regulations authorize the issuance of "general permits" to categories of discharges. See 40 CFR §122.28. Violations of a condition of a general permit constitute a violation of the Act and subject the discharger to the penalties in §309 of the Act.

The Director of a NPDES permit program is authorized to issue a general permit if there are a number of point sources operating in a geographic area that:

- Involve the same or substantially similar types of operations;
- Discharge the same types of wastes;
- Require the same effluent limitations or operating conditions;
- Require the same or similar treatment technologies or monitoring requirements; and
- In the opinion of the Director, are more appropriately controlled under a general permit than under individual permits.

Discharges EPA intends to cover under this general permit consist of groundwater, stormwater, potable water, and certain surface waters resulting from: 1) construction-related dewatering of groundwater intrusion and/or storm water accumulation from land disturbances of less than one acre previously covered under EPA's DGP; 2) short-term and long-term dewatering of foundation sumps previously covered under EPA's DGP; 3) remediation and/or dewatering activities conducted at contaminated or formerly contaminated sites previously covered under EPA's RGP; and 4) certain contaminated or formerly contaminated site or source dewatering- or remediation-related activities (e.g., infrastructure and material dewatering/remediation) previously covered under EPA's RGP.

EPA finds that discharges from various sources are similar in generation, composition (i.e., they contain specific groups of pollutants), require similar controls, and undergo similar treatment. Therefore, EPA finds that discharges resulting from dewatering and remediation activities warrant coverage under a general permit. EPA has determined that the proposed DRGP meets the criteria for issuing a general permit found in 40 CFR §122.28(a)(2)(ii). These criteria are summarized in this section, below.

Involve the same or substantially similar types of operations

All of the discharges eligible for coverage under the proposed DRGP involve operations related to the management of groundwater and certain surface waters during remediation and/or dewatering activities and/or certain site or source dewatering- or remediation-related activities.

This general permit covers four broad categories of remediation and/or dewatering activities: 1) site remediation; 2) site dewatering; 3) infrastructure dewatering; and 4) material dewatering. The majority of sites authorized to discharge under this general permit discharge a small volume of water, intermittently, for a short period, following treatment. The four broad categories of remediation and/or dewatering activity wastewaters covered under this general permit are: 1) groundwater; 2) stormwater; 3) potable water; and 4) surface water. Treatment of wastewaters typically consists of an above ground (*ex-situ*) system (i.e., pump-and-treat).

Discharge the same types of wastes

All operators eligible for authorization under the proposed DRGP discharge treated remediation and/or dewatering effluent, which is not co-mingled with other process waters before either monitoring or discharge. These discharges contain a variety of conventional, non-conventional and toxic pollutants depending on the present and past uses of a particular site. The wastes (i.e., parameters) for a given individual site depend upon the type of wastewater and the purpose (i.e., activity) generating the wastewater(s). Parameters may include one or more individual pollutant parameters from chemical groups such as: 1) inorganics (e.g., metals, solids, nutrients, bacteria); 2) volatile organic compounds (VOCs) (e.g., benzene, chlorinated solvents); and 3) semi-volatile organic compounds (SVOCs) (e.g., hydrocarbons, polychlorinated biphenyls). The proposed DRGP contains provisions for the minor variations expected across sites, activities, wastewaters, and receiving waters.

Require the same effluent limitations or operating conditions

All discharges eligible for coverage under the proposed DRGP are subject to certain limitations and requirements, regardless of activity. Minimum limitations apply based on the wastewater(s) that will be discharged, the classification of the receiving water, and the status of designated uses of the receiving water. The limitation for any parameter included in the DRGP applies to any site where that parameter is present. The limitations for all parameters are identical, except where the applicable State criteria vary according to classification and designated uses, or where calculation adjusted for available dilution is allowed. Therefore, the applicable limitations and requirements are the same for all sites excepting the site-specific variation in the activities, the wastewaters, and the receiving water(s).

As in the 2017 RGP, each site must meet certain uniform operating conditions. The proposed DRGP includes requirements for BMPs and a BMPP. In addition to these requirements in the proposed DRGP, each site must include in its BMPP the quality control and quality assurance practices used to meet the sampling, analysis and reporting requirements included in the proposed DRGP to ensure consistency for compliance monitoring.

Require the same or similar treatment technologies or monitoring requirements

The proposed DRGP contain the same monitoring requirements for all sites in Massachusetts, New Hampshire, and those types of sites in Connecticut, Rhode Island, and Vermont where EPA Region 1 is the permitting authority. The proposed DRGP also contains the same monitoring requirements specific to sites located in each State. As mentioned previously, the proposed

DRGP proposes the same minimum monitoring requirements for all operators who have self-identified the same wastewater(s).

Although the proposed DRGP does not prescribe the use of specific treatment technologies, sites in eligible for coverage under the proposed DRGP are required to employ the chemical and/or physical treatment technologies necessary to meet the limitations in the general permit, which may include one or more of the following:[2]

- Adsorption/Absorption;
- Advanced Oxidation Processes;
- Air Stripping;
- Granulated Activated Carbon (GAC)/Liquid Phase Carbon Adsorption;
- Ion Exchange;
- Precipitation/Coagulation/Flocculation; and
- Separation

In the opinion of the Director, discharges are more appropriately controlled under a general permit than under individual permits

Given the similar nature of operations and control measures at DRGP sites, as well as the efficiencies of regulating similar sites under uniform conditions, EPA has determined that these remediation and dewatering discharges are more appropriately controlled under a general permit than under individual permits. In recognition of variations in site location, contamination, treatment, and receiving waters, EPA retained situations where an individual permit is required or may be required by EPA in the proposed DRGP. Based on EPA's experience with the sites covered since 2005 under the RGP and 1996 under the DGP, variations in permitting conditions among sites stem most often from minor variations in the influent and receiving water rather than from variations in the type of operations and treatment.

In conclusion, EPA has determined that, for the class of discharges meeting the proposed DRGP eligibility requirements, coverage under a general permit is appropriate. This proposed DRGP is an update of and, when issued final, will supersede EPA Region 1's 2017 RGP and EPA Region 1's 2015 DGP.

1.1.1 Background Information

EPA's DGP was first issued by EPA Region 1 on May 1, 1996 (1996 DGP) and reissued on September 23, 2002 (2002 DGP), October 7, 2008 (2008 DGP), and March 8, 2017. EPA has authorized approximately 519 discharges under the DGP. EPA's RGP was first issued by EPA Region 1 on September 9, 2005 (2005 RGP) and reissued on September 10, 2010 (2010 RGP), and March 8, 2017 (2017 RGP). EPA has authorized approximately 1,100 discharges under the RGP to date. EPA has issued authorization to discharge to a total of approximately 1,482 sites

[2] Descriptions of these treatment technologies can be found in the Federal Remediation Technology Roundtable *Remediation Technologies Screening Matrix and Reference Guide, Version 4.0 (2007)* available at http://www.frtr.gov/scrntools.htm.

located in Massachusetts and 127 sites located in New Hampshire under these general permits. Table 1 summarizes the approximate universe of sites to date that obtained coverage under EPA's DGP and RGP.

Table 1: Permit Universe under EPA's DGP and RGP (2005 to 2021)

Category and Subcategory	Approximate Number
DGPs located in Massachusetts	472
RGPs located in Massachusetts	1,010
DGPs located in New Hampshire	47
RGPs located in New Hampshire	80

EPA finds that the proposed DRGP will continue to be effective in controlling the discharge of pollutants resulting from remediation and/or dewatering activities conducted at sites in Massachusetts and New Hampshire. The DRGP will also be effective in controlling similar discharges at Federal facilities in Vermont, and on tribal lands in Connecticut, Massachusetts, and Rhode Island.

Because the requirements contained in the proposed DRGP remain largely unchanged from the requirements contained in the 2017 RGP, EPA is not repeating rationale for any unchanged permit limitation or requirement in the body of this fact sheet. The documents for the 2005, 2010, and 2017 RGP are available on EPA's RGP website,[3] and the 1996, 2008, and 2015 DGP are available on EPA's DGP website.[4] Interested persons may also contact EPA, the Massachusetts Department of Environmental Protection (MassDEP) or the New Hampshire Department of Environmental Services (NHDES) for this information.

This fact sheet contains EPA's basis for the changes proposed in the 2021 RGP, including any new or revised effluent limitation or requirement.

1.1.2 Changes from EPA's DGP and RGP

Revision from the 2017RGP activity categories to the following:

- Activity category I now encompasses any remediation-related sites;
- Activity category II now encompasses any dewatering-related sites, other than those more appropriate to Category III or IV;
- Activity category III now includes any previously covered infrastructure dewatering/remediation, including pipeline and tank dewatering; well dewatering/remediation, dewatering/remediation of other collection structures such as dikes, sumps, catch basins, retention basins, and adds dewatering of potable water sources such as hydrant flushing.

[3] The current EPA Region 1 website address for the RGP is: https://www.epa.gov/npdes-permits/remediation-general-permit-rgp-massachusetts-new-hampshire.
[4] The current EPA Region 1 website address for the DGP is: https://www.epa.gov/npdes-permits/dewatering-general-permit-dgp-massachusetts-new-hampshire.

- Activity category IV now encompasses any material dewatering such as dredge-related drainback, or soil/sediment dewatering.

Revision from the 2017 RGP contamination types to the following wastewater types:

- Type A: Groundwater
- Type B: Stormwater
- Type C: Potable Water
- Type D: Surface Water

Addition of effluent limitations and/or monitor-only requirements based on numeric State water quality criteria.

Revision of effluent limitations based on revised numeric State water quality criteria, including Site-Specific Criteria.

Addition of effluent limitations and/or monitor-only requirements based on Impaired Waters (i.e., 303(d) listing) and Total Maximum Daily Loads (TMDLs).

Revision of applicability of effluent limitations, including:

- Change in effluent limitation arrangement from activity and contamination types to wastewaters; and
- Specification of the applicability of effluent limitations on a case-by-case basis.

Specification of additional Best Management Practices (BMPs), including:

- A major storm and flood events BMP.

Revision of wastewater, receiving water, and Whole Effluent Toxicity (WET) testing requirements including:

- Reduction in sampling frequency;
- Specification of test methods and/or minimum levels;
- Specification of electronic reporting requirements;
- Reduction of the number of samples required during treatment system start-up;
- Elimination of requirement for monitoring immediately prior to permanent treatment system shutdown.

Revision of NOI, NOC, and NOT formats to reflect permit changes and transition to EPA's NeT system.

Updated timeframes for submission of NOIs for new and existing discharges, NOCs, and NOTs.

Minor changes throughout the general permit that do not warrant further explanation, including:

- Arrangement of the general permit;
- Correction of grammatical and typographical errors; and
- Removal of minor inconsistencies, redundancies, and unnecessary wordiness.

1.1.3. Public Participation

Any person who believes any condition of the proposed DRGP is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period to:

Shauna Little, Physical Scientist
United States Environmental Protection Agency
5 Post Office Square, Suite 100 (06-1)
Boston, MA 02109
Email: little.shauna@epa.gov

Prior to the close of the public comment period, any person may submit a written request to EPA for a public hearing to consider the Draft Permit. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held if the criteria stated in 40 CFR § 124.12 are satisfied. In reaching a final decision on the draft permit, EPA will respond to all significant comments in a Response to Comments document with the Final Permit and make these responses available to the public on EPA Region 1's website for this general permit[5] and at EPA's Boston office and on EPA's website.

Following the close of the comment period, and after any public hearings, if such hearings are held, EPA will issue a Final Permit decision and publish the notice of availability of the Final Permit decision in the Federal Register, and provide a copy or notice of availability of the final decision to each person who submitted written comments or requested notice.

1.1.4. EPA Contact

Additional information concerning the proposed DRGP is available between the hours of 9:00 a.m. and 5:00 p.m. Monday through Friday, excluding holidays, from:

Shauna Little, Physical Scientist
United States Environmental Protection Agency
5 Post Office Square, Suite 100 (06-1)
Boston, MA 02109
Telephone: (617) 918-1989

[5] Currently accessed at: https://www.epa.gov/npdes-permits/remediation-general-permit-rgp-massachusetts-new-hampshire.

Email: little.shauna@epa.gov

1.2 Geographic Coverage

1.2.1 Massachusetts

With few exceptions, EPA Region 1 and MassDEP jointly issue NPDES permits under separate federal and state authorities, respectively. While some operators may be exempt from the State permitting process under the Massachusetts General Laws, Chapter 21E, and the Massachusetts Contingency Plan (MCP), all operators remain subject to the administration of this general permit and any additional State requirements. In the event an applicant is proposing discharge(s) to a Class A waterbody, additional State requirements apply, and applicants should contact MassDEP directly. Discharges to a Class A receiving water are not eligible under the proposed DRGP unless MassDEP determines that such discharges meet the Massachusetts anti-degradation provisions found in 314 CMR 4.04.

MassDEP retains several primary functions: 1) CWA §401 certification that the permit meets State WQSs; 2) completion of an anti-degradation review, if required; 3) ensuring compliance with the permit provisions of the MCP; and 4) general coordination and consultation on administrative and technical issues. The Massachusetts State Permit Conditions included in the proposed DRGP allow MassDEP to add additional State certification requirements to the RGP if the State determines that such additional requirements are necessary to meet State WQSs. MassDEP will provide EPA any such additional requirements in writing during the §401 process. EPA has requested that the MassDEP certify this general permit under §401 of the CWA.

1.2.1.1 310 CMR 40.0000, Massachusetts Contingency Plan Sites in Massachusetts

As noted above, the majority of sites covered by the RGP are located in Massachusetts. Many of these sites discharge because of cleanup activities conducted under Massachusetts General Laws, Chapter 21E, and the Massachusetts Contingency Plan (MCP) administered by the MassDEP, Bureau of Waste Site Cleanup (BWSC). The MCP establishes the procedures for notification of a release or threat of release through the final site cleanup and/or closure.

Several sections of the MCP regulations relate to the issuance of discharge permits and affect the usual procedures established between the EPA and MassDEP for issuance of NPDES permits. Section 40.0042 of the MCP establishes the requirements for "Remedial Wastewater Discharges to Surface Water". Specifically, Section 40.0042(1) requires an EPA-issued individual NPDES permit or a RGP permit.[6] Applicants for both MCP and non-MCP sites are required to submit a NOI to EPA. Applicants continue to be required to self-identify as being subject to State requirements under the MCP in the NOI submitted to EPA. Only applicants for non-MCP sites are required to submit MassDEP a copy of the NOI submitted to EPA.

[6] EPA is the NPDES issuing authority in Massachusetts. Until such time as the NPDES program is delegated to the State, Section 40.0042(2) provides an exemption from any **state-issued** discharge permit to surface water. Contact MassDEP for additional information on the MassDEP waste site cleanup program.

1.2.2 New Hampshire

This NPDES Permit is issued by EPA under federal law. New Hampshire construes Title L, Water Management and Protection, Chapters 485-A, Water Pollution and Waste Disposal, to authorize the New Hampshire Department of Environmental Services (NHDES) to "consider" a federal NPDES permit to be a State surface water discharge permit. As such, all the terms and conditions of the permit may, therefore, be incorporated into and constitute a discharge permit issued by NHDES. NHDES adopts certain authorizations of this general permit as a State permit in accordance with RSA 485-A: 13, I-a. Discharges to a Class A receiving waters in New Hampshire are not eligible under the proposed DRGP. Discharges to an outstanding resource water (ORW) in New Hampshire are not eligible under the proposed DRGP unless they meet the criteria of Env-Wq 1708.05(b) (or as revised) The New Hampshire State Permit Conditions included in the proposed DRGP allow NHDES to add additional requirements to the authorization to discharge for a site, if the State determines that such additional requirements are necessary to meet State WQSs. NHDES will provide EPA any such additional requirements in writing during the §401 process. EPA has also requested that the NHDES certify this general permit under §401 of the CWA.

1.2.3 Connecticut and Rhode Island

EPA is the permitting authority for only lands held by federally recognized tribes in Connecticut and Rhode Island. Currently, the federally recognized tribes in Connecticut and Rhode Island are:

- Mashantucket Pequot Tribal Nation (Connecticut)
- Mohegan Tribe (Connecticut)
- Narragansett Indian Tribe (Rhode Island)

The States are the delegated permitting authority for all other DRGP discharges in their respective States.

1.2.4 Vermont

EPA is the permitting authority for only Federal facilities in the State of Vermont. The State is the delegated permitting authority for all other DRGP discharges in the State of Vermont.

1.3 Eligible Discharges

Under the proposed DRGP, operators conducting remediation, dewatering, and certain remediation- or dewatering-related activities may request authorization to discharge groundwater, stormwater, potable water, and certain surface waters into waters of the United States within the covered States. The specific discharges eligible for coverage under the proposed DRGP are largely the same as the 2017 RGP. EPA has grouped eligible discharges by activity type and wastewater type for the purposes of eligibility and coverage. Table 2, below, summarizes the categories and wastewaters eligible for coverage under the proposed DRGP. EPA has proposed four activity categories and four wastewater types in the proposed DRGP. An

applicant must select the activity category based on the type of activity which will occur on a site and the wastewater based on the types of influent that will be generated. This format allows an applicant to select multiple categories when multiple activities will occur at a site and multiple wastewaters when multiple influent streams will be generated at a site.

Table 2: Discharges Eligible for Coverage under the proposed DRGP

Activity	Wastewater Type
I. Site Remediation II. Site Dewatering III. Infrastructure Dewatering/Remediation IV. Material Dewatering	A. Groundwater B. Stormwater C. Potable Water D. Surface Water

EPA has proposed four activity categories to replace the eight activity categories included in the 2017 RGP and the activities listed in the 2015 DGP. Further, EPA has proposed four general wastewater types to replace the eight contamination type subcategories included in the 2017 RGP. EPA has proposed these revisions to activity categories and wastewaters to consolidate the DGP and RGP in a simple manner, to remove redundancies, ensure that the broad eligibility for coverage under this general permit is not inadvertently restricted or unclear, and better facilitate application of the limitations and monitor-only requirements that apply to all sites.

All applicants are required to select all activity categories and all wastewater types that apply to their site in the Notice of Intent submitted to EPA. Because revisions to the proposed DRGP effluent limitations table result in a single effluent limitations table arranged by wastewaters, rather than by activity or parameters, the selection of the category that applies to the activity being conducted, followed by selection of the wastewater types that will be generated at a site is expected to be relatively straightforward. Further, EPA has specified that the limitation for any parameter listed under a given wastewater applies to all sites. This approach is generally consistent with the 2017 RGP where sites that fell under a particular activity category and subcategory were limited for only the parameters listed for that subcategory.

Further, EPA has revised the requirements for any parameter not listed under the wastewater limitations that is present at a site. Operators are still required to disclose such parameters in the NOI submitted to EPA, or in a subsequent CNOI. However, EPA will apply the most stringent limitation for these parameters, based on the case-by-case limitations prescribed in one or more of: 1) State Permit Conditions, including any limitations prescribed by State certification or anti-degradation review; 2) Numeric Technology and Water Quality Based Limitations; and 3) Impaired Waters Limitations. EPA has restructured the application of additional site-specific limitations to ensure that any potential limitation an operator will be required to meet is clearly

contained in the general permit, but is not inadvertently prescribed to sites where these parameters are not present.

1.3.1 Site Activities

1.3.1.1 Site Remediation

The proposed DRGP continues to cover discharges from sites where remediation activities are undertaken. Remediation activities are typically related to, but are not limited to, releases of: petroleum (e.g., gasoline, fuel oils, diesel fuel, jet fuel, machine oils, hydraulic fluids, and mineral oils) non-petroleum products (e.g., solvents, cleaners, degreasers). Examples of the types of sites eligible for coverage under this activity category may be a result of remediation activities related to underground storage tank (UST) removal or replacement, groundwater pump and treat systems, clean-up of reportable releases from industrial, commercial and residential sites. This activity category combines the 2017 RGP category I – Petroleum-related remediation and category II – non-petroleum-related remediation.

1.3.1.2 Site Dewatering

The proposed DRGP continues to cover discharges resulting from dewatering activities. This activity category includes sites seeking to discharge groundwater and certain surface waters that are otherwise excluded from coverage under other EPA permits (e.g., EPA's Construction General Permit (CGP), EPA's Multi-Sector General Permit (MSGP), or an EPA Municipal Separate Storm Sewer System (MS4) permit). However, this category applies to dewatering of as contaminated or formerly contaminated sites previously eligible under the 2017 RGP, and sites less than one acre conducting construction dewatering previously eligible under the 2015 DGP. This activity category combines the 2017 RGP category III – site dewatering with the construction dewatering activities covered by the 2015 DGP.

1.3.1.3 Infrastructure Dewatering

The proposed DRGP continues to cover discharges resulting from the following types of infrastructure:

The dewatering of pipelines, tanks, and similar structures and appurtenances, including hydrostatic testing activities. Such discharges may be a result construction of new structures or repair or maintenance of existing structures including pipelines, large storage tanks, and other incidental structures. Such infrastructure is typically associated with hydrostatic testing of pipelines and tanks at natural gas and petroleum operations, including oil terminals and power plants, or pipelines, tanks, and similar structures and appurtenances that store or convey potable water, groundwater, and certain surface waters.

The proposed DRGP also continues to cover discharges from the development or rehabilitation of wells, including pump testing, previously covered by activity category VII under the 2017 RGP for contaminated or formerly contaminated sites and the DGP for other sites. Such wells may have a variety of purposes, including, but not limited to: groundwater monitoring,

groundwater extraction, and water supply. EPA has consolidated this activity to better facilitate the application of general effluent limitations and requirements. An applicant with a discharge eligible under this activity category must indicate all parameters present at their site in the NOI submitted to EPA for that site.

Finally, the proposed DRGP also continues to cover discharges from structures utilized for collecting miscellaneous sources of water from contaminated or formerly contaminated sites or sources (e.g., sumps and dikes). These discharges are generally a result of the infiltration of contaminated groundwater or storm water into a collection structure. This activity category includes sites that engage in dewatering, remediation or dewatering- and remediation-related activities, including dewatering associated with maintenance activities.

1.3.1.4 Material Dewatering

The proposed DRGP continues to cover discharges resulting from certain short-term dredging-related activities, including, but not limited to: short-term pilot study or similar activity associated with dredging, and dredge material dewatering, including drain back waters. This activity category also includes the dewatering of structures that accumulate contaminated solids through sedimentation or similar physical treatment processes, including when such structures are being decommissioned. Authorization to discharge under the proposed DRGP is only possible for dredge-related activities where the United States Army Corps of Engineers does not intend to issue a formal permit under 33 USC §1344 (§404 of the CWA) for the activities. This general permit does not authorize dredging or disposal of dredge material. This general permit also does not constitute authorization under §404 of any dredging or filling operations.

1.3.2 Wastewaters

EPA evaluated the characteristics of the wastewaters generated by sites conducting remediation and/or dewatering activities. EPA then evaluated the parameters present or likely present in remediation and/or dewatering discharges. Information used in this evaluation includes, but is not limited to: 1) existing information regarding dewatering and remediation sites previously covered under EPA's DGP and/or RGP, including those located in Massachusetts and New Hampshire;[7] 2) available information regarding the toxicology, physical characteristics, chemical characteristics, and fate and transport of potential parameters;[8] 3) available toxicity data pertaining to potential parameters;[9] 4) available water quality standards and supporting documentation applicable to potential parameters;[10] and/or 5) available pollution control

[7] See RGP Nos: MAG910000 and NHG910000; Massachusetts Waste Site/ Reportable Release Lookup at https://www.mass.gov/service-details/using-the-waste-sitereportable-release-look-up-tool; and New Hampshire OneStop Data and Information at https://www.des.nh.gov/onestop-navigation.

[8] See entries for potential Parameters from Agency for Toxic Substances and Disease Registry Toxicological Profiles and ToxFAQs at http://www.atsdr.cdc.gov/az/a.html.

[9] See available information for potential Parameters in EPA's Ecotoxicology Database (ECOTOX) at http://www.epa.gov/ecotox/; and assessments for potential Parameters in EPA's Integrated Risk Information System at http://www.epa.gov/iris.

[10] See entries for potential Parameters from EPA's National Recommended Water Quality Criteria documents at https://www.epa.gov/wqc; *Quality Criteria for Water.* PB-263 943: July, 1976 (EPA's "Red Book"); *Quality Criteria for Water 1986*. EPA 440/5-86-001: May 1, 1986 (EPA's "Gold Book").

technologies capable of effectively treating discharges containing these potential parameters.[11] For the purposes of the proposed DRGP, EPA has grouped parameters that apply to all sites by wastewaters, and parameters that apply on a case-by-case basis in dedicated appendices. The parameter groupings are as follows:

- Numeric Limitations for Wastewater Types (i.e., groundwater, stormwater, potable water, and surface water)
- State Limitations
- Numeric Water Quality-Based Effluent Limitations
- Impaired Waters Limitations

EPA has used these groupings in the proposed DRGP to better facilitate the application of effluent limitations to the self-identified wastewaters eligible for coverage under this general permit and the minor variations in additional parameters present at remediation or dewatering sites. EPA has also used these groupings in this fact sheet for consistency. EPA's use of these groupings in this fact sheet provide structure for EPA's discussion of wastewater types, selection of indicator parameters, and the factual basis for the effluent limitations or monitor-only requirements for those indicator parameters.

An operator is required to indicate all parameters present at their site in wastewater(s), soil/sediment, or both in the NOI submitted to EPA for that site. The proposed DRGP specifies which parameters apply to a site, based on the wastewaters selected for a site and the additional parameters indicated as being present at a site. The applicability of effluent limitations and monitor-only requirements are discussed below.

1.3.2.1 Groundwater

For the purposes of the DRGP, groundwater refers to subsurface water, as distinct from surface water, specifically water in the saturated zone, including distinct aquifers, water stored in rock crevices and in the pore space of geologic materials. Groundwater may also include: 1) natural recharge, such as occurs through percolation or infiltration of precipitation, surface water, and irrigation above the saturated zone by gravity; 2) induced recharge, that is, the designed replenishment from re-infiltration; and 3) artificial recharge through water spreading, recharge basins, recharge wells, and wastewater disposal.

1.3.2.2 Stormwater

Stormwater or Storm Water is defined at 40 CFR 122.26(b)(13) as storm water runoff, snow melt runoff, and surface runoff and drainage. For the purposes of the DRGP, stormwater is any of the previously defined sources of generation that are not subject to regulation under other NPDES permits (e.g., EPA's MS4, CGP and MSGP) or exempt from regulation.

[11] See Federal Remediation Technology Roundtable *Technology Screening Matrix* from *Remediation Technologies Screening Matrix and Reference Guide, Version 4.0 (2007)* at http://www.frtr.gov/scrntools.htm; and EPA's Office of Superfund Remediation and Technology Innovation (OSRTI) *Contaminated Site Clean-Up Information* at http://www.clu-in.org.

1.3.2.3 Potable Water

Potable water is defined in Section 1910.141(a)(2) as: water which meets the quality standards prescribed in the U.S. Public Health Service Drinking Water Standards, published in 42 CFR Part 721, or water which is approved for drinking purposes by the State or local authority having jurisdiction. For the purposes of the DRGP, potable water discharges are the defined waters that when discharged to a Water of the United States, contribute pollutants.

1.3.2.4 Surface Water

For the purposes of the DRGP, surface water refers to water above the ground surface, as distinct from groundwater, that is neither stormwater nor potable water. Surface water is typically equivalent to a Water of the United States, or tributary thereto, including, but not limited to: rivers, streams, wetlands, and estuaries.

1.4 Ineligible Discharges

The following discharges are ineligible for coverage under this general permit:

Discharges to Outstanding Resource Waters in Massachusetts and New Hampshire:

- as defined in Massachusetts by 314 CMR 4.06, including Public Water Supplies (314 CMR 4.06(1)(d)1) which have been designated by the State as Class A waters, unless an authorization is granted by the Massachusetts Department of Environmental Protection (MassDEP) under 314 CMR 4.04(5); or
- as defined in New Hampshire under Env-Wq 1708.05(a) (or as revised), unless allowed by the New Hampshire Department of Environmental Services (NHDES) under Env-Wq 1708.05(b).[14]

Discharges to Class A waters in New Hampshire, in accordance with RSA 485A:8, I and Env-Wq 1708.06.[14] To determine if the proposed receiving water is a Class A waterbody, contact NHDES at the address listed in Part 3.3.5 of the proposed DRGP.

Discharges that are likely to adversely affect any species listed as endangered or threatened under the Endangered Species Act (ESA) or result in the adverse modification or destruction of habitat that is designated as critical under ESA. EPA has proposed separate, special eligibility determinations pertaining to ESA to be consistent with other general and/or individual permits in Region 1. See Appendix A of the proposed DRGP for ESA requirements and Section 1.5.4, below, for additional information.

Discharges whose direct or indirect impacts do not prevent or minimize adverse effects on any designated Essential Fish Habitat (EFH). See Appendix B of the proposed DRGP and Section 1.5.4, below, for additional information.

Discharges of pollutants identified as the cause of an impairment to receiving water segments identified on the Commonwealth of Massachusetts or the State of New Hampshire approved 303(d) list, unless the pollutant concentration is at or below a

concentration that meets water quality standards. Where a waterbody segment is not in attainment due to a pollutant that is not expected in a discharge(s), that discharge(s) remains eligible for coverage under this general permit. Similarly, where a waterbody segment is not in attainment due to a pollutant that is present in a discharge(s), that discharge(s) remains eligible for coverage under this general permit if the discharge(s) meets the effluent limitations and requirements included in the proposed DRGP for that pollutant. For information regarding receiving water impairments, refer to the integrated list of waters (CWA 303(d) and 305(b)) for Massachusetts,[12] New Hampshire,[13] and Vermont.[14]

Discharges of pollutants subject to a Total Maximum Daily Load (TMDL) unless the pollutant concentration is at or below a concentration that meets the terms and conditions of the TMDL. Where a waterbody segment is not in attainment due to a pollutant that is subject to a TMDL, the discharge remains eligible for coverage under this general permit if the discharge(s) meets the effluent limitations and requirements included in the proposed DRGP for case-by-case limitations. For information regarding receiving water segments subject to a TMDL and the limitations that apply, see Part 2.1.3 and Appendix G of the RGP. Where a TMDL is applicable watershed wide (e.g., Charles River Phosphorus TMDL, NH and MA lake and pond Phosphorus TMDLs, Long Island Sound Nitrogen TMDL, others) all discharges within the watershed are subject to the applicable requirements of Appendix G of the DRGP. Where a TMDL sets the Waste Load Allocation (WLA) for the pollutant of concern at water quality standards for all dischargers of that pollutant, Appendix G of the DRGP requires that discharges subject to that TMDL are at or below applicable water quality criteria identified in the TMDL (see Parts C, D, and E of Appendix G). Where a TMDL does not contain a WLA for discharges covered under the RGP or does not set the WLA for all discharges to a waterbody subject to a TMDL at water quality standards, Appendix G of the DRGP requires that the discharge of the pollutant of concern be at or below the applicable ML identified in Appendix G for the pollutant of concern in order to be a consistent with the TMDL WLA (see Part A and B of Appendix G).

Discharges to Ocean Sanctuaries in Massachusetts, as defined at 302 CMR 5.00.

Discharges to territorial seas, as defined by §502 of the Clean Water Act.

Discharges to a river designated as a Wild and Scenic River, except in accordance with 16 U.S.C. 1271 *et seq*. This exclusion pertains to discharges to a Wild and Scenic River that would have a direct, adverse effect on the values for which a national Wild and Scenic River was established, in accordance with 40 CFR § 122.49. As of December 2021, the designated Wild and Scenic Rivers are the Wildcat Brook and Lamprey River in New Hampshire, the Nashua, Squannacook, and Nissittissit Rivers in New Hampshire and Massachusetts, and the Westfield, Sudbury, Assabet, Concord and Taunton Rivers in Massachusetts. See http://www.rivers.gov/publications.php for additional information.

[12] Available at: http://www.mass.gov/eea/agencies/massdep/water/watersheds/total-maximum-daily-loads-tmdls.html.
[13] Available at: http://des.nh.gov/organization/divisions/water/wmb/swqa/index.htm.
[14] Available at: http://dec.vermont.gov/watershed/map/assessment.

Discharges which adversely affect properties listed or eligible for listing in the National Registry of Historic Places under the National Historic Preservation Act of 1966 (NHPA), 16 USC §470 *et seq.* This exclusion aligns with the special eligibility determinations pertaining to the NHPA. See Appendix C of the proposed DRGP for NHPA requirements and Section 1.5.4.5, below, for additional information.

Remediation or dewatering discharges resulting from on-site response action controlled pursuant to §§104, 106, 120, 121 or 122 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

Uncontaminated discharges authorized under other EPA permits. EPA has proposed a revised exclusion pertaining to uncontaminated discharges authorized under other EPA permits, such as EPA's Construction General Permit (CGP), EPA's Multi-Sector General Permit (MSGP), or an EPA Municipal Separate Storm Sewer System (MS4). Such EPA permits (i.e., CGP, MS4 and MSGP) authorize the discharge of certain uncontaminated waters and the DRGP would not be applicable in such cases. In addition, discharge authorization under the aforementioned EPA permits may be possible for a site with wastewaters that cannot be considered uncontaminated, provided such wastewaters are not discharged under the applicable EPA permit. However, for sites with wastewaters that cannot be considered uncontaminated and that may be discharged, EPA has proposed this revision to be consistent with such EPA permits in Region 1 that authorize uncontaminated discharges.[15]

Discharges to a Publicly Owned Treatment Works (POTW) which is permitted under §402 of the CWA, including discharges to a sanitary sewer under an authorized NPDES pretreatment program. EPA has proposed a new exclusion pertaining to discharges to a sanitary sewer under an authorized NPDES pretreatment program to be consistent with other general and/or individual permits in Region 1 and/or other EPA regions.

Discharges into the subsurface under an Underground Injection Control (UIC) Program permit under authority of the Safe Drinking Water Act (SDWA). EPA has proposed availability of the DRGP for discharges into the subsurface that are not covered under the UIC program, but that is determined to be the functional equivalent of a point source.

Discharge of dredge-related waters where the U.S. Army Corps of Engineers (USACE) intends to authorize the discharge under a CWA §404 permit.[16]

[15] A common example is discharges of stormwater associated with construction sites which disturb greater than one acre of land. These discharges, which are associated with small or large construction sites as defined at 40 CFR 122.26(15) and 40 CFR 122.26(b)(14)(x), typically seek coverage under EPA's Construction General Permit. However, the CGP only allows discharges of uncontaminated groundwater, and does not authorize the discharge of pollutants other than solids in any wastestream. Such discharges typically require a DRGP in addition to a CGP.

[16] Dredge-related discharges may be covered under the proposed DRGP provided the USACE does not intend to issue a formal permit under 33 USC §1344 for the activities. If authorized to discharge under the proposed DRGP, this general permit does not authorize dredging or disposal of dredge material. This general permit also does not constitute authorization under §404 of any additional dredging or filling operations. See 33 CFR §330.5 and §§401 and 404 of the CWA.

New Sources, as defined in 40 CFR §122.2 due to the site-specific nature of the environmental review required by the National Environmental Policy Act of 1969 (NEPA), 33 USC 4321 et seq. for those facilities. "New Sources" must comply with New Source Performance Standards (NSPS) and are subject to the NEPA process in 40 CFR §6.600. Consequently, EPA has determined that it would be more appropriate to address "New Sources" through the individual permit process.

Discharge(s) covered by an individual NPDES permit unless:

- The discharge(s) are separate from the currently permitted discharges; or
- The discharge(s) covered by an individual NPDES permit is eligible for this permit.

Discharges for which the Director makes a determination that an individual permit is required. See Section 1.6.1, below, for more information.

1.5 Notice of Intent Requirements

To obtain authorization to discharge under the DRGP, an applicant must:

- Be a discharge type listed in Part 1.2 of the DRGP;
- Be located in the areas listed in Part 1.1 of the DRGP;
- Submit a complete and accurate Notice of Intent (NOI) in accordance with the requirements of Part 1.4.3 of the DRGP; and
- Receive a written authorization to discharge from EPA.[17]

Once authorized to discharge under this general permit, the discharge must meet the limitations and monitoring requirements included in Part 3 and, if applicable, Part 6 of the DRGP and applicable Federal and State water quality standards (WQSs). All operators are also subject to the reporting requirements included in Part 3 of the DRGP. To terminate coverage under the DRGP, operators must submit a complete Notice of Termination (NOT) in accordance with the requirements of Part 4 of the DRGP. Failure to comply with the limitations and conditions of the DRGP could result in penalties generally described in Attachment 2, Standard Conditions.

To obtain coverage under the proposed DRGP, operators with one or more discharges eligible for coverage must submit a NOI to EPA electronically (e-NOI) prior to the initiation of such discharge(s), except emergency discharges. 40 CFR §122.28(b)(2)(ii) specifies minimum NOI requirements and also provides that NOIs may require the submittal of information necessary for adequate program implementation. Unless EPA specifically notifies the discharger that an individual permit application must be submitted, submission of a complete and accurate NOI eliminates the need to apply for an individual permit for a regulated discharge eligible under this general permit. For the purposes of this general permit, the NOI consists of the electronic submission through EPA's NeT. This information generally includes:

- Site information;

[17] Where the DRGP or this fact sheet refer to correspondence in writing from EPA, such correspondence may be by mail, email and/or facsimile transmittal and may or may not be auto-generated.

- Receiving water information;
- Wastewater information;
- Discharge information;
- Treatment system information;
- Treatment chemical/additive information;
- Determination of Endangered Species Act Eligibility;
- Documentation of National Historic Preservation Act Requirements;
- Supplemental Information; and
- Signature Requirements.

EPA has made slight adjustments to the suggested NOI format included in the proposed DRGP based on proposed changes to this general permit. The NOI submission requirements for applicants seeking coverage under the proposed DRGP are described later in this Fact Sheet.

1.5.1 New Discharges

Sites that are not discharging under the 2017 RGP or 2015 DGP seeking coverage under this general permit must submit an NOI to EPA and the appropriate State at least 30 days prior to the initiation of such discharge. As a result, EPA's posting period for NOIs has been increased to 30 days. NOIs will be processed automatically by EPA's NeT system, unless EPA places a hold on an individual NOI. EPA strongly recommends that applicants fill out and submit the NOI as early in the project planning process as possible to allow EPA and the appropriate State adequate time to review NOIs for completeness, make a determination of coverage under this general permit (or the need for an individual permit), or seek additional information from the applicant. If an incomplete NOI is submitted, if additional information is required, or if an individual permit is required, remediation and/or dewatering activities may be significantly delayed. In most cases it is the "operator" who is responsible for applying. See 40 CFR §122.21(b). The effective date of coverage will be the date indicated in the authorization to discharge provided to the operator by EPA.

1.5.2 Existing Discharges

Existing discharges are those occurring in accordance with the 2017 RGP, which expires April 8, 2022 and the 2015 DGP, which expired April 25, 2020. Operators with existing discharges must obtain coverage under the proposed DRGP (i.e., submit a NOI to EPA and the appropriate State) or terminate discharges (i.e., submit a NOT to EPA).

Discharges in accordance with the 2017 RGP and 2015 DGP which are still ongoing as of the effective date of the proposed DRGP have up to ninety (90) days following the effective date of the final DRGP to submit a renewal NOI to EPA and the appropriate State (if required). Operators of existing discharges who expect to terminate discharges within 90 days following the effective date of the proposed DRGP are not required to reapply for coverage under the proposed DRGP and will be administratively terminated. This is expected to reduce the administrative requirements for operators nearing project completion.

The limitations in an existing dischargers' written authorization to discharge will remain unchanged, unless during EPA's review, a determination is made that changes to the existing limitations and conditions is warranted. Until such time, as noted above, general permit coverage under the 2017 RGP or 2015 DGP remains administratively continued, provided the applicant received written authorization to discharge, has not submitted a NOT to EPA, and submitted a timely and complete reapplication for coverage under the proposed DRGP.

1.5.3 Emergency Discharges

The term emergency discharge refers to a discharge that is a result of remediation or dewatering activities conducted in response to a public emergency and the discharge requires immediate authorization to avoid imminent endangerment to human health, public safety, or the environment, or to reestablish essential public services. Such emergencies includes, but are not limited to: tornadoes, hurricanes, tropical storms, earthquakes, mud slides, or extreme flooding conditions; or disruption in essential public services; or an emergency that causes endangerment to The DRGP continues to provide provisional coverage for emergency discharges as follows:

- An emergency discharge is considered provisionally covered under the RGP immediately upon the initiation of discharges on the condition that:
    - A complete and accurate NOI is submitted within 30 days after the emergency discharges commence. An operator is required to provide documentation in the NOI submitted to EPA to substantiate the occurrence of a public emergency;
    - Notification is provided to EPA prior to commencing an emergency discharge when feasible, but no later than 24 hours after such discharges commence;
    - Monitoring proceeds in accordance with the monitoring requirements specified for all sites for the duration of provisional coverage for the parameters applicable to the wastewater(s) discharged; and
    - The operator implements the applicable requirements of the BMP and BMPP special conditions, including corrective actions if any limitation for the applicable parameters are exceeded.

Provisional coverage is authorized for up to 30 days, after which the operator must either:

- Received written authorization to discharge from EPA, unless EPA notifies the operator that their authorization has been delayed or denied; or
- Submitted a NOT to EPA.

EPA understands that some dewatering and remediation activities are part of a response to an environmental emergency. In the case of emergencies (e.g., oil spill response), EPA's Office of Site Remediation and Restoration (OSRR) will consider requests for emergency NPDES exclusions as provided by 40 CFR §122.3(d) and 40 CFR Part 300. In cases of emergency spills, applicants should contact the National Response Center (NRC) at 800-424-8802 or EPA's Emergency Planning and Response Branch at 617-918-1236.

1.5.4 Additional Disclosure Requirements

A copy of the NOI submitted to EPA must also be submitted to the appropriate State as directed in the NOI instructions in the proposed DRGP. The States may elect to develop a State-specific format or other information requirements. Applicants must comply with any other such State provisions as required. Applicants must also notify the municipality in which the proposed discharge will be located. Certain municipalities require an operator to obtain additional permit(s) prior to initiating discharge.

1.5.4.1 Consideration of Other Federal Requirements

When EPA undertakes an action, such as the reissuance of an NPDES general permit, that action must be consistent with other federal laws and regulations and executive orders. Regulations at 40 CFR §122.49 contain a listing of Federal laws that may apply to the issuance of NPDES permits. This section discusses four federal Acts that apply to the reissuance of this general permit: the Endangered Species Act (ESA), the National Historic Preservation Act (NHPA), the Magnuson-Stevens Fishery Conservation and Management Act (MSA), which addresses Essential Fish Habitat (EFH), and the Coastal Zone Management Act (CZMA); and Environmental Justice Executive Orders that apply to the reissuance of this general permit: The following sections summarize the requirements of these Acts and EPA's obligations with regard to them. The proposed DRGP contains certain disclosures for ESA, NHPA, and EJ, also discussed in the following sections.

1.5.4.2 Endangered Species

The ESA of 1973 requires federal agencies such as EPA to ensure, in consultation with the U.S. Fish and Wildlife Service (FWS) and the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) (referred to collectively as "the Services") that any actions authorized, funded, or carried out by the EPA are not likely to jeopardize the continued existence of any Federally-listed endangered or threatened species or adversely modify or destroy critical habitat of such species. Such actions include EPA-issued NPDES permits authorizing discharges to waters of the United States. See 16 U.S.C. 1536(a)(2), 50 CFR §402 and 40 CFR §122.49(c).

The following are federally protected ESA species in Massachusetts and New Hampshire:

Massachusetts (15)

Dwarf wedgemussel (*Alasmidonta heterodon*)
Northeastern bulrush (*Scirpus ancistrochaetus*)
Sandplain gerardia (*Agalinis acuta*)
Piping Plover (*Charadrius melodus*)
Red Knot *(Calidris canutus rufa)*
Roseate Tern (*Sterna dougallii dougallii*)
Plymouth redbelly turtle (*Pseudemys rubriventis bangsi*)
Bog Turtle (*Clemmys muhlenbergii*)
Small whorled Pogonia (*Isotria medeoloides*)

New Hampshire (12)

Dwarf wedgemussel (*Alasmidonta heterodon*)
Northeastern bulrush (*Scirpus ancistrochaetus*)
Piping Plover (*Charadrius melodus*)
Red Knot *(Calidris canutus rufa)*
Roseate Tern (*Sterna dougallii dougallii*)
Small whorled Pogonia (*Isotria medeoloides*)
Karner Blue butterfly *(Lycaeides Melissa samuelis)*
Canada Lynx *(Lynx canadensis)*

American burying beetle (*Nicrophorus americanus*)
Northeastern beach tiger beetle (*Cicindela dorsalis dorsalis*)
Puritan tiger beetle (*Cicindela puritana)*
Northern long-eared Bat *(Myotis septentrionalis)*
Atlantic Sturgeon (*Acipenser oxyrinchus*)*
Shortnose Sturgeon (*Acipenser brevirostrum*)*
Jesup's milk-vetch (*Astragalus robbinsii* var. *jesupii*)
Northern long-eared Bat *(Myotis septentrionalis)*
Atlantic Sturgeon (*Acipenser oxyrinchus*)*
Shortnose Sturgeon (*Acipenser brevirostrum*)*

* These species are listed under the jurisdiction of NMFS, while all others are listed under the jurisdiction of FWS

In addition, the following are federally protected marine species that are present in the near coastal waters of Massachusetts and New Hampshire. These species are listed under the jurisdiction of NMFS:

Marine Reptiles (5)

Loggerhead Sea Turtle *(Caretta caretta)*
Kemp's Ridley Sea Turtle *(Lepidochelys kempii)*
Leatherback Sea Turtle *(Dermochelys coriacea)*
Green Sea Turtle *(Chelonia mydas)*
Hawksbill Sea Turtle *(Eretmochelys imbricata)***

Marine Mammals (3)

North Atlantic Right Whale *(Eubalaena glacialis)*
Fin Whale *(Balaenoptera physalus)*

** Species rare in near shore Massachusetts and New Hampshire coastal waters

ESA eligibility criteria is also applicable to those sites that overlap with Indian country in Connecticut, Rhode Island and only Federal facilities in Vermont. The protected species listed above generally correspond with these sites.

1.5.4.3 Section 7 Consultations

Section 7 of the ESA provides for formal and informal consultation with the Services. EPA routinely submits draft NPDES permits and fact sheets to the Services for informal consultation prior to issuance for NPDES permits issued in Massachusetts and New Hampshire, where EPA is the permit-issuing agency. EPA will initiate coordination with the Services through the draft proposed DRGP and fact sheet during the public comment period for this general permit. Based on EPA's working experience with the Services on numerous prior permits and identification of certain endangered species, general geographic areas of concern in the States and the potentially affected waters, including critical habitats, EPA has prepared the proposed DRGP to ensure adequate protection of listed threatened or endangered species or the critical habitat of such species protected under the ESA.

Section 1.3.1 of this fact sheet describes the discharges authorized under this general permit. The proposed DRGP specifically excludes coverage to facilities whose discharge(s) are likely to jeopardize the continued existence of listed threatened or endangered species or the critical habitat of such species. The proposed effluent limitations are sufficiently stringent to ensure that WQSs for the protection of both aquatic life and human health are met. The effluent limitations established in the proposed DRGP ensure protection of aquatic life and maintenance of the

receiving water as an aquatic habitat. Further, the proposed DRGP contains conditions that require all operators to implement best management practices and additional conditions for toxicity testing and/or a priority pollutant scan if warranted. In addition, EPA may require individual permits be issued if actual environmental conditions (including the preservation of endangered species) are not adequately addressed by this general permit. The requirements in the proposed DRGP are consistent with information previously provided by the Services to EPA during the development of other recently issued general permits. Therefore, EPA Region 1 finds that adoption of the proposed DRGP is not likely to adversely affect any threatened or endangered species or its critical habitat.

Any applicant seeking coverage under the proposed DRGP may need to consult with the Services. EPA may designate applicants as non-Federal representatives (NFRs) for this general permit for the purpose of carrying out formal or informal consultation with the Services to determine whether a Federal action is likely to have an adverse impact on listed species or critical habitat. By the terms of the proposed DRGP, EPA *has* automatically designated applicants as NFRs for the purpose of conducting formal or informal consultations with the FWS. See 50 CFR §402.08 and §402.13. However, EPA will coordinate with NMFS regarding the species identified under its jurisdiction to determine that the terms of the proposed DRGP adequately support a finding that the discharge is not likely to adversely affect listed species in the action area. Further, service coordination will determine if the provisions of the proposed DRGP will prevent the take of listed species and prevent adverse effects on critical habitat due to remediation, dewatering and dewatering-/remediation-related discharges.

Sites that are located in areas in which listed endangered or threatened species may be present are not automatically covered under this general permit. Appendix A of the proposed DRGP details how applicants determine the listed species and Appendix B details how applicants identify the critical habitat located near their proposed discharge. Applicants whose discharges may affect listed species or critical habitat may need to contact the Services to determine whether or not additional consultation is needed. In order to be eligible for coverage under the proposed DRGP, an applicant must certify that they meet one of the three ESA Eligibility Criteria pertaining to listed species and critical habitat under the jurisdiction of the FWS:

- Criterion A: No endangered or threatened species or critical habitat are in proximity to the discharge(s) or related activities or come in contact with the "action area".
- Criterion B: Formal or informal consultation with FWS under section 7 of the ESA resulted in either a no jeopardy opinion (formal consultation) or a written concurrence by FWS on a finding that the discharges and related activities are "not likely to adversely affect" listed species or critical habitat (informal consultation).[18]
- Criterion C: Using the best scientific and commercial data available, the effect of the discharges and related activities on listed species and critical habitat have been evaluated. Based on those evaluations, a determination is made by EPA, or by the applicant and affirmed by EPA, that the discharges and related activities will have "no affect" on any

[18] See USFWS Section 7 consultation handbook, available at http://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf for definitions and guidance.

federally threatened or endangered listed species or designated critical habitat under the jurisdiction of the FWS.

An applicant must select the applicable ESA eligibility criterion in the NOI submitted to EPA. All applicants must respond to all questions pertaining to ESA included in the suggested NOI format (also see Appendix A of the proposed DRGP). If any applicant initiates contact with the Services, that applicant must include a copy of any communication from the Services, as directed, with the NOI submitted to EPA. Applicants who cannot certify compliance with the ESA requirements must contact EPA to determine if eligibility for an individual NPDES permit is possible or to discuss other possible options for the proposed discharge.

For sites that meet ESA Eligibility Criterion B in Appendix A (i.e., they cannot meet Criteria A or C); or for sites that cannot meet any of the FWS ESA Eligibility Criteria in Appendix A, coverage under the proposed DRGP is available **only if the applicant contacts FWS** under Section 7 of the ESA. The applicant for a site that meets ESA Eligibility Criterion B must obtain either a no jeopardy opinion or written concurrence that the proposed discharge(s) is not likely to affect listed species from FWS. The applicant must provide any communication with FWS resulting in a no jeopardy opinion or written concurrence on a finding that the applicant's discharge(s) is not likely to adversely affect listed species.

Services Contact Information:

United States Fish and Wildlife Service
New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5087
Phone: (603) 223-2541

National Marine Fisheries Service
Greater Atlantic Region Fisheries Office
Protected Resources Division
55 Great Republic Drive
Gloucester, MA 01930-2298
Phone: (978) 281-9300 ext. 6505

EPA has made the determination that the marine reptile and marine mammal protected species identified in this section under the jurisdiction of NMFS meet ESA Eligibility Criterion A. The support for this determination is as follows. The action area resulting from any discharge covered under this general permit is defined as "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action". 50 CFR § 402.02. The action area also includes the underwater areas where the effects of the discharge *(*i.e., Parameters) may be experienced. For this action, discharges eligible for coverage under this general permit are expected to occur with low frequency (intermittent), small magnitude (small volume limited to no more than 1.0 MGD), and short duration (temporary or short-term). Also, for the subset of remediation or dewatering outfalls that will discharge to marine waters, no extended discharge structure is expected to be constructed or installed that would result in the extension of the action area past the immediate shoreline. Therefore, any potential effects of the discharges on coastal or estuarine waters are expected to be proportionately small, subject to a large dilution factor, and associated with the shallow, immediate shore area within approximately 200 feet of the discharge. Based on this assessment and the expected occurrence of loggerhead sea turtles, Kemp's ridley sea turtles, leatherback sea turtles, green sea turtles, hawksbill sea turtles, humpback whales, North Atlantic right whales and fin whales,

it is unlikely that any of these marine species would be present in the action area of these types of regulated discharges. Based on the analysis presented here, a consultation is not required for these marine species at this time.

For sites that meet ESA Criterion C, EPA has determined that one federally protected species, the northern long-eared bat, (*Myotis septentrionalis*) may be affected, but is not likely to be adversely affected, by the discharges authorized under this general permit. This threatened species, under the jurisdiction of the FWS, is identified as occurring statewide in Massachusetts and New Hampshire and could potentially come in contact with the aquatic action area of the facilities seeking coverage under the DRGP.[19]

According to the FWS, the bat is found in the following habitats based on seasons, "winter – mines and caves; summer – wide variety of forested habitats." This species is not considered aquatic. However, because the regulated discharges from facilities expected to seek coverage in Massachusetts and New Hampshire are located throughout the two states, EPA prepared an Effects Determination Letter for the DRGP reissuance and submitted it to FWS. Based on the information submitted by EPA, the FWS notified EPA by letter, dated January 18, 2022, that the permit reissuance is consistent with activities analyzed in the FWS January 5, 2016, Programmatic Biological Opinion (PBO)[20, 21, 22]. The PBO outlines activities that are excepted from "take" prohibitions applicable to the northern long-eared bat under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.). The FWS consistency letter concluded EPA's consultation responsibilities for the DRGP NPDES permitting action under ESA Section 7(a)(2) with respect to the northern long-eared bat.

For sites that meet ESA Criterion C, EPA has determined that six endangered species and their critical habitat, if designated, are not likely to be adversely affected by the discharges authorized under this general permit because they are terrestrial animals or plants that are not likely to have significant interaction with the authorized waterbody discharges. These species are: Canada lynx, sandplain gerardia, small whorled pogonia, Karner blue butterfly, American burying beetle and the red knot. However, any determination made by an applicant under Criterion C must take into consideration any activities that are ancillary to the authorized discharge that could impact these seven terrestrial endangered species, if they are present at a site. If site activities (e.g., surface disturbance, tree clearing) will adversely affect any of these seven endangered species or their critical habitat, a site does not meet ESA requirements under the proposed DRGP under Criterion C.

For existing discharges, EPA will initiate consultation with NMFS regarding the two anadromous species under its jurisdiction (Atlantic sturgeon and shortnose sturgeon) during the public comment period of the draft proposed DRGP to ensure that listed species are not affected by the discharges expected to be covered under the proposed DRGP. For new discharges, EPA will consult (formally or informally) with NMFS if necessary to ensure that the listed species under their jurisdiction are not adversely affected by the proposed discharge.

[19] See §7 resources for USFWS at https://ecos.fws.gov/ipac/.
[20] FWS Massachusetts Event Code: 05E1NE00-2022-E-04306, January 18, 2022.
[21] FWS New Hampshire Event Code: 05E1NE00-2022-E-04311, January 18, 2022.
[22] FWS Vermont Project code: 2022-0022582, March 22, 2022.

1.5.4.4 Essential Fish Habitat

Under the 1996 Amendments (PL 104-267) to the Magnuson-Stevens Fishery Conservation and Management Act (FCMA) (16 USC §1801 *et seq.* (1998)), EPA is required to consult with NOAA's NMFS if EPA's actions or proposed actions that it funds, permits or undertakes, "may adversely impact any essential fish habitat." 16 USC §1855(b). The amendments broadly define EFH as "waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity." 16 USC §1802(10). Adverse impact means any impact which reduces the quality and/or quantity of EFH 50 CFR §600.910(a). Adverse effects may include direct (e.g., contamination or physical disruption), indirect (e.g., loss of prey, reduction in species' fecundity), and site-specific or habitat-wide impacts, including individual, cumulative or synergistic consequences of actions.

An EFH is only designated for fish species for which federal Fisheries Management Plans exist. 16 USC §1855(b)(1)(A). EFH designations for New England were approved by the U.S. Department of Commerce on March 3, 1999. In a letter dated October 10, 2000 to EPA, NMFS agreed that for projects authorized through the NPDES permit process, EPA may use its existing procedures regarding consultation/environmental review to satisfy the requirements of the FCMA. According to the agreement between NMFS and EPA, EFH notification for purposes of consultation can be accomplished in the EFH Section of the fact sheet for the Draft Permit or *Federal Register* notice.

To satisfy the requirements of an EFH assessment, this section includes the following:

- A description of the proposed action;
- Resources that may be affected by the proposed action;
- An analysis of the effects;
- The Agency's identification of potential impacts and proposed mitigation; and
- EPA's Finding.

Proposed Action

EPA is reissuing the NPDES general permit for discharges from remediation, dewatering and dewatering-/remediation-related activities conducted at contaminated or formerly contaminated sites. This general permit provides coverage to facilities located in Massachusetts and New Hampshire, as well as sites that overlap with Indian country in Connecticut, Rhode Island and only Federal facilities in Vermont, whose discharge consists of treated remediation and/or dewatering of groundwater and/or certain surface waters, including discharges from pipeline and tank dewatering, aquifer pump testing, well development and rehabilitation, dewatering of collection structures (e.g., sumps and dikes, and dredging-related dewatering. This general permit regulates point source discharges related to the discharge of groundwater and certain surface waters from four general types of remediation, dewatering and dewatering-/remediation-related activities:

- Site remediation activities conducted at a site with petroleum-related contamination;

- Site remediation activities conducted at a site with non-petroleum-related contamination;
- Contaminated or formerly contaminated site dewatering; and
- Contaminated or formerly contaminated site or source dewatering- or remediation-related activities.

Section 1.3.1 of this fact sheet, above, includes a description of the discharges eligible for coverage under the proposed DRGP. The proposed DRGP will provide NPDES coverage to eligible discharges to waters in the Commonwealth of Massachusetts and the State of New Hampshire, as well as sites that overlap with Indian country in Connecticut, Rhode Island and only Federal facilities in Vermont.

For sites located in the states eligible for coverage under this general permit, the proposed DRGP will allow an effluent flow up to the design flow of the treatment system in use at a site, *not to exceed* 1.0 million gallons per day (MGD).

Since September 9, 2005, the effective date of the 2005 RGP, EPA has granted coverage to approximately 750 remediation projects under the RGP (approximately 75 per year, with the majority of sites located in Massachusetts). EPA expects to authorize eligible discharges in the future as remediation and/or dewatering activities begin. Geographic locations of future discharges are not yet known. Activities covered under this general permit are generally expected to occur with low frequency (intermittent), small magnitude (small volume limited to no more than 1.0 MGD), and short duration (temporary or short-term); therefore, any potential effects of the discharges to receiving waters are expected to be proportionately small when discharged to the receiving water.

Resources

Section 1.4 of this fact sheet lists the specific discharges excluded from coverage, including discharges to ocean sanctuaries, territorial seas, wild and scenic rivers, and designated areas under the MSA, unless additional requirements specified in the proposed DRGP are fulfilled. The general permit is not available to any new or increased discharge into territorial seas (as defined by §502 of the CWA), however, it does not specifically exclude discharges into other tidal waters. Therefore, EPA's EFH assessment considers all federally managed species with designated EFH in the coastal and inland waters of Massachusetts and New Hampshire. EPA's EFH assessment pertains to the list of species as accessed from the following website: https://www.fisheries.noaa.gov/resource/map/essential-fish-habitat-mapper

Analysis of Effects

EPA has identified the main source of impact to aquatic species associated with the discharge of remediation and/or dewatering effluent as effluent toxicity.

Discharges eligible under this general permit can potentially contain low concentrations of a variety of constituents of concern (Parameters) such as sediment, volatile and semi-volatile organic compounds, and metals. As a result, the proposed DRGP contains effluent limitations and requirements designed to protect human health and the environment, including EFH-listed

species and essential habitat. Further, EPA included effluent limitations in the proposed DRGP necessary to ensure discharges covered under this general permit will meet State WQSs. The proposed DRGP contains stringent effluent limitations, which will typically require an operator to apply a high degree of treatment for the Parameters present and likely present at a site. EPA derived the effluent limitations and other permit requirements in the proposed DRGP to protect the most sensitive species in the potential receiving waters and to attain or maintain the designated uses of the potential receiving waters. For the majority of limited Parameters, effluent limitations are equal to or more stringent than applicable WQC, with no allowable dilution, to protect the wide range of designated uses of potential receiving waters.

The proposed DRGP prohibits the addition of toxic pollutants or materials to a discharge, prohibits the discharge of pollutants in amounts that would be toxic to aquatic life, and prohibits any discharge that violates State or Federal WQSs. Non-toxic materials disclosed in an applicant's NOI, typically used in treatment processes for pH neutralization and/or dechlorination, are not prohibited. However, EPA and/or the States may impose additional limitations for such materials, or may require additional monitoring. In addition, the proposed DRGP contains provisions that require applicants conducting activities with a greater potential for effluent toxicity to perform toxicity testing as a part of application. Further, EPA and/or the appropriate State may require any applicant to perform routine toxicity testing and/or a priority pollutant scan if EPA or the appropriate State believes it is warranted. In certain situations specific to EFH, EPA and/or the appropriate State may also require that a site obtain NPDES coverage under an individual permit, including an instance where actual or imminent harm to aquatic organisms is identified, or a discharge has the potential to adversely impact any federally managed species for which EFH has been designated.

As described in Part 1 of the proposed DRGP and Section 1.3.1 of this fact sheet, EPA is proposing to cover, as the 2017 RGP did, a variety of potential discharges which could occur anywhere in Massachusetts or New Hampshire, except into receiving waters listed in Part 1.3 of the proposed DRGP and Section 1.4 of this fact sheet. The limitations on coverage includes the prohibition of discharges to territorial seas, wild and scenic rivers in Massachusetts and New Hampshire, and ocean sanctuaries in Massachusetts. In EPA's experience with remediation and dewatering discharges in Massachusetts and New Hampshire, the majority of discharges resulting from remediation and dewatering of contaminated or formerly contaminated sites, occur in close proximity to the source of contamination. Typically, treatment systems either consist of mobile units brought to a site for short-term operation, or are constructed on-site for long-term operation. While the discharges covered under this general permit to date are specific, known locations, the majority of these authorized discharges have since terminated. EPA expects to authorize eligible discharges in the future as remediation and/or dewatering activities begin. Geographic locations of future discharges are not yet known.

The majority of discharges covered under this general permit to date are related to the treatment of groundwater and certain surface waters contaminated through human activity. On occasion, a discharge may contain low levels of naturally occurring contaminants. The proposed DRGP authorizes the discharge of limited concentrations of Parameters from common chemical groups, including petroleum hydrocarbons and related additives, volatile and semi-volatile organic compounds, and metals. See Section 3.1 of this fact sheet and Part 2.1 of the proposed DRGP for

a complete listing of pollutants limited in this general permit. Given the variety of potential pollutants and broad geographic coverage of the proposed DRGP, all federally managed species with designated EFH in the coastal and inland waters of Massachusetts and New Hampshire could be affected by the proposed DRGP.

EPA's Identification of Potential Impacts to EFH Species and Proposed Mitigation

In EPA's opinion, the requirements proposed in the general permit from discharges eligible under this general permit have been conditioned to minimize any impacts that reduce the quality and/or quantity of EFH for several detailed, specific reasons.

First, the proposed limits will be sufficiently protective of EFH habitat because the discharges must meet the stringent requirements specified in the proposed DRGP. The proposed DRGP contains chemical-specific effluent limitations and other limitations and requirements. These include the prohibition of discharges of toxic substances in toxic amounts, influent and effluent monitoring and reporting, and may require whole effluent toxicity testing and/or a priority pollutant scan to ensure discharges meet State WQSs for a wide variety of Parameters. Because this general permit is designed for a variety of potential situations, the effluent limitations in the proposed DRGP, excepting a small number of Parameters (e.g., total recoverable metals), have been established conservatively at WQC for the protection of human health, with no allowable dilution. These effluent limitations are as stringent as or more stringent than WQC for the protection of aquatic life.

Second, although the proposed DRGP does not require the use of specific treatment technologies, treatment technologies must be employed at these sites if necessary to meet effluent limitations. See Part 2.2 of the proposed DRGP for treatment technology requirements and Section 3.3.1.2 of this fact sheet for more information. The types of treatment technology employed routinely produce high quality effluent, typically at concentrations below laboratory minimum levels of detection (i.e., "non-detect). Further, the proposed DRGP requires operators to implement BMPs, including the basic requirements listed in Part 2.2 of the proposed DRGP, to minimize the impacts of the activities and discharges on the environment.

Third, the majority of discharges to be covered under this general permit are generated through batch operations. A batch operation occurs with low frequency (intermittent), consists of a small magnitude (low volumes not to exceed 1.0 MGD), and continues for a short duration (temporary and short-term). The design flow of the discharges covered by this general permit typically range from a few gallons per minute (GPM) to approximately 50 GPM. Approximately half of the remediation and/or dewatering activities covered by the 2005 and 2017 RGP have lasted less than one year in duration, many lasting only a few days or weeks. The discharges themselves are not continuous. EPA expects that these characteristics will minimize impacts on EFH.

Fourth, the proposed DRGP allows States to add additional requirements for CWA §401 certification. The proposed DRGP also allows EPA to require toxicity testing if necessary to ensure that a discharge is not having a toxic effect on sensitive species. EPA can revoke coverage under this general permit at any time if any adverse impacts to federally managed or protected species or their habitats occur, either because of non-compliance or from unanticipated

effects from a discharge. Similarly, EPA may require an individual permit where expected impacts have or could be unacceptably increased.

In conclusion, discharges eligible for coverage under the proposed DRGP will adequately protect all aquatic life, as well as minimize any impacts that reduce the quality and/or quantity of EFH for the following reasons:

- This general permit action does not constitute a new source of pollutants; it is the reissuance of an existing NPDES general permit;
- The proposed DRGP prohibits the addition of materials or chemicals in amounts that would be toxic to aquatic life;
- The effluent limitations proposed in the proposed DRGP ensure protection of aquatic life and maintenance of the receiving waters as aquatic habitat;
- Discharges eligible for coverage under this general permit are primarily a result of site remediation (i.e., treatment to regulatory clean up levels) or dewatering of formerly contaminated sites (i.e., former remediation sites that achieved regulatory clean up levels);
- Discharges eligible for coverage under this general permit are generally expected to occur with low frequency (intermittent), small magnitude (small volume limited to no more than 1.0 MGD), and short duration (temporary or short-term); therefore, any potential effects of the discharges on receiving waters are expected to be proportionately small and subject to a large dilution factor when discharged to the receiving water;
- The proposed effluent limitations in the proposed DRGP are sufficiently stringent to ensure that State and Federal WQSs will be met;
- The Facility withdraws no water from the receiving waterbodies, so no life stages of EFH species are vulnerable to impingement or entrainment;
- The proposed Draft Permit requirements minimize any reduction in quality and/or quantity of EFH, either directly or indirectly;
- For the majority of limited Parameters, effluent limitations are applied at or below WQC, with no allowable dilution; and
- If any parameter is present at a site at a level that does not meet the limitation for that parameter, the operator at that site is required to utilize pollution control technologies that will, at a minimum, reduce the level of that parameter to the limitation.

EPA's Finding

EPA has made the determination that the effluent limitations, monitoring requirements, and special conditions contained in the proposed DRGP Draft Permit adequately protects all aquatic life, as well as the essential fish habitat designated by MSA. Further mitigation is not warranted. Should adverse impacts to EFH be detected as a result of this permit action, or if new information is received that changes the basis for EPA's conclusions, NOAA Fisheries Habitat and Ecosystem Services Division will be contacted and an EFH consultation will be reinitiated.

As the federal agency charged with authorizing a discharge covered by this general permit, EPA has made the proposed DRGP and this fact sheet available to NMFS for their review under

§305(b)(2) of the FCMA at http://www.epa.gov/npdes-permits/remediation-general-permit-rgp-massachusetts-new-hampshire, along with a letter under separate cover.

1.5.4.5 Historic Preservation

Section 106 of the NHPA requires federal agencies to take into account the effects of federal "undertakings" on historic properties listed in, or eligible for listing in the National Register of Historic Places. The term federal "undertaking" as defined in the NHPA regulations includes a project, activity, or program of a federal agency, including those carried out by or on behalf of a federal agency, those carried out with federal financial assistance, and those requiring a federal permit, license, or approval. 36 CFR §800.16(y). Historic properties as defined in the NHPA regulations include prehistoric or historic districts, sites, buildings, structures, or objects listed in, or are eligible for listing in, the National Register of Historic Places. This term includes artifacts, records, and remains related to and located within such properties. 36 CFR §800.16(1).

EPA's reissuance of this general permit is a federal undertaking within the meaning of the NHPA regulations. Therefore, EPA has included eligibility requirements that pertain to the NHPA and apply to all applicants seeking coverage under the proposed DRGP. Specifically, applicants must certify that potential effects of their discharges and discharge-related activities on properties listed in or eligible for listing in the National Register of Historic Places have been appropriately considered and addressed. Although individual NOIs for authorization under the proposed DRGP do not constitute separate federal undertakings, the screening criteria and certifications provide an appropriate site-specific means of addressing historic property issues in connection with EPA's reissuance of this general permit.

Appendix C of the proposed DRGP includes the eligibility criteria regarding historic preservation. An applicant must meet one or more of the following three criteria (A-C) to be eligible for authorization under the proposed DRGP:

- Criterion A: No historic properties are present. The discharges and discharge-related activities (e.g., BMPs) do not have the potential to affect historic properties.
- Criterion B: Historic properties are present. Discharges and discharge related activities do not have the potential to affect historic properties.
- Criterion C: Historic properties are present. The discharges and discharge-related activities have the potential to affect or will have an adverse effect on historic properties. The applicant has obtained and is in compliance with a written agreement with the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (TPHO), or other tribal representative that outlines measures the applicant will carry out to mitigate or prevent any adverse effects on historic properties.

To determine whether historic properties are present at a site, an applicant must review all reasonably ascertainable information and, if necessary, conduct a historic survey. Where historic properties are present, an applicant must include documentation of the determination with the NOI for submitted to EPA so EPA can confirm that discharges and discharge-related activities do not have the potential to cause effects or will have an adverse effect on historic properties. Where the applicant believes or EPA determines that discharges or discharge-related activities

have the potential to cause effects or will have an adverse effect on historic properties, an applicant must complete consultation with the SHPO and/or TPHO before EPA can issue authorization to discharge under the proposed DRGP. The NOI must include any terms and conditions that the applicant must follow to mitigate or prevent adverse effects due to the activities regulated by this general permit resulting from evaluation and interaction with a SHPO and/or TPHO. These terms and conditions will be included in an applicant's authorization to discharge. Authorization to discharge under this general permit is available only if the applicant certifies and documents permit eligibility using one of the eligibility criteria listed above by following the steps in Appendix C of the proposed DRGP.

Applicants are reminded that they must comply with applicable State, Tribal, and local laws concerning protection of historic properties and include documentation supporting the determination of permit eligibility in the BMPP for their sites. For electronic listings of National and State Registers of Historic Places, see the National Park Service (http://www.nps.gov/nr), the Massachusetts Historical Commission (www.state.ma.us/sec/mhc) and the New Hampshire Historical Commission (www.nh.gov/nhdhr/).

1.5.4.6 Coastal Zone Management Act

The Coastal Zone Management (CZM) Act (CZMA), 16 USC §1451 et seq., and its implementing regulations (15 CFR Part 930) require that any federally licensed activity affecting a State's coastal zone be consistent with the enforceable policies of approved State management programs. In the case of general permits, EPA has the responsibility for making the consistency certification and submitting it to the States for concurrence. EPA must certify that the activities authorized by this general permit comply with the enforceable policies of the States' approved programs and that the activities authorized by this general permit will be conducted in a manner consistent with the programs.

The Massachusetts CZM program has established enforceable polices that address natural, cultural, social, and economic resources. Mass CZM has eight categories of enforceable policies: 1) water quality; 2) habitat; 3) protected area; 4) coastal hazard; 5) port and harbor infrastructure; 6) public access; 7) energy; and 8) ocean resources. A complete description of the enforceable policies is available at http://www.mass.gov/czm. EPA finds that the conditions in the proposed DRGP are consistent with the enforceable policies because sites are required to develop and implement control measures, including BMPs, which eliminate or minimize the discharge of pollutants to the receiving water and meet additional water quality requirements. The proposed DRGP contains numeric (Part 2.1) and non-numeric (Part 2.3.1) effluent limitations, State-specific requirements to address water quality (Part 2.3.1.b for discharges in Massachusetts) and requirements to implement control measures (Part 2.2). EPA has requested State concurrence with this determination for this general permit from the Executive Office of Environmental Affairs, Massachusetts CZM.

The New Hampshire CZM program also has enforceable policies, listed below. EPA has addressed the policies identified as applicable by New Hampshire CZM to EPA's action (i.e., reissuance of this general permit). EPA noted any policy not applicable to the reissuance of this

general permit with "NA". EPA has requested State concurrence with this determination for this general permit from the Federal Consistency Officer, New Hampshire Coastal Program.

Protection of Coastal Resources:

- Protect and preserve and, where appropriate, restore the water and related land resources of the coastal and estuarine environments. The resources of primary concern are coastal and estuarine waters, tidal and freshwater, wetlands, beaches, sand dunes, and rocky shores.

The proposed DRGP is consistent to the maximum extent practicable with this enforceable policy by prohibiting any discharge that EPA determines will cause, have the reasonable potential to cause, or contribute to an excursion above WQSs such that discharges will not interfere with the attainment and maintenance of water quality. The proposed DRGP primarily authorizes discharges related to remediation (i.e., clean-up) and dewatering activities conducted at contaminated or formerly contaminated sites. Discharges authorized under the proposed DRGP must meet chemical-specific effluent limitations at or below WQC necessary for the protection of aquatic life. Additionally, discharges authorized under the proposed DRGP must comply with additional non-numeric limitations and conditions, including those necessary to protect aquatic habitat. Part 2.1 of the proposed DRGP includes the effluent limitations applicable to all discharges. Part 2.3.1 of the proposed DRGP includes additional non-numeric limitations and conditions applicable to discharges located in the State of New Hampshire.

- Manage, conserve and where appropriate, undertake measures to maintain, restore, and enhance the fish and wildlife resources of the state.

The proposed DRGP is consistent to the maximum extent practicable with this enforceable policy by prohibiting any discharge that EPA determines will cause, have the reasonable potential to cause, or contribute to an excursion above WQSs such that discharges will not interfere with the attainment and maintenance of water quality. Discharges authorized under the proposed DRGP must meet chemical-specific effluent limitations at or below WQC necessary for the protection of aquatic life. Additionally, discharges authorized under the proposed DRGP must comply with certain non-numeric limitations and conditions, including those necessary to protect fish and wildlife resources that could be impacted by the remediation and dewatering activities eligible for coverage under the proposed DRGP. All sites are subject to requirements for the use of BMPs. These requirements, when properly implemented, will maintain fish and wildlife resources by preventing the discharge of pollutants to waters of the United States. EPA does not expect the entrainment and impingement of aquatic organisms to occur in association with this general permit, as sites covered under this general permit do not utilize cooling water intake or similar structures. Part 2.1 of the proposed DRGP includes the effluent limitations applicable to all discharges and Part 2.3.1 of the proposed DRGP includes the effluent limitations applicable to discharges located in the state of New Hampshire. Part 2.2 of the proposed DRGP includes the requirements pertaining to BMPs.

- Regulate the mining of sand and gravel resources in offshore and onshore locations so as to ensure protection of submerged lands, and marine and estuarine life. Ensure adherence to minimum standards for restoring natural resources impacted from onshore sand and gravel operations. **– NA**

- Undertake oil spill prevention measures, safe oil handling procedures and when necessary, expedite the cleanup of oil spillage that will contaminate public waters. Institute legal action to collect damages from liable parties in accordance with state law.

The proposed DRGP is consistent to the maximum extent practicable with this enforceable policy by requiring all sites to use control measures, including BMPs, which address preventative maintenance, and operating procedures and practices to control site runoff, spillage or leaks, waste disposal, and drainage from raw material storage areas. These requirements, when properly implemented, will prevent the release of oil and other hazardous materials by preventing the discharge of pollutants to waters of the United States.

- Encourage investigations of the distribution, habitat needs, and limiting factors or rare and endangered animal species and undertake conservation programs to ensure their continued perpetuation.

The proposed DRGP is consistent to the maximum extent practicable with this enforceable policy by allowing coverage under this general permit only if the remediation/dewatering discharges and discharge-related activities are not likely to adversely affect any species federally listed as endangered or threatened under the ESA or result in the adverse modification or destruction of habitat federally designated as critical under the ESA. Applicants must determine eligibility prior to submission of a NOI for coverage and must maintain eligibility from authorization to discharge through termination of discharges or expiration of general permit coverage. The proposed DRGP contains eligibility criteria with regard to protection of rare and endangered species and their critical habitat (see Section 1.5.4 of this fact sheet and Appendix A and B of the proposed DRGP).

- Identify, designate, and preserve unique and rare plant and animal species and geologic formations which constitute the natural heritage of the state. Encourage measures, including acquisition strategies, to ensure their protection.

See response to the preceding enforceable policy.

Recreation and Public Access:

- Provide a wide range of outdoor recreational opportunities including public access in the seacoast through the maintenance and improvement of the existing public facilities and the acquisition and development of new recreational areas and public access. **– NA**

Managing Coastal Development:

- Preserve the rural character and scenic beauty of the Great Bay estuary by limiting public investment in infrastructure within the coastal zone in order to limit development to a mixture of low and moderate density. **– NA**

- Reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to preserve the natural and beneficial value of floodplains, through the implementation of the National Flood Insurance Program and applicable state laws and regulations, and local building codes and zoning ordinances. – **NA**

- Maintain the air resources in the coastal area by ensuring that the ambient air pollution level, established by the New Hampshire State Implementation Plan pursuant to the Clean Air Act, as amended, is not exceeded. **– NA**

- Protect and preserve the chemical, physical, and biological integrity of coastal water resources, both surface and groundwater.

The proposed DRGP is consistent to the maximum extent practicable with this enforceable policy by prohibiting any discharge that EPA determines will cause, have the reasonable potential to cause, or contribute to an excursion above WQSs such that discharges will not interfere with the attainment and maintenance of water quality (i.e., the chemical, physical, and biological integrity of water resources). Discharges authorized under the proposed DRGP must meet chemical-specific effluent limitations established to protect the coastal and estuarine environment and meet WQSs for the designated uses of coastal water resources. The proposed DRGP includes effluent limitations equal to or more stringent than chemical-specific WQC. The proposed DRGP also prohibits discharge of any toxic pollutant in toxic amounts. Additionally, discharges authorized under the proposed DRGP must comply with non-numeric limitations and conditions that will protect the chemical, physical, and biological integrity of the receiving waters. Discharges covered under this general permit are limited to a maximum effluent flow of 1.0 MGD. The sites historically covered under this general permit generally discharge small volumes of treated effluent (i.e., effluent flow typically ranges from a few GPM to 50 GPM). Therefore, EPA does not expect discharges of groundwater and certain surface waters from sites covered under this general permit to adversely affect coastal groundwater or surface water resources. Part 2.1 of the proposed DRGP includes the effluent limitations applicable to all discharges. Part 2.3.1 of the proposed DRGP includes the effluent limitations applicable to discharges located in the State of New Hampshire. Part 2.2 of the proposed DRGP includes the requirements pertaining to BMPs.

- Ensure that the siting of any proposed energy facility in the coast will consider the national interest and will not unduly interfere with the orderly development of the region and will not have an unreasonable adverse impact on aesthetics, historic sites, coastal and estuarine waters, air and water quality, the natural environment and the public health and safety. **– NA**

Coastal Dependent Uses:

- Allow only water dependent uses and structures on state properties in Portsmouth, Little Harbor, Rye Harbor, and Hampton, Seabrook Harbor, at state port and fish pier facilities and state beaches (except those uses or structures which directly support the public recreation purpose). For new development, allow only water dependent uses and structures over waters and wetlands of the state. Allow repair of existing overwater structures within guidelines. Encourage the siting of water dependent uses adjacent to public waters. **– NA**

- Preserve and protect coastal and tidal waters and fish and wildlife resources from adverse effects of dredging and dredge disposal, while ensuring the availability of navigable waters to coastal-dependent uses. Encourage beach re-nourishment and wildlife habitat restoration as a means of dredge disposal whenever compatible.

Short term dredge-related discharges may be covered under the proposed DRGP provided the United States Army Corps of Engineers does not intend to issue a formal permit under 33 USC §1344 (§404 of the CWA) for the activities. If authorized to discharge under the proposed DRGP, this general permit does not authorize dredging or disposal of dredge material. This general permit also does not constitute authorization under §404 of any additional stream dredging or filling operations. EPA issued no authorizations to discharge of this type under the 2017 RGP.

Preservation of Historic and Cultural Resources:

- Support the preservation, management, and interpretation of historic and culturally significant structures, sites and districts along the Atlantic coast and in the Great Bay area.

The proposed DRGP is consistent to the maximum extent practicable with this enforceable policy by requiring that prior to submitting a NOI, an applicant certifies eligibility with regard to protection of historic properties listed in or eligible for listing in the National Registry of Historic Places. See Appendix C of the proposed DRGP for NHPA requirements and Section 1.5.4.5 of this fact sheet, above, for more information.

Marine and Estuarine Research and Education:

- Promote and support marine and estuarine research and education that will directly benefit coastal resource management. **– NA**

1.5.4.7 Environmental Impact Statement Requirements

The proposed DRGP does not authorize discharges from any new sources as defined under 40 CFR §122.2. Therefore, the National Environmental Policy Act, 33 USC §4321 *et seq.*, does not apply to the issuance of this general permit. EPA notes that there is a distinction between "new discharge" and "new source". Discharges covered by this general permit are generally considered new or existing discharges, but not new sources.

1.5.4.8 Section 404 Dredge and Fill Operations

The proposed DRGP continues to cover certain discharges resulting from certain short-term dredging-related activities, including, but not limited to: short-term pilot study or similar activity associated with dredging, and dredge material dewatering, including drain back waters. Authorization to discharge under the proposed DRGP would only be possible for dredge-related activities where the United States Army Corps of Engineers does not intend to issue a formal permit under 33 USC §1344 (§404 of the CWA) for the activities. This general permit does not authorize dredging or disposal of dredge material. This general permit does not constitute authorization under §404 of any dredging or filling operations.

1.5.4.9 Discharges via MS4

Sites seeking to discharge groundwater and certain surface waters to municipal or non-municipal collections systems, or from residential collection structures that are otherwise excluded from coverage under other EPA permits (e.g., EPA's CGP, EPA's MSGP, or an EPA MS4 permit) may be eligible to seek coverage under the DRGP. EPA's authorization to discharge under this general permit does not convey any rights or authorization to connect to a municipal or private storm sewer system owned by another party. In most cases, the owner of such infrastructure and the owner/operator of the site seeking coverage under the proposed DRGP are the same. However, in the case of separate ownership and/or different operators, an applicant must indicate that they plan to utilize such infrastructure in the NOI submitted to EPA and the appropriate State. Also, an applicant must indicate that the owner of the municipal or non-municipal storm sewer system to which an applicant intends to discharge has been notified, and permission to discharge to this system will be obtained prior to initiating discharges. Applicants may be subject to additional requirements by a municipality or other owner in such instances. An applicant must include a description of any such requirements imposed by the owner of the municipal or non-municipal storm sewer system to which they are proposing to discharge and certify in the NOI submitted to EPA that these conditions will be complied with.

1.5.4.10 Sites with additional NPDES permit obligations

Occasionally, an applicant requesting coverage under this general permit will be conducting remediation/dewatering activities at a site that is also covered under an additional discharge permit, including, but not limited to: EPA's CGP, EPA's MSGP, or an EPA MS4 permit. Where there is separate ownership and/or different operators of the area where remediation/dewatering activities to be covered under this general permit will occur and the area associated with the activities covered by the additional discharge permit(s),
the operator seeking authorization to discharge under this general permit must indicate in the NOI submitted to EPA that notification has been given to the owner/operator of the area associated with the activities covered by the additional discharge permit(s).

1.6 EPA Determination of Coverage

Any applicant may request coverage under this general permit, but the final authority rests with EPA. EPA will continue to post NOIs on EPA's NeT website for at least 30 days prior to making

its determination.[23] Coverage under the RGP is automatic, unless EPA has reviewed the NOI and any existing file information, and made a determination that coverage under the proposed DRGP is on hold. A site authorized to discharge under the final proposed DRGP will receive a written authorization to discharge from EPA, written correspondence can be by mail, email and/or facsimile transmittal The effective date of coverage will be the date indicated in the authorization to discharge provided by EPA.

Failure to submit a NOI to EPA and/or failure to receive from EPA written notification of permit coverage means that an operator is not authorized to discharge under this general permit. When EPA denies permit coverage for a site, an operator is not authorized to discharge under this general permit from that site to waters of the United States.

1.6.1 Requiring Coverage under an Individual Permit or Other General Permit

The proposed DRGP provides that EPA may require an individual permit or recommend coverage under a separate general permit in accordance with 40 CFR §122.28(b)(3). These regulations also provide that any interested party may petition EPA to take such an action. The issuance of the individual permit or other general permit would be in accordance with 40 CFR Part 124 and would provide for public comment and appeal of any final permit decision.

The Director may require any person authorized by this permit to apply for and obtain an individual NPDES permit. Circumstances under which the Director may require an individual permit are described in 40 CFR §122.28(b)(3)(i)(A-G), and provided below.

A determination under 40 CFR §122.28(b)(3), including:

- A change has occurred in the availability of the demonstrated technology of practices for the control or abatement of pollutants applicable to the point source(s);
- Effluent limitation guidelines are promulgated for the point source(s) covered by this permit;
- A Water Quality Management Plan or Total Maximum Daily Load containing requirements applicable to such point source(s) is approved and inconsistent with this permit;
- Circumstances have changed since the time of the request to be covered so that the discharger is no longer appropriately controlled under the general permit, or either a temporary or permanent reduction or elimination of the authorized discharge is necessary; or
- The discharge(s) is a significant contributor of pollutants.

The discharger is not in compliance with the conditions of this general permit.

The discharge(s) is in violation of State Water Quality Standards for the receiving water.

[23] Currently accessed at: http://www.epa.gov/region1/npdes/rgp.html.

Actual or imminent harm to aquatic organisms, including ESA or human health is identified.

The discharge adversely impacts any federally managed species for which EFH has been designated.

In the opinion of the Director, is more appropriately controlled under an individual or alternate general permit.

The point source(s) covered by this permit no longer:

- Involves the same or substantially similar types of operations;
- Discharges the same types of wastes;
- Requires the same effluent limitations or operating conditions; or
- Requires the same or similar monitoring.

If the Director requires an individual permit, EPA will notify the applicant or operator in writing that an individual permit is required, and will provide a brief explanation of the reasons for this decision. When EPA issues an individual NPDES permit to an operator otherwise subject to this general permit, the applicability of this general permit to that operator is automatically terminated on the effective date of the individual permit.

2. Permit Basis: Statutory and Regulatory Authority

2.1 Statutory Requirements

The CWA prohibits the discharge of pollutants to waters of the United States without a NPDES permit unless such a discharge is otherwise authorized by the CWA. See §301(a), 33 USC §1311(a). This NPDES general permit is issued to implement technology and water quality-based effluent limitations and other requirements, including monitoring and reporting, pursuant to the CWA. See §402, 33, USC §1342. The CWA and applicable State and Federal regulations provide the basis for the effluent limitations and other conditions in this NPDES general permit. See 33 USC §1251 *et seq.;* 40 CFR §§122 and 125; 314 CMR 3.00 and 4.00 *et seq.*; and Env-Wq 1700 *et seq.*

In general, the CWA requires that the effluent limitation for a particular pollutant parameter be the more stringent of either technology-based effluent limitations or water quality-based effluent limitations. The regulations governing the EPA NPDES permit program are generally found at 40 CFR Parts 122, 124, 125, and 136. The standard conditions of the proposed DRGP are based on 40 CFR §122.41 and consist primarily of management requirements common to all permits. The effluent monitoring requirements have been established to yield data representative of the discharge under authority of §308(a) of the CWA in accordance with 40 CFR §122.41(j), §122.44(i) and §122.48.

2.2 Technology-Based Requirements

Subpart A of 40 CFR §125 establishes criteria and standards for the imposition of technology-based treatment requirements in permits under §301(b) of the CWA, including the application of EPA-promulgated effluent limitations guidelines and standards (ELGs) and case-by-case determinations of effluent limitations under §402(a)(1) of the CWA.

Technology-based effluent limitations (TBELs) represent the minimum level of control that must be imposed under §§301(b) and 402 of the CWA to meet best practicable control technology currently available (BPT) for conventional pollutants and some metals, best conventional control technology (BCT) for conventional pollutants, and best available technology economically achievable (BAT) for toxic and non-conventional pollutants. 40 CFR §125 Subpart A. ELGs promulgated for non-POTWs must be complied with as expeditiously as practicable but in no case later than three years after the date such limitations are established, and in no case later than March 31, 1989. 40 CFR §125.3(a)(2). A NPDES permit cannot authorize compliance schedules and deadlines not in accordance with the statutory provisions of the CWA.

EPA has not promulgated ELGs for those discharges authorized by this general permit. Therefore, as provided in §402(a)(1) of the Act, EPA established TBELs in this general permit utilizing Best Professional Judgment (BPJ) to meet the above stated criteria for BAT/BCT described in §304(b) of the Act.

2.3 Water Quality-Based Requirements

Water quality-based effluent limitations (WQBELs) are required in NPDES permits when EPA and the States determine that effluent limitations more stringent than TBELs are necessary to attain or maintain State or Federal WQSs. CWA §301(b)(1)(C). WQSs consist of three parts: 1) beneficial designated uses for a water body or a segment of a water body; 2) numeric and/or narrative water quality criteria (WQC) sufficient to protect the assigned designated use(s) of the water body; and 3) anti-degradation requirements to ensure that once a use is attained it will not be degraded. EPA regulations pertaining to effluent limitations based upon WQSs and State requirements are contained in 40 CFR §122.44(d).

In retaining or proposing WQBELs in the proposed DRGP, EPA considered applicable WQC for aquatic life, human health and organoleptic effect, when available, including those limitations based on State WQSs. This includes EPA's *National Recommended Water Quality Criteria* (*NRWQC*) to the extent adopted by each State into their WQSs. EPA also considered additional information if necessary, including specific water quality standards in Massachusetts and New Hampshire. Section 2.3.1, below, includes additional information regarding EPA's consideration of State-specific standards. Section 3.2, below, includes information regarding the selection of applicable criteria. For the majority of the parameters limited in the proposed DRGP, the TBELs are equivalent to or more stringent than the WQBELs necessary to attain or maintain WQSs. However, where the WQBEL for a given parameter is more stringent than the TBEL for that parameter, the WQBEL is included in the proposed DRGP. For some limited Parameters, EPA included both a TBEL and a WQBEL in the proposed DRGP. The WQBEL applies to a site in this instance if, after allowable dilution, the WQBEL is more stringent than the TBEL. Therefore, the effluent limitations established in the proposed DRGP will ensure that the WQSs of the receiving waters will be attained and/or maintained. Section 3.2 and/or 3.3, below explains

the basis for WQBELs included in the proposed DRGP. Section 3.6 includes additional information regarding allowable dilution.

2.3.1 Consideration of Standards in Massachusetts, New Hampshire and Vermont

Massachusetts, New Hampshire, and Vermont water quality standards (WQSs) are not identical. Each State specifies numerical standards for certain parameters in their regulations. The Massachusetts Surface WQSs and implementation policy refer to published *NRWQC* and other sources for the majority of Parameters included in the proposed DRGP. [24] The New Hampshire Surface Water Quality Regulations (WQRs) include numerical standards for freshwater and marine waters for most of the parameters included in the proposed DRGP, including many parameters for which EPA has not yet established *NRWQC* (e.g., total polycyclic aromatic hydrocarbons, total phthalates, total dichlorobenzene). The Vermont Water Quality Standards are found at Environmental Protection Rule Chapter 29(a).

Massachusetts Surface WQSs and New Hampshire Surface WQRs also contain narrative standards for some parameters included in the proposed DRGP, rather than numeric WQC. For parameters with no current State numeric WQC or *NRWQC*, EPA considered the best available information in establishing effluent limitations for this general permit that meet narrative WQSs. Such information includes, but is not limited to: 1) EPA "Lowest Observed Effects Levels" (LOELs); 2) Maximum Contaminant Levels (MCLs) and/or threshold advisory values issued through EPA and/or State drinking water standards (DWSs); and/or 3) State groundwater quality standards (GQSs).

In sum, the additional State-specific standards considered in this general permit, include, but are not limited to:

- 314 CMR 4.00, Massachusetts Surface Water Quality Standards
- 310 CMR 40.0970 – 40.0979, Massachusetts MCP Method 1 Standards
- 310 CMR 22.00, Massachusetts Drinking Water Standards and Guidelines
- New Hampshire Chapter Env-Or 603.03, Ambient Groundwater Quality Standards
- New Hampshire Chapter Env-Wq 1700, Surface Water Quality Regulations
- New Hampshire Chapter Env-Dw 700, Drinking Water Quality Standards
- Vermont Water Quality Standards, Environmental Protection Rule Chapter 29A

EPA notes that the Commonwealth of Massachusetts is currently in the process of revising certain State WQSs. EPA expects the revisions to these standards will be finalized and approved by EPA following draft issuance of this DRGP. Similarly, the State of New Hampshire has completed promulgation of revised water quality standards. EPA has provided the numeric criteria relative to these updates in Appendix E. EPA invites comments regarding this issue.

[24] *Massachusetts Water Quality Standards Implementation Policy for the Control of Toxic Pollutants in Surface Waters*. February 23, 1990. Also, EPA's *National Recommended Water Quality Criteria:* 2002 EPA-822-R-02-047 (November 2002) as referenced in 314 CMR 4.05(5)(e)

2.4 Anti-Backsliding

A NPDES permit may not be renewed, reissued or modified with less stringent limitations or conditions than those contained in a previous NPDES permit unless in compliance with the anti-backsliding requirements of the CWA. CWA §402(o) and §303(d)(4) and 40 CFR §122.44(l)(1 and 2). Effluent limitations based on BPJ (i.e., TBELs), water quality (i.e., WQBELs), and CWA §401 certification requirements must also meet the anti-backsliding provisions found at §402(o) and §303(d)(4) of the CWA. There are a limited number of defined exceptions to this prohibition under CWA §402(o)(2). Certain less stringent effluent limitations may also be independently allowed, if the relaxation is consistent with the provisions of CWA §303(d)(4).

All effluent limitations included in the proposed DRGP: 1) are at least as stringent as limitations included in the 2017 RGP; or 2) meet the applicable anti-backsliding statutory and regulatory provisions for a less stringent effluent limitation. Therefore, the proposed DRGP complies with the anti-backsliding requirements of the CWA. Where the effluent limitation for a parameter included in the proposed DRGP is less stringent than the effluent limitation for that parameter as included in the 2017 RGP, the necessary justification under §402(o)(2) and/or §303(d)(4) of the CWA is noted in the basis for the effluent limitation for that parameter. See Section 3 of this fact sheet.

2.5 Anti-Degradation

Federal regulations found at 40 CFR §131.12 require that all existing uses in the receiving waters, along with the level of water quality necessary to protect those existing uses, are attained and maintained. The conditions of the proposed DRGP reflect the goal of the CWA and EPA to attain and maintain WQSs. The environmental regulations pertaining to State anti-degradation policies, which protect the States' surface waters from degradation of water quality, are found in the following provisions: Massachusetts Water Quality Standards 314 CMR §4.04 Anti-degradation Provisions; New Hampshire RSA 485-A:8, VI Part Env-Wq.; and the Vermont Antidegradation Policy found in Section 1-03 of the Vermont Water Quality Standards.

The proposed DRGP does not authorize discharges to into Class A or SA waters in Massachusetts unless the Commonwealth of Massachusetts conducts an anti-degradation review on a case-by-case basis for the proposed discharges and determines that such discharges meet State anti-degradation provisions. The State of New Hampshire does not authorize discharges to Class A waters under this general permit. On a case-by-case basis, the Commonwealth of Massachusetts and the State of New Hampshire may conduct anti-degradation reviews for notices of intent to discharge into Class B or SB waters, in accordance with appropriate State anti-degradation implementation, should either State determine that an anti-degradation review is necessary. EPA will not authorize discharges under the RGP without concurrence from the appropriate State, should the State determine that an anti-degradation review is necessary.

2.6 Section 401 Certification

EPA may not issue a permit unless the State Water Pollution Control Agency with jurisdiction over the receiving water(s) either certifies that the effluent limitations contained in the permit are

stringent enough to assure that the discharge will not cause the receiving water to violate the State WQSs, the State waives, or is deemed to have waived, its right to certify. *See* 33 U.S.C. § 1341(a)(1). Regulations governing state certification are set forth in 40 CFR § 124.53 and § 124.55. EPA has requested permit certification by the State pursuant to 40 CFR § 124.53 and expects that the Draft Permit will be certified.

If the State believes that conditions more stringent than those contained in the Draft Permit are necessary to meet the requirements of either CWA §§ 208(e), 301, 302, 303, 306 and 307, or applicable requirements of State law, the State should include such conditions in its certification and, in each case, cite the CWA or State law provisions upon which that condition is based. Failure to provide such a citation waives the right to certify as to that condition. EPA includes properly supported State certification conditions in the NPDES permit. The only exception to this is that the permit conditions/requirements regulating sewage sludge management and implementing CWA § 405(d) are not subject to the State certification requirements. Reviews and appeals of limitations and conditions attributable to State certification shall be made through the applicable procedures of the State and may not be made through EPA's permit appeal procedures of 40 CFR Part 124.

In addition, the State should provide a statement of the extent to which any condition of the Draft Permit can be made less stringent without violating the requirements of State law. Since the State's certification is provided prior to final permit issuance, any failure by the State to provide this statement waives the State's right to certify or object to any less stringent condition.

It should be noted that under CWA § 401, EPA's duty to defer to considerations of State law is intended to prevent EPA from relaxing any requirements, limitations or conditions imposed by State law. Therefore, "[a] State may not condition or deny a certification on the grounds that State law allows a less stringent permit condition." 40 CFR § 124.55(c). In such an instance, the regulation provides that, "The Regional Administrator shall disregard any such certification conditions or denials as waivers of certification." *Id.* EPA regulations pertaining to permit limitations based upon WQSs and State requirements are contained in 40 CFR §§ 122.4(d) and 122.44(d).

2.7 Federally Recognized Tribes

When an NPDES permit is issued on tribal trust or reservation land, the Tribe is the certifying authority where the Tribe has been approved by EPA for Treatment as a State (TAS) pursuant to CWA Section 518(e) and 40 CFR § 131.8. Section 401(a)(1) of the CWA requires applicants for Federal permits and licenses that may result in discharges into waters of the U.S. to obtain certification that the potential discharges will comply with the applicable provisions of the CWA, including Sections 301, 302, 303, 306, and 307. Where no State agency or Tribe has the authority to give such certification, EPA is the certifying authority. The Tribes listed below are federally recognized and do not have TAS for the tribal trust or reservation lands where discharges authorized under the CGP may occur. Therefore, to the extent that EPA has authority to do so, EPA issues the CWA §401 certifications for this permit on behalf of the following Tribes:

- Mashpee Wampanoag Tribe (Massachusetts)
- Wampanoag Tribe of Gay Head (Aquinnah) (Massachusetts)
- Mashantucket Pequot Tribal Nation (Connecticut)
- Mohegan Tribe (Connecticut)
- Narragansett Indian Tribe (Rhode Island)

3. Explanation of Discharge Limitations and Requirements

The proposed DRGP will authorize discharges to waters of the United States within Massachusetts and New Hampshire, Federal facilities in Vermont, and Indian Country lands in Connecticut and Rhode Island subject to limitations and requirements imposed pursuant to CWA §§301, 304, 306, 401 and 403, 33 USC §§1311, 1314, 1316, 1341 and 1343. The following sections describe the effluent limitations and requirements included in the proposed DRGP.

3.1 Indicator Parameters

During the development of the 2005, 2010 and/or 2017 RGPs and the 1996, 2008 and/or 2015 DGPs, EPA identified common groups of pollutants present or likely present at this and similar facilities. Further, EPA determined that it would be both impractical and unnecessary to attempt to evaluate and limit every possible individual pollutant among these common groups of pollutants. As a result, EPA determined that limiting "indicator parameters" in accordance with 40 CFR § 122.44(d)(1)(vi)(C) is reasonable and sufficiently stringent to carry out the provisions of the CWA and ensure compliance with applicable WQSs as required by CWA § 401(a)(2) and 40 CFR § 122.4(d).

For this general permit, EPA maintains that:

- The general permit identifies indicator parameters and which pollutants are intended to be controlled using the effluent limitations for these indicator parameters;
- This fact sheet sets forth the basis for the limitations, and finds that compliance with the effluent limitations on the indicator parameters will result in controls on the pollutants of concern which are sufficient to attain and maintain applicable WQSs;
- The general permit requires effluent and ambient monitoring necessary for EPA to evaluate whether the limitations on the indicator parameters meet applicable WQSs; and
- The general permit contains a reopener clause allowing EPA to modify or revoke and reissue the permit if the limitations on the indicator parameters no longer attain and maintain applicable WQSs.

EPA selected indicator parameters that: 1) are more common (i.e., more frequently detected in effluent from this and similar facilities); 2) are more toxic (e.g., priority pollutants in Appendix A to 40 CFR §423); 3) exhibit limiting physical and/or chemical characteristics with respect to susceptibility to treatment by pollution control technologies; and/or 4) exhibit physical and/or chemical characteristics strongly representative of other pollutants, which ensures that other pollutants with similar characteristics would also be removed by pollution control technologies. Therefore, effluent limitations established to control indicator parameters, also control the pollutants the indicator parameters represent.

These parameters have been selected based on the type of wastewater (i.e., groundwater, stormwater, potable water and surface water) that will be discharged, regardless of whether these parameters are known present at a given site. Since 1996 under the DGP and 2005 under the RGP, EPA has identified this subset of parameters as both common and indicative of the type(s) of treatment technology needed to ensure discharges comply with the limitations and conditions of these general permits, or identified these parameters as gaps in information necessary to carry out the provisions of the CWA. The frequency of occurrence is derived from the NOIs submitted for these general permits since 1996, available on EPA Region 1's websites for the DGP and the RGP, referenced above. EPA has grouped these indicator parameters according to wastewater, as described in the sections that follow.

3.1.1 Groundwater

The groundwater indicator parameters used in DRGP discharges include the following:

- pH
- Solids (e.g., total suspended solids, turbidity)
- Nutrients (e.g., total nitrogen)
- Oils and greases (e.g., total petroleum hydrocarbons)
- Minerals or elements (e.g., chloride, total dissolved solids), including total recoverable metals (e.g., copper, iron)

pH is an indicator parameter retained from the 2017 RGP.

The hydrogen-ion (H^-) concentration in an aqueous solution is represented by the pH using a logarithmic scale of 0 to 14 standard units (SU). Solutions with pH 7.0 SU are neutral, while those with pH less than 7.0 SU are acidic and those with pH greater than 7.0 SU are basic. Of note, although basic solutions are alkaline, basicity and alkalinity are not exactly the same. Basicity refers to the ratio of hydrogen and hydroxyl (OH^-) ions in solution, and is directly related to pH. Alkalinity is related to the acid-neutralizing capacity of a solution. In aquatic ecosystems, biological processes (e.g., decomposition) that increase the amount of dissolved carbon dioxide or dissolved organic carbon decrease pH but have no effect on acid-neutralizing capacity.[25] Operators occasionally adjust pH to optimize influent treatment that may involve the use of chemical additives for raising or lowering the pH of the water. Effluent with pH values markedly different from the receiving water pH can have a detrimental effect on the environment. Sudden pH changes can kill aquatic life.

Total Suspended Solids (TSS) is an indicator parameter retained from the 2017 RGP.

Solids could include inorganic (e.g., silt, sand, clay, and insoluble hydrated metal oxides) and organic matter (e.g., flocculated colloids and compounds that contribute to color). Solids can clog fish gills, resulting in an increase in susceptibility to infection or asphyxiation. Suspended

[25] Summarized from U.S. Environmental Protection Agency, Entry: Causal Analysis/Diagnosis Decision Information System, Volume 2: Sources, Stressors and Responses, pH. Available at http://www.epa.gov/caddis/index.html.

solids can increase turbidity in receiving waters and reduce light penetration through the water column or settle to form bottom deposits in the receiving water. Suspended solids also provide a medium for the transport of other adsorbed pollutants, such as metals, which may accumulate in settled deposits that can have a long-term impact on the water column through cycles of re-suspension. TSS can also cause interference with proper operation and maintenance of the pollution control technologies used by operators to meet limitations and requirements in this general permit. Therefore, control of TSS in the discharges covered by this general permit will help minimize the discharge of pollutants which are adsorbed to particulate matter. In addition, control of TSS will ensure proper operation of treatment units widely used to meet effluent limitations in this general permit.

Turbidity is a new indicator parameter in the proposed DRGP.

Turbidity is a measure of relative water clarity, with relatively higher turbidity corresponding to relatively lower water clarity. Materials such as inorganic matter (e.g., silt, sand, and clay), organisms (e.g., algae, plankton, and microbes) and detritus can contribute turbidity. Highly turbid water can influence the amount of dissolved oxygen in the water by decreasing light penetration in the water, in turn reducing photosynthesis, by increasing water temperature as suspended particles absorb heat, or by oxygen depletion as bacteria consume dead plant matter. Impacts to aquatic life from elevated sediment and turbidity can take place both through direct mortality in the short term and reduced reproductive success in the long term.[26] Physical effects on aquatic life include clogging fish gills, reducing growth and disease resistance, and sedimentation that may alter the nature of bottom sediments, smothering fish eggs and benthic macroinvertebrates. Turbidity can impact human health because higher turbidity levels are often associated with higher levels of disease-causing microorganisms such as viruses, parasites and some bacteria.[27]

Total Nitrogen is an indicator parameter revised from ammonia nitrogen in the 2017 RGP.

Nitrogen is an essential nutrient for plants and animals that is used in the structure of proteins and other molecules. However, elevated concentrations of nitrogen can result in eutrophication, especially in marine or estuarine environments, where nutrient concentrations lead to excessive plant and algal growth. Respiration and decomposition of plants and algae under eutrophic conditions reduce dissolved oxygen concentrations below levels necessary to support aquatic life. Total Nitrogen is the sum of Total Kjeldahl Nitrogen (TKN) (ammonium, organic and reduced nitrogen) and nitrate+nitrite. It is derived by individually monitoring for organic nitrogen compounds, ammonia, nitrate, and nitrite and adding the components together. The 2017 RGP included ammonia as an indicator parameter and required monitoring only to assess the relative prevalence of nutrients in dewatering and remediation discharges. For this DRGP EPA finds that regulation of total nitrogen is more appropriate due to the found prevalence of ammonia in the 2017 RGP and the overall impact of all nitrogen compounds on receiving waters, especially those marine or estuarine waters.

[26] *National Marine Fisheries Service Endangered Species Act Section 7 Consultation Biological And Conference Opinion* for EPA's Multi-Sector General Permit for Stormwater Associated with Industrial Activity Pursuant to the National Pollutant Discharge Elimination System; Table 10; March 19, 2015.
[27] May 2009, EPA 816-F-09-004.

Chloride is an indicator parameter retained from the 2017 RGP.

Chlorides are used heavily near roadways and are present near salt storage areas. As a result, the presence of chloride in groundwater in Massachusetts and New Hampshire is widespread. Other sources of chloride may include deicing salt, water softener discharge, and agricultural runoff. While the chlorides of potassium, calcium and magnesium are generally more toxic to aquatic life than sodium, sodium is likely the most common chloride present.[28]

Total Dissolved Solids is a new indicator parameter proposed in the DRGP.

Total dissolved solids (TDS) is a measure of the dissolved combined content of inorganic and organic substances present in a liquid in molecular, ionized, or micro-granular suspended form. TDS has been added as an indicator parameter in the DRGP as it represents a wide range of dissolved material in the discharge. Primarily TDS is a representation of ions of mineral salts such as sodium, potassium, chloride, calcium, magnesium, and sulfur. TDS in a waterbody impacts the survival and reproduction of aquatic species. Further, aesthetic effects imparted by TDS include undesirable taste, odor, and color. Technical effects related to elevated levels of TDS include hardness, corrosion, scale, and staining that can cause damage to water conveyance infrastructure, treatment system components, and reduce the effectiveness of treatment for other parameters. Certain components of TDS, such as chlorides, sulfates, magnesium, calcium, and carbonates, specifically affect corrosion or encrustation in water-distribution systems. High TDS levels (i.e., >500 mg/L) result in excessive scaling in water pipes, and components such as water heaters and boilers.[29] Corrosivity can impart additional pollutants to discharges, such as iron and copper and reduce water flow. Scale can restrict or even block water flow.

Total Petroleum Hydrocarbons is an indicator parameter retained from the 2017 RGP.

Total Petroleum Hydrocarbons (TPH) analysis measures the hydrocarbon fraction of oil and grease, consisting of compounds with six carbon atoms (C_6) to compounds with 25 carbon atoms (C_{25}) that serves as an indicator of relative petroleum-related contamination. The physical characteristics of the various petroleum fractions determine their fate and transport in the environment. The more soluble and volatile fractions are more likely to leach to groundwater, enter the air, or biodegrade. The relatively low density of smaller petroleum fractions tend to float in water and form thin surface films that affect aquatic organisms or other animals on the water's surface. The higher molecular weight compounds tend to sorb to sediment and persist at the site of release. These petroleum fractions tend to accumulate in substrates, causing stresses for benthic organisms, shellfish, or bottom-feeding fish.[30] The use of TPH as an indicator parameter is a common approach implemented by regulatory agencies in the United States to

[28] See *Ambient Water Quality Criteria for Chloride – 1988*. EPA 440/5-88-001, February, 1988.
[29] Guidelines for drinking-water quality, 2nd ed. Vol. 2. Health criteria and other supporting information. World Health Organization, Geneva, 1996.
[30] *Toxicological Profile for Total Petroleum Hydrocarbons (TPH).* September 1999; Agency for Toxic Substances and Disease Registry.

establish target cleanup levels for contaminated soil or water.[31] TPH is regulated by the CWA as stated in Title 40 Section 112, which pertains to discharge permitting. *See also* 40 CFR 122.26.

Metals:

The following metals are indicator parameters retained from the 2017 RGP: arsenic, copper, iron, lead, mercury, nickel, and zinc. With the exception of iron, these metals are priority pollutants in Appendix A to 40 CFR §423.

The metals present at dewatering and remediation sites are those most common, regardless of the activities occurring at a site, and the wastewaters generated during activities. These metals can be naturally occurring in the environment and generally vary in concentration according to underlying bedrock and surficial geology, as well as a result of their use or generation in industrial, commercial and residential application, or in anthropogenic fill material. Although metals are neither created nor destroyed by biological or chemical processes, metals can be transformed through processes such as adsorption, precipitation, co-precipitation, and complexation. Some metals are essential nutrients at low levels for humans, animals, plants and microorganisms, but toxic at higher levels (e.g., copper and zinc). Other metals have no known biological function (e.g., lead).

Chemical interactions with wastewaters, site pollutants, and surrounding geology can mobilize metals such as arsenic and iron, especially under reducing conditions. Metals cations are most mobile under acidic conditions, while anions tend to adsorb to oxide minerals at low pH. At high pH, metals anions are most mobile, while cations precipitate or adsorb to mineral surfaces. The fate and transport of metals in aquatic systems is highly dependent upon partitioning between soluble and solid phases. For example, hydrous metal oxides of iron can remove cations and anions from solution by ion exchange, specific adsorption and surface precipitation. These processes can be highly site-specific, varying by pH, oxygen-reduction potential, the concentration of complexing ions, and the species and concentration of the metal(s) present.[32]

Further, the environmental chemistry of metals strongly influences their fate and transport in the environment and their effects on human and ecological receptors. In aquatic systems, metal bioavailability refers to the concentration of soluble metal that adsorb onto, or absorb into and across, membranes of living organisms. The greater the bioavailability, the greater the potential for bioaccumulation, leading to increased toxicological effects.[33] Toxicity results when metals are biologically available at toxic concentrations affecting the survival, reproduction and behavior of an organism.

Arsenic is an indicator parameter retained from the 2017 RGP.

[31] See Weisman, W. (1998) *Analysis of Petroleum Hydrocarbons in Environmental Media*. Total Petroleum Hydrocarbons Criteria Working Group Series. Volume 1.
[32] Evanko, C.R., et.al. *Remediation of Metals-Contaminated Soils and Groundwater*. Technology Evaluation Report TE-97-01. EPA Technology Innovation and Field Services Division Contaminated Site Clean-Up Information.
[33] Magelhaes, Danielly et al. 2015. *Metal bioavailability and toxicity in freshwaters.* Environmental Chemistry Letters. DOI 10.1007/s10311-015-0491-9.

Arsenic occurs in the form of elemental arsenic, or inorganic or organic arsenic compounds. Inorganic arsenic occurs primarily in two oxidation states, arsenic III and arsenic V. Arsenic V is more common under oxidizing conditions, while Arsenic III is most common under reducing conditions. Arsenic does not breakdown, but may transform or adsorb to particulate matter and sediment. Arsenic in soil tend to form insoluble complexes with iron, aluminum, and magnesium oxides, and is relatively immobile. Under reducing conditions, arsenic can occur in water-soluble, mobile forms that can leach into groundwater or runoff into surface waters.[34]

Copper is an indicator parameter retained from the 2017 RGP.

Copper readily adsorbs to organic matter, clay, soil, or sand and does not easily breakdown. In aerobic sediments, copper can bind to iron oxides. In anaerobic sediments, copper can be reduced to form insoluble salts. Water-soluble copper compounds migrate to groundwater. In water, copper predominantly occurs in the copper II oxidation state, most of which is likely complexed or tightly bound to organic matter. In freshwater, most dissolved copper II occurs as carbonate complexes. Copper II forms compounds or complexes with both inorganic and organic ligands, including ammonia and chloride. Copper also forms stable complexes with organic ligands such as humic acids (e.g., compounds of nitrogen, sulfur or oxygen and hydrogen).[35]

Iron is an indicator parameter retained from the 2017 RGP.

Iron-bearing minerals in rocks and soils (e.g., clays) can contribute elevated levels of iron to groundwaters in New England.[36] Iron most commonly occurs as the ferrous (Fe^{2+}) and ferric (Fe^{3}) iron ions. These ions readily combine with oxygen- and sulfur-containing compounds to form oxides, hydroxides, carbonates, and sulfides. Fe^{2+} (iron salts) are relatively unstable and precipitate as insoluble Fe^{3+} (iron hydroxide). Fe^{3+} settles out of the water column as a rust-colored silt. Fe^{2+} can persist in waters absent dissolved oxygen, such as anaerobic groundwaters.[37] Iron can promote undesirable bacterial growth within treatment systems, generally resulting in the deposition of a slimy coating on piping (i.e., fouling).[38]

Lead is an indicator parameter retained from the 2017 RGP.

Lead most commonly occurs in the oxidation state Pb^{2+}. Lead does not breakdown, but may transform to other lead compounds. When lead is exposed to air and water, films of lead sulfate, lead oxides, and lead carbonates form, creating a protective barrier that slows or halts corrosion. Lead also strongly adsorbs to soil. As a result, lead is most commonly found in the upper layers of soil and sediment. The solubility of lead compounds in water is a function of pH, hardness, salinity, and the presence of humic material. Solubility is highest in soft, acidic water. Because

[34] *Toxicological Profile for Arsenic*. Agency for Toxic Substances and Disease Registry: August, 2007.
[35] *Toxicological Profile for Copper*. Agency for Toxic Substances and Disease Registry: September, 2004.
[36] DeSimone, L.A., et. al. *Quality of Water from Domestic Wells in Principal Aquifers of the United States, 1991–2004*. U.S. Geological Survey Scientific Investigations Report 2008–5227: 2009.
[37] *Quality Criteria for Water 1986*. EPA 440/5-86-001: May 1, 1986. (EPA's "Gold Book")
[38] *Health criteria and other supporting information.* World Health Organization; Guidelines for Drinking-Water Quality Second ed. Vol. 2: 1996.

of widespread historic use and the persistence of lead in the environment, high concentrations of lead can be present at sites.[39]

Cyanide is an indicator parameter retained from the 2017 RGP.

Cyanide is strongly associated with metals at dewatering and remediation sites because it readily forms complexes with transition metals, particularly iron. Cyanide occurs in water in many forms, including hydrogen cyanide (HCN), the cyanide ion (CN^-), simple cyanides, metallocyanide complexes, and as organic compounds. The relative concentrations of these forms depend mainly on pH and temperature. Both HCN and CN^- are toxic to aquatic life. The cyanide ion readily converts to hydrogen cyanide at pH values less than 7.0. As a result, when present, cyanide occurs more commonly as the more toxic hydrogen cyanide. Certain bacteria, fungi, and algae can also produce cyanide, and cyanide is found naturally in several species of plants.[40]

3.1.2 Stormwater

The stormwater indicator parameters used in DRGP discharges include the following:

- Solids (e.g., total suspended solids, turbidity)
- Nutrients (e.g., total nitrogen, total phosphorus)
- Bacteria (e.g., Enterococcus, e. Coli)
- Oils and greases (e.g., Oil and Grease)
- Minerals or elements (e.g., chloride, total dissolved solids), including total recoverable metals (e.g., copper, nickel, and zinc)

Any indicator parameter that applies to stormwater that also applies to groundwater is described above. Parameters not described above are described below:

Total Phosphorus is a new indicator parameter in the proposed DRGP.

Phosphorus is an essential nutrient for plant growth. However, elevated concentrations of phosphorus, especially freshwater environments can result in eutrophication, where nutrient concentrations lead to excessive plant and algal growth. Respiration and decomposition of plants and algae under eutrophic conditions reduce dissolved oxygen in the water and can create poor habitat for aquatic organisms and lead to harmful algal blooms, threatening human health as well as the environment. Phosphorus readily adheres to soil particles and as such is commonly found in stormwater. Therefore, For this DRGP EPA finds that regulation of total phosphorus is appropriate due to the prevalence in stormwater sources and the overall impact of phosphorus compounds on receiving waters.

E. Coli and *Enterococcus* are new indicator parameters in the proposed DRGP.

[39] *Toxicological Profile for Lead*. Agency for Toxic Substances and Disease Registry: August, 2007.
[40] *Toxicological Profile for Cyanide*. Agency for Toxic Substances and Disease Registry: July, 2006.

Stormwater runoff can readily transport bacteria from surfaces susceptible to the waste products of warm-blooded animals or pathogens, which attach to organic and inorganic particles. Bacteria can survive in freshwater and saltwater environments and can impact water quality. E. Coli is the indicator parameter applicable in freshwater and *Enterococcus* is the indicator parameter applicable in saltwater. These parameters are indicators of contamination from sewage and/or the feces of warm-blooded wildlife (mammals and birds) that can congregate at sites during dewatering and remediation activities. EPA and the States have focused aggressive efforts to control bacteria loads from these sources. Since stormwater discharges are a dominant source of bacteria pollution along with non-point sources, bacteria indicator parameters have been included in the proposed DRGP.

Oil and Grease is an indicator parameter retained from the 2015 DGP.

Oil and Grease is not a single chemical constituent, but includes a large range of organic compounds, which can be both petroleum-related (e.g., hydrocarbons) and non-petroleum (e.g., vegetable and animal oils and greases, fats, and waxes). These compounds have varying physical, chemical, and toxicological properties. Generally, oils and greases in surface waters either float on the surface, are solubilized or emulsified in the water column, adsorb onto floating or suspended solids and debris, or settle on the bottom or banks. Oil and grease, or certain compounds within an oil and grease mixture, can be lethal to fish, benthic organisms and water-dwelling wildlife.

Nickel is an indicator parameter retained from the 2017 RGP.

Nickel typically combines with sulfur to form sulfides under anaerobic conditions. In soil, nickel typically combines with oxygen to form oxides. Nickel strongly adsorbs to solids containing iron or manganese to form amorphous oxides. Nickel also adsorbs onto suspended particles, particulate matter and dissolved organic matter. Nickel compounds containing chlorine, sulfur, and oxygen are relatively water-soluble. Under acidic conditions, nickel is mobile in soil and will leach to groundwater,[41] and is common in stormwater runoff.

Zinc is an indicator parameter retained from the 2017 RGP.

Zinc occurs mainly as a free ion (i.e., Zn^{2+}) and can occur in both suspended and dissolved forms. Suspended zinc can dissolve and can readily adsorb onto suspended solids. Dissolved zinc generally increases as pH decreases and may occur as the free ion or as dissolved complexes and compounds. Under aerobic conditions and at high pH, zinc readily adsorbs onto hydrous iron and manganese oxides, clay minerals, and organic material. Zinc compounds found in stormwater runoff may include zinc chloride, zinc oxide, zinc sulfate, and zinc sulfide.[42]

3.1.3 Potable Water

The potable water indicator parameters used in DRGP discharges include the following:

[41] *Toxicological Profile for Nickel*. Agency for Toxic Substances and Disease Registry: August, 2005.
[42] *Toxicological Profile for Zinc*. Agency for Toxic Substances and Disease Registry: August, 2005.

- Solids (e.g., total suspended solids, turbidity)
- Nutrients (e.g., ammonia)
- Minerals or elements (e.g., total residual chlorine), including total recoverable metals (e.g., copper and lead)

Any indicator parameter that applies to potable water that also applies to groundwater and/or stormwater is described above. Parameters not described above are described below:

Ammonia is an indicator parameter retained from the 2017 RGP.

Ammonia (NH_3) is the unionized form of ammonia nitrogen. Elevated levels of ammonia can be toxic to aquatic life. Temperature and pH affect the toxicity of ammonia to aquatic life. The toxicity of ammonia increases as temperature increases and ammonia concentration and toxicity increase as pH increases. Ammonia can affect fish growth, gill condition, organ weights and hematocrit, and can result in excessive plant and algal growth, which can cause eutrophication. Ammonia can also affect dissolved oxygen through nitrification, in which oxygen is consumed as ammonia is oxidized. Low oxygen levels can then, in turn, increase ammonia by inhibiting nitrification. Total ammonia-nitrogen concentrations in surface waters tends to be lower during summer than during winter due to uptake by plants and decreased ammonia solubility at higher temperatures.

Total Residual Chlorine (TRC) is an indicator parameter retained from the 2017 RGP.

TRC consists of the sum of free chlorine and combined chlorine. Chlorine and chlorine compounds are toxic to aquatic life. Chlorine can also react with naturally occurring metals and organic compounds to form toxic compounds such as trihalomethane, or inorganic materials to form chloride salts (i.e., chlorine demand).[43] TRC may be present in discharges if operators use chlorine compounds to control bacterial growth in the treatment systems or in pipelines and tanks encounter, when disinfection of effluent co-mingled with incidental domestic sewage is necessary, or if discharges contain potable water that has been chlorinated as required in 40 CFR §141.72.

3.1.4 Surface Water

The stormwater indicator parameters used in DRGP discharges include the following:

- Solids (e.g., total suspended solids, turbidity)
- Oils and greases (e.g., Oil and Grease)
- Minerals or elements (e.g., total dissolved solids), including total recoverable metals (e.g., mercury)

[43] EPA 749-F-94-010, December, 1994; and *Toxicological Profile for Chlorine*. Agency for Toxic Substances and Disease Registry: November, 2010.

Any indicator parameter that applies to surface water that also applies to groundwater, stormwater and/or potable water is described above. Parameters not described above are described below:

Mercury is an indicator parameter retained from the 2017 RGP.

Mercury can occur in several forms, including elemental mercury, inorganic mercury, and organic mercury. Inorganic mercury compounds form with elements such as chlorine, sulfur, or oxygen (i.e., mercury salts). Organic mercury compounds form with carbon. The most common organic mercury compound is methylmercury, produced mainly by microorganisms in water and soil that convert inorganic mercury compounds.[44] Mercury is common in surface water as a result of addition by precipitation.

3.2 Limitations and Monitoring Requirements

The following sections explain the basis for the effluent limitations and monitoring requirements included in the proposed DRGP. The proposed DRGP includes both TBELs and WQBELs. Where an effluent limitation remains unchanged from the 2017 RGP and/or the 2015 DGP, the original basis for the limitation, as derived during development of prior RGPs and DGPs, remains publicly available for reference on EPA Region 1's website for these general permits.[45] Effluent limitations remain unchanged unless: 1) EPA identified an error in the derivation of the effluent limitation; 2) the information upon which the effluent limitation was based has changed, including, but not limited to revisions to WQSs and/or WQC; 3) an indicator parameter is a new addition to this general permit; or 4) a more stringent WQBEL is necessary to meet WQSs or CWA §401 certification requirements. The basis for a proposed change to or addition of an effluent limitation, as well as supplemental information in support of the original basis for the effluent limitation for each indicator parameter, if necessary, is included below.

Technology-based limitations

Technology-based treatment requirements under §301(b) of the CWA represent the minimum level of control that must be imposed in a §402 permit. 40 CFR 125.3(a). Accordingly, technology-based effluent limitations (TBELs) are applied at end-of-pipe rather than calculated using a dilution factor: 40 CFR 125.3(a). Although EPA-promulgated ELGs are not directly applicable to the discharges covered by this general permit, technology-based treatment requirements found in ELGs for similar activities, waste streams, and/or treatment may inform case-by-case BPJ determinations. The TBELs included in the DRGP are applied as the maximum allowable concentrations, and have been retained from the 2017 RGP and/or 2015 DGP. See Part 2.1 and Appendix E of the DRGP.

The TBELs included in this general permit have generally been routinely, and economically attained with minimal additional costs, process changes, or non-water quality environmental impact, using widely available and highly effective control measures and treatment technologies that require standard operation and maintenance and engineering. The majority of discharges

[44] *Toxicological Profile for Mercury*. Agency for Toxic Substances and Disease Registry: March, 1999.
[45] Currently accessed at: http://www.epa.gov/region1/npdes/rgp.html

previously covered under the DGP and RGP have achieved TBELs using off-the-shelf, economically viable, and proven treatment systems including: 1) adsorption/absorption; 2) advanced oxidation processes; 3) air stripping; 4) granulated activated carbon/liquid phase carbon adsorption; 5) ion exchange; 6) precipitation/coagulation/flocculation; and 7) separation/filtration. EPA does not prescribe specific technologies to meet the effluent limitations and requirements in this general permit. Accordingly, the TBELs in the proposed DRGP represent a minimum level of treatment based on widely available treatment technologies while allowing the operator to select the pollution control technology necessary to meet the limitations.

Water quality-based limitations

EPA further considers parameters to evaluate if the TBELs are sufficiently stringent to meet State WQSs. §301(b)(1)(C) of the CWA. The regulation at 40 CFR §122.44(d)(1) requires that permits include limitations on all pollutants or parameters which "are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard, including state narrative criteria for water quality." Because this general permit is intended to apply to a variety of sites with similar discharges, in determining whether the discharge of any indicator parameter causes or has the reasonable potential to cause or contribute to an excursion above WQSs, EPA could not follow the standard statistical methodology described in EPA's TSD for analysis using site-specific effluent data. In the absence of effluent data, EPA's TSD[46] provides methodology for making such a determination using a variety of factors and information in accordance with 40 CFR §122.44(d)(1)(ii). To provide for a conservative measure of water quality protection, and to create a general permit that is useable for receiving waters across the States, EPA selects the most conservative factors which could apply to a site in order to be protective of all sites.

Therefore, State numeric and narrative water quality criteria (WQC) and TMDLs are the primary basis for and directly incorporated as WQBELs in the proposed DRGP, including numeric criteria based on EPA's National Recommended Water Quality Criteria (NRWQC). Where the effluent limitation for an indicator parameter included in the proposed DRGP is a WQBEL, EPA will apply the most stringent of both aquatic life and human health WQC, based on the receiving water information provided in the NOI for a site (e.g., receiving water class, designated uses, fisheries and/or shellfishing). The limitations for these parameters only apply to a site where a given parameter is known or believed present. Since 2005, the majority of discharges covered under EPA's RGP typically contain only a small number of these parameters, but vary on a site-by-site basis. Therefore, to ensure EPA properly accounts for small differences in dewatering and remediation sites, only those parameters known or believed present at a site will apply on a case-by-case basis. All operators are required to disclose any parameter known or believed present at their site and any numeric water quality criterion will apply automatically, and a limitation based on this criterion will apply to their discharge.

WQBELs included in the proposed DRGP are shown as single effluent limitations based on an assumption of no available dilution. An applicant may request a dilution factor from the

[46] See EPA's *Technical Support Document for Water Quality-based Toxics Control:* EPA/505/2-90-001, 1991: pages 50-51.

appropriate State for indicator parameters with WQBELs. If approved by the appropriate State, the WQBELs are calculated in the NOI using the approved dilution factor. When WQBELs are calculated using an approved dilution factor, the more stringent of the calculated WQBEL and the TBEL applies. If a TMDL applies, this limitation supersedes both the calculated WQBEL and the TBEL. An applicant must provide the proposed dilution factor, a copy of State approval in the NOI submitted to EPA. Appendix F of the proposed DRGP includes the calculation methodology for limitations for this general permit.

3.2.1 Wastewater Limitations

The majority of limitations proposed in the 2021 DRGP are unchanged from the limitations included in the 2017 RGP and/or 2015 DGP, including those retained from the 2005 and/or 2017 RGPs and the 1996 and 2010 DGPs and are listed below. Limitations unchanged meet the anti-backsliding requirements of the CWA §§402(o) and 303(d)(4) and 40 CFR §122.44(l)(1 and 2). Relevant supplemental information in support of the original basis for the effluent limitation for each of these parameters is provided in the 2017 RGP's Fact Sheet.[47] Where a wastewater limitation is new or revised, the basis is described below.

This section describes limitations for parameters applicable to all sites based on the wastewater(s), but includes an explanation of the basis for only new or revised limitations.

pH: The DRGP retains the 2017 RGP limitation for pH range of 6.0 SU to 9.0. EPA notes that the pH range limitations in the State Permit Conditions of the DRGP are generally expected to supersede this TBEL because they are more stringent. However, because States occasionally allow for site-specific pH limitations, EPA is retaining this TBEL for pH in the proposed DRGP as not to exceed values, in the event site-specific pH limitations are approved by the States.

Total Suspended Solids (TSS): The DRGP retains the 2017 RGP TSS limitation, 30 mg/L.

Turbidity: The DRGP proposes turbidity limitations based on the ecoregion criteria, up to 50 NTU.

EPA has determined turbidity from the types of discharges authorized under this general permit could exceed State narrative WQSs for color and turbidity and aesthetics given: 1) the allowable site activities, which involve the generation and treatment of fine solids; 2) the maximum levels of turbidity allowed in discharges (i.e., the TBEL of 50 NTU); and 3) the widespread listing of sediment-related impairments in the applicable States. Therefore, a limitation is required.

The benchmark threshold for turbidity for EPA's Construction General Permit (CGP) is 50 NTUs and is included in the proposed DRGP as the maximum allowable discharge limitation. Since the majority of sites covered under EPA's previous DGP and RGP are the result of construction-related dewatering, and since both a benchmark exceedance and a limitation exceedance function to prompt immediate corrective action under the terms and conditions of these permits, EPA finds that the application of this benchmark as a discharge limitation is

[47] This document is available at: https:// www.epa.gov/npdes-permits/remediation-general-permit-rgp-massachusetts-new-hampshire.

equivalent and appropriate. In addition, EPA has published final recommended ambient water quality criteria to address nutrient pollution under Section 304(a) of the CWA relative to general geologic and hydrologic boundaries referred to as ecoregions. Specifically, the turbidity criteria are contained in ecoregion XIV Eastern Coastal Plain, and ecoregion VIII Nutrient-Poor, Largely Glaciated Upper Midwest and Northeast.[48] These limitations are included in full in Appendix E.

Therefore, EPA is proposing a water quality-based numeric limitation for turbidity for all sites based on the applicable ecoregion criteria, which may be adjusted for allowable dilution up to a maximum of 50 NTU. If no ecoregion criterion applies to a given receiving water, the applicable limitation is 50 NTU. These proposed limitations are required by 40 C.F.R. § 122.44(d)(1)(iii) and are based on certification requirements under § 401(a)(1) of the CWA, as described in 40 C.F.R. §§ 124.53 and 124.55.

Total Dissolved Solids The DRGP proposes a TDS limitation of 500 mg/L.

Concentrations of TDS from natural sources have been found to vary from less than 30 mg/L to as much as 6000 mg/L, depending on the solubilities of minerals in different geological regions. For example, values, expressed as the sum of the constituents, were below 500 mg/L in 36 of 41 rivers monitored in Canada, and ranged from 65 to 227 mg/L in a survey of the Great Lakes. The application of deicing materials has been identified as a major and widespread source of increased TDS in groundwaters and surface waters. For example, in Region 1, between 1955 and 1970, a tenfold increase in the salinity of the groundwater at Burlington, MA, was noted, resulting from road de-icing.[49]

EPA has established National Secondary Drinking Water Regulations (NSDWRs) that set non-mandatory water quality standards for total dissolved solids (TDS) at 500 mg/L. EPA does not enforce these "secondary maximum contaminant levels" (SMCLs) under the Safe Drinking Water Act. However, they are established as guidelines to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color, and odor. Since this general permit is intended to apply to a wide variety of sites, and authorizes discharges that may include groundwater supply wells and potable water, EPA has selected this limitation as a maximum allowable value.

Conventional treatments will remove a variety of TDS components. Coagulation (or flocculation) and filtration removes the particulate components. Aeration removes odors and can aid in the precipitation of components in dissolved form. Granular activated carbon will remove most of the components which cause odors, color, and foaming. Non-conventional treatments like distillation, reverse osmosis, and electrodialysis are most effective for removal of chloride, total dissolved solids, and other inorganic substances.[50] Therefore, EPA has selected 500 mg/L as the maximum limitation in the proposed DRGP.

[48] December 2000, EPA 822-B-00-022 and December 2001, EPA 822-B-01-015.
[49] Guidelines for drinking-water quality, 2nd ed. Vol. 2. Health criteria and other supporting information. World Health Organization, Geneva, 1996.
[50] See EPA Secondary Drinking Water Treatment Standards.

Total Nitrogen: The DRGP proposes limitations for total nitrogen (rather than one component of total nitrogen, ammonia) based on the ecoregion criteria, up to 10 mg/L.

As previously described, total nitrogen refers to organic and inorganic nitrogen compounds, and nitrate, and nitrite. Certain forms of nitrogen can be directly toxic to aquatic life at high concentrations. For example, nitrite is toxic to rainbow trout at concentrations of approximately 4 mg/L. In addition, the toxicity of ammonia increases as temperature increases and pH decreases.[51]

EPA has published final recommended ambient water quality criteria to address nutrient pollution under Section 304(a) of the CWA relative to general geologic and hydrologic boundaries referred to as ecoregions. These Ecoregional Nutrient Criteria, established as part of an effort to reduce problems associated with excess nutrients in water bodies, are based on specific areas of the country. In Region 1, the total nitrogen criteria are contained in ecoregion XIV Eastern Coastal Plain, and ecoregion VIII Nutrient-Poor, Largely Glaciated Upper Midwest and Northeast.[52] These limitations are included in full in Appendix E.

In addition, EPA's National Primary Drinking Water Regulations (NPDWR) contain maximum contaminant levels (MCLs) for certain ammonia compounds. MCLs are the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology and taking cost into consideration. MCLs are enforceable standards. The MCL for nitrate+nitrite is 10 mg/L. Since this general permit is intended to apply to a wide variety of sites, and authorizes discharges that may include groundwater supply wells and potable water, EPA has selected this limitation as a maximum allowable value for total nitrogen (not just nitrate+nitrite) in order to be conservative.

In sum, EPA is proposing a water quality-based numeric limitation for total nitrogen for all sites based on the applicable ecoregion criteria, which may be adjusted for allowable dilution up to a maximum of 10 mg/L. If no ecoregion criterion applies to a given receiving water, the applicable limitation is 10 mg/L, unless an impaired waters limitation applies in Appendix G. These proposed limitations are required by 40 C.F.R. § 122.44(d)(1)(iii) and are based on certification requirements under § 401(a)(1) of the CWA, as described in 40 C.F.R. §§ 124.53 and 124.55.

Total Phosphorus: The DRGP proposes total phosphorus limitations based on the ecoregion criteria, up to 0.1 mg/L.

EPA has published national guidance documents that contain recommended total phosphorus criteria and other indicators of eutrophication. EPA's Quality Criteria for Water 1986 (the Gold Book) recommends, to control eutrophication, that in-stream phosphorus concentrations should be less than 100 µg/l (0.1 mg/L) in streams or other flowing waters not discharging directly to lakes or impoundments.

As previously described, EPA established ecoregion-specific criteria representing conditions in waters minimally impacted by human activities, and thus representative of water without cultural

[51] April 2013, 822-R-18-002.
[52] December 2000, EPA 822-B-00-022 and December 2001, EPA 822-B-01-015.

eutrophication. For example, Ecoregion XIV, Eastern Coastal Plain, Northeastern Coastal Zone. Recommended criteria for this Ecoregion are found in Ambient Water Quality Criteria Recommendations, Information Supporting the Development of State and Tribal Nutrient Criteria, Rivers and Streams in Ecoregion XIV, published in December, 2001, and includes a total phosphorus criterion of 23.75 µg/l (0.024 mg/L). These reference-based values are statistically derived from a comparison within a population of rivers in the same ecoregion class. Specifically, reference conditions presented are based on the 25th percentile of all nutrient data, including a comparison of reference conditions for the aggregate ecoregion versus sub ecoregions (see Ecoregional Nutrient Criteria at vii). These values are a quantitative set of river characteristics (physical, chemical, and biological) that represent minimally impacted conditions. Thus, reference conditions reflect minimally disturbed conditions.

Therefore, EPA has selected the ecoregion criteria and has proposed the Gold Book-recommended concentration (0.1 mg/L) to set the maximum limitation in the proposed DRGP. This value is based on effects and is often more directly associated with an impairment to a designated use (i.e., fishing, swimming). The effects-based approach provides a threshold value above which adverse effects (i.e., water quality impairments) are likely to occur. It applies empirical observations of a causal variable (i.e., phosphorus) and a response variable (i.e., chlorophyll a) associated with designated use impairments. In sum, the ecoregion criteria apply as the discharge limitation, and may be adjusted for approved dilution up to, but not exceeding 0.1 mg/L.

Chloride: The DRGP proposes revised chloride limitation based on TMDL requirements up to 250 mg/L.

Consistent with the 2017 RGP, when a waterbody is listed for impairment for chloride, an effluent limitation is necessary to meet the requirements of CWA. Pursuant to 40 CFR §122.44(d)(1)(i), this limitation is necessary because where a waterbody is impaired, any addition of chloride is or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above State WQSs. See Appendix G.

Further, EPA's aquatic life *NRWQC* are included in the State water quality standards as a numeric criterion. In Massachusetts, 310 CMR 4.05(e) includes this numeric limitation by reference to EPA's 2002 *NRWQC*.[53] However, these State WQSs are less stringent than the NSDWRs for chloride at 250 mg/L. EPA does not enforce these "secondary maximum contaminant levels" (SMCLs) under the Safe Drinking Water Act. Since this general permit is intended to apply to a wide variety of sites, and authorizes discharges that may include groundwater supply wells and potable water, EPA has selected this limitation as a maximum allowable value for freshwater.

Oil and Grease: The DRGP retains the 2015 DGP limitation, 15 mg/L.

Total Petroleum Hydrocarbons: The DRGP retains the 2017 RGP limitation, 5.0 mg/L.

[53] EPA 822R-02-047, November 2002.

Total Residual Chlorine (TRC): The DRGP retains the 2017 RGP limitation, 200 µg/L (0.2 mg/L).

Metals: The following limitations are expressed in terms of the recoverable metal in the water column, unless otherwise noted.

Arsenic: The DRGP retains the 2017 RGP limitation, 104 µg/L.

Copper: The DRGP retains the 2017 RGP limitation, 242 µg/L.

Iron: The DRGP retains the 2017 RGP limitation, 5,000 µg/L.

Lead: The DRGP retains the 2017 RGP limitation, 160 µg/L.

Mercury: The DRGP retains the 2017 RGP limitation, 0.739 µg/L. EPA notes that this limitation is more stringent than most WQBELs.

Nickel: The DRGP retains the 2017 RGP limitation, 1,450 µg/L.

Zinc: The DRGP retains the 2017 RGP limitation, 641 µg/L.

Cyanide: The DRGP retains the 2017 RGP limitation, 178 µg/L. This TBEL is expressed as total recoverable cyanide (CN). Total cyanide must be reported.

3.2.2 Monitoring Requirements

EPA is proposing removal of the application monitoring requirements for individual parameters other than those required for each wastewater type in the DRGP. The inclusion of these compounds as indicator parameters for all sites is unnecessary and/or redundant because the frequency of occurrence for any of these individual parameters varies across sites and is generally low. Further, any site where a given parameter is present, is subject to a limitation individually, rendering duplicative use as an indicator parameter unnecessary. Specifically, when an applicant identifies that a parameter listed in Appendix E and/or Appendix G of the DRGP is known or believed present at a site, a limitation applies for that parameter.

The presence of any additional parameters not limited by this general permit must also be reported in the NOI submitted to EPA. The presence of additional contaminants does not necessarily exclude such a site from coverage. If control measures prevent discharges of the additional parameters, or effluent limitations may be imposed such that the discharge meets the requirements of this general permit, coverage may still be possible. Otherwise, an individual permit may be required.

3.2.3 Discharge Flow

Generally, effluent flow is one factor EPA considers in deriving effluent limitations that comply with the CWA in a NPDES permit. Often, EPA uses effluent flow to calculate the effluent

limitations themselves. EPA practice includes use of design flow as a reasonable and important worst-case condition in EPA's calculation of certain TBELs, and WQBEL determinations that ensure compliance with WQSs under §301(b)(1)(C) of the CWA. In order to ensure that the assumptions underlying EPA's analyses and derivation of permit effluent limitations remain sound for the duration of this general permit, the proposed DRGP incorporates flow as an indicator parameter. Further, the addition of effluent flow as an indicator parameter in the proposed DRGP will ensure that any treatment system used at a site to meet the effluent limitations and requirements of this general permit will be operated and maintained as designed.

The 2015 DGP and 2017 RGP did not establish any one numeric limitation for effluent flow for dewatering and/or remediation discharges. However, the 2017 RGP included a BMP that limited effluent flow to the design flow of the treatment system in use at an individual site for sites in Massachusetts and New Hampshire. The effluent flow limitation was then determined on a case-by-case basis, set equal to the design flow provided by an applicant in the NOI submitted to EPA for a site up to 1.0 million gallons per day (MGD). The proposed DRGP retains this design flow BMP and site-specific discharge flow limitation. Additional information regarding this BMP requirement is described in Section 3.3.1, below.

Discharge flow is one factor EPA considers in deriving effluent limitations that comply with the CWA in a NPDES permit. EPA may ensure the effluent flow assumptions used to derive TBELs or WQBELs through imposition of permit conditions for effluent flow. Thus, a discharge flow limitation is a component of the effluent limitations for other indicator parameters because the effluent limitations for certain indicator parameters are premised on a maximum level of flow. Because this is a general permit, discharges occur within a range of potential design flows. The majority of discharges covered under the RGP since 2005 have reported design flows that typically range from approximately 25 GPM to 100 GPM (approximately 0.036 MGD to 0.144 MGD). A smaller number of discharges had design flows up to approximately 500 gallons per minute (0.72 MGD) with a very limited number reported at 1.0 MGD. Therefore, the proposed DRGP will authorize discharges up to the design flow of the treatment system in use at a site, *not to exceed* 1.0 MGD. In other words, when the design flow of a site's treatment system is less than 1.0 MGD, the maximum effluent flow for the site will be limited to the design flow of the treatment system as reported in an applicant's NOI. When the design flow of a site's treatment system is greater than 1.0 MGD, the maximum effluent flow for the site will be limited to 1.0 MGD. Effluent flow cannot exceed the flow of or alter the structural characteristics of the receiving water. Flow control measures (e.g., sediment filters, splash blocks) must be used if necessary to dissipate energy and control erosion or scouring during discharge.

3.2.4 Case-by-Case Limitations

With respect to TBELs, as provided in §402(a)(1) of the CWA, the proposed DRGP includes TBELs for the parameters included in the 2017 RGP. The majority of these TBELs apply on a case-by-case basis in accordance with Part 6 of the DRGP and are listed in Appendix E of the DRGP. The TBEL is the applicable limitation for a given parameter, if no wastewater limitation or other case-by-case limitation also applies that is more stringent. In the event a case-by-case limitation also applies (i.e., a water quality-based limit or an impaired waters limit), the TBEL represents the maximum allowable value for a given parameter. In other words, if a parameter

has both a TBEL and a WQBEL and the WQBEL is more stringent, the WQBEL applies, adjusted for allowable dilution, only up to but not exceeding the TBEL. If the parameter has both a TBEL and an impaired water limitation (e.g., TMDL), the TBEL would apply if it is the more stringent of the two limitations, unless otherwise required by a TMDL in Appendix G.

Provisions in the Massachusetts and New Hampshire State surface WQSs developed under §303(c) of the CWA and 40 CFR §131, and approved by EPA, provide minimum criteria to ensure designated uses are attained and maintained for uses and classes of waters determined by the States. These water quality criteria are found in 314 CMR 4.00, Massachusetts Surface Water Quality Standards, Chapter 1700, New Hampshire Surface Water Quality Regulations, and Environmental Protection Rule Chapter 29A, Vermont Water Quality Standards. Numeric criteria established in these State regulations apply to any site where a given parameter is known or believed present.

While all parameters limited through WQBELs in the 2017 RGP have been retained, EPA has consolidated these parameters in Appendix E in the proposed DRGP. The basis for the effluent limitations or monitor-only requirements for the parameters are unchanged. However, the consolidation and applicability of these parameters is on a case-by-case basis. To avoid the potential for error, these criteria tables are included as attachments to Appendix E.

EPA notes that the proposed DRGP retains the WQBELs (and TBELs, if applicable) for the metals indicator parameters included in Appendix E, and these effluent limitations are expressed as end-of-pipe limitations set equal to the applicable WQC. Additional calculations are required for any metal that is hardness-dependent in freshwater,[54] shown in Appendix E at a hardness of 100 mg/L of calcium carbonate ($CaCO_3$).[55] In addition, an applicant may request a dilution factor from the appropriate State for the purposes of calculating WQBELs. Additional calculations are also required for any metal that is not expressed as total recoverable metal in the water column.[56] These calculations are completed automatically in an operator's NOI through NeT. However, EPA has provided the calculation methodology for WQBELs in Appendix F for reference.

The following parameters retained from the 2017 RGP are included in the proposed DRGP and apply on a case-by-case basis:

Cadmium
Chromium III
Chromium VI
Selenium
Silver
Total BTEX
Benzene

[54] Sites in Massachusetts must use actual discharge and receiving water hardness; Sites in New Hampshire must use actual discharge and receiving water hardness or as otherwise required by New Hampshire WQSs in New Hampshire (*see* Env-Wq 1703.22(f).
[55] EPA's *NRWQC* assume a hardness of 100 µg/L $CaCO_3$.
[56] Sites in Massachusetts must refer to conversion factors from EPA's *The Metals Translator: Guidance for Calculating a Total Recoverable Permit Limit from a Dissolved Criterion*. EPA 823-B-96-007: June, 1996. Sites in New Hampshire must use the factors for individual metals in Env-Wq 1703.23 and 1703.24, or as revised.

1,4-dioxane
Acetone
Phenol
Carbon Tetrachloride
Total dichlorobenzene
1,2 Dichlorobenzene (1,2-DCB)
1,3 Dichlorobenzene (1,3-DCB)
1,4 Dichlorobenzene (1,4-DCB)
1,1 Dichloroethane (1,1-DCA)
1,2 Dichloroethane (1,2-DCA)
1,1 Dichloroethylene (1,1-DCE)
Ethylene Dibromide (EDB)
Methylene Chloride
1,1,1 Trichloroethane (1,1,1-TCA)
1,1,2 Trichloroethane (1,1,2-TCA)
Tetrachloroethylene (PCE)
Trichloroethylene (TCE)
cis-1,2 Dichloroethylene (DCE)
Vinyl Chloride
Total Phthalates
Diethylhexyl Phthalate (DEHP)
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(k)fluoranthene
Chrysene
Dibenzo(a,h)anthracene
Indeno(1,2,3-cd)pyrene
Total Group II PAHs
Naphthalene
Pentachlorophenol (PCP)
Methyl *tert*-Butyl Ether
***tert*-Butyl Alcohol (tBA)**
***tert*-Amyl Methyl Ether (tAME)**

The following case-by-case limitations have been revised in the proposed DRGP:

Total Group I Polycyclic Aromatic Hydrocarbons (PAHs)

Total Group I PAHs is the sum of: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene. The TBEL for this parameter in the proposed DRGP has been revised from 0.1 µg/L to 0.35 µg/L.

The 2005 RGP established a TBEL for total Group I PAHs of 10.0 µg/L. The 2005 RGP also specified effluent limitations below the laboratory minimum level with a corresponding compliance level equivalent to the ML for analysis by EPA Method 610 using high pressure

liquid chromatography (HPLC) for each individual Group I PAH compound. The sum of the MLs included in the 2005 RGP Appendix F for analysis of the Group I PAH compounds using HPLC is 9.4 µg/L. EPA expected that pollution control technologies used by sites to meet the compliance levels would remove the Group I PAH compounds to levels below compliance levels. Consequently, the total Group I PAH effluent limitation is the approximate sum of MLs specified for the individual Group I PAHs, equivalent to the occurrence of each individual PAH compound at approximately MLs, adjusted upward to account for variation in analytical MLs routinely achieved.

The 2010 RGP updated the compliance levels for each individual Group I PAH compound to 0.1 µg/L, equivalent to the ML that is achievable for analysis by 40 CFR Part 136 test methods using selected ion monitoring (SIM) (e.g., Method 625). SIM is a test method modification included under allowable changes in 40 CFR Part 136.6(b)(xv).[57] The 2017 RGP maintained that analysis of Group I PAH compounds achieve a ML of 0.1 µg/L or less. Therefore, the sum of Group I PAH compound MLs in compliance with this requirement is 0.7 µg/L. The 2017 RGP TBEL reflected the sum of the compliance levels for individual PAH compounds, adjusted upward to 1.0 µg/L to account for variation in analytical MLs expected to be achieved.

In December 2016, EPA issued a revised Method 625.1: Base/Neutrals and Acids by gas chromotography/mass spectrometry.[58] This revision is based on a previous protocol, on the basic revision promulgated October 26, 1984 (49 FR 43234), and on an interlaboratory method validation study. In addition, in January 2021, EPA Region 1's laboratory updated its Standard Operating Procedure for analysis using EPA test method 625 to incorporate the update. The minimum level routinely achieved by EPA is 0.05 µg/L.

If a discharge meets both the compliance level for each individual Group I PAH compound, 0.05 µg/L, and uses a 40 CFR Part 136 test method as required with the most recent update allowing test method modifications for low level analysis (e.g., 625.1), that discharge will also meet the proposed total Group I PAH TBEL. EPA continues to expect that the pollution control technologies used by sites covered under this general permit will remove these compounds to levels below detection, and therefore, compliance levels. EPA notes that matrix specific MLs are still allowable. See Appendix I for more information.

Total Polychlorinated Biphenyls (PCBs)

The only method currently approved at 40 CFR Part 136 for monitoring PCBs in wastewater is Method 608.3, which targets seven common Aroclor mixtures and has a published ML for one or more Aroclors of 95 ng/L (0.095 µg/L).[59]

Most PCB contamination in the environment is highly weathered and often does not resemble any of the Aroclor mixtures and there are non-Aroclor sources of PCB in the environment, Aroclor results are likely to underestimate PCB contamination or provide non-detects in a sample when compared to the analysis of individual PCB congeners. As a result, in 2020, EPA's

[57] As of 77 FR 29759, May 18, 2012. Federal Register Vol. 77, No. 97.
[58] See EPA 821-R-16-007.
[59] See Table 1 in 40 CFR Part 136, Method 608.3 - Organochlorine Pesticides And PCBs By GC/HSD, Part 21.

Office of Water completed a multi-laboratory validation of Method 1628, a PCB congener method using low-resolution gas chromatography - mass spectrometry with selected ion monitoring (GC-MS-SIM). This method identifies and quantifies PCBs using individual congeners, not Aroclors, and is more sensitive than Method 608.3, but not so sensitive that it is susceptible to background contamination issues. The MLs for individual congeners varies from 0.5 to 10 ng/L (0.0005 µg/L to 0.01 µg/L) and up to 20 ng/L (0.02 µg/L) for congener sums.

Specifically, Method 1628 is for determination of all 209 polychlorinated biphenyl (PCBs) congeners in wastewater and other matrices, by low-resolution gas chromatography/mass spectrometry (GC/MS) using selected ion monitoring (SIM). The method calibrates and quantifies 65 PCB congeners selected by EPA as priorities because of their:

- chromatographic retention times on the column used for this analysis (e.g., first and last eluting congeners in a level of chlorination)
- prevalence in environmental samples
- high concentrations in Aroclors
- their toxicities (e.g., the World Health Organization's list of dioxin-like PCB congeners).[60]

While Method 1628 is not yet approved at 40 CFR Part 136 for use in CWA compliance monitoring, EPA Region 1 anticipates this method proposed and promulgated in a future rulemaking to become an approved method. However, having completed a multi-laboratory validation study, EPA considers the method suitable for release to laboratories, regulated entities, and the general public. Therefore, EPA Region 1 is electing to require this method in this general permit. Therefore, EPA is correcting the ML specified for total PCB analysis from 0.5 µg/L to 0.01 µg/L. This correction also results in the revision of the compliance level specified for total PCBs from 0.5 µg/L to 0.01 µg/L, set equal to the ML.

3.2.5 Parameters Not Included in this General Permit

If any discharge otherwise eligible for coverage under this general permit contains any parameter, including the parameters discussed below, that is not included in the proposed DRGP, the parameter(s) and the concentration(s) present must be disclosed in the NOI submitted to EPA. Such discharges may be considered on a case-by-case basis for eligibility. However, pre-treatment or alternate NPDES permit coverage (e.g., individual NPDES permit) may be necessary.

Ethanol (EtOH) monitor-only has been removed from the proposed DRGP. This parameter has rarely been detected in dewatering and remediation discharges. Further, this parameter is not currently subject to numeric water quality criteria. Regardless, if this parameter is known or believed present at any site, an operator is still required to disclose EtOH in the NOI submitted to EPA for the site.

[60] See EPA 821-R-21-002, July 2021.

3.3 Special Conditions

EPA is authorized under §402(a)(1) to include special conditions in NPDES permits when necessary to achieve effluent limitations and standards or to carry out the purposes of the CWA. In addition, 40 CFR §122.44(k) authorizes non-numeric limitations intended to control or abate the discharge of pollutants when: "(1)[a]uthorized under §304(e) of the CWA for the control of toxic pollutants and hazardous substances from ancillary industrial activities; (2) [a]uthorized under §402(p) of the CWA for the control of stormwater discharges; (3) [n]umeric effluent limitations are infeasible; or (4) [t]he practices are reasonable to achieve effluent limitations and standards or to carry out the purpose of the CWA." Special conditions in this general permit, including non-numeric limitations (i.e., BMPs), are generally intended to reduce the overall quantity of pollutants being discharged to waters of the United States, to reduce the potential for discharges of pollutants, and/or to collect information that may be used in determining future general permit requirements.

Specific special conditions are included in the proposed DRGP to:

- Address situations where data are absent or limited, making the development of TBELs or WQBELs difficult or impossible;
- Incorporate preventive requirements, such as requirements to install process controls, treatment components, good housekeeping practices, and the like;
- Address foreseeable changes to discharges, such as planned changes to treatment systems, treatment additives, or influent that could affect discharge characteristics;
- Provide the monitoring data needed to evaluate appropriate changes in effluent limitations; and/or
- Increase or decrease monitoring requirements, depending on monitoring results or additional processes.

3.3.1 Best Management Practices

3.3.1.1 Best Management Practices (BMP) Plan (BMPP)

Pursuant to §402(a)(1) of the CWA, development and implementation of a BMPP may be included as a special condition in NPDES permits. The BMPP requirement has been incorporated into this general permit in accordance with elements of pollution prevention as set forth in the Pollution Prevention Act of 1990 (42 USC §13101) and EPA BMP guidance, as detailed in EPA's *Guidance Manual for Developing Best Management Practices (BMPs)*.[61] The minimum suggested components of a general BMPP include:

General provisions

- Name, location of site
- Statement of BMP policy and objective
- Review by operator

[61] 833-B-93-004; October, 1993.

Specific provisions

- BMP committee
- Risk identification and assessment
- Reporting of BMP incidents
- Materials compatibility
- Good housekeeping
- Preventative maintenance
- Inspections and records
- Security
- Employee training

The proposed DRGP requires all operators authorized to discharge under the proposed DRGP to develop, implement, and maintain a BMPP. An applicant seeking authorization to discharge under the proposed DRGP must certify in the NOI submitted to EPA for their site that the BMPP has been developed and will be implemented on-site prior to initiation of discharge. Operators authorized to discharge under the proposed DRGP must select, design, install, implement and maintain control measures, including BMPs. Consistent with the 2017 RGP, the BMPP shall provide a plan for compliance with the terms of this general permit and must include methods to:

- Minimize the potential for violations of the terms of this general permit, taking corrective actions, when necessary;
- Minimize the number and quantity of pollutants and/or the toxicity generated, discharged, or potentially discharged at the site;
- Minimize discharges of pollutants from materials storage areas, on-site transfers of hazardous and/or toxic materials, process and material handling areas, loading and unloading operations, and accidental leaks or spills, including implementation of material compatibility and good housekeeping practices; and
- Use pollution control technologies, when necessary to meet the effluent limitations in this general permit and properly operate and maintain all treatment systems, including implementation of preventative maintenance.

The BMPP for this general permit must be a written document. The BMPP may either be a stand-alone document or the BMPP requirements for this general permit may be incorporated into any other BMPP, Stormwater Pollution Prevention (SWPP), or Spill Control and Countermeasures (SPCC) plan required under other permits or programs. Note that for the purposes of this general permit, for discharges consisting only of stormwater, the use of the term BMPP is synonymous with SWPPP.

The BMPP must also document the selection, design, installation, and implementation of any control measures, including BMPs used to meet the limitations and requirements included in the proposed DRGP. The BMPP must be updated whenever there is a material or substantial change in the discharge(s), treatment system, and/or site conditions which could result in an increase in the discharge of pollutants to the receiving water(s). Operators must keep an up to date BMPP on-site to be made available upon inspection and/or at the location of the principal operator identified in the NOI submitted to EPA for the site to be made available upon request by the

State, EPA, and/or the municipality in which the discharge occurs. No re-certification is required to be submitted to EPA or the States in the proposed DRGP.

Development and implementation of the BMPP is an enforceable condition of this general permit. Failure to develop and implement the BMPP is a violation of this general permit.

3.3.1.2 BMPs Applicable to all Sites

Pursuant to §304(a) of the CWA and 40 CFR §125.103(b), BMPs may be expressly incorporated into a permit on a case-by-case basis where it is determined they are necessary to carry out the provision of the CWA under §402(a)(1) and (2). 40 CFR §122.44(k)(4) further provides that permits must contain BMPs, when applicable, to control or abate the discharge of pollutants when any of the following are true:

- They are authorized under CWA 304(e)
- They are authorized under CWA 402(p) (stormwater discharges)
- Numeric effluent limitations are infeasible
- The practices are necessary to achieve effluent limitations and standards to carry out the purpose and intent of the CWA[62]

The purpose of the BMP requirements included in the proposed DRGP is to prevent, eliminate or minimize the discharge of biological, chemical and physical pollutants to waters of the United States. These requirements are intended to facilitate a systematic approach for operators to properly operate and maintain all sites and systems of treatment and control, and related appurtenances, which are installed or used to achieve compliance with the conditions of this general permit. Operators authorized to discharge under the proposed DRGP must select, design, install, implement and maintain control measures, including BMPs. In general, BMPs are actions or procedures to prevent or reduce the discharge of pollution to waters of the United States. 40 CFR §122.2 includes the following in the definition of BMPs:

- Schedule of activities
- Prohibition of practices
- Maintenance procedures
- Treatment requirements
- Operating procedures and practices to control: 1) Site runoff; 2) Spillage or leaks; 3) Waste disposal; and 4) Drainage from raw material storage area
- Other site-, process- or pollutant-specific BMPs, when appropriate

EPA does not prescribe specific treatment technologies for sites covered under the DRGP. Operators must select the treatment most appropriate for their sites when necessary to meet the discharge limitations and BMP requirements. BMPs have been retained in the proposed DRGP because sites directly discharge, utilize materials and/or generate residual wastes that contain pollutants listed as toxic under §307(a)(1) of the CWA or pollutants listed as hazardous under §311 of the CWA. In addition, sites engage in routine operations that could result in significant

[62] EPA-833-K-10-001; September, 2010: Section 9.1.2

amounts of these pollutants reaching waters of the United States if left uncontrolled. Therefore, these BMPs are "reasonably necessary to carry out the purposes of the CWA."

The BMP requirements proposed in the DRGP provide additional measures to control or abate the discharge of toxic pollutants in accordance with 40 CFR §122.44(k). These requirements are derived from the 2015 DGP, 2017 RGP and/or existing individual NPDES permits issued to sites with dewatering or remediation discharges, and/or described in EPA's development documents for ELGs for industrial point source categories in 40 CFR §§423.

Discharge Flow BMP (retained from the 2017 RGP)

Flow control measures must prevent discharge(s) that exceed the design flow of the discharge (i.e., the maximum flow through the component with the lowest limiting capacity). The method(s) for measuring effluent flow must be documented. This BMP requirement aligns with the general BMP definitions pertaining to prohibition of practices and treatment requirements. The discharge flow BMP consist of:

- Prohibition of Discharge Exceeding Design Flow
- Monitoring Total Flow Through Treatment System

Preventative Maintenance BMP (retained from the 2017 RGP)

Preventative maintenance must be implemented to ensure all control measures, including all treatment system components and related appurtenances used to achieve the limitations in this general permit remain in effective operating condition and do not result in leaks, spills, and other releases of pollutants. This BMP must include documented procedures and protocols, a maintenance schedule for all treatment system components and related appurtenances used to meet the limitations of this general permit, and records of the completion of regular maintenance activities. This BMP requirement aligns with the general BMP definition pertaining to schedule of activities, and maintenance procedures.

Site Management BMP (retained from the 2017 RGP)

Control measures must ensure proper management of solid and hazardous waste and prevent solids, sludges, or other pollutants removed in the course of treatment or control of water and wastewaters from entering waters of the United States. Run-on and run-off practices must be used to divert, infiltrate, reuse, contain, or otherwise reduce extraneous uncontaminated waters to minimize the extent to which such uncontaminated waters commingle with remediation or dewatering discharges. Drainage control practices must ensure that the discharge(s) covered by this permit do not adversely affect existing water quality by preventing any erosion, stream scouring, or sedimentation caused directly or indirectly by the discharge and/or which contributes additional pollutants. This BMP requirement aligns with the general BMP definition pertaining to operating procedures and practices to control site runoff, waste disposal and drainage from raw material storage areas. The site management BMPs consist of:

- Management of Generated Wastes
- Management of Run-on and Runoff
- Erosion, Scouring and Sediment Control

Pollutant Minimization BMP (retained from the 2017 RGP)

Pollutant minimization measures must be implemented to ensure the limitations and requirements in this general permit are achieved. This BMP must include identification and assessment of the type and quantity of pollutants, including their potential to impact receiving water quality; and selection, design, installation and proper operation and maintenance of pollution control technologies, when necessary to achieve the limitations and requirements in this general permit. The treatment technologies may include, but are not limited to any combination of the following: [63]

- Adsorption/Absorption
- Advanced Oxidation Processes
- Air Stripping
- Granulated Activated Carbon ("GAC")/Liquid Phase Carbon Adsorption
- Ion Exchange
- Precipitation/Coagulation/Flocculation
- Separation/Filtration

This BMP requirement aligns with the general BMP definition pertaining to other site-, process- or pollutant-specific BMPs. This BMP has been included to ensure the various treatment technologies commonly used to remove the pollutants limited in this general permit are authorized for use.

Administrative Controls BMP (retained from the 2017 RGP)

Administrative controls must include documented procedures for routine inspections, corrective action, employee training and site security. This BMP requirement aligns with the general BMP definitions pertaining to schedule of activities, and other site-, process- or pollutant-specific BMPs. This BMP includes two BMPs included separately in the 2017 RGP. The 2017 RGP administrative controls BMPs consist of:

- Site security
- Employee training
- Routine inspections
- Corrective actions

Site security must be appropriate for the treatment and other systems related to the NPDES discharge(s) and must be either incorporated into the overall site security plan or as separate

[63] Descriptions of these treatment technologies can be found in the Federal Remediation Technology Roundtable *Remediation Technologies Screening Matrix and Reference Guide, Version 4.0 (2007)* available at http://www.frtr.gov/scrntools.htm.

BMP. Employee training must be conducted at least annually for site personnel who have direct or indirect responsibility for ensuring compliance with this general permit.

Routine inspections must be conducted at least monthly by site personnel who have direct knowledge of the remediation activity at the site, the control measure(s) in use at the site, and the skills to assess the effectiveness of any control measure(s) in use at the site in order to meet the requirements of this general permit to: assess the wastewater(s), treatment system and site areas, and discharge, including the outfall where practicable; identify any uncontrolled leaks, spills or discharges; and conduct visual inspection for indicators of pollution, including, but not limited to, objectionable aesthetic properties such as color, odor, clarity, floating solids, settled solids, suspended solids, foam, and oil sheen.

Corrective action must be initiated within 72 hours of the time of discovery of a violation of a permit limitation or requirement and completed within a reasonable timeframe to: evaluate, and revise (i.e., repair, modify, or replace), if necessary, any control measure used at the site if the control measure is identified as missing, installed incorrectly, or ineffective in ensuring the discharge meets applicable WQSs and/or effluent limitations and requirements in this general permit. In all circumstances, the cause of the permit violation must be identified and documented, and the operator must immediately take all reasonable steps to minimize or prevent the discharge of pollutants until a permanent solution is achieved.

Quality Assurance/Quality Control (QA/QC) BMP (retained from the 2017 RGP)

Operators must meet specific monitoring and reporting requirements in this general permit, which include requirements pertaining to monitoring locations, monitoring frequencies, test methods, minimum levels, and reporting and record-keeping (e.g., laboratory analytical reports and chain-of-custody procedures). The QA/QC BMP requires, at a minimum:

- A description of all permit limitations and requirements, as applicable, to ensure that samples collected meet all permit parameter, sample location, sample frequency, and sample type required in this general permit;
- A map and/or treatment system diagram indicating the location of each monitoring point to ensure consistent and verifiable sampling is conducted;
- Specifications for the number of samples, type of sample containers, type of preservation, holding times, type and number of quality assurance field samples (i.e., matrix spiked and duplicate samples and sample blanks), sample preparation requirements (e.g., sampling equipment calibration, clean sampling procedures), and sample storage and shipping methods, including EPA QA/QC and chain-of-custody procedures, to ensure consistent procedures are followed for collecting, handling, storing and shipping samples;
- Name(s), address(es), and telephone number(s) of the laboratories used by, or proposed to be used by, the operator;
- Specifications for analytical detection and quantitation limitations for each target compound, analytical methods, and laboratory data delivery and documentation requirements to ensure that laboratory analysis and data reporting meet all test method, minimum level, and reporting and record-keeping requirements in this general permit;

- A schedule for review of sample results, which must be reviewed by the operator no more than 72 hours from receipt of the results, to ensure that the monitoring data obtained are sufficient and to enable an operator to identify exceedances and/or anomalies, if they occur, in a timely manner; and
- A description of data validation and data reporting processes to ensure reporting of representative data within timeframes specified in this general permit.

The federal regulation at 40 CFR §122.41(e) requires proper operation and maintenance of all facilities and systems of treatment and control, including related appurtenances, which are installed or used by the operator to achieve compliance with the conditions of this general permit. Proper operation and maintenance includes "adequate laboratory controls and appropriate quality assurance procedures". These requirements apply to all sample collection and analysis activities required in this general permit in order to ensure that the monitoring data submitted to EPA and the State is complete, accurate, and representative of the environmental and/or effluent conditions at a site. This BMP requirement aligns with the general BMP definition pertaining to operating procedures and practices, and other site-, process- or pollutant-specific BMPs. This BMP must be incorporated directly into the BMPP for a site. Operators are encouraged to consult available EPA guidance for the development of acceptable QA/QC procedures.[64]

Materials Management BMP (retained from the 2017 RGP)

Good housekeeping practices and/or control measures must be used at a site to maintain areas that are potential sources of pollutants, including, but not limited to, contaminated soil and groundwater, and treatment system chemicals, additives, materials or appurtenances. Material compatibility practices and/or control measures must be used at a site to ensure safe handling, use and storage of materials including, but not limited to, chemicals, additives and bioremedial agents, including microbes. For any chemical or additive that may be discharged as a result of site activities, operators must document, at a minimum:

- Product name, chemical formula, and manufacturer of the chemical/additive;
- Purpose or use of the chemical/additive;
- Safety Data Sheet (SDS) and CAS Registry number for each chemical/additive;
- The frequency (hourly, daily, etc.), duration (hours, days), quantity (maximum and average), and method of application for the chemical/additive;
- Any material compatibility risks for storage and/or use including the good housekeeping practices and control measures used to minimize such risks; and
- If available, the vendor's reported aquatic toxicity (NOAEL and/or LC50 in percent for aquatic organism(s)).

Spill prevention practices and spill control measures, including other handling and collection methods, when necessary (e.g., containment devices), must reduce spills and leaks from the treatment system and the release of chemical and/or additives in use at a site. Notification and

[64] Additional EPA guidance includes: *Requirements for Quality Assurance Project Plans*: EPA/QA/R-5); and *Guidance for Quality Assurance Project Plans*: EPA/QA/G-5.

corrective actions are required upon detection of a leak, spill, or other release containing a hazardous substance or oil, such as visual observation of a visible sheen.

This BMP requirement aligns with the general BMP definition pertaining to other site-, process- or pollutant-specific BMPs since chemicals, chemical additive and/or remedial agents are expected to be commonly utilized by operators seeking coverage under this general permit for remediation and/or dewatering activities.

Major Flood and Storm Events BMP (new proposed BMP for the DRGP)

This BMP requires the site operator to assess the risk from major storm events such as hurricanes, storm surge, extreme/heavy precipitation, and flood events[65] for their sites, and to implement structural improvements, enhanced/resilient pollution prevention measures, and other mitigation measures when necessary to minimize such impacts. This BMP requirement is based on a similar provision in EPA's 2021 MSGP.[66]

Consistent with EPA's 2021 MSGP, EPA has determined it is appropriate for this general permit to require operators to consider implementing enhanced controls to minimize impacts from stormwater discharges generated by major storm and flood events. Operators must identify areas of the site that are at the highest risk for stormwater impacts from major storms and floods. Operators should consider all reasonably available data and utilize various reference maps and tools, including those developed by the Federal Emergency Management Agency, National Oceanic and Atmospheric Administration, United States Geological Survey, and EPA to help determine if their site may experience an increased frequency of major storm and flood events that could impact the discharge of pollutants to Waters of the United States.

The general permit requires operators to review available scientific information regarding risks to their sites, including, at a minimum, data from the NOAA such as the Sea, Lake, and Overland Surges from Hurricanes (SLOSH) modeling, USGS flood map products,[67] Climate and Extreme Weather Tools for the NPDES Program,[68] FEMA Flood Map Service Center.[69] For example, using the FEMA service, an operator can determine if a site (or portions thereof) is in a "Special Flood Hazard Area" (SFHA) or "Other Area of Flood Hazard." SFHAs are defined as the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood. SFHAs are labeled as Zone A, Zone AO, Zone AH, Zones A1-A30, Zone AE, Zone

[65] If such control measures are already in place due to existing requirements mandated by other state, local or federal agencies, the Permittee must document in the BMPP a brief description of the controls and a reference to the existing requirement(s). If the Facility may be exposed to or has previously experienced such major storm or flood events, additional control measures required are specified in the general permit.
[66] The 2021 MSGP is currently available at: https://www.epa.gov/npdes/stormwater-discharges-industrial-activities-epas-2021-msgp#
[67] Available at https://www.usgs.gov/faqs/where-can-i-find-flood-maps?qt-news_science_products=0#qt-news_science_products
[68] Available at https://www.epa.gov/npdes/climate-and-extreme-weather-tools-npdes-program.
[69] Available at https://msc.fema.gov/portal/search; more information on FEMA flood zones can be found at https://www.fema.gov/flood-zones.

A99, Zone AR, Zone AR/AE, Zone AR/AO, Zone AR/A1-A30, Zone AR/A, Zone V, Zone VE, and Zones V1-V30. "Other flood hazard areas" (or moderate flood hazard areas) labeled Zone B or Zone X (shaded) are also shown on the Flood Map and are the areas between the limits of the base flood and the 0.2-percent-annual-chance (or 500-year) flood. The areas of minimal flood hazard, which are the areas outside the SFHA and higher than the elevation of the 0.2-percent-annual-chance flood, are labeled Zone C or Zone X (unshaded).

This BMP requirements aligns with the general BMP definition pertaining to other site-, process- or pollutant-specific BMPs given the variable, but potentially significant risks to sites from major storm and flood events that may impact human health and the environment.

3.3.2 Prohibited Discharges

The following discharges are expressly prohibited in the DRGP:

- The discharge of any sludge and/or bottom deposits from any storage tank or basin, retained from the 2017 RGP.
- Wastewater from washout of concrete, proposed in the DRGP, and consistent with EPA's CGP.
- Wastewater from washout and/or cleanout of stucco, paint, form release oils, curing compounds, and other construction materials proposed in the DRGP, and consistent with EPA's CGP.
- Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance, proposed in the DRGP, and consistent with EPA's CGP.
- Soaps, solvents, or detergents used in vehicle and equipment washing or external building washdown, proposed in the DRGP, and consistent with EPA's CGP.
- Toxic or hazardous substances from a spill or other release, retained from the 2017 RGP.

In addition, dilution is expressly prohibited as a form of treatment. This prohibition is retained from the 2017 RGP.

3.3.3 Conditions for Discharges of Chemicals and Additives

The proposed DRGP continues to prohibit discharges of chemicals and additives, unless specifically disclosed in the NOI submitted to EPA for a site, provided that such discharge does not violate Section 307 or 311 of the Clean Water Act or applicable State WQSs. These chemicals and additives may include, but are not limited to algaecides/biocides, antifoams, coagulants, corrosion/scale inhibitors/coatings, disinfectants, flocculants, neutralizing agents, oxidants, oxygen scavengers, pH conditioners, surfactants, and remedial agents, including microbes. Such chemicals and additives are commonly used to enhance treatment, for the control of undesirable conditions caused during treatment, or due to the chemical makeup of the water being treated. For example, such chemicals are used to control foaming, algae and bacteria growth, and are added to control iron or other metals or minerals in groundwater that can foul treatment systems, or cause discoloration or odor in the discharge. Even when a material is labeled by a manufacturer as being "non-toxic" or "biodegradable," specific compounds in the material discharged in certain quantities may result in toxicity.

The written authorization to discharge under this general permit will specify any approval to discharge the chemical(s) and/or additive(s) disclosed in an applicant's NOI. An operator must submit a NOC to EPA if the use of a chemical and/or additive(s) that was not disclosed to EPA in the NOI submitted for a site will result in the discharge of such chemical, and/or additive. The proposed DRGP continues to specify that the NOI or subsequent CNOI must include the information for each chemical and/or additive listed in the Materials Management BMP (see Section 3.3.1, above), and an explanation which demonstrates that the addition of such chemicals and/or additives:

- Will not add any pollutants in concentrations which exceed permit effluent limitations;
- Will not add any pollutants that would justify or require a permit condition not included in this general permit; and
- Will not exceed any applicable water quality standard.

An operator must provide the required information in Appendix H to EPA in either the NOI or a CNOI submitted for their site.

Discharges which contain a new chemical or additive are not authorized under this general permit unless authorization to discharge is provided by EPA to the operator in writing. Alternately, an applicant may request an individual permit to address the discharge of chemicals and additives.

3.3.4 Infrastructure Dewatering

Dewatering discharges from pipelines and tanks covered by this general permit are typically a result of maintenance activities performed on pipelines and tanks. Additional treatment of pipeline or tank dewatering discharges may or may not be needed depending on the situation and potential parameters involved (e.g., depending upon whether dewatering is for a pipeline, tank, or similar structures and appurtenances which convey potable water or petroleum products). The necessity of additional treatment may also change depending on whether the dewatering is of an existing structure or new construction.[70]

Since pipeline and tank dewatering discharges are batch discharges of short duration and can occur with variable magnitude and frequency, which may be subject to activity-specific treatment processes, operators that discharge water from the dewatering of pipelines or tanks are subject to additional conditions. These additional conditions (i.e., BMPs) are intended to address the unique characteristics of these discharges and are as follows:

- Discharges of tank bottom water are prohibited because of the possible presence of highly concentrated parameters;
- Pipeline(s), tank(s) or similar structures and appurtenances must be pre-cleaned to remove scale, solids, and residues unless these structures are for water storage;

[70] Tallon, J., Myerski, F., and Fillo, J. "Environmental Aspects of Hydrostatic Test Water Discharges: Operations, Characterization, Treatment and Disposal." Gas Research Institute; April, 1996.

- If hydrostatic testing is conducted, such testing must follow the procedures detailed in the API 653 Standard and/or applicable State regulations to ensure pipelines or tanks are rigorously cleaned and that working conditions during installation, maintenance or repair work, are rigorously cleaned are safe;
- Water quality control measures must be implemented if potable water, groundwater or surface waters other than the receiving water will be discharged to ensure lower quality waters are not transferred to higher quality waters;
- Effluent flow shall not exceed the flow of receiving water, or alter the structural characteristics of the receiving water to ensure State WQSs are met;
- Dewatering structures (e.g., splash blocks, sediment filters) must be used if necessary to dissipate energy and control erosion or scouring to ensure State WQSs are met;
- Discharges of chemicals and/or additives used for tank or pipeline cleaning, repair or installation are prohibited unless in accordance with the additional conditions for discharges of chemicals and additives, described in Section 3.4.2, above; and
- Discharges of any sludge generated in the cleaning or testing of the pipelines or tanks are prohibited.

These BMP requirements aligns with the general BMP definition pertaining to other site-, process- or pollutant-specific BMPs given the unique processes that occur before and during pipeline and tank dewatering.

3.4 Applicability of Effluent Limitations

The proposed DRGP proposes revisions to the applicability of monitoring and effluent limitations. The limitations in the DRGP apply to all sites for the parameters specified for each of the self-identified wastewater(s) that an operator selects in the NOI submitted to EPA for their site. In addition, case-by-case limitations apply for parameters known present at a site (e.g., both tested for and detected above laboratory minimum levels) or believed present at a site (e.g., not tested, but likely present based on the presence of fill, or past history of use and/or fill).
The applicability of limitations is automatic as follows:

1. Limits for the parameters required for each applicable wastewater.
2. Limits for any parameters listed in Appendix E known or believed present at a site.
3. Limits for any parameters subject to an impaired waters listing in Appendix G.
4. Other case-by-case limitations required by the applicable State (e.g., State Permit Conditions and/or an anti-degradation review).

Table 1: Applicability of Effluent Limitations for the DRGP

Wastewater	Discharge Limitations	Case-by-Case Limitations
A. Groundwater	All parameters in Part 2 of the DRGP listed for groundwater	Any parameters listed in Appendix E, if known or believed present; and

B. Stormwater	All parameters in Part 2 of the DRGP listed for stormwater	Any parameters listed in Appendix G, if the receiving water for a discharge is a segment to which a given TMDL applies; and Any additional parameters and/or limitations required by EPA and/or the State on a case-by-case basis in accordance with Part 2.1.3 of the DRGP
C. Potable Water	All parameters in Part 2 of the DRGP listed for potable water	
D. Surface Water	All parameters in Part 2 of the DRGP listed for surface water	

EPA notes that the pollutant groups applicable to each activity category are largely unchanged from the 2017 RGP. Operators must continue to demonstrate compliance with all of the limited indicator parameters specified in the proposed DRGP whether an individual parameter limitation is automatically applicable to a site or not. While this is generally consistent with the 2017 RGP, the application of limitations for indicator parameters by wastewater and all other parameters on a case-by-case basis when necessary to meet State WQSs is expected to result in greater consistency for sites covered under this general permit. An applicant will indicate the parameters applicable known or believed present at their site in the NOI submitted to EPA for their site. EPA will check the operator's submission for accuracy and require corrections, if appropriate, prior to providing the written authorization to discharge.

3.5 Critical Low Flow and Calculation of a Dilution Factor

Available dilution may be used to determine water quality-based limitations in this general permit for parameters, when WQBELs apply. The available dilution at a specified critical low flow condition in the receiving water and the permitted maximum effluent flow (i.e., design flow) are used in calculating the dilution factors. Procedures for calculation of limitations, including application of a dilution factor, are found in Appendix F of the proposed DRGP. Operators must obtain approval from the respective State for use of a dilution factor prior to submitting an NOI to EPA, and indicate attach documentation of this approval to the NOI.

3.6 Calculation of Effluent Limitations

The 2017 RGP provided for the application of a State-approved dilution factor for the calculation of WQBELs. Generally, a WQBEL is required if the discharges cause, or have a reasonable potential to cause, or contribute to an excursion above WQSs (e.g., the concentrations of an indicator parameter in an applicant's discharge exceeds the WQBEL at zero dilution). 40 CFR 122.44(d)(1). Appendix E of the proposed DRGP includes the limitations required on a case-by-case basis. Appendix F of the proposed DRGP includes the calculation methodology for these limitations. Because this general permit is designed for a variety of potential situations that can vary from site to site, WQBELs have been included as end-of-pipe limitations in the proposed DRGP based on an assumption of zero dilution. This value is generally the applicable WQC. In

addition, metals limitations are generally listed on the basis of dissolved metal in the water column and at an assumed hardness when a metal WQBEL is hardness-dependent, and as required by 40 CFR §122.45(c) will be converted to total recoverable metals limitations to meet regulatory requirements. These calculations will be automatically completed following the methodology included in Appendix F based on the information provided by an operator in the NOI submitted for a site. The calculated WQBELs only apply as specified in Appendix E.

Following the calculation methodology provided in the proposed DRGP, a WQBEL is adjusted for: 1) discharge and receiving water flow (i.e., the ratio of which is used to derive a dilution factor); 2) actual receiving water hardness (i.e., if a parameter is hardness-dependent); and 3) existing conditions for certain parameters in the receiving water (e.g., impaired waters with or without a TMDL). These conditions affect the allowable instream concentrations of the limited parameters.

The proposed requirements for the calculation of case-by-case limitations will ensure consistent and site-specific effluent limitation calculation for WQBELs. Further, the automatic calculation of limitations through the NOI process will ensure that if a WQBEL applies for a given parameter, the limit is correctly calculated (assuming the NOI information provided is correct) and the operator is aware in advance and can properly design for the level of control required to comply with this limitation. If an NOI indicates unusual circumstances where a WQBEL may not be sufficient to meet State WQSs, EPA and/or the States may impose additional limitations through separate notification processes (e.g., State anti-degradation review), or issue a request for an individual permit.

3.7 Expression of Effluent Limitations

EPA has determined that the majority of sites seeking coverage under this general permit are expected to have “non-continuous discharges” (i.e., batch operation) because of the intermittent, infrequent, low volume and/or short duration at which the discharges are expected occur. The discharges are also expected to contribute low pollutant loads because of the stringent technology-based and water quality-based discharge limitations in combination with a maximum discharge flow limitation. The federal regulation at 40 CFR §122.45(e) allows non-continuous discharges to be described and limited considering the following factors, as appropriate: 1) frequency of discharge; 2) total mass of the pollutant discharged per batch; 3) maximum rate of discharge of pollutants per batch; and 4) expression of limitations using the appropriate measure (i.e., concentration, mass).

The numeric limitations included in the proposed DRGP are expressed as concentration-based discharge limitations. In addition to the factors at 40 CFR §122.45(e), the federal regulation at 40 CFR §122.45(f) provides exceptions to the requirement that limitations, standards or prohibitions in NPDES permits be expressed in terms of mass. The numeric limitations included in the proposed DRGP are not expressed in terms of mass because: 1) one or more parameters included in the proposed DRGP cannot be expressed in terms of mass (e.g., pH, temperature); 2) the technology standards, including ELGs, upon which the majority of TBELs are based, are concentration-based values that are not dependent upon a measure of production; 3) an appropriate measure of production is infeasible for the purposes of a general permit and for the

types of discharges to be covered; and/or 4) the aquatic life, human health and organoleptic effect WQC upon which WQBELs are based are concentration-based, representing the maximum value above which impacts are expected to occur for the averaging period. The concentration-based effluent limitations will ensure a pollutant concentration does not increase during periods of low flow. While mass-based effluent limitations may be imposed to ensure that dilution is not used as a substitute for treatment, the proposed DRGP does not allow the use of dilution as a form of treatment, or as a means to comply with the permit effluent limitations.

In addition, wastewater and technology-based limitations included in the proposed DRGP are expressed as maximum daily limitations (MDLs) unless specifically noted (e.g., pH). The water-quality-based limitations included in the proposed DRGP are expressed as MDLs when acute aquatic life criteria apply for a given parameter and (AMLs) when chronic aquatic life criteria, and/or human health criteria apply for a given parameter. The federal regulation at 40 CFR §122.45(d) generally requires maximum daily and average monthly discharge limitations for non-POTWs. However, where numeric limitations included in the proposed DRGP are not expressed in terms of monthly average limitations because: 1) the discharges to be covered under this general permit are typically "non-continuous discharges" as defined in 40 CFR §122.2, described and limited considering the factors explained above; 2) the aquatic life WQC upon which a portion of WQBELs are based are acute criteria. Further, unless specifically noted, the proposed DRGP does not include average monthly limitations derived from maximum daily limitations using recommendations in EPA's TSD.[71] Given the effluent variability possible across the types of discharges to be covered under this general permit, EPA would need to make significant assumptions in order to select a ratio for calculation following the recommendations in EPA's TSD.[72] Further, the routine monitoring requirements in the proposed DRGP require collection of grab samples at a monthly frequency, for which a maximum daily and average monthly sample result is generally expected to be identical.

4. Monitoring, Record-Keeping and Reporting Requirements

The monitoring, record-keeping and reporting requirements in the proposed DRGP have been established to yield data representative of the discharges under the authority of §308(a) of the CWA, according to regulations set forth at 40 CFR §§122.41(j), 122.44(i) and 122.48.

4.1 Basis for Monitoring Requirements

EPA has the authority in accordance with various statutory and regulatory requirements established pursuant to the CWA, 33 USC §1251 et seq., the NPDES program (see §402 and the implementing regulations generally found at 40 CFR Parts 122, 124, 125, and 136) and applicable State regulations (e.g., 314 CMR 3.00 and 314 CMR 4.00 in Massachusetts and Env-Wq 1700 in New Hampshire) to include effluent limitations and other requirements such as monitoring and reporting in NPDES permits.

[71] See EPA's *Technical Support Document for Water Quality-based Toxics Control:* EPA/505/2-90-001, 1991: Section 5.4.4.
[72] See EPA's *Technical Support Document for Water Quality-based Toxics Control:* EPA/505/2-90-001, 1991: Table 5.3.

Further, CWA §308(a), 33 USC §1318(a), authorizes EPA to require the owner or operator of any point source to provide information as may reasonably be required to: "... carry out the objectives of ... [the Clean Water Act], including but not limited to: (1) developing or assisting in the development of any effluent limitation, or other limitation, prohibition ... or standard of performance under [the Clean Water Act] ...; (2) determining whether any person is in violation of any such effluent limitation, or other limitation, prohibition or effluent standard, ... or standard of performance; (3) any requirement established under this section; or (4) carrying out section ... 1342 ... of [the Clean Water Act] ..." CWA §308(a)(3)(A) authorizes EPA to require reports, monitoring equipment or methods, expanded sampling, or any other information for such uses.

The monitoring program proposed in the proposed DRGP specifies sampling and analysis for the wastewater(s), discharge(s) and/or receiving water(s). These requirements are necessary to evaluate the discharge of pollutants from sites authorized under this general permit and will provide information on the reliability and effectiveness of the installed pollution abatement equipment. Further, EPA has required sites to gather data to ensure the discharges do not impact the water quality of the receiving waters or pose a risk to human health or the environment. Therefore, the monitoring requirements in the permits are included for specific regulatory use in carrying out the CWA. EPA's decision to include wastewater-specific, site-specific and/or receiving water-specific parameters in the permit is reasonable and consistent with its responsibilities under the Act. EPA expects the frequency of sampling to reduce with time, assuming pollutants are not detected.

The operator is responsible for conducting the monitoring and for reporting results on the NOI, NOT and DMRs, at a minimum. These requirements are described further, below.

4.2 Monitoring Requirements

Operators are required to monitor for the indicator parameters included in the proposed DRGP for the wastewater(s) reported in the NOI submitted to EPA for their site and any additional parameters on a case-by-case basis that depends on the parameters known or believed present at their site. The proposed DRGP also specifies monitoring location(s), monitoring frequencies, test methods and minimum levels, as well as instances where existing data substitution is allowed, as described below.

4.2.1 Monitoring Location(s)

The DRGP continues to include specificity regarding the sampling locations for wastewater, discharge and receiving water. EPA determined that these sampling requirements are necessary to yield data representative of the discharges under authority of §308(a) in accordance with 40 CFR §122.41(j), §122.44(i), and §122.48. Specifically, these requirements increase consistency across sites authorized to discharge under the general permit, in turn increasing data comparability for the purpose of evaluating overall compliance with this general permit. Further, EPA determined that a dedicated sampling point for each discharge must be designated to ensure dilution is not used as a form of treatment, and because a site may be mixing treated effluent with stormwater runoff or other wastewater(s) prior to discharging to the receiving water(s). Finally, requiring the use of consistent, defined locations also ensures that an EPA and/or a State

inspector would be able to duplicate influent, effluent or receiving water sample at any site upon inspection.

Operators are required to monitor for applicable parameters following all treatment but prior to mixing with any other waste stream. For the majority of sites, this is expected to be following the last component in the treatment system, before the treated effluent is conveyed to the receiving water and/or discharge-related appurtenances. Therefore, EPA finds that this requirement is reasonable and appropriate.

Receiving water samples are generally collected immediately upstream of a discharge, beyond the discharge zone of influence, at a reasonably accessible location. In certain receiving waters such as lakes or estuaries, flow direction may be less straight forward, such that an upstream sample may be influenced by reverse flow direction or re-entrainment. In these cases, a receiving water sample should be collected immediately beyond the discharge zone of influence, in any direction necessary to obtain a sample representative of the receiving water absent influence from the discharge.

4.2.2 Monitoring Frequencies

Effluent monitoring requirements in NPDES permits are established to determine compliance with permit limitations and conditions, and to evaluate the effectiveness of treatment and control measures and permit limitations. A number of factors are considered in establishing monitoring frequencies, including effluent variability; the type of treatment provided to the effluent; the type, significance and persistence of the pollutants; and the cost of monitoring. EPA considered the variability in frequency, magnitude and duration of discharges covered by this general permit, which may be intermittent, short-term, and/or batch discharges. The proposed DRGP requires:

- a minimum of one sample for each wastewater type for each applicable parameter, and one sample of the receiving water for certain parameters for the purposes of application;
- a minimum of two samples of both wastewater and discharge collected within the first week of discharge (i.e., system startup); and
- a minimum of one sample monthly for the discharge thereafter.

EPA has determined that such sampling is necessary to ensure the limitations and requirements of this general permit are sufficiently stringent to carry out the provisions of the CWA. EPA finds that the proposed minimum monitoring frequency will provide the information needed to assess treatment system performance, evaluate permit compliance, and determine if additional permit conditions are necessary to ensure compliance with water quality standards.

However, the proposed DRGP continues to allow monitoring frequency reductions of certain indicator parameters through a “Change Notice of Intent” (CNOI), provided sampling results meet minimum eligibility requirements. The proposed monitoring frequency will yield 10 data points over six months, which aligns with the recommendations in EPA’s TSD for collection of a

minimum data set of 8 to 12 samples for evaluation of parameters[73] and 10 or more samples for statistical analysis.[74] Following a minimum of six months and a minimum of ten effluent samples that meet QA/QC and reduction eligibility requirements, an operator is eligible to request reduction of routine monitoring frequency as follows:

- 1/year sampling for all applicable parameters; and
- 1/month sampling for all applicable parameters which are 1) detected above applicable MLs; and/or 2) limited below applicable MLs, regardless of whether the parameter(s) has been detected.

Following an approval of monitoring frequency reduction from EPA, any operator with reporting requirements will need to use an appropriate No Data Indicator (NODI) code for DMRs for instances where sampling is no longer required. Operators are not required to monitor when the discharge does not occur during a reporting period, but must include any such instance in monitoring records and use an appropriate NODI code for DMRs (e.g., "C" for "no discharge").

EPA has proposed eliminating the monitoring frequencies included in the 2017 RGP for influent sampling during routine monitoring, resampling treatment system startup following short interruptions, and receiving water sampling for certain parameters.

4.2.3 Test Methods

NPDES permits require that the approved analytical procedures found in 40 CFR Part 136 be used for sampling and analysis unless other procedures are explicitly specified. Permits also include requirements necessary to comply with the *National Pollutant Discharge Elimination System (NPDES): Use of Sufficiently Sensitive Test Methods for Permit Applications and Reporting Rule*.[75] This Rule requires that where EPA-approved methods exist, NPDES applicants must use sufficiently sensitive EPA-approved analytical methods when quantifying the presence of pollutants in a discharge. Further, the permitting authority must prescribe that only sufficiently sensitive EPA-approved methods be used for analyses of pollutants or pollutant parameters under the permit.

Multiple analytical test methods exist for many pollutants regulated under the CWA, including pollutants limited under this general permit. EPA has generally approved multiple methods for CWA pollutants under 40 CFR §136 and 40 CFR chapter I, subchapters N and O. Therefore, approved test methods found in 40 CFR §136 are required unless alternate test methods are explicitly required or allowed in this general permit in accordance with 40 CFR §136. EPA has summarized test methods for the parameters included in the proposed DRGP in Appendix I. However, because operators must analyze water samples using a sufficiently sensitive EPA-approved analytical method, Appendix I notes common test method(s) that may be used to meet the requirements of this general permit, but is not exhaustive. Operators may refer to 40 CFR

[73] See Section 3.3.8; EPA/505/2-90-001: March 1991.
[74] See Chapter 5 and Appendix E; EPA/505/2-90-001: March 1991.
[75] Fed. Reg. 49,001 (Aug. 19, 2014).

§136 for more specific information regarding EPA-approved test methods and allowable modifications.[76]

Finally, the proposed DRGP specifies certain analytical test methods may not be used for the purpose of application and reporting under this general permit for certain indicator parameters. Of note, several widely used EPA-approved methods and allowable modifications currently exist for the quantification of the parameters in this general permit for regulatory use in other waste characterization programs. For example, EPA-approved methods 8260 and 8270 are GC/MS test methods used to quantify the same parameters through the same means as EPA-approved test methods 624 and 625. However, the 8000 series test methods are not approved for use for CWA compliance and monitoring and therefore, cannot be used to meet the requirements of the DRGP. As another common example, EPA Method 1664, revision B (which replaced Method 418.1) is an "extraction" procedure which may eliminate certain gasoline range (C_5 to C_9) volatile organic (GRO) compounds. As a result, many states, including Massachusetts, use alternative methodologies for analysis known as the Volatile Petroleum Hydrocarbon (VPH) method and/or the Extractable Petroleum Hydrocarbon (EPH) method. The VPH and EPH methods report results in terms of concentrations of ranges of aliphatic and aromatic hydrocarbons, typically in the C_5 to C_{36} range and are required by MassDEP for measuring petroleum hydrocarbons at sites regulated through the MCP. However, EPA does not currently have a means to evaluate carbon range data supplied under these methods. Further, these data cannot be used by EPA to evaluate compliance with the chemical-specific limitations derived from chemical-specific WQC applicable to the specific pollutants included in this general permit. Therefore, these methods cannot be used to meet the requirements of the DRGP.

4.2.4 Minimum Levels

Some EPA-approved analytical test methods have greater sensitivity than other EPA-approved methods for the same parameter. This situation often occurs because of advances made in instrumentation and in the analytical protocols themselves. The NPDES regulations at 40 CFR § 122.21(e)(3) (completeness), 40 CFR § 122.44(i)(1)(iv) (monitoring requirements) and/or as cross referenced at 40 CFR § 136.1(c) (applicability) indicate that an EPA-approved method is sufficiently sensitive where:

- The method minimum level[77] (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter; or

[76] Additional information about analytical test methods can also be found on EPA's Office of Science and Technology's Clean Water Act Analytical Methods website http://www.epa.gov/waterscience/methods/ and the National Environmental Methods Index (NEMI) http://www.nemi.gov/. NEMI is a searchable clearinghouse of methods supported by EPA's Office of Water.

[77] The term "minimum level" refers to either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (MDL), whichever is higher. Minimum levels may be obtained in several ways: They may be published in a method; they may be based on the lowest acceptable calibration point used by a laboratory; or they may be calculated by multiplying the MDL in a method, or the MDL determined by a laboratory, by a factor. EPA is considering the following terms related to analytical method sensitivity to be synonymous: "quantitation limit," "reporting limit," "level of quantitation," and "minimum level." *See* Fed. Reg. 49,001 (Aug. 19, 2014).

- In the case of permit applications, the ML is above the applicable water quality criterion, but the amount of the pollutant or pollutant parameter in a facility's discharge is high enough that the method detects and quantifies the level of the pollutant or parameter in the discharge; or
- The method has the lowest ML of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR chapter I, subchapter N or O for the measured pollutant or pollutant parameter.

The proposed DRGP specifically requires that the ML for a parameter must be equal to or less than the applicable water quality criterion required for that parameter. In addition, when a sample is analyzed for a parameter, but the parameter is not detected, the operator must report the non-detect using the data qualifier signifying less than the reporting limit achieved for that parameter (i.e., <20 µg/L, if the value reported by the analytical laboratory for the parameter is 20 µg/L).

Finally, the proposed DRGP requires operators to analyze all samples using an EPA-approved sufficiently sensitive test method that will detect the concentration of the parameter if it is present. However, multiple parameters included in the proposed DRGP have effluent limitations that are below the MLs, especially in instances where the effluent limitation is equal to a risk based WQC. In these cases, an operator will be in compliance with the effluent limitation, sufficiently sensitive test method requirements for a parameter if the sample result is below the lowest ML specified for that parameter, noted for such parameters as a compliance level. Appendix I of the proposed DRGP provides a summary of test methods and MLs for the indicator parameters included in the proposed DRGP.

The proposed DRGP contains MLs based on sufficiently sensitive EPA-approved test methods in 40 CFR Part 136, based on the performance of EPA's New England Regional Laboratory and/or regional EPA-certified laboratories, using methods approved under CWA §304(h) or methods specifically approved for use by the permitting authority for this general permit.

4.3 Application Monitoring Requirements

Sampling requirements prior to the initiation of discharge (i.e., NOI sampling) have been simplified to reduce sampling to only the parameters applicable to the wastewater(s) selected by the applicant as listed in Part 2.1 of the DRGP. However, the NOI requires an applicant to consider all parameters listed in the DRGP, based on a given parameter being known or believed present. These parameters, which are based on water quality criteria and/or impaired waters requirements, have been included to ensure EPA and the appropriate State have the necessary information to calculate limitations for applicable parameters and to ensure the effluent limitations are sufficiently stringent to meet water quality standards. Additional sampling is not required for application for coverage under this general permit for case-by-case parameters; rather, the operator should rely on existing sampling data and/or site history.

4.3.1 Monitoring Requirements for Wastewaters

Samples collected and analyzed for the purposes of application for coverage under this general permit for all Activity Categories must be representative of the proposed discharge(s) and must

meet the monitoring requirements specified in the proposed DRGP. An applicant must collect a minimum of one (1) grab sample of each untreated wastewater for any parameter required for the given wastewater; and, if a given parameter is known or believed present in wastewaters the site. The following individual parameters also apply to all sites:

- All categories are required to sample each wastewater for pH and temperature.
- All categories are required to sample each wastewater for hardness, if the receiving water is a freshwater waterbody.

4.3.1.1 "Known or Believed Present"

For the purposes of this general permit, "known", when used in reference to parameters, refers to any parameter that has been quantified in an environmental sample collected at a site.[78] This includes groundwater, surface water and soil/sediment samples. An applicant that indicates a given parameter is "known present" at a site must disclose a minimum of one prior sample result in water, when available. As a result, the limitations for only the known parameters, rather than the limitations for all parameters included in this general permit will typically apply. EPA expects this change to reduce the regulatory burden for a proportion of dewatering and remediation sites covered by this general permit. Historically, dewatering of sites with a small number of additional parameters is the largest category of coverage under the DGP and RGP.

Examples of sites with known present parameters include the following:

- A remediation site with a remedial action outcome
- A remediation site with an activity use limitation
- A site where assessment was completed and risk-based analysis permitted closure
- A site where assessment was completed but reportable concentrations were not exceeded
- A site where naturally occurring contaminants have been quantified

Examples of sites with believed present parameters include the following:

- A site where parameters are suspected but a site assessment has not been completed
- A site where parameters are qualitatively detected as a result of the activity being conducted (e.g., dewatering effluent with perceptible odor, color, or sheen)
- A site is listed on an EPA or state inventory of known releases, as is done with "Brownfields" sites and proposed National Priorities List (NPL) sites
- A site with a use history that included industrialization, power generation, incineration, or spills/releases of oil or hazardous materials
- A site generally specified as "urban fill"

4.3.1.2 "Known or Believed Absent"

[78] For sites located in Massachusetts, applicants may refer to Massachusetts Policy #WSC-07-350, *MCP Representativeness Evaluations and Data Usability Assessments* for guidance on data usability assessments. For sites located in New Hampshire, applicants may refer to EPA Region 1 guidance for data validation.

For the purposes of this general permit, "known absent", when used in in reference to parameters, refers to any site where a parameter has been sampled in an environmental sample collected at that site, and is non-detect. "Believed absent" may refer to either an instance where a parameter is not associated with any past site use history, including filling, or has been quantified at a site but such data do not meet minimum data validation requirements.[79] Examples of instances where environmental data does not meet data validation requirements include: 1) samples no longer represent site conditions; 2) the parameter is a suspected laboratory contaminant.

Applicants may elect to conduct monitoring for all parameters included in this general permit prior to submitting the NOI for such a site to EPA. The results of such monitoring may be sufficient for an applicant to instead select known or believed absent for sites with parameters generally related to site use and history. Operators may also elect to submit a CNOI following initiation of discharge, once parameters present at a site have been quantified and the minimum data requirements have been met.

4.3.1.4 Existing Data Substitution

For new, existing, and emergency discharges, an applicant may use existing data for the purposes of a NOI for a site under certain conditions. Existing data substitution is no longer allowed once authorized to discharge under the proposed DRGP. This change will ensure data used for compliance monitoring meets regulatory requires for use of sufficiently sensitive test methods and EPA performance and acceptance criteria (e.g., precision, accuracy, representativeness, comparability, completeness, and sensitivity).

In general, existing data may be substituted for the data required in the proposed DRGP if the sampling and analysis has been conducted prior to authorization to discharge under the DRGP or similar NPDES permit. Further, such sampling and analysis must have been conducted pursuant to a regulatory or otherwise legally binding assessment, including, but not limited to: Massachusetts Regulations 310 CMR 40.0000, the Massachusetts Contingency Plan (Chapter 21E); New Hampshire's Title 50 RSA 485-A: Water Pollution and Waste Disposal or Title 50 RSA 485-C: Groundwater Protection Act; American Society for Testing and Materials Environmental Site Assessment, State or National Environmental Policy Act Environmental Impact Statements, and/or Comprehensive Environmental Response, Compensation, and Liability Act site investigation. For example, an operator collecting data in accordance with a Phase II site characterization may substitute these data for the data required in the proposed DRGP NOI for any case-by-case parameter, provided the data are representative of current site conditions and/or proposed discharges.

4.3.2 Receiving Water Sampling

The receiving water sampling included in the 2017 RGP are retained in the proposed DRGP for the purposes of a NOI are as follows:

[79] For sites located in Massachusetts, applicants may refer to Massachusetts Policy #WSC-07-350, *MCP Representativeness Evaluations and Data Usability Assessments* for guidance on data usability assessments. For sites located in New Hampshire, applicants may refer to EPA Region 1 guidance for data validation.

- pH
- hardness, if the receiving water is a freshwater waterbody
- salinity, if the receiving water is a saltwater waterbody

4.3.3 Whole Effluent Toxicity (WET) Testing

EPA and the States are authorized under §§402(a)(2) and 308(a) of the CWA to require toxicity testing. §308 specifically describes biological monitoring methods as techniques that may be used to carry out objectives of the Act. States have narrative criteria in their water quality regulations that prohibit toxic discharges in toxic amounts. Under such State narrative SWQSs, and §§301, 303 and 402 of the CWA, EPA and the States may establish toxicity-based limitations to implement the narrative "no toxics in toxic amounts".

WET testing evaluates the toxicity of all constituents in a complex effluent, including pollutant interactions, thus rendering an aggregate toxicity assessment of an effluent. WET testing implicitly addresses the "additivity" (sum of), "antagonism" (less than the sum of) and "synergism" (greater than the sum of) effects of combinations of pollutants or discharges. WET testing further provides assessment for the bioavailability of pollutants where chemical-specific approaches are limited. Previously unknown toxic pollutants present in an effluent can also be discovered and addressed, as can the presence of pollutants which have accumulated in the receiving water.

The federal NPDES regulations at 40 CFR §122.44(d)(1)(v) require WET limitations when a discharge causes or has a reasonable potential to cause or contribute to an excursion above the State's narrative criterion for toxicity. Limited WET testing data available for discharges covered by the 2017 RGP indicate toxicity is generally not present in dewatering and remediation discharges. Therefore, limitations for WET are not necessary for this class of dischargers to meet water quality standards. The pollutants with chemical-specific effluent limitations in this general permit are generally expected at low concentrations following treatment. However, the proposed DRGP retains the 2015 DGP and 2017 RGP requirements that WET testing and/or limitations may be required on a case-by-case basis. If required, WET testing must be completed using the receiving water as the diluent.[80] WET testing is not otherwise required for routine monitoring, unless indicated in EPA's written authorization to discharge.

Lethality is the measured endpoint for the acute WET test, for which the LC_{50} (the concentration of effluent at which 50 percent of the test organisms die) is determined. If required on a case-by-case basis, an operator must report the acute LC_{50} result (%) and the chronic NOEC value to EPA and the applicable State.

4.4 Treatment System Monitoring Requirements

[80] See EPA guidance: EPA-833-K-10-001, September 2010 and EPA/505/2-90-001, March, 1991 (e.g., Section 5.1 and 1.6).

The 2017 RGP requires an operator to perform sampling and analysis for treatment system influent, when a discharge is initiated either for the first time, or upon the re-initiation of discharge following a treatment system interruption (e.g., following a limitation exceedance, or treatment system modification, or an extended system shutdown). The purpose of this sampling is to ensure that the pollution control technologies and other BMPs implemented control the pollutants in discharged. The proposed DRGP retains these requirements, for specific use in evaluating the performance of treatment systems for the pollutants limited under the general permit. However, EPA has proposed reducing the frequency of sampling and analysis for certain treatment system interruptions and restarts as compared to the 2017 RGP.

4.4.1 Treatment System Startup

The proposed DRGP continues to require that when a discharge is initiated either for the first time, or upon the re-initiation of discharge following a treatment system interruption, an operator must sample and analyze for all parameters required for the discharge(s) as specified for an operator's self-identified category or categories in Part 2 for the wastewater and discharge. Specifically, The proposed DRGP requires two samples to be collected within the first week of discharge upon system startup, one of which must occur on the first day of operation, whenever practicable. One sample, rather than two continues to be required during the first week following a system restart.

The purpose of monitoring requirements during treatment system startup is to ensure proper operation of the treatment components and achievement of effluent limitations.

The requirement that samples be analyzed with a rush turnaround time has also been retained from the 2017 RGP, in order to minimize potential uncontrolled pollutant breakthrough. Rush samples must be reviewed by an operator upon receipt. If analyses indicate that the treatment system is working properly and achieving the applicable effluent limitations, sampling reverts to routine monitoring requirements thereafter. However, if during system startup and restart, there is any indication of system malfunction or violation of limitations, an operator must implement corrective actions in accordance with the DRGP. Upon re-initiation of discharge, an additional laboratory sample must be taken for the parameter(s) identified above limitation. If the problem(s) has been corrected, discharges may resume, unless otherwise directed by EPA and/or the State. Following a system restart and the confirmatory sample, routine sampling becomes effective. Routine sampling consists of monthly monitoring for the remainder of the permit term, unless otherwise modified by EPA.

4.4.2 Influent

The proposed DRGP proposes a reduction of the requirements for treatment system influent sampling included in the 2017 RGP to when a discharge is initiated either for the first time, or upon the re-initiation of discharge following a treatment system interruption (e.g., following a limitation exceedance, or treatment system modification, or an extended system shutdown). EPA has routinely required monitoring of both influent to the treatment system and effluent to the receiving water or drainage system under the RGP and at regulated remediation sites in Massachusetts and New Hampshire. Although compliance with the effluent limitations in the

permit is determined by the effluent sampling, sampling the influent to the treatment system provides critical information regarding the proper operation and maintenance of the treatment system, evaluation of pollutant removal efficiency, and other quality control factors.

4.4.3 Treatment System Interruption

Interruption of treatment systems is occasionally necessary due to seasonal fluctuations of water table elevations in groundwater extraction systems, climate conditions, ongoing testing, system repair or modification, or other circumstances. EPA has eliminated the requirements for additional monitoring following extended system shutdowns (defined in the 2017 RGP as 90 or more consecutive days). Operators must ensure that any system interruption does not adversely affect treatment system components. For example, commonly used carbon adsorption systems may not perform as expected if carbon units are not changed out periodically. When the discharge has been interrupted, the operator is subject to the same sampling, analysis and review requirements as apply during routine monitoring. If any sample or other observation indicates that the effluent exceeds any permit limitation(s), the same corrective action and notification requirements also apply.

Any system interruption which occurs in response to a corrective action remains subject to the additional sampling requirement upon system restart.

4.4.4 Treatment System Shutdown

EPA has eliminated the requirements for additional monitoring for treatment system shutdown, that is, immediately prior to terminating the discharge permanently and prior to submission of an NOT. EPA collected this information from operators during the term of the 2017 RGP to assess treatment system performance and evaluate compliance with this general permit and has determined that additional information for this purpose is no longer needed.

Operators continue to be required to collect samples for routine monitoring to ensure compliance with this general permit.

4.5 Short-Term Discharge Monitoring Requirements

The monitoring and reporting requirements included in the proposed DRGP are applicable to all discharges from sites engaged in remediation and dewatering activities. Modified sampling and reporting for specific activities has been eliminated, except in instances of the short-term monitoring requires specified below.

4.5.1 Pipeline and Tank Dewatering

EPA included separate monitoring requirements for discharges resulting from hydrostatic testing in the 2005 and 2010 RGPs due to the unique nature of these activities. The monitoring requirements specific to hydrostatic testing discharges remained consistent with the 2017 RGP in Category IV for pipeline and tank dewatering. The proposed DRGP proposes the following samples for all proposed pipeline and tank dewatering discharges, at a minimum:

- Influent: the operator must take one (1) sample of the wastewater during the fill process. If sampling during the fill process is not feasible, an operator must report a No Data Indicator Code in the Discharge Monitoring Report and provide a brief explanation;
- In-process sample: the operator shall take a minimum of one (1) sample representative of the tank water before draining. If the tank contents are likely to undergo phase separation or stratification, more likely in bulk storage tanks exposed to a variety of parameters, multiple samples collected from multiple depths within the water column must be collected and composited. The operator shall analyze and evaluate the in-process sample prior to discharge. If the analysis demonstrates that the water does not meet the effluent limitations established in this general permit, the operator shall not discharge the effluent unless treatment reduces the pollutant level(s) below the limitations established in this general permit; and
- Discharge: the operator must take one (1) sample of the discharge. If the analysis demonstrates that the discharge exceeds any limitation or requirement established in this general permit, the operator shall follow the corrective action requirements in Part 2.2.e of the general permit.

These requirements are intended to provide adequate characterization of the influent, in-process, and discharge water and are similar to requirements for similar facilities that discharge hydrostatic test water under individual permits issued by EPA to industrial facilities with similar discharges (e.g., bulk petroleum storage terminals) in Massachusetts and New Hampshire. The monitoring requirements are intended to identify whether any residual pollutant concentrations present in the hydrostatic test water meet the limitations and requirements in the permit or if additional limitations or control measures are necessary to meet State water quality standards.

4.6 Record-Keeping Requirements

EPA is required by 40 CFR §122.41(j) to include in the permit the requirement to retain records. General record-keeping requirements are included in Attachment 2, Standard Conditions. The proposed DRGP also identifies certain specific records (hard copy or electronic) that must be retained by an operator. These include:

- Data used to complete the Notice of Intent (NOI) for this general permit;
- Sample collection information, including the date, exact location, and time of sampling or measurements, the names of the individual(s) who performed the sampling or measurements, and the sample chain of custody for each sample;
- The analytical laboratory report, including the results, the date(s) analyses were performed, the names of the laboratory and/or individual(s) who performed the analyses, and the analytical techniques or methods used for each analysis;
- Documentation for the development, implementation and maintenance of the BMPP, including certifications;
- Discharge monitoring data summarized in accordance with the instructions in Appendix J;

- All records of monitoring instrumentation, field monitoring, and visual observations (e.g., portable organic vapor monitoring, turbidity meter, visible sheen observations, etc.);
- All records of system operation and maintenance; and
- All records of site inspections and employee training.

The proposed DRGP also specifies which records must be maintained on-site (hard copy or electronic) or with the operator. These include:

- A complete copy of this general permit;
- A copy of EPA's authorization to discharge and any subsequent modifications, if applicable;
- Copies of any information submitted to EPA and the State, including DMRs;
- Copies of any correspondence received from EPA and the State regarding permit coverage; and
- A copy of the BMPP.

EPA finds that these uniform requirements, consistent with the 2017 RGP, enables an EPA and/or State inspector to obtain and review the information relevant to this general permit upon request and/or site inspection, in a consistent and comparable manner.

4.7 Reporting Requirements

Therefore, EPA has made the following changes to reporting requirements as compared to the 2017 RGP:

- **For all discharges upon initiation of discharges,** in addition to the reporting requirements found in Attachment 2, Standard Conditions, the proposed DRGP requires that monitoring data and other related information be submitted electronically through NetDMR to EPA: 1) monthly; and 2) beginning upon initiation of discharges, unless provisional coverage applies. Depending upon the calendar date which marks the authorization to discharge, the first reporting period may be less than one (1) month. A No Data Indicator (NODI) Code will need to be used to report any duration of a monitoring period in which no discharges occurred or the operator was not required to report (e.g., "C" for "no discharge").
- **For all discharges upon termination of discharges,** a summary of all monitoring data must be submitted to EPA Region 1 in electronic format (e.g., excel) in accordance with Appendix J of the DRGP.

The proposed reporting requirements are in accordance with regulations at 40 CFR §122.44(i)(2) and 40 CFR 122.29(d)(4).

The regulation at §122.41(l)(4)(i) requires that monitoring data be reported on DMRs. Therefore, when reporting is required, an operator must submit monitoring data using a DMR through

NetDMR[81]. DMRs must be submitted no later than the 15th of the month in each calendar month. NetDMR is a national web-based tool for regulated CWA sites to submit DMRs electronically via a secure internet application to EPA through the Environmental Information Exchange Network. NetDMR allows users to discontinue mailing in hard copy forms under 40 CFR §122.41 and §403.12.

In most cases, other reports required under the proposed DRGP can be submitted to EPA as an electronic attachment through NetDMR. Certain exceptions are provided in the permit such as for providing written notifications required under the Standard Conditions and in relation to the submission of a NOI, CNOI or NOT. With the use of NetDMR to report DMRs and reports, an operator is no longer required to submit hard copies of DMRs or other reports to EPA. If a monitoring frequency reduction is approved by EPA, any operator with reporting requirements will need to use an appropriate No Data Indicator Code (NODI) for DMRs (e.g., "A" for "General Permit Exemption"). A NODI code must also be used to report any monitoring period in which no discharges occurred (e.g., "C" for "no discharge").

The reporting requirements included in the proposed DRGP are within EPA's discretion under CWA §402(a) and §308(a). §402(a) provides that: "[t]he Administrator shall prescribe conditions for permits to assure compliance…including conditions on data and information collection, reporting, and such other requirements as he deems appropriate." §308(a) authorizes the Agency to require owners/operators to "make such reports" and "provide such other information as [the Administrator] may reasonably require." Monitoring and reporting requirements under the NPDES permitting program are designed to be "self-implementing" and "self-reporting". This means that the operator is accountable for all aspects of the work to ensure compliance, including the selecting of contractors, paying for the work that is performed, and ensuring that such work is conducted and properly reported to the appropriate permitting authority through DMRs. Permitting authorities in turn load monitoring data into the Integrated Compliance and Information System (ICIS), which is then uploaded into EPA's Enforcement and Compliance History Online (ECHO) website,[82] becoming public record. Interested persons can access compliance data submitted by the sites through ECHO. EPA Region 1 also maintains a dedicated website for information regarding the RGP.[83]

5. Administrative Requirements

5.1 Changes in Coverage

5.1.1 Change NOI (CNOI)

If after submitting a NOI an operator needs to correct or update any fields, certain changes may be made by submitting a "Change NOI" form (CNOI) using NeT. Waivers from electronic reporting may be granted as specified above. If EPA Region 1 has granted approval to submit a paper CNOI, any NOI changes may be indicated on the same NOI format in Appendix H. If a

[81] Currently accessed at: https://npdes-ereporting.epa.gov/net-netdmr
[82] Currently accessed at: https://echo.epa.gov/
[83] Currently accessed at: https://www.epa.gov/npdes-permits/remediation-general-permit-rgp-massachusetts-new-hampshire

requested change does not have a form field, operators may utilize the "supplemental information" field.

The following allowable modifications are effective upon receipt of notification from EPA:

- Notification of change to administrative information

Notification may be provided for a change in certain administrative information. This includes, but is not limited to, expected date of initiation of discharge(s), a change in the address for an owner or operator, a change in contact information for an owner or operator, and a transfer of ownership, so long as the operator authorized to discharge under this general permit remains unchanged. A requested transfer of ownership is automatic unless EPA notifies the existing and proposed new owner(s) otherwise. Examples of when EPA is likely to provide such notification is when EPA intends to revoke and reissue coverage under this general permit or intends to issue an individual permit. For a transfer in ownership, the owners must submit: 1) Notice to EPA at least 30 days prior to the transfer date; and 2) A written agreement between the new and existing owners containing a specific date for transfer of permit responsibility, coverage, and liability between them. **For a change in operator, a new NOI is required**, as authorization under a general permit is not transferrable.

- Notification of a change in discharge location(s)

Notification may be provided in a CNOI for a change in discharge location so long as the receiving water identified in the NOI remains unchanged. Supporting documentation must indicate the new discharge location. A change in discharge location is automatic unless EPA notifies the operator otherwise.

- Notification of a change in activity area

Notification may be provided in a CNOI for a change in activity area so long as the operator named in the authorization to discharge remains unchanged, and any change in treatment or discharge location(s) are either included in the CNOI or are unchanged. Supporting documentation must indicate the new activity area. A change in discharge location is automatic unless EPA notifies the operator otherwise. **Changes in receiving water may require a new NOI or an individual NPDES permit.**

- Notification of a change to a treatment system or process

Notification may be provided in a CNOI for a change to a treatment system or process that adds or removes any major component. Written rationale provided in the NOC for this notification must indicate: 1) The addition or removal is necessary to meet a limitation included in the DRGP; and 2) The discharge continues to meet the limitations in the DRGP with the addition or removal.

The allowable modifications for the following requests will result in a 30-day review process.

Note: During the 30-day review period for any of the following requests, operators may continue to operate based on the information provided in the original NOI, but must wait until the review period has ended before implementing any of the below modifications, unless EPA provides notification that the modification is delayed or denied. This proposed change provides a specific timeframe for review and authorization that was absent from the 2017 RGP and 2015 DGP.

- Request for reduction in certain monitoring requirements

A request may be provided in a CNOI for the reduction of monitoring requirements for any required parameter that is not detected in required sampling for a minimum of 8 consecutive months and 10 samples. The maximum reduction that may be requested for the monitoring frequency of a parameter believed to be absent is no less than once per year. Monitoring data must be provided with this type of request, and provided in tabular format (e.g., Microsoft Excel).

- Request for a change in the site-specific effluent flow limitation

A request may be provided in a CNOI for a change in the site-specific effluent flow limitation if a change in flow results in any change to a discharge limitation calculated based on flow (i.e., a dilution factor applied to the original calculation). Written rationale provided with this request must indicate: 1) The effluent flow will not exceed 1.0 MGD; 2) The design flow of the treatment system will not be exceeded; 3) Input calculations showing all limited parameters that apply to the discharge based on flow; and 4) Certification that any revised effluent limitation or monitoring requirement will be complied with.

- Request for a change in pH range for sites in New Hampshire

A request for a change in pH range when an operator receives approval from the respective State granting such a change in pH range. Supporting documentation from the State must be attached to the CNOI. EPA notes that in no case can EPA authorize a discharge with a pH outside of the range 6.0 - 9.0 standard units (SU), the applicable TBEL for this general permit, based on promulgated ELGs for similar discharges.

- Request for a change in authorized parameters

A CNOI for a change in authorized parameters when a parameter limited in this general permit that is not included in the site's authorization to discharge is identified. Additional limitations and/or monitoring requirements may apply. **Changes in a pollutant or pollutant parameter not limited in this general permit may require a new NOI or an individual NPDES permit.**

- Request to discharge chemical(s) and/or additive(s)

A request may be provided in a CNOI for a change in chemical(s) and/or additive(s) when an operator intends to discharge a chemical or additive that was not disclosed in the original NOI submitted for a site. Written rationale provided in the CNOI for this change request must include

all of the information required in the DRGP under Conditions for Discharges of Chemicals and Additives, including the written rationale as required in the DRGP. Additional limitations and/or monitoring requirements may apply.

Notification of a temporary cessation of discharge planned or encountered which will extend greater than 90 days is no longer required. However, if an extended period of shutdown is encountered, the DRGP continues to require treatment system startup sampling to ensure control measures function properly after a period of inactivity.

5.1.2 Notice of Termination (NOT)

Operators must submit a signed and certified NOT when: 1) One or more of the following conditions have been met:

- All dewatering and/or remediation discharges that require coverage under this general permit have been permanently terminated at the site;
- Coverage under an individual or alternative general NPDES permit has been obtained;
- There is a change in the authorized owner/operator that has obtained an appropriate NPDES permit; or
- Authorization to discharge has expired and coverage under a new general permit will not be requested prior to the end of the authorized 90-day re-application period, at which time all discharges will terminate.

And 2) All of the following conditions have been met:

For any areas that were disturbed and are not covered by permanent structures, and over which the operator had control during the site activities, final stabilization measures have been implemented.

- All materials, waste and waste handling devices, and equipment and vehicles that were used during dewatering and/or remediation activities have been removed and properly disposed of, unless intended for long-term use;
- All control measures that were installed and maintained during dewatering and/or remediation activities, except those that are required for long-term use or those that are biodegradable have been removed; and
- All discharges of pollutants and pollutant-generating wastewaters associated with dewatering and/or remediation activities have permanently ceased, unless authorized by EPA, the State and/or municipality under an appropriate alternative (e.g., other NPDES permit from EPA, permission from the municipality under an MS4 permit).

All operators must use EPA's NPDES eReporting Tool (NeT) to electronically prepare and submit an NOT for the DRGP. NeT is currently accessed at: https://cdx.epa.gov/cdx.

Waivers from electronic reporting may be granted as specified in Part 1.4.2 of the DRGP. If EPA Region 1 grants approval to use a paper NOT, the NOT must be completed using either the suggested format provided by EPA (found in Appendix H of the general permit), or other format

of official correspondence that incorporates all of the information required in Appendix H. This includes, at a minimum:

- The name of the site/project and street address (or a description of location using approximate geographic coordinates if no street address is available) for which the notification is submitted;
- The name, address and telephone number of the owner and/or operator of the site;
- The NPDES permit number assigned;
- The basis for submission of the NOT, including: 1) an indication that the discharges requiring coverage have been permanently terminated; 2) the reason for the termination (e.g., completion of construction project, remediation completion, termination of emergency discharge); and 3) the date of termination;
- The initiation date of the discharge, the frequency of discharge, and a summary of all monitoring results, in electronic format, or hard copy format, if electronic submittal is impracticable; and
- A certification statement signed and dated by an authorized representative according to 40 CFR§122.22 (see Appendix H, NOT instructions).

You must submit your an NOT **within 30 calendar days** after any one of the conditions for termination listed above occurs. Authorization to discharge under this permit terminates at midnight of the calendar day that a complete NOT is submitted to EPA. Until termination is effective, operators must continue to comply with the conditions of this permit.

5.2 Continuation of the Expired General Permit

If this general permit is not reissued prior to the expiration date, it will be administratively continued in accordance with the Administrative Procedures Act and remain in force and in effect as to any particular operator. Any operator granted coverage prior to the general permit's expiration date will automatically remain covered by the continued permit until the earliest of:

- Reissuance of this general permit, at which time the operator must comply with the NOI conditions of the new permit;
- The operator terminating coverage by submitting a NOT;
- Issuance of an individual permit for the operator's discharges; or
- A formal decision by EPA not to reissue the general permit, at which time the operator must seek coverage under an alternative general permit or an individual permit.

However, should the permit expire prior to a replacement permit being issued, the existing permit will only cover those operators that submitted a complete and accurate NOI and met all the eligibility requirements prior to the expiration date of the permit. New projects requiring permit coverage after the expiration date of this permit are not eligible for coverage until a replacement permit is issued. Applicants should consult with the EPA Region 1 to determine potential NPDES coverage options.

6. Standard Permit Conditions

Operators must meet the standard permit requirements of 40 CFR §122.41 and 122.42, as applicable to their discharge activities. These requirements are provided in Attachment 2, Standard Conditions of the proposed DRGP.

7. State-Specific Limitations and Conditions

In addition to the Discharge Limitations included in Part 2 of the proposed DRGP, certain limitations and conditions apply to discharges in each State. These requirements will be provided to EPA in the respective State's §401 certifications.

7.1 Massachusetts, New Hampshire and Vermont

7.1.1 pH

The DRGP retains the 2017 RGP pH range limitations.

7.1.2 Temperature

The DRGP retains the 2017 RGP temperature limitations.

7.1.3 Water Quality Requirements

Provisions in the Massachusetts, New Hampshire, and Vermont State surface WQSs developed under §303(c) of the CWA and 40 CFR §131, and approved by EPA, provide minimum criteria to ensure designated uses are attained and maintained for uses and classes of waters determined by the States. These water quality criteria are found in 314 CMR 4.00, Massachusetts Surface Water Quality Standards, Chapter 1700, New Hampshire Surface Water Quality Regulations, and Vermont Water Quality Standards, Environmental Protection Rule, Chapter 29A. EPA included certain non-numeric criteria which are directly applicable to the types of discharges covered by the 2017 RGP as additional requirements. EPA Region 1 routinely includes non-numeric water quality requirements in NPDES permits and many are required at State and Federal project sites in Massachusetts. The majority of these requirements have been retained from 2017 RGP. However, wording has been adjusted to more precisely align with the current State WQSs.

These requirements generally address the following parameters and/or conditions:

- Solids and Sheen: while the DRGP contains numeric effluent limitations for TSS, there are narrative rather numeric limitations specific to floating or settleable solids, or effluents that generate debris, scum or sheen in the DRGP.
- Color, Odor, Taste and Turbidity: while the DRGP contains numeric effluent limitations for TSS, turbidity, and a limited number of parameters which impart an organoleptic effect, there are also narrative limitations specific to color, odor, taste or turbidity in the DRGP.
- Oil & Grease and Petrochemicals: while the DRGP contains numeric effluent limitations for the hydrocarbon fraction of oil & grease (TPH) and indicator parameters for certain

petroleum-related compounds, there are also narrative limitations specific to non-petroleum fats and greases and all groups of petroleum-related parameters.

Further, the CWA establishes "that the discharge of toxic pollutants in toxic amounts be prohibited" (33 USC §1251(a)(3)). State water quality standards contain narrative requirements for toxics control at 314 CMR 4.05(5)(e) for Massachusetts and Env-Wq 1703.21(a) for New Hampshire. In addition to the general prohibition of the discharge of toxics in toxic amounts, EPA has included several non-numeric requirements to ensure that discharges covered by this general permit do not violate State WQSs for toxics.

In combination with numeric (i.e., chemical-specific effluent limitations) and non-numeric (i.e., BMPs) limitations and requirements included in this general permit, EPA believes these requirements are necessary to ensure discharges covered under this general permit attain and maintain WQSs. EPA believes that narrative requirements are consistent with State WQSs and are sufficient to ensure that discharges covered by this general permit do not violate State WQSs for toxics. However, the States may impose additional requirements as a condition of State certification if necessary to meet State WQSs.

7.1.4 State §401 Certification

Section 401 of the CWA provides that no Federal license or permit (including NPDES permits) to conduct any activity that may result in any discharge into navigable waters shall be granted until the State in which the discharge originates either certifies that the discharge will comply with the applicable provisions of §§301, 302, 303, 306, and 307 of the CWA or it is deemed that the State has waived its right to such certification. Upon public notice of the draft proposed DRGP, EPA will request that the Commonwealth of Massachusetts and the States of New Hampshire and Vermont conduct §401 reviews and issue §401 certifications. The §401 certifications should include the specific conditions necessary to assure compliance with applicable provisions of CWA §§208(e), 301, 302, 303, 306 and 307 and with appropriate requirements of State law. EPA expects that the draft permit will be certified by the Commonwealth of Massachusetts, and the States of New Hampshire and Vermont.

4/26/2022

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