EBC New Hampshire Stormwater Program

Part One – State of Stormwater

NHDES & EPA Update, MS4, Federal Permits
Welcome

Robert Varney

Chair, EBC New Hampshire Chapter

President, Normandeau Associates, Inc.
Welcome to Eversource Energy

Richard Dumore

Supervisor, Environmental Operations
Eversource Energy
Showcasing Company:
Contech Engineered Solutions, LLC

Jim Lyons
Stormwater Consultant
Introduction and Program Overview

Ron Breton

Program Chair and Moderator

Senior Principal

GZA GeoEnvironmental, Inc.

Environmental Business Council of New England
Energy Environment Economy
Overview of Stormwater in New Hampshire

Ted Diers

Administrator, Watershed Management Bureau
New Hampshire Department of Environmental Services
Overview of stormwater in NH

- Problem
- NHDES role
- EPA role
- Actions
- Special issues
Problems behind

Merrimack River Bacteria

Downstream of Manchester (08-MER)
Annual averages based on at least 10 samples per year
Problems ahead

Specific Conductance 1974-2017
27-MER, Sewalls Falls Bridge, Concord

$R^2 = 0.48$
Stormwater runoff causes or contributes to over 90% of the water pollution problems in NH.
NHDES role in stormwater management

• Water quality standards
• Complaints investigations
• Input on NPDES permits
• Outreach and education on MS4
• Watershed Assistance Grants (319)
• Technical assistance (Soak up the Rain)
• TMDLs and Watershed Based Plans
• State permits – AoT, Wetlands, Shoreland, 401 Certs
EPA Role in stormwater water management

- Regulatory – CGP, MS4, MSGP (others)
- Funding assistance to the states
- Technical assistance
- Compliance
Actions

- MS4
- Asset management
- SRF
- Planning – watershed plans
- Stormwater utilities
MS4?

Municipal
Separate
Storm
Sewer
System
What asset management can for you

- responsibly manage the community’s most valuable assets
- responsibly manage the rate payers’ money
- minimize emergency repairs
- improve communication and transparency
SRF loans

• Stormwater “carve out”
• Green infrastructure
• Loan forgiveness
Watershed Based Plans

- 9 elements
- Focus on implementation
- Can be used as an “alternative TMDL”
- 60+ in NH
- Opens up funding
Stormwater utilities

- Feasibility studies
- Technical assistance
Other big issues

- Chloride
- PFAS
EPA Region 1 and Municipal Stormwater

Suzanne Warner

Permit Writer

NPDES Stormwater and Construction Permits

U.S. EPA Region 1
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

• A PERMITTING PROGRAM FOR THE DISCHARGE OF POLLUTANTS TO WATERS OF THE U.S.
• CLEAN WATER ACT (1972)
• LARGELY DELEGATED TO STATE ENVIRONMENTAL AGENCIES (EXCEPT, MA, NH, NM)
• GREW TO INCLUDE STORMWATER (MUNICIPAL, CONSTRUCTION, INDUSTRIAL) IN 1990 AND 1999
MUNICIPAL SEPARATE STORM SEWER SYSTEMS

GENERALLY REGULATED BY NPDES IF:*

• PUBLICLY OWNED AND
  • SERVING OVER 100,000 PEOPLE (LARGE/MEDIUM) OR
  • LOCATED IN AN URBANIZED AREA (SMALL)

*SEE 40 CFR 122.26
The permit is in effect but also still in court.

- NH Small MS4 General Permit finalized in Jan 2017.
- Permit effective in July 2018 (in Year 2 now).
- Permit was challenged by various parties.
- Led to mediation with all parties in the NH and MA MS4 challenges.
- After 2 years of negotiations, a proposed agreement.
NEXT STEPS:

1. **THE SETTLEMENT AGREEMENT IS PROPOSED FOR A 30-DAY PUBLIC COMMENT PERIOD IN THE FEDERAL REGISTER ON 12/27/2019**

2. **ALL PARTIES SIGN THE AGREEMENT OR CONTINUE TO MODIFY THE AGREEMENTS BASED ON PUBLIC COMMENT**

3. **EPA PROPOSES PERMIT MODIFICATIONS AND TAKES PUBLIC COMMENT ON MODIFIED PERMIT PARTS (LIMITED)**
EPA is taking comments on the settlement agreements currently:

- Should EPA enter into settlement?
- Are timeframes appropriate and reasonable?
- Are the terms of the agreement reasonable?

The proposed modifications to the permit are available as an exhibit.

EPA will provide further info/public process on the modifications.


Public Comments: 0 comments

Supporting/Related Materials:
- Proposed City of Lowell Settlement Agreement
- Proposed New Hampshire Settlement Agreement and Exhibits
- Proposed Massachusetts MS4 Settlement Agreement and Exhibits
ONGOING STORMWATER WORK
(EPA FUNDING, INVOLVEMENT)

- E – REPORTING FOR THE MS4
- POLLUTANT “CREDITING” FOR BEST MANAGEMENT PRACTICES
  - STRUCTURAL – FLEXIBLE SIZING BEYOND THE WQV
  - LEAF LITTER, STREET SWEEPING, ETC.
- OPTIMIZATION OF STORMWATER CONTROLS AT THE PLANNING LEVEL FOR COST AVOIDANCE
- GEOGRAPHIC PROGRAMS IN NEW ENGLAND, SRF, 319
THANK YOU
HELPFUL LINKS

PERMIT INFO: HTTPS://WWW.EPA.GOV/NPDES-PERMITS/NEW-HAMPShIRE-SMALL-MS4-GENERAL-PERMIT

PERMITTEES: HTTPS://WWW.EPA.GOV/NPDES-PERMITS/REGULATED-MS4-NEW-HAMPShIRE-COMMUNITIES

TOOLS: HTTPS://WWW.EPA.GOV/NPDES-PERMITS/STORMWATER-TOOLS-NEW-ENGLAND

HELPFUL PEOPLE

• MS4 PERMIT: SUZANNE WARNER (617) 918-1383 WARNER.SUZANNE@EPA.GOV
• STORMWATER RESEARCH IN REGION 1: MARK VOORHEES (617) 918-1537 VOORHEES.MARK@EPA.GOV
• FOR QUESTIONS ON GREAT BAY N PERMIT: MICHAEL COBB (617) 918-1369 COBB.MICHAEL@EPA.GOV
Water Quality Standards in New Hampshire

Ted Diers

Administrator, Watershed Management Bureau
New Hampshire Department of Environmental Services
Water Quality standards in NH

- General
- PFAS
- Dissolved Oxygen
- 7Q10 and nutrients
- Chlorides
- Instream Flow
- Nitrogen general permit
Water Quality Standards

- Designated uses
- Criteria and standards
  - Numeric
  - Narrative
- Antidegradation
<table>
<thead>
<tr>
<th>Designated Uses</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swimming and Other Recreation in and on the Surface Water</td>
<td>All surface waters that support recreation in and on the water, including, where applicable, swimming, wading, boating of all types, fishing, surfing, and similar other recreational activities.</td>
</tr>
<tr>
<td>Fish Consumption</td>
<td>All surface waters with standing water that support a population of fish free from toxicants and pathogens that could pose a human health risk to consumers.</td>
</tr>
<tr>
<td>Shellfish Consumption</td>
<td>All tidal waters that support a population of shellfish free from toxicants and pathogens that could pose a human health risk to consumers.</td>
</tr>
<tr>
<td>Aquatic Life Integrity</td>
<td>All surface waters that support aquatic life, including a balanced, integrated, and adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of similar natural habitats of the region.</td>
</tr>
<tr>
<td>Wildlife</td>
<td>All surface waters that provide habitat capable of supporting wildlife on a regular or periodic basis. Wildlife are undomesticated life forms which may utilize the water body to support any life stage or activity.</td>
</tr>
<tr>
<td>Potential Drinking Water Supply After Adequate Treatment</td>
<td>All surface waters with standing water that with adequate treatment will be suitable for human intake and meet state/federal drinking water regulations.</td>
</tr>
</tbody>
</table>
Criteria and standards

**Numeric**

**Simple** – *Turbidity* -- Class B waters shall not exceed naturally occurring conditions by more than 10 NTUs.

**Complex** – *Dissolved Oxygen*

- Class A Waters (freshwaters only) – at least 75% saturation daily average and 6 mg/L instantaneous minimum
- Class B Waters (fresh and marine waters) – at least 75% saturation daily average and 5 mg/L instantaneous minimum
- Lakes, Ponds, Impoundments, and Reservoirs
  - In stratified waters the criteria applies to the epilimnion
  - In unstratified waters the criteria applies to the top 25% of depth
- Cold Water Spawning Areas (Oct 1 to May 14) – 9.5 mg/L 7-day mean, 8 mg/L instantaneous minimum

**Narrative**

- Class B waters shall contain no phosphorus or nitrogen in such concentrations that would impair any existing or designated uses, unless naturally occurring.
Antidegradation

- Don’t pollute what’s already polluted.
- Don’t cause what isn’t polluted to become so.
Antidegradation Diagram

**BEST POSSIBLE WATER QUALITY**

<table>
<thead>
<tr>
<th>Tier</th>
<th>Water Quality</th>
<th>Parameter Value</th>
<th>Remaining Assimilative Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 2</td>
<td>High Quality</td>
<td>More than 10% of the Total Assimilative Capacity Remaining</td>
<td>20% Remaining Assimilative Capacity</td>
</tr>
<tr>
<td>Tier 1</td>
<td>Marginal Quality</td>
<td>Less than 10% of the Total Assimilative Capacity Remaining</td>
<td>No additional pollutant loading.</td>
</tr>
<tr>
<td>Tier 3</td>
<td>Outstanding Resource Waters (ORWs)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**EXISTING WATER QUALITY**

- Insignificant pollutant loading allowed -- <20% remaining assimilative capacity.
- Significant pollutant loading allowed after full public review – determine economic or social necessity.

**WATER QUALITY CRITERIA**

- Impaired: Water quality is below the standard.
  - No additional pollutant loading. Pollutant loading reductions are needed to restore water quality.
Chapter 368 laws of 2018:

The commissioner of environmental services shall develop a plan, including a schedule and cost estimates, to establish surface water quality standards for perfluorooctanesulfonate (PFOS), perfluorooctanoic acid (PFOA), perfluorononanoic acid (PFNA), and perfluorohexanesulfonic acid (PFHxS) in class A and class B waters for all designated uses. The commissioner shall submit the plan upon its completion, but no later than January 1, 2020....
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Estimated Development Costs of Approach*</th>
<th>Estimated Time to Initiate Rulemaking</th>
<th>Subsequent Assessment Costs*</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCL adoption as Water Consumption Criteria - Applied to waters within 20 miles upstream of surface drinking water supplies</td>
<td>$25,000</td>
<td>4-8 months</td>
<td>$92,000 for two-rounds of samples Covers the 59 surface water supplies and subsequent outreach.</td>
</tr>
<tr>
<td>Establish Fish Consumption Advisory - Determines how many fish meals are safe to eat in a week or month</td>
<td>$9,000</td>
<td>2-3 months</td>
<td>$547,000 - $4,747,000 Based on a 100 waterbodies probabilistic survey sampling strategy and added sampling costs based on initial sampling results and subsequent outreach.</td>
</tr>
<tr>
<td>Fish/Shellfish Tissue Criteria - Assess tissue consumption safety based on amount of PFAS in fish/shellfish tissue</td>
<td>$47,000</td>
<td>5-24 months</td>
<td>$547,000 - $4,747,000 Based on a 100 waterbodies targeting at-risk and high-use waterbodies and subsequent outreach.</td>
</tr>
<tr>
<td>Fish/Shellfish Consumption Criteria Water Concentration Criteria, State-wide</td>
<td>$75,000 - $741,000</td>
<td>18-36 months</td>
<td>$153,000 for two-rounds of samples Covers 100 waterbodies targeting at-risk and high-use waterbodies and subsequent outreach.</td>
</tr>
<tr>
<td>Fish/Shellfish Consumption PLUS Water Consumption Criteria - Assess water samples based on amount of fish AND water that is safe to consume</td>
<td>Combination of MCL adoption as Water and Fish/Shellfish Consumption Criteria (line 1) and Water Concentration Criteria to Protect Fish Consumption (line 4).</td>
<td>$75,000 - $741,000</td>
<td>$153,000 for two-rounds of samples Covers 100 waterbodies targeting at-risk and high-use waterbodies and subsequent outreach.</td>
</tr>
<tr>
<td>Recreational Contact - Assess water samples for acceptable levels for physical contact with surface water</td>
<td>$34,000 - $120,000</td>
<td>6-18 months</td>
<td>$540,000 for two-rounds of samples Covers the 381 designated beaches and subsequent outreach.</td>
</tr>
</tbody>
</table>

* Approximately 8,500 distinct waterbodies in the state.
## Cost Summary for Aquatic Life Use Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Estimated Development Costs of Approach*</th>
<th>Estimated Time to Initiate Rulemaking</th>
<th>Subsequent Assessment Costs*</th>
</tr>
</thead>
<tbody>
<tr>
<td>(fill all data gaps) Toxicity Tests for Freshwater Organisms</td>
<td>$11.8 - $20.7M</td>
<td>3-6 years/compound</td>
<td></td>
</tr>
<tr>
<td>(fill all data gaps) Toxicity Tests for Marine Organisms</td>
<td>$11.9 - $22.4M</td>
<td>3-6 years/compound</td>
<td></td>
</tr>
<tr>
<td>(contribute New England species to data gaps) Toxicity Tests for Freshwater Organisms</td>
<td>$1.2M</td>
<td>3-8 years</td>
<td></td>
</tr>
<tr>
<td>(contribute New England species to data gaps) Toxicity Tests for Marine Organisms</td>
<td>$1.2M</td>
<td>3-8 years</td>
<td></td>
</tr>
<tr>
<td>Total Cost to develop and pass Water Concentration Criteria to protect aquatic life</td>
<td>~2.5M</td>
<td>3-8 years</td>
<td>~ Opportunities to share costs with Vermont.</td>
</tr>
</tbody>
</table>

* Approximately 8,500 distinct waterbodies in the state.
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Estimated Development Costs *</th>
<th>Estimated Time to Rulemaking</th>
<th>Subsequent Assessment Costs to Determine which Waterbodies are Meeting Criteria*</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCL adoption as Water Consumption Criteria - Waters within 20 miles upstream of surface drinking water supplies</td>
<td>$25,000</td>
<td>4-8 months</td>
<td>$97,000 for two-rounds of samples (Covers the 59 surface water supplies)</td>
</tr>
<tr>
<td>Establish Fish Consumption Advisory - Determines how many fish meals are safe to eat in a week or month</td>
<td>$9,000</td>
<td>2-3 months</td>
<td>$500,000 - $6,300,000 (Based on a 100 waterbodies probabilistic survey sampling strategy and added sampling costs based on initial sampling results)</td>
</tr>
<tr>
<td>Fish/Shellfish Tissue Criteria - Tissue consumption safety based on amount of PFAS in fish/shellfish</td>
<td>$34,000 - $120,000 (National or NH consumption rates)</td>
<td>5-24 months</td>
<td>$500,000 - $6,300,000 (Based on a 100 waterbody sampling strategy and added sampling costs based on initial sampling results)</td>
</tr>
<tr>
<td>Fish/Shellfish Water Criteria - Assess tissue consumption safety (water sample)</td>
<td>$75,000 - $741,000 (Literature or NH BAFS)</td>
<td>18-36 months</td>
<td>$148,000 for two-rounds of samples (Covers 100 waterbodies targeting at-risk and high-use waterbodies)</td>
</tr>
<tr>
<td>Fish/Shellfish Consumption PLUS Water Consumption Criteria - Amount of fish AND water that is safe to consume (water sample)</td>
<td>Combination of those seen for MCL adoption as Water and Fish/Shellfish Consumption Criteria (line 1) and Water Concentration Criteria to Protect Fish Consumption (line 4). $750,000</td>
<td>18-36 months</td>
<td>$148,000 for two-rounds of samples (Covers 100 waterbodies targeting at-risk and high-use waterbodies)</td>
</tr>
<tr>
<td>Recreational Contact - Assess water samples for acceptable levels for physical contact with surface water</td>
<td>$34,000 - $120,000 (Literature or NH recreation rates)</td>
<td>6-18 months</td>
<td>$510,000 for two-rounds of samples (Covers the 381 designated beaches)</td>
</tr>
<tr>
<td>Aquatic Life Use - Assesses levels of PFAS that will impact fish and other aquatic life**</td>
<td>$2,525,000 - $43,225,000 (Contributing or filling all data gaps)</td>
<td>3-8 years</td>
<td>$148,000 for two-rounds of samples (Covers 100 waterbodies targeting at-risk and high-use waterbodies)</td>
</tr>
</tbody>
</table>
Dissolved oxygen -- % of Measurements Below 5 mg/L

All Grab Data for all Months

- **Cold Water**
  - (n=3046), 5 mg/L at 4.2 Percentile
- **Transitional Water**
  - (n=4596), 5 mg/L at 2 Percentile
- **Warm Water**
  - (n=20746), 5 mg/L at 6 Percentile

5 mg/L
EPA’s Aquatic Life Criteria Guidance is one reference point for DO criteria in NH

- “Virginian Province Approach” is EPA’s Saltwater Aquatic Life DO criteria guidance.
- Acute (2.3 mg/L) and Chronic (4.8 mg/L) criteria based on lab exposure tests for most sensitive juveniles and adults
- In practice, states have made adjustments for local species, temperature, or other factors
- New science has identified additional considerations, such as interaction of low DO and low pH effects.
- EPA guidance also specifies that DO-sensitive threatened and endangered species should be considered separately when criteria applies to habitat
DO vs. pH in DO Exposure Tests differed from DO vs. pH in natural waters

- EPA tests conducted in 1990s maintained ambient pH
- In natural waters, low pH and low DO occur together
- Recent studies show that adverse effects of low pH and DO can be additive
- Laboratory thresholds may underestimate DO levels needed to prevent impacts in natural waters subject to co-occurring low pH
Dissolved Oxygen Saturation Criteria

• Removed from statute in 2017.
• 2018 303(d) list – DO Saturation impairments proposed for delisting
• 2019 – correspondence with EPA regarding DO saturation and critical habitat listing in estuarine waters
• 2019 – NH withdraws request for delisting and change to water quality standard

• Conclusion – DO is a complicated issue!
7Q10 and Nutrients

RSA 485-A:8 II.
ADDED in 2017
“The commissioner shall not calculate nutrient discharge limits for aquatic life and human health criteria based on 7Q10 flow or such other flow criteria more restrictive than 7Q10.”

• Rochester and the Great Bay Coalition believe using 7Q10 for setting nutrient permit limits is too conservative
  – Based on what some other states use, and because effects of nutrients on water quality (i.e., higher plant growth, low DO, etc.) can take longer to manifest than the 1 week averaging period associated with the 7Q10 flow.

(April 12, 2018 – NHDES)
Translator for narrative Criteria and Applicable Flow

• Gold Book values are “not to exceed” values

• NH WQS at Env-Wq 1705.01 requires that not less than 10 percent of the assimilative capacity of each surface water shall be held in reserve to provide for future needs (For example the Gold Book instream target of 0.1 mg/l is reduced to 0.09 mg/l to hold 10% assimilative capacity in reserve for future needs)

• 7Q10 flow is currently used in both NH and MA
Reasonable Potential Calculation

- RP calculations based upon a mass balance equations where:
  \[ Q_u C_u + Q_d C_d = Q_r C_r \]

- Calculations for reasonable potential use the following information
  - Design flow of the POTW
  - Maximum (if less than 10 samples) or 95\textsuperscript{th} percentile (for 10 samples or more) TP concentration in the effluent
  - Upstream 7Q10 flow
  - Median upstream TP concentration
  - Since TP limits are seasonal (April 1 – October 31) TP data from this timeframe are used

- If the resultant downstream concentration exceeds 0.09 mg/l then reasonable potential exists and a water quality based effluent limitation is established.
Rivers with and without direct waste water discharges

- Elevated TP with direct WW inputs.
- Generally quite low.

No statistical significant difference ($p=0.65$).

11-SMS, Simms Stream
- RED - Permitted Load
- WHITE – Predicted load
  - August median flow,
  - 13 ug/L background, and
  - 30 ug/L downstream target.

- Overall loads are comparable.
How to move forward?

Tiered approach

I – Rule of thumb for reasonable potential – 7Q10 and 100 ug/L or August med and 30 ug/L TP

II – Model approach – multi-parameter (include biological activity)

III - Intensive monitoring – response parameters
Salted NH Groundwater

47 “known” segments
4 day > 230 mg/L
or
1 hour > 860 mg/L
Conductivity Trends in Cobbetts Pond and Lake Sunapee

- **Conductivity**
  - **Year**
  - Conductor:
    - Actual
    - Upper 95%
    - Predicted
    - Lower 95%

Graph showing conductivity trends over years from 1985 to 2020.
How to reduce?

Presently
• Green SnowPro – voluntary approaches
• Municipal program certification – voluntary
• Brine programs, equipment updates, etc

Future
• Build in accountability to BMPs
• Mandatory approaches
• EPA update to standard (2021?)
Instream Flow

How much is too little?

What to do about it?
• 1988 Rivers Mgt. and Protect. Act
• 1990 RSA 483 takes effect
• 1990 – 2000 – Much debate
• 2001 – Instream Flow Pilot Program
  • Souhegan
  • Lamprey
• 2015 – Complete pilot
• 2016-17 – Rule-making
• 2019-2022 – Cold and Warner Rivers
• 2022 – Ashuelot River then?
Management of Low Flows

Applies to water users
- Conserve water
- Use alternate sources

Applies to dam owners (lakes)
- Release 2-day pulses of water from storage to restore the flow pattern
## Proposed TN General Permit (GP) Approach

<table>
<thead>
<tr>
<th><strong>New Scientific Approach</strong></th>
<th>Annual load effluent limits based on scientific literature concerning the effects of total nitrogen loading on estuaries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Point Source Allocations</strong></td>
<td>Hold load reductions already achieved or already in progress.</td>
</tr>
<tr>
<td><strong>NPS Load Reductions</strong></td>
<td>Plan and implement practices that will reduce TN loading from NPS inputs (NH WQ Certification requirement)</td>
</tr>
<tr>
<td><strong>Track Loads</strong></td>
<td>Quantify and track point source and non-point source loads via effluent monitoring and NPS tracking (PTAPP)</td>
</tr>
<tr>
<td><strong>Ambient Monitoring</strong></td>
<td>Participate in Adaptive Management Monitoring Program to assess system response</td>
</tr>
</tbody>
</table>
Federal Register

• https://www.epa.gov/npdes-permits/draft-great-bay-total-nitrogen-general-permit
Questions?

Ted Diers, NHDES
Ted.diers@des.nh.gov
603-271-3289

If a dog wore pants would he wear them like this or like this?
Overview and Status of Federal General Permits (MSGP, DGP, RGP, CGP)

Michelle Vuto

Permit Writer

NPDES Stormwater and Construction Permits

U.S. EPA Region 1
Overview and Status of Federal General Permits

MSGP, DGP, RGP, CGP

Michelle Vuto
EPA Region 1
1/10/2020
1. MSGP
   - NAS Study Results
   - Current Status
   - Finding NOIs
2. DGP/RGP/CGP
   - Intersection
   - Updates
3. Questions
Multi-Sector General Permit (MSGP)

Industrial Stormwater
National Academy of Sciences (NAS) Study
Improving Monitoring Requirements and Benchmark Thresholds

• Review and update sector-specific benchmark monitoring requirements to incorporate new info

• Require industry-wide monitoring of pH, TSS, COD

• Iron, arsenic, selenium benchmarks currently based on chronic criteria but should be more protective of short term exposures (acute)
Improving Sampling and Data Collection

• Consider a training or certification program
• Composite sampling for benchmark monitoring
• Minimum of annual sampling for permittees that meet benchmarks

Improving Sampling and Data Collection (cont.)

• Tiered approach to monitoring
  1. *Inspection only* (low-risk facilities)
  2. *Industry-wide monitoring only* (pH, TSS, COD)
  3. *Benchmark monitoring* (sector-specific)
  4. *Enhanced monitoring* (repeated exceedances, large complex sites)

Retention Standards

• Requirements needed to ensure groundwater protection
• Incentives to encourage infiltration or capture and reuse

Source: UNH Stormwater Center

EPA
MSGP Updates

• New permit expected 2020
  - Considers NAS Recommendations
  - Federal Register
  - 60 day public comment period
  - RTC
  - Final Permit
• 2019 Annual Reports due January 30th

Finding NOIs

https://www.epa.gov/npdes/stormwater-discharges-industrial-activities

National Pollutant Discharge Elimination System (NPDES)

Stormwater Discharges from Industrial Activities

Electronic Reporting Under the 2015 EPA Multi-Sector General Permit (MSGP)

On this page:
- Overview
- Accessing Net-MSGP for New NOIs, Change NOIs, Annual Reports, NOIs, and NOIs
- Accessing NetDMR
- Guidance and Training
- NOI Search
Finding NOIs (cont.)

**NOI Search**

- For NOIs submitted under the 2008 MSGP and NOEs submitted before June 4, 2015, go to the [2008 MSGP search page](#).
- For NOIs submitted under the 2015 MSGP and NOEs submitted on or after June 4, 2015, go to the [ECHO search page](#).
- For NOIs submitted under the 2015 MSGP and NOEs submitted on or after April 1, 2018, go to the [e-Enterprise Portal](#).
### 2008 Industrial Multi-Sector General Permit (MSGP) Search Page

This page provides the ability to search for NOIs submitted under EPA's 2008 Multi-Sector General Permit and NOEs.

Search results will be presented in a table; however, you can also download more detailed information on the eNOIs identified in these search results into an excel spreadsheet, or an HTML file, which can be saved to your desktop for further review and analysis.

### Search for 2008 MSGP NOIs and NOEs

<table>
<thead>
<tr>
<th>Permit Tracking Number:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Permit Type:</td>
<td>All</td>
</tr>
<tr>
<td>Status:</td>
<td>All</td>
</tr>
<tr>
<td>EPA Region:</td>
<td>All</td>
</tr>
<tr>
<td>Date Type List:</td>
<td>All</td>
</tr>
<tr>
<td>Sector:</td>
<td>All</td>
</tr>
</tbody>
</table>

[Show Status Definitions]

### Site/Facility Information

| Name: |
| City: |
| State: | All |
| County: | All |
| Zip: |

### Owner/Operator Information

| Name: |
| City: |
| State: | All |
| Zip: |
Finding NOIs (cont.)

NOI Search

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A Tool Suite for Your Environmental Needs

E-Enterprise for the Environment is a new model for collaborative leadership among environmental co-regulators, engaging with all interested and affected parties, to achieve positive environmental, human health, and economic outcomes.

Environment Reporting
New ways to submit information.

Workbench
Tools, data, and resources to help you

Maps & Dashboard
Learn more about the environment through maps and data mashups and more
Multi-Sector General Permit Lookup

Select a permit type

Multi-Sector General Permit

Find notices of intent and related submissions for general permits implemented in EPA's NPDES eReporting Tool (Net).

Enter one or more search criteria

Issuer

Select...

Submission type

Select...

Coverage type

Coverage status

Select...

NPDES ID

Sector

Select...

Subsector

Primary SIC Code

Select...

Facility Name

Street Address

City

State / Territory

Zip
Construction Dewatering General Permits

CGP, DGP, RGP
Construction General Permit (CGP)
Disturb ≥1 acre

Remediation General Permit (RGP)
Contaminated

Dewatering General Permit (DGP)
Uncontaminated

Discharge to “waters of the US”

May need both
Helpful Links

MSGP


NOI Search: [https://www.epa.gov/npdes/stormwater-discharges-industrial-activities#noisearch](https://www.epa.gov/npdes/stormwater-discharges-industrial-activities#noisearch)

NAS Study: [http://dels.nas.edu/Report/Improving-Multi-Sector-General/25355](http://dels.nas.edu/Report/Improving-Multi-Sector-General/25355)

Construction Permits

DGP Permit: [https://www.epa.gov/npdes-permits/dewatering-general-permit-dgp-massachusetts-new-hampshire](https://www.epa.gov/npdes-permits/dewatering-general-permit-dgp-massachusetts-new-hampshire)

RGP Permit: [https://www.epa.gov/npdes-permits/remediation-general-permit-rgp-massachusetts-new-hampshire](https://www.epa.gov/npdes-permits/remediation-general-permit-rgp-massachusetts-new-hampshire)


EPA Region 1 Contact Information

<table>
<thead>
<tr>
<th>Group</th>
<th>Name</th>
<th>Email</th>
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<tbody>
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</tr>
</tbody>
</table>
New Hampshire Perspective on the MS4

Deb Loiselle

Stormwater Coordinator
Watershed Assistance Section
New Hampshire Department of Environmental Services
New Hampshire Perspective on the MS4
Putting the “” “” into the NH MS4 Stormwater Permit

EBC New Hampshire – January 10, 2019
Deb Loiselle, Stormwater Coordinator
NH Department of Environmental Services
Looking Back

How the heck am I going to meet these crazy stormwater permit requirements?
Looking Back

Look at the picture (above). It shows a cigarette going into a drain, then it ends up in a pond. That's bad. If cigarettes, oil, grease and other things like that go into a pond, it's bad because it could kill a wild animal in or around the pond. If an animal's around the pond and needs a drink, it will drink out of the pond and if the oil, grease, or cigarette is in there, it could drink it and die. When the animal lives in the pond, it could mistake the cigarette for food and it will eat it and die, so please help animals by not throwing things down drains. Thank you.
2002-2005 NH Stormwater Coalitions

Original Manchester Stormwater Coalition Members
NH Stormwater Coalitions

- Manchester Stormwater Coalition
- Seacoast Stormwater Coalition
- Nashua Stormwater Coalition

Map created by Matthew A. Wood, NYS DEC
Stormwater Coalitions

NH Lower Merrimack Valley Stormwater Coalition

Seacoast Stormwater Coalition
NH MS4 Dream Team

Jeremy Bouvier  Gordon Leedy  Gretchen Young
NH MS4 Dream Team

Dawn Tuomala
Jeremy Bouvier
About Us

The UNH Stormwater Center is a dynamic research, testing, and educational facility which serves as a technical resource for water managers, planners, and design engineers in New England and throughout the United States.

Under the Clean Water Act Phase II rules, the Environmental Protection Agency requires local governments to develop stormwater programs. In response, many organizations have or are now developing plans and actions to achieve desirable water quality and storm volume reduction. Although many of the stormwater management strategies are based on sound theory, there is no requirement that they undergo independent, third-party scientific testing. A three-year study of nine seacoast sites in New Hampshire clearly showed that traditional stormwater technologies failed in reducing at least one water quality parameter two-thirds of the time. The National Research Council recently noted that increasing urbanization has resulted in degradation of water quality and habitat in virtually every urban stream system. The report recommends, among other items, additional research on the relevant hydrologic and water quality processes within stormwater control measures.

Mission

The UNH Stormwater Center is dedicated to the protection of water resources through effective stormwater management. The primary functions of the center are twofold: (i) Research and development of stormwater treatment systems, (ii) To provide resources to the stormwater management community currently challenged by the effective design and Implementation of required stormwater management.

Outreach and Technical Training

The close proximity of the field testing facility to UNH enables the Center to offer technology demonstrations and workshops, as well as

Jamie Houle
NHDES Dream Team

Barbara McMillan

Katie Zink
Communication

Dear NH Lower Merrimack Valley Stormwater Coalition Members,

Happy New Year!

Our next meeting is scheduled for tomorrow Thursday January 9th at 1:00 pm. The agenda for this meeting is attached and will be posted to the MS4 Blog later today. The December 12th meeting minutes can be found on the MS4 Blog. Contact Deb Loselle (deboselle@des.nh.gov or 603-271-1353) if you are having problems accessing the documents on the MS4 Blog.

As we start the new year, we will continue working on the Year 2 requirements. One of the items we will be discussing tomorrow is the selection of one or two of the Year 2 requirements. Please consider volunteering to take the lead or to participate in a subcommittee.

In 2020 we are trying to reduce the amount of paper documents we make available. Please print your own agenda if you would like to have it available for the meeting. We will continue to make the agenda available on the screen for reference during the meeting.

At a minimum, please take a brief look at the “draft” SWPPP template for municipal facilities that has been prepared for by a member of the Seacoast Stormwater Coalition. We would like to provide feedback on the template in order to keep the process moving.

We look forward to seeing you tomorrow.

Sincerely,

Jeremy, Dawn, Jamie, Deb and Barb

NH Stormwater Coalition Meeting Dates:

NHLMV Stormwater Coalition – 2nd Thursday of the month, 1:00-3:00 pm

Seacoast Stormwater Coalition – 3rd Wednesday of the month, 1:00-3:00 pm
1st Annual NH Stormwater Coalition Meeting
March 27, 2019
NH Clean Water State Revolving Fund (CWSRF)

Your Partner in Building Resilience
Targeting CWSRF Goals

• Demonstrate water quality benefits;

• Eliminate or mitigate a risk to public health;

• Achieve or maintain compliance; and

• Improve sustainability of infrastructure assets.
2019 CWSRF Funding Initiatives

Wastewater and Stormwater
Asset Management Programs

- 100% loan principal forgiveness up to $30,000
  Requires Authority to Borrow & Scope Approval
- Engage All Utilities
  see Drinking Water SRF for grants!
- 1% on Disbursements
Wastewater and Stormwater CWSRF Loan Forgiveness For Asset Management

Wastewater
• 43/135 Communities

Stormwater
• 22/234 Communities
2019 CWSRF Funding Initiatives

Wastewater and Stormwater Planning Evaluations:

- 100% loan principal forgiveness up to $75,000

* Long Term Control
* Vulnerability Assessments
* Water Conservation
* Stormwater Management
* Watershed Management
* MS4 Compliance
Timing Is Everything

- Pre-application: May – June 2020
- Project Priority List: September 2020
  Loans available… with Authority to Borrow
- Town Meetings: March – May 2021
- Application Due: June 30, 2021
NH Clean Water State Revolving Fund

Resources

* Asset Management Guidance

* Planning Guidance

* 2019 CWSRF Project Priority List
It Takes a Village!

MS4s

New Hampshire DOT
Department of Transportation

New Hampshire Department of Environmental Services

Regional Planning Commissions

SC
University of New Hampshire Stormwater Center

So many more!

PREP
Piscataqua Region Estuaries Partnership

NH Municipalities

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Ted’s Question of the Day

If a dog wore pants would he wear them like this or like this?
Thank You!

Special thanks and credit go out to my fellow colleagues providing me with resources to produce this presentation: Ted Diers, Barbara McMillan, Beth Malcolm, and Sharon Nall. I could not have prepared this presentation without your assistance!

Baboosic Lake – Baboosic Lake Association

NH Department of Environmental Services

Deb Loiselle deborah.loiselle@des.nh.gov
Moderated Discussion

Moderator: Ron Breton, *GZA GeoEnvironmental*

Panelists:

- Ted Diers, *NH DES*
- Deb Loiselle, *NH DES*
- Michelle Vuto, *U.S. EPA, Region One*
- Suzanne Warner, *U.S. EPA, Region One*
EBC New Hampshire Stormwater Program

Part One – State of Stormwater

NHDES & EPA Update, MS4, Federal Permits