Marina Stormwater Discharge Permit Work Session

March 11, 2010

Step 4 – Inspection, monitoring, reporting and corrective actions

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www.epa.gov/npdes/stormwater/msgp
www.epa.gov/NE/npdes/stormwater/index.html

What do I have to do?

Step 1: Determine eligibility of activities that fall under this permit, if any.

Step 2: Develop a Stormwater Pollution Prevention Plan (SWPPP)

Step 3: File a Notice of Intent (NOI)

Step 4: Inspection, monitoring, reporting and corrective actions

Inspections

- Three types of inspections required:
  - Routine facility inspections (at least quarterly)*
  - Quarterly visual assessments (quarterly)*
  - Comprehensive site inspections (annually)
- Performed by qualified personnel with at least one member of SWPPP Team

* Routine inspections and visual assessments are <u>not required</u> for "inactive and unstaffed sites" where industrial materials are not exposed to stormwater.

Inactive and Unstaffed Sites

- Exception available only for:
  - Routine Facility Inspections
  - Quarterly Visual Assessments
  - Benchmark Monitoring
- Must certify to a condition equivalent to the “No Exposure” exclusion for the entire quarter
- If materials or activities become “exposed” during the quarter, must immediately begin inspections and monitoring

Routine Facility Inspections

- Must inspect:
  - All areas of facility where industrial materials or activities are exposed to stormwater
  - All stormwater control measures used to comply with permit conditions
- Performed when facility is in operation
- At least one inspection per year must be done while a stormwater discharge is occurring

Routine Facility Inspection Documentation

- Must include:
  - Inspection date, time, weather
  - Name and signature of inspector
  - Previously unidentified discharges of pollutants
  - Control measures that need maintenance or that failed and need to be replaced
  - Incidences of noncompliance
  - Additional control measures needed

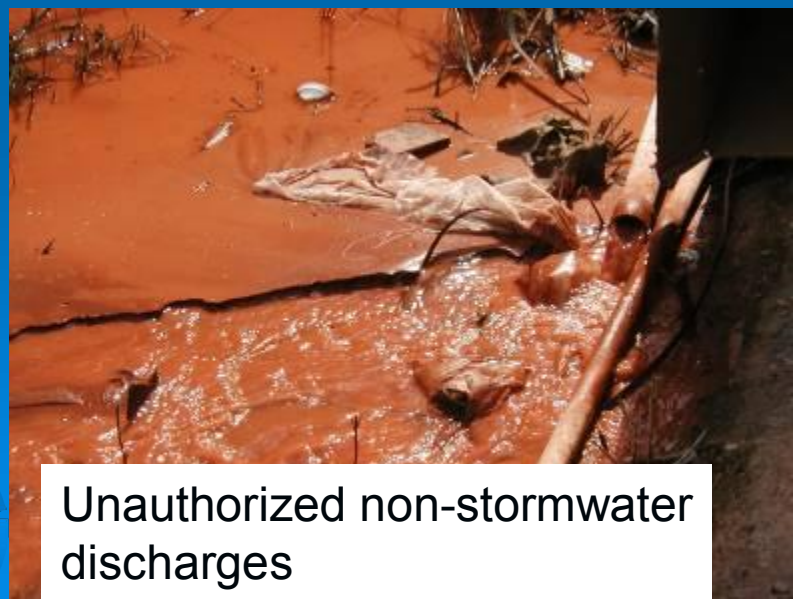
Not required to submit unless requested by EPA

What to look for during an inspection

Poor Housekeeping

Exposure of potential pollutants (e.g., core batteries)

Spills or leaks


Unauthorized non-stormwater discharges

Quarterly Visual Assessments

- Collect a grab sample from each outfall within first 30 minutes of measurable storm event (or as soon as practicable thereafter)
- Modified requirements for situations involving adverse weather, snow melt, climates with irregular stormwater runoff
- For outfalls that are “substantially identical,” only one sample is required, with outfalls assessed on a rotating basis

Quarterly Visual Assessments

- Visually inspect sample for the following:
  - Color
  - Odor
  - Clarity
  - Floating solids
  - Settled solids
  - Suspended solids
  - Foam
  - Oil sheen, and
  - Other obvious indicators of stormwater pollution

Quarterly Visual Assessment Documentation

- Must include:
  - Sample location
  - Date/Time of sample collection and assessment
  - Person collecting sample and performing assessment
  - Nature of discharge (runoff or snowmelt)
  - Results of observations
  - Probable sources of any observed contamination
  - If applicable, why not possible to sample in 1st 30 min.

Not required to submit unless requested by EPA

Comprehensive Site Inspections

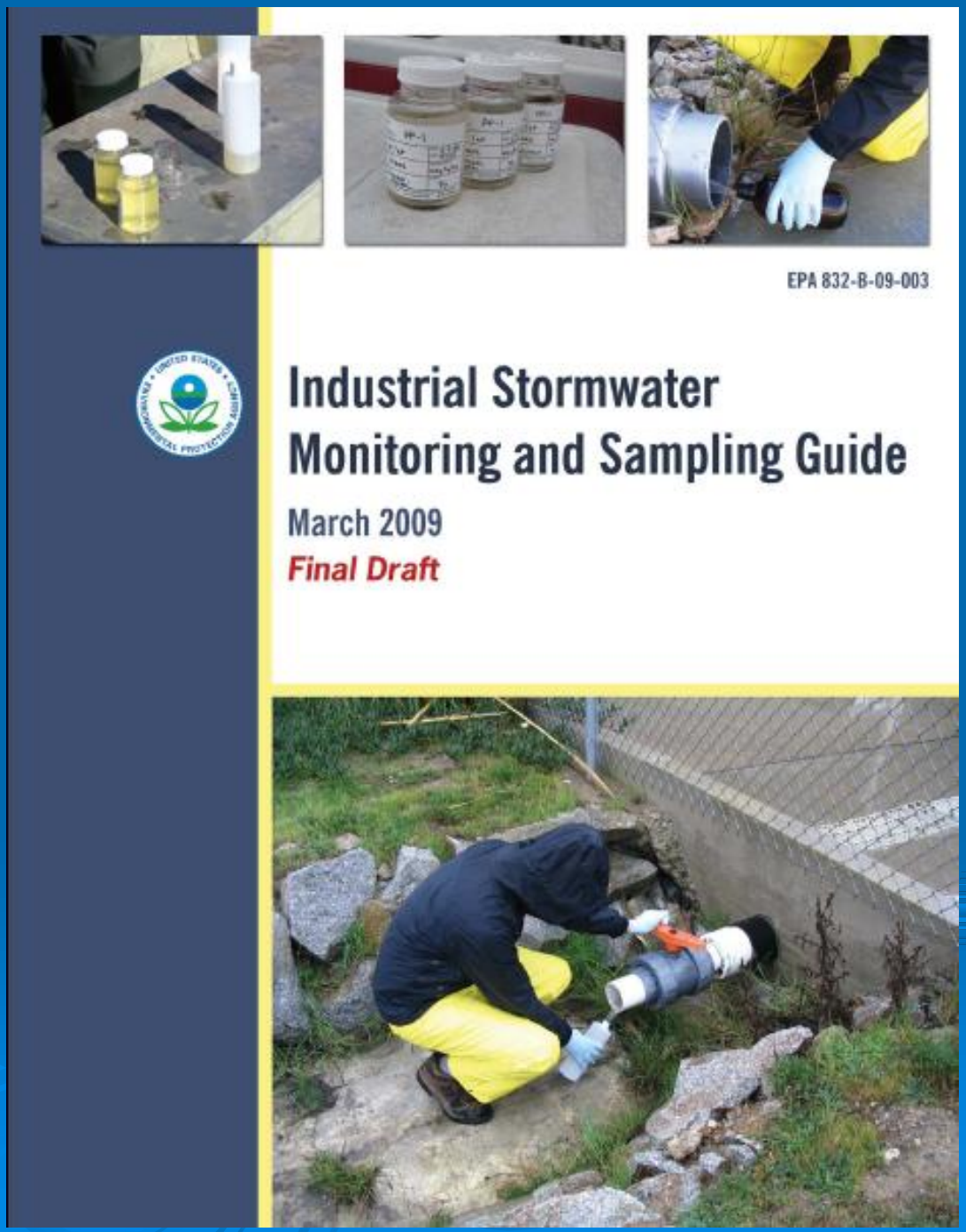
- Minimum requirements:
  - Conduct annually (Sept. 29 – Sept. 29)
  - Include all areas of facility covered by permit
  - Must include a review of any monitoring data
  - Inspectors must examine:
    - Industrial materials that could contact stormwater
    - Leaks or spills
    - Tracking or blowing of industrial materials or sediment
    - Controls needing replacement, maintenance or repair
- Document findings and submit report to EPA

Discharge Monitoring

- Potential Monitoring
  - Benchmark Monitoring
  - Effluent Limitation Guidelines Monitoring
  - Impaired Waters Monitoring
  - State or Tribal-Specific Monitoring
  - Other Monitoring Required by EPA

EPA has developed monitoring guidance available at:

www.epa.gov/npdes/pubs/msgp_monitoring_guide.pdf



Requirements For All Monitoring

- Monitor each outfall (unless designated as "substantially identical outfall)
- Sample storm events with actual discharges ("measurable storm event") that follows preceding event by at least 3 days
- Use grab samples from discharge within first 30 minutes of measurable storm event (or as soon as practicable thereafter)
- Use EPA-approved analytical methods
- Report all sample results (mail or eNOI)

Benchmark Monitoring

- Benchmark concentrations are not effluent limitations, and exceedances are not directly enforceable (only failure to respond to exceedances is a violation)
- Monitoring required quarterly during the first four (4) full quarters of permit coverage (beginning April 1 – June 30)

* Not required for "inactive and unstaffed sites" where industrial materials are not exposed to stormwater.

Benchmark Monitoring Concentrations

- Benchmark concentrations for Sector Q – Water Transportation (includes Marinas - SIC Code 4493)
- Appendix J includes methodologies to determine receiving water hardness

Parameter	Benchmark Monitoring Concentration
Total Aluminum	0.75 mg/L
Total Iron	1.0 mg/L
Total Lead[1]	Hardness Dependent
Total Zinc[1]	Hardness Dependent

Water Hardness Range	Lead (mg/L)	Zinc (mg/L)
0-25 mg/L	0.014	0.04
25-50 mg/L	0.023	0.05
50-75 mg/L	0.045	0.08
75-100 mg/L	0.069	0.11
100-125 mg/L	0.095	0.13
125-150 mg/L	0.122	0.16
150-175 mg/L	0.151	0.18
175-200 mg/L	0.182	0.20
200-225 mg/L	0.213	0.23
225-250 mg/L	0.246	0.25
250+ mg/L	0.262	0.26

Benchmark Monitoring (cont…)

- If average of 4 samples:
- *does not* exceed benchmark, no further monitoring is required for that pollutant
- exceeds benchmark, required to follow up with corrective action investigation, and either:
  - (1) Modify control measures and continue quarterly monitoring until average of 4 additional samples is less than benchmark, or
  - (2) Notify EPA of your determination that no further reductions are technologically available and economically practicable and achievable in light of best industry practice, and continue to monitor once per year

Benchmark Monitoring (cont…)

- Natural Background Exception
  - No additional benchmark monitoring or corrective actions required if a benchmark exceedance is solely attributable to natural occurrence of the pollutant
  - Natural background pollutants include those naturally occurring in soils or groundwater. (Do not include legacy pollutants or run-on from adjacent sites)

Impaired Waters Monitoring

- Monitor for all pollutants causing an in-stream impairment and for which a Part 136 analytical method exists
- If approved TMDL does not exist for the pollutant:
  - Monitor annually at each outfall
  - Discontinue after 1 year if pollutant:
    - Not detected above natural background levels
    - Not present and not expected to be present in discharge
    - Present, but caused solely by natural background sources
- If approved TMDL does exist for the pollutant:
  - no monitoring required until EPA notifies facility of specific requirements

Impairment & TMDL Status of Waterbodies Available from NHDES Watershed Report Cards or 303(d) List

http://des.nh.gov/organization/divisions/water/wmb/swqa/2008/index.htm

FINAL 2008, 305(b) Report / 303(d) List - Surface Water Quality Assessment Program - NH Department of Environmental Services
http://www2.des.nh.gov/SWQA/SWQAList.aspx

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NEW HAMPSHIRE DEPARTMENT OF Environmental Services

DES Home | Master Query

One Stop Data and Information

Wednesday, Mar. 3, 2010

Water Division - Surface Water Quality Assessments

Query Instructions

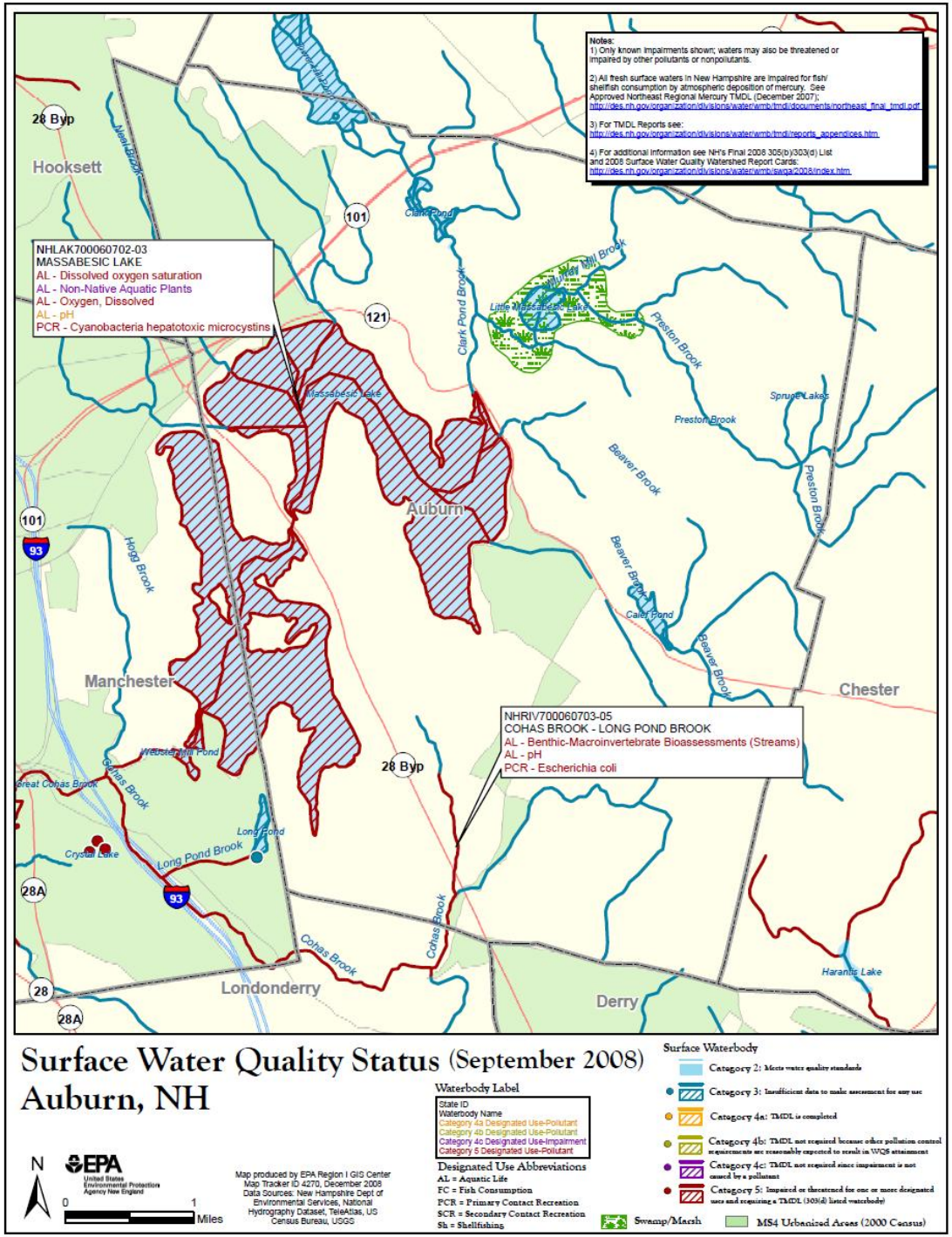
Town/City: AMHERST

	HUC 12	Name
	010700060905	BABOOSIC BROOK
	010700060906	BEAVER BROOK
	010700061001	PENNICHUCK BROOK

New Hampshire Department of Environmental Services | PO Box 95 | 29 Hazen Drive | Concord, NH 0
603.271.3505 | TDD Access: Relay NH 1.800.735.2964 | Hours: M-F, 8am-4pm

EPA has prepared maps for some NH communities regulated by EPA's municipal stormwater (Small MS4) permit

http://www.epa.gov/NE/npdes/stormwater/nh.html



www.epa.gov/NE/npdes/stormwater/assets/pdfs/MSGP2008Part624ParametersNH.pdf

U.S. EPA 2008 Multi-Sector General Permit Monitoring Guidance For Discharges into Impaired Waters (Part 6.2.4) - Parameters and Methods For Operators Discharging into New Hampshire Waters

Pollutant Causing Impairment[1]	Monitoring Parameter[2]	EPA or Approved Method Nos.[3]
2-Methylnapthalene	2-Methylnapthalene and all other PAHs	8270
Acenaphthene	Acenaphthene and all other PAHs	610; 1625
Acenaphthylene	Acenaphthylene and all other PAHs	610; 1625
Aluminum	Aluminum, Total	200.7; 200.8; 200.9
Ammonia (Un-ionized)	Ammonia – Nitrogen	350.1
Anthracene	Anthracene and all other PAHs	610; 1625
Arsenic	Arsenic, Total	200.7; 200.8; 200.9
Benthic-Macroinvertebrate Bioassessments (Streams)	NMR	--
Benzo[a]anthracene	Benzo[a]anthracene and all other PAHs	610; 1625
Benzo[a]pyrene	Benzo[a]pyrene and all other PAHs	610; 1625
Benzo[b]fluoranthene	Benzo[b]fluroanthene and all other PAHs	610; 1625
Benzo[g,h,i] perylene	Benzo[g,h,i] perylene and all other PAHs	610; 1625
Benzo[k]fluoranthene	Benzo[k]fluoranthene and all other PAHs	610; 1625
Biphenyl	Biphenyl and all other PAHs	1625
BOD, Biochemical oxygen demand	NMR	--
Cadmium	Cadmium, Total	200.7; 200.8; 200.9
Chloride	Chloride	300.0
Chlorophyll a	Total Phosphorus (freshwater)	365.1; 365.2; 365.3

Corrective Actions

- Actions required in response to “triggering conditions”
  - Investigate the problem
  - Document the problem (and include with Annual Report)
  - Modify control measures to prevent recurrence
  - Some require modifications, others require review to see if modifications are necessary

Corrective Actions

- Must revise control measures if:
  - An unauthorized release or discharge occurs
  - You become aware, or EPA determines, that your control measures are not stringent enough to meet applicable water quality standards
  - An inspection or evaluation of your facility by an EPA or NHDES determines that modifications to the control measures are necessary
  - Your facility inspections/assessments find that your control measures are not being properly operated and maintained.

Corrective Actions

- Must review the selection, design, installation, and implementation of your control measures if:
  - Changes in facility design, operation, or maintenance significantly changes the nature or quantity of pollutants discharged
  - Average of 4 benchmark monitoring samples exceeds benchmark concentration

Corrective Actions

- Deadlines
  - Within 24 hours:
    - Document problem and date identified
  - Within 14 days:
    - Summarize corrective action taken or to be taken, or the basis for determining that no action needed
    - Document date corrective action initiated, completed, or expected to be completed
  - Modifications to control measures must be made before the next storm event if possible, or as soon as practicable thereafter

Corrective Actions

- Effect on Compliance Status
  - If triggering condition is a permit violation, correction of the problem does not remove the underlying violation
  - Failure to take corrective action is an additional violation
  - Enforcement response will take into consideration the appropriateness and promptness of correction action

Reporting

EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460
MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (MDMR)

Form Approved.
OMB No. 2040-0004

Reason(s) for Submission (Check all that apply):

- ☐ Submitting monitoring data (Fill in all Sections).
- ☐ Reporting no discharge for all outfalls for this monitoring period (Fill in Sections A, B, C.1, D, and F).
- ☐ Reporting that your site status has changed to inactive and unstaffed (Fill in Sections A, B, F and include date of status change in comment field in Section E.4).
- ☐ Reporting that your site status has changed to active (Fill in all Sections and include date of status change in comment field in Section E.4).
- ☐ Reporting that no further pollutant reductions are achievable for all outffalls and for all pollutants via Part 6.2.1.2 of the MSGP (Fill in Sections A, B and F).

A. Permit Tracking Number:

Note: Read instructions before completing this Form.

B. Facility Information

1. Facility Name:

2. Facility Location:

a. Street:

b. City: c. State: d. Zip Code: -

3. Additional Facility Information (Optional):

Contact Name: Email:

Phone: - - Ext.

4. MDMR Preparer (Complete if MDMR was prepared by someone other than the person signing the certification in Section F)

Prepared by:

Organization:

Email:

Phone: - - Ext.

C. Discharge Information

1. Identify monitoring period: ☐ Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring

www.epa.gov/npdes/pubs/mdmr.pdf

NPDES Permit Tracking No.:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

Annual Reporting Form

A. GENERAL INFORMATION

1. Facility Name:

2. NPDES Permit Tracking No.:

3. Facility Physical Address:

a. Street:

b. City: c. State: d. Zip Code: -

4. Lead Inspectors Name: Title:

Additional Inspectors Name(s):

5. Contact Person: Title:

Phone: - - Ext. E-mail:

6. Inspection Date: / /

B. GENERAL INSPECTION FINDINGS

1. As part of this comprehensive site inspection, did you inspect all potential pollutant sources, including areas where industrial activity may be exposed to stormwater?
☐ YES ☐ NO

http://www.epa.gov/npdes/pubs/msgp2008_appendixi.pdf

Recordkeeping

- Once authorized, permittee required to keep records with the SWPPP relating to authorization, inspections, monitoring activities, and other implementation activities

- Examples
  - Descriptions and dates of significant spills or leaks
  - Documentation of maintenance and repairs of control measures (including when returned to full function)
  - Inspection reports
  - Description of corrective actions

Questions?

- **U.S. EPA, Region 1**

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  www.epa.gov/npdes/stormwater/msgp
  www.epa.gov/NE/npdes/stormwater/index.html

- **NH Department of Environmental Services**

  - Lakes Management and Protection Program
    603-271-2959
    Jacquie.Colburn@des.nh.gov
    http://des.nh.gov/organization/divisions/water/wmb/lakes/index.htm

  - Pollution Prevention Program
    603-271-6460
    nhppp@des.nh.gov
    http://des.nh.gov/organization/commissioner/p2au/pps/ppp/index.htm