NPDES Phase II MS4 General Permit Annual Report

I. General Information

Organization: NH Department of Transportation (NHDOT)

EPA NPDES Permit Number: NHR043001

Annual Report Number and Reporting Period: No. 12: May 1, 2015 to April 30, 2016

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Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Mark Hemmerlein

Mark Hemmerlein Water Quality Program Manager, New Hampshire Department of Transportation

II. Self Assessment

The New Hampshire Department of Transportation (Department) continues to be committed implementing a program to reduce the discharge of pollutants from the Department's regulated Small MS4s to the maximum extent practicable, with the goals of protecting water quality and satisfying the water quality requirements of the Clean Water Act and state water quality standards while providing a safe and efficient transportation system for the public.

The Department has continued to strengthen its role in coordinating erosion control planning, review and inspections for all the Department's projects. The Department has been coordinating with DES Wetland, Watershed Management and Alteration of Terrain personnel to insure consistency with permanent Structural Water Quality Controls, erosion control planning, contractor SWPPP development and monitoring efforts for all of the Department's projects.

The Department has also continued its public education and outreach efforts through stormwater table display, which has made many appearances at local fairs, schools, and Department events.

This year, the Department commissioned the construction of a new display table. This will be third display the



Department has constructed improving on quality of materials and effectiveness in the field. The table is being constructed by the Art students at New Hampshire Technical Institute in Concord.

The Department has completed this self-assessment and has determined that our agency is in general compliance with all permit conditions and completing measurable goals set out initially in the NOI.

III. Summary of Minimum Control Measures

This section is formatted as follows:

NPDES Minimum Control Measure

<u>Code</u>	<u>Description</u>
BMP	BMP Description
TEAM	Responsible Team/ Bureau Name
GOAL	Measurable Goal
PROG	Progress on Goal(s) Permit Year 6 (2008-2009)
ACTION	Planned Activities Year 6 (2009-2010)

1. Public Education and Outreach

1A. Nonpoint Source Stormwater

A. Nonpoint S	ource Stormwater Display
BMP	Showcase the Department's Nonpoint Source Stormwater Table NH
	State Fairs, and other appropriate locations (e.g. schools)
TEAM	Bureau of Environment
GOAL	Note the approximate number of events that the Department's stormwater table was viewed.
PROG	The Stormwater / NPS presentation table was displayed at the major New Hampshire Wild NH, highlighting water resource protection and other natural resources through the state. The table illustrates various Department activities related to bridges, roadways, sand and salt operations, patrol sheds, and active construction sites. A new
ACTION	display table is being constructed this year. The Department anticipates using the improved stormwater display table for presentations at local schools, and other appropriate audiences in addition to the state fairs.

1B. Meetings / Presentations with Professional, Private, and Public

Organizations

BMP The Department will continue to attend and/or assist in organizing

appropriate stormwater related presentations and workshops with

both public and private organizations.

TEAM Bureau of Environment

GOAL In general, members of Department's Bureau of Environment

personnel try to attend two to three stormwater related workshops each year to remain up to date on stormwater issues and regulatory changes. The total number of presentations/meetings, its focus and the target audience for each workshop will be reported each year.

PROG This past year, the Department hosted the ACEC-NH Technical

Transfer Conference.

ACTION Continue to provide or assist in hosting or supporting presentations

to both public and private organizations.

1C Transportation Stormwater Conferences

BMP The Department will continue meeting with the surrounding New

England states to coordinate programs and share information.

TEAM Bureau of Environment GOAL Meet at least annually.

PROG The Department's Environmental personnel were not able to meet

this year due to budget constraints but coordinated a number of

interstate projects.

ACTION Continue to meet and coordinate with other New England State

Agencies to share information and efforts relative to stormwater

issues.

1D Develop Appropriate Media Campaign

BMP Increase public education and outreach efforts through additional

public announcements and information sharing using the available

media options including the Department's web site.

TEAM Commissioner's Office and Bureau of Environment

GOAL The Department will focus on informing the traveling public on the

Department's activities through press releases, media contacts and

public meetings

PROG The Department's Public Information Officer continues to work with

various NH media outlets i.e., NHPR, WMUR (channel 9) and state

newspapers to distribute public information regarding the

Department's activities.

ACTION The Department's Public Information Officer will continue to inform

and educate the public through local media outlets on Department

activities related to pollution prevention actions.

1E Development of Partnerships

BMP Encourage and facilitate development of mutually beneficial

partnerships.

TEAM Bureau of Environment

GOAL Document the partnerships that are formed.

PROG The Department has been actively pursuing and formulating

important partnerships with such groups as the NH Association of General Contractors, the UNH T2 group and the NH Chapter of the American Council of Engineering Companies (ACEC). For number of years, Department has teamed with ACEC-NH to host a Technical Transfer Conference in April in Concord, NH. This conference is geared toward increasing awareness of new technologies and

techniques for pollution prevention, stormwater management as well

other interests.

ACTION The Department will continue to support the efforts of the NH

Stormwater Center, ACEC, AGC and others to distribute and exchange the latest information on stormwater treatment design.

1F Grant Opportunities

BMP Review opportunities to apply for project grants to mitigate water

quality impairments from roadway runoff. Program projects for this

purpose to meet grant requirements

TEAM Bureau of Environment

GOAL Note the project type, location, and whether the committee selected

the project. If project is selected, report on the status.

PROG Address existing water quality problems associated with highway

runoff. Many of our water quality improvements are incorporated

into our capital projects.

ACTION The Department will continue to work toward identifying suitable

projects and available funding sources.

1G Special Events

BMP Research the types of special events (ex. Earth Day, local fairs, Wild

NH, etc) and determine appropriate involvement.

TEAM Bureau of Environment

GOAL Note the event and the type of involvement from the Department.

Note the number of events per year.

PROG The BOE personnel will occasionally participate in special events to

display the new Stormwater Demonstration Table or discuss the Department's activities to minimize and prevent stormwater related impacts. Most recently, BOE personnel have made several visits and display presentations to area schools. The Department will also meet with watershed association groups when invited or as issues arise.

ACTION The Department will continue to look for appropriate events in

which to participate and will contact other events groups such as the

Department of Agriculture, NH Fair Association, NH DRED and others.

2. Public Participation and Involvement

2A Sponsor A Highway Program

BMP Local businesses and volunteer groups will adopt a roadway segment

to periodically clean up trash and debris in return for a free sign highlighting the business or group. District personnel help by

collecting filled trash bags along the route.

TEAM Bureau of Highway Maintenance and Bureau of Turnpikes

GOAL Document quantity of roadside material collected on an annual basis.

PROG The Program continues to represent one of the most successful

programs for public participation with over 475 different volunteer groups participating in collecting trash on over 1,500 miles of roadway. Since the Program began in 1994. The Department also supports the Annual Coastal Cleanup Event by picking up and disposing the trash bags that were filled by volunteers along the coastal beaches. The Department has over the years covered the cost

of hauling and disposing of the collected trash.

ACTION The Department will continue supporting these programs and

providing annual data.

2B Department Public Meetings

BMP The Department continues to provide opportunities for public input

and involvement on specific projects through Public Informational Meetings, as well as Public Hearings. These meetings engage the public in specific discussions of stormwater management issues.

TEAM Bureau of Environment, Bureau of Highway Design, and Bureau of

Bridge Design

GOAL Coordinate with the Environmental Project Managers and document

the public meetings that occurred within the regulated communities.

Document any water quality issues that were brought to the

Department's attention.

PROG The Department continues to schedule and promote public meetings

related to new projects. For these meetings the Department solicits public input about water quality and stormwater issues. The Department continues attending the Salt Reduction Workgroup

meeting associated with the Chloride TMDLs in the southern part of

the State.

ACTION BOE personnel and District staff will continue to solicit input at

public meetings and work with Lake Associations and NHDES regarding water quality problems and addressing stormwater

management aspects for all of its projects statewide.

2C Seek Relevant Information from Public Officials

BMP Notify and request input on stormwater or other environmental

issues from municipal officials, regional planning commissions and

other State Agencies by sending out initial notification letters and environmental report documents during the project planning phase.

Bureau of Environment

GOAL Incorporate any comments and concerns into the project design

documents that were received through these letters during the project development phase. Municipal and regional officials are asked specifically to express and comment of water quality concerns and

stormwater management issues related to proposed roadway

projects. The letter provides a mechanism to discuss concerns at the local level and address existing as well as potential issues through

the design and construction of new storm drain systems.

PROG The BOE will continue to use to interact with local (including

stormwater coordinator), state, and federal officials to solicit water

quality concerns.

ACTION BOE will continue to follow-up with discussions with design and

construction staff as needed.

2D The Department's Website

TEAM

BMP Expanding the use of its web site to promote public involvement and

participation with regard to stormwater issues.

TEAM Office of Information Technology and Bureau of Environment

GOAL Keep the existing website current.

PROG The Department continues to add new project information, reference

documents, and links to its current main website as a means of disseminating public information. For some of the larger, multi-year projects, separate project specific web sites have been created to host project related environmental documents and studies. The site would include stormwater related documents and NPDES Phase II

resources.

ACTION As time allows, Bureau of Environment staff will continue to add

technical guidance, or project related stormwater related information

into the main Department's website.

3. Illicit Discharge Detection and Elimination

3A Encroachment Easements

BMP Review and update the drainage connection within assessments which allow property owners to connect or contribute runoff to the Department's storm drain system. Additional language will be

included to address concerns about non-stormwater and illicit

discharges.

TEAM Bureau of Highway Maintenance and Attorney General's Office GOAL BOE will coordinate with District Personnel to explain purpose and

intent of changes. The revised approval letter will be used for new

drainage connections.

PROG The Department is currently reviewing the existing regulation with

the Attorney Generals Office.

ACTION Continue to process and coordinate with AG office to finalize the

drainage connection approval letters.

3B Drainage Map

BMP Map the entire Department maintained drainage system located

within the regulated Small MS4 communities.

TEAM Bureau of Environment and Bureau of Highway Design.

GOAL Maintain sufficient progress to complete mapping of entire MS4

drainage system by May 2010.

PROG The Department has completed this task.

ACTION The Department is revisiting this task in light of recent efforts to

improve the stream conductivity within the state. Building upon past efforts, a connected network of inlets, outlets, catch basins and pipe are being constructed in GIS that will support the MS4 and other

programs.

3C Illicit Detection and Elimination Program

BMP Detect and eliminate illicit discharges and/or connections from the

Department storm drain system. The Department will prioritize future IDDE efforts with consideration to 303(d) impaired water

bodies, public water supplies, and recreational areas.

TEAM Bureaus of Environment and Highway Maintenance.

GOAL Review all outfalls associated with waters that are impaired with

bacteria (E. coli, Enterococcus).

PROG The Department continues to focus on the chloride TMDL and

implementing BMPs to towards attaining the allocation specified in

the plan and other runoff related issues.

ACTION The Department will continue to investigate mapped outfalls

focusing on water bodies on the 303 (d) list of impaired water bodies. The Department will continue to maintain records of all outfall investigations. The BOE will coordinate with the District Maintenance personnel to assist in the outfall investigations.

4. Construction Site Runoff Control

4A Stormwater Pollution Prevention Plan Review

BMP Continue to review comment and approve project-specific SWPPPs

developed by contractors for the Department's projects.

TEAM Bureaus of Environment and Construction

GOAL Review, update and document the approval process of the project-

specific SWPPPs.

PROG The Department continues to strengthen its requirements for site

erosion control and review on construction projects. The

Department has been focusing on smaller project that do not require Notice of Intents to be filed with EPA. The projects that require NH Dredge and Fill Permits and ACOE PG permits now contain enhance Erosion (Sediment) control plans. The Department is also requiring a SWPPP be developed on smaller project even though no NOI is

filed.

ACTION The Department is continuing to incorporate new requirements in

our program

4B Educate New Erosion Control Inspectors

BMP Educate new contractors on the expectations for inspections and

erosion control maintenance.

TEAM Bureaus of Environments and Construction

GOAL Identify new contractors and erosion control inspectors that have not

worked with the Department as SWPPPs are submitted and inspectors are listed, to insure typical protocols and BMPs are

implemented.

PROG The Department continues to review SWPPPs and work with

contractors and inspectors in the field and evaluate their success or

III. Summary of Minimum Control Measures

failure. The Department utilizes general guidance for conducting turbidity monitoring, BMP inspection and BMP maintenance plans. When finalized, these procedures will be provided to contractors and erosion control inspectors as needed on a project-by-project basis.

ACTION The Department is facilitating Certified professional erosion and

sediment control specialist classes to develop an Alteration of

Terrain compliant workforce.

4C Roadway Maintenance Activities

BMP Coordinate with the Division of Operations and others as

appropriate, with regard to erosion control issues as part of

maintenance activities.

TEAM Bureau of Environment and Bureau of Highway Maintenance

GOAL Coordinate with Highway Maintenance personnel with planning and

field review of erosion control BMPs.

PROG The BOE has expanded its review of erosion control BMPS to other

divisions outside of the Construction Bureau. Through this expanded coordination, BOE believes that the Department's roadway maintenance is becoming more consistent across the

various Districts in the State.

ACTION The Department is implementing EPA's model SWPPP template for

use by the Department maintenance personnel in developing their SWPPPs for their projects and Alteration of Terrain requirements are

being followed.

4D Stormwater Management Erosion and Sedimentation Control Reference

Manuals

BMP Continue utilizing the stormwater management erosion and

sedimentation control manuals.

TEAM Bureau of Environment

GOAL Review manuals and reference materials to ensure that they remain

in compliance with all Federal and State regulations.

PROG The Department has updated its "Construction Manual" to be the

general guidebook for all Department activities related to

construction projects, including erosion and sediment control. The Department has also completed the update to the manual "The Department Guidelines for Temporary Erosion and Sediment Control and Stormwater Management". Future updates will be conducted as necessary as new information or BMPs become

available or adopted.

ACTION Department will continue to monitor the use of the revised NHDES

Site Alteration Rules, and Volume III "Erosion and Sediment

control" manual.

4E Meetings with EPA Region 1 and NHDES

BMP Meet with EPA Region 1 and NHDES on an as needed basis to

discuss water quality issues associated with construction-related

activities.

TEAM Bureau of Environment

GOAL Prepare/file a conference report of any meeting noting agenda,

attendees, points of interest and any action items.

PROG There are essentially no updates or changes to this BMP.

ACTION The Department will continue to keep open communication with

NHDES and EPA Region 1 relative to construction-related issues.

4F Project Design

BMP Appropriate drainage and erosion control measures including project

planning, phasing and sequencing will continue to be a major focus as part of the roadway improvement design phase. Review all

projects currently in the design phase.

TEAM Bureau of Environment, Bureau of Highway Design and Bureau of

Bridge Design

GOAL Meet regularly with the BOE Environmental Managers and the

Highway Design Project Managers to discuss and document proposed projects with respect to stormwater runoff and water

quality BMPs that are needed.

PROG The Department has also been coordinating DES Wetlands and

Watershed Management Bureau personnel on SWPPP review on

projects.

ACTION The BOE will continue to coordinate NHDES to provide updates and

workshops to help educate design and maintenance personnel on the

latest best management practices.

4G Specifications

BMP Review the current specifications and compare to the 2008-2012

Construction General Permit (CGP) and NHDES Alteration of

Terrain permit. Make revisions as appropriate.

TEAM Bureau of Environment and Bureau of Highway Design

GOAL Continue to review and maintain up to date construction

specifications regarding stormwater Best Management Practices.

PROG The Construction specifications have been fully implemented. From

time to time, new individual specifications are developed as needed

for new erosion control or stormwater management BMPs.

ACTION The Department continues to monitor construction specifications for

recently published CGP and to address the recent 401 water quality

requirements for turbidity monitoring.

4H Construction School

BMP	Provide the Bureau of Construction personnel with training or
	updates on stormwater issues and/or NPDES Phase II issues.
TEAM	Bureau of Environment and Bureau of Construction
GOAL	The Department again did a Construction School Program
	highlighting the requirements of the MS4 and CGP Program.
PROG	The Construction School is an effective training forum to educate
	personnel on the basic elements of the NPDES Program. More
	recently, the Department hosted more focused workshop on common
	issues that construction engineers should be on lookout when
	building wet basins and other stormwater treatment structures.
ACTION	The Department will continue to periodically assess the need for
	NPDES-related workshops for its employees. The Bureau of
	Environment will continue to revise and prioritize the education and
	outreach needs of the Department.

5. Post Construction Runoff Control

5A Review Stormwater BMP Designs for Proposed Projects

BMP	Develop a consistent internal review process to evaluate the designs and needs of proposed water quality BMPs that would be included in
	new construction projects relative to sensitivity of the receiving
	waters.
TEAM	Bureau of Environment, Bureau of Highway Maintenance, Bureau of
	Construction, and Bureau of Bridge Design
GOAL	Establish a review process to evaluate BMPs designs on proposed
	projects to insure consistency with recent guidance criteria.
	Document and follow-up as required.
PROG	The review process for stormwater BMP design has been done on an
	as needed and project-by-project basis. Some of the Department's
	oldest stormwater structures are being rehabilitated and upgraded as
	part of major highway rehabilitation projects.
ACTION	The Department will continue to coordinate with DES on latest BMP
	designs, and implement them in projects.

<u>5B Develop Data Base to Maintain Inventory Stormwater BMPs and Manage Drainage Infrastructure Assets</u>

BMP	Develop a database to allow tracking and scheduling of routine
	maintenance procedures on stormwater treatment structures
TEAM	Bureau of Highway Maintenance, Bureau of Turnpikes and Bureau
	of Bridge Maintenance.
GOAL	The Department has developed a central GIS database of stormwater
	treatment structures.
PROG	The Department determined methods that track efforts used to
	maintain the systems. The Department did a complete inspection of

some of its stormwater systems and is completing maintenance and

repairs last summer.

ACTION The Department will re-inspect the structures as needed. The

Department will also research available software packages to identify programs that can be used to schedule and track

maintenance needs based on GIS attribute data.

5C Standardize Routine Roadway and BMP Maintenance Procedures

BMP Develop and implement Standard Operating Procedures manual to

be utilized as a guide for maintenance personnel in maintaining

stormwater BMPs.

TEAM Bureau of Highway Maintenance, Bureau of Construction and

Bureau of Environment.

GOAL Develop a Department SOP manual preferable a durable pocket-

sized field manual to outline standard maintenance protocols for

various BMPs.

PROG The Department has hired a consultant to develop a maintenance

manual.

ACTION The Department will continue to develop BMP Maintenance

procedures for all types of BMPs.

5D Enhance/ Replace / Upgrade Roadway and Drainage Culverts to Rectify
Observed Sediment and other Pollutant Source Areas

BMP Coordinate with Watershed Groups, Lake Assoc., etc. to address

Erosion Control Issues Related to Existing Roads and Culvert

Washouts in Environmental Sensitive Areas.

TEAM Bureau of Highway Maintenance and Bureau of Environment

GOAL To address complaint-based or other known pollutant source issues

related to the Department drainage in a timely manner to satisfy

stakeholders and minimize water quality impacts.

PROG The Department has responded and coordinated with various

watershed groups in the state to address known problem areas.

ACTION The Department will continue to coordinate with resource agencies

and volunteer groups as water quality issues are brought to their

attention.

6. Pollution Prevention / Good Housekeeping

6A Managing Assets for Transportation Systems (MATS)

BMP Continue to inventory and incorporate the Department drainage

system in the GIS system to enable management and maintenance of

the drainage related assets.

TEAM Bureau of Highway Maintenance, Office of Information Technology

and Bureau of Finance and Contracts

GOAL Complete mapping inventory of drainage systems and develop

procedures to capture maintenance activities in the MATS system or

MATS like system.

PROG The Department is using a GIS based system to maintain an

inventory of the storm drain infrastructure.

ACTION The Department has an Asset Management Office that will continue

to work toward integrating drainage system components into a GIS system with the other systems. This office will research the available software to identify appropriate software packages that can integrate

GIS attribute data to real-time work activities.

6B Roadside Litter Removal Program

BMP Remove roadside litter from all Department maintained roads TEAM Bureau of Highway Maintenance and Bureau of Turnpikes.

GOAL Maintain a level of roadside cleanliness that is considered acceptable

to the public based on the number of complaints received or lack

there of regarding litter.

PROG Roadside litter removal is part of the Department maintenance

program and is done throughout the year. Actual quantities of material are not typically calculated. There are no major changes to

this BMP.

ACTION Continue removing roadside litter from all Department roadways.

6C Coastal Cleanup

BMP Continue to support the annual Coastal Cleanup Program by

collecting and disposing of the filled trash bags and other debris.

TEAM Bureau Highway Maintenance

GOAL Coordinate with District personnel to pickup trash bags and collected

debris following each event.

PROG District 6 collects the bags of litter left along the roadside along the

NH Route 1 corridor.

ACTION Continue to assist in the debris pickup and disposal in support of this

program.

6D Employees Training

BMP The Department will continue providing appropriate presentations to

Department staff relative to stormwater issues and the NPDES Phase

II program.

TEAM Bureaus of Environment, Highway Maintenance and

Commissioner's Office

GOAL A total number of presentations/meetings and the target audience

within the reporting year will be documented. A follow-up on identified issues will be noted and required actions identified.

PROG The Department has held a number of internal training sessions

focused on pollution prevention.

ACTION The Department will continue to update and modify training to

Department Personnel. The Bureau of Environment will note the training needs and prioritize those needs for subsequent training

sessions.

<u>6E Guidance Materials</u>

BMP Update guidance documents and evaluate the need for additional

guidance.

TEAM Bureau of Environment

GOAL Update the guidance document and summarize the changes. Note

any additional guidance materials that have been or will be

developed.

PROG The Department is revising its internal guidance document, BMPs

for Routine Roadway and Railway Maintenance Activities, for use

by all Maintenance Districts and Operations bureaus as an

educational reference tool and for performing roadside maintenance

and being sensitive to environmental issues. The Bureau of

Environment also prepared an internal guidance document entitled

"The Department Guidelines for Temporary Erosion and

Sedimentation control and Stormwater Management." The new NHDES Stormwater manual release in December 2008 was printed

and distributed to design personnel.

ACTION The BOE will continue to refine and adopt procedures, and provide

employee training to implement standardized procedures statewide.

6F Winter Maintenance Activities

BMP Review current procedures and determine ways to reduce salt use

through the use of more efficient application procedures and/or

technologies.

TEAM Commissioner's Office, Bureaus of Highway Maintenance,

Turnpikes and Environment

GOAL Document current practices and make recommendations relative to

new technologies. Meet with appropriate Department personnel to

review current deicing procedures.

PROG The Department has been working closely with the Salt Reduction

Working Group to identify feasible measures to reducing salt use

both at the state and municipal level. In this past year, the

Department has been using pre-wet road salt just prior to application.

The "pre-wet" process activates the salt, which improves its effectiveness. In addition, four roadway weather information

stations (RWIS) were installed in MS4 areas and a total of 11 RWIS stations statewide. The RWIS data is being fed into the Maintenance Decision Support System (MDSS) to help reduce the unnecessary

dispensing of salt.

ACTION The Department will continue to aggressively pursue and experiment

with various methods to reduce its salt usage including annual

training of its employees and implantation on new technologies. The

Department will continue to participate in the Salt Reduction Working Group, which provide a means to exchange technical

information to other users and stakeholders.