

**Appendix G - HB 1295 Interim Reports
(November 2008 and November 2009)**

MEMORANDUM

DATE: November 1, 2008

TO: Honorable John H. Lynch, Governor
Honorable Terie Norelli, Speaker of the House
Honorable Sylvia B. Larsen, President of the Senate
Honorable Karen O. Wadsworth, House Clerk
Tammy L. Wright, Senate Clerk
Michael York, State Librarian

FROM: Dari Sassan, Chair

SUBJECT: Interim Report on HB 1295, Chapter 71, Laws of 2008

Please find the enclosed Interim Report of the Commission to Study the Issue of Stormwater Management, submitted in compliance with HB 1295, Chapter 71:5, Laws of 2008.

If you have any questions or comments regarding this report or the work of the Commission, please do not hesitate to contact me at (603) 271-1765 or dari.sassan@nh.gov.

DAS:jem

Enclosures

HB 1295 COMMISSION TO STUDY THE ISSUE OF STORMWATER MANAGEMENT INTERIM REPORT

November 1, 2008

Duties

As dictated by Chapter 71:3, the Commission shall study:

- a. The effects of stormwater and stormwater management on water quality, water supply and quantity, terrestrial and aquatic habitat, flooding, and drought hazards.
- b. The relationship between land use change and stormwater.
- c. The relationships among and adequacy of federal, state, and local regulations and practices that pertain to stormwater management.
- d. State and municipal infrastructure construction and maintenance practices.
- e. The role of design, construction, and maintenance practices by residential, commercial, and industrial property owners.
- f. The effects of climate change on stormwater and stormwater management.

Commission Members

Dari Sassan, Chair	New Hampshire Office of Energy & Planning
Judith Spang, Vice Chair	New Hampshire House of Representatives, Chair, Resources, Recreation and Development Committee
David Borden	New Hampshire House of Representatives
David Cedarholm	New Hampshire Public Works Association
Jacalyn Cilley	New Hampshire Senate
Eber Currier	New Hampshire Farm Bureau
Paul Currier	New Hampshire Department of Environmental Services
Dave Danielson	New Hampshire Association of Regional Planning Commissions
Chris Devine	New Hampshire Local Government Center
Karen Ebel	The Nature Conservancy
Charlie Hood	New Hampshire Department of Transportation
Steve Kahl	New Hampshire Lakes Association
Newb LeRoy	Associated General Contractors of New Hampshire
Amy Manzelli	Business and Industry Association of New Hampshire
Carl Paulsen	New Hampshire Rivers Council
Joe Robertie	New Hampshire Timberland Owners Association
Robert Roseen	University of New Hampshire Stormwater Center
Donald H. Sienkiewicz	Home Builders & Remodelers Association of New Hampshire
Eric Stohl	New Hampshire House of Representatives
Mike Trainque	American Council of Engineering Companies of New Hampshire

Duties in Progress

In response to duty (a), the Commission reports the following:

- Water quality impacts from stormwater include increased nutrient and bacteria loading, accelerated eutrophication (aging) of surface waters, low dissolved oxygen (the form of oxygen available for aquatic life), and high turbidity (low clarity). (*Currier & McCarthy, 9/4/08*)
- Hydrology impacts from stormwater include increased total and peak runoff volumes, increased velocity of runoff, and decreased groundwater recharge, which result in a greater frequency of flooding and increased potential for erosion and sedimentation. (*Currier & McCarthy, 9/4/08*)
- The Draft 2008 303(d) and 305(b) Surface Water Quality Assessment prepared by DES shows ~83% of impairments are due, at least in part, to stormwater. (*Currier & McCarthy, 9/4/08*)

In response to duty (b), the Commission reports the following:

- Some parts of New Hampshire have experienced 20-25% population growth over last 10 years. (*Roseen, 10/6/08*)
- Impervious surfaces associated with development can increase peak runoff volumes, total runoff volumes, and the velocity of runoff, increase loading of pollutants to surface waters, decrease groundwater recharge, and change natural hydrology. (*Currier & McCarthy, 9/4/08*)
- The majority of land use decisions are made by local governments on small-scale (< 1 acre) developments. Local governments have varying resources, budgets, and capabilities, which create inconsistency in municipal stormwater management programs and requirements across the state. (*Currier & McCarthy, 9/4/08, Roseen, 10/6/08*)

In response to duty (f), the Commission reports the following:

- Storms in New Hampshire are roughly 30-60% larger than they were when design criteria for infrastructure was developed, thus the design storms used over the last 50 to 100 years are out of date and the infrastructure, e.g., culverts, pipes, may be under capacity by as much as 35%. (*Roseen, 10/6/08*)
- Stormwater management strategies used to reduce runoff volumes associated with land use changes can also be used to manage the increases in storm depth from climate change. (*Roseen, 10/6/08*)

To complete duties (a), (b), and (f), the following presentations are scheduled:

- Ted Diers, NH Department of Environmental Services, Topic: The NH Water Resources Primer and state and federal regulations pertaining to stormwater management.
- Speaker TBD, NH Fish and Game Department, Topic: The impacts of stormwater on terrestrial and aquatic habitat.
- Michael Simpson, Antioch College, Topic: The impacts of climate change on stormwater management

Duties to be Addressed:

To address the remaining duties, the Commission has decided to conduct the following process:

- A. The Commission has divided the state’s landscape into the following sectors. These sectors partition the state’s landscape into units of relatively similar regulatory and land use implications, yet, between the five sectors, the entire land area of the state is covered.
 - 1. Urbanized areas subject to municipal separate storm sewer systems (MS4) permitting
 - 2. Activities subject to the NH Alteration of Terrain Permit (>100,000 ft² of disturbance)
 - 3. Activities subject to the federal Construction General Permit
 - 4. Activities subject to the federal Multi-Sector General Permit
 - 5. Activities < 1 acre that is not subject to state or federal stormwater permitting

- B. Within each of these scenarios the Commission will ask the following questions:
 - 1. What current programs, land development practices, management practices, and other activities are working to avoid, minimize, or mitigate the impacts of stormwater?
 - 2. What problems are being experienced at ground level for new development, redevelopment, and existing development?
 - 3. What is the current regulatory environment?
 - 4. What are the current deficiencies? What are the technologies, land development techniques and management practices associated with these deficiencies (at federal, state, local and private levels)?
 - 5. What are the potential solutions to these problems?
 - Education?
 - Economic mechanisms (e.g. impact fees)?
 - Funding?
 - Regional Planning Commission involvement?
 - Incentives?
 - Offsets (i.e. cap & trade)?
 - Legislation?
 - Other?
 - Stormwater Utilities?

- C. Compare and contrast the findings of analysis within each sector and finalize the Commission’s research and recommendations.

Meetings:

The Commission has met twice (September 4, 2008 and October 6, 2008) with regularly scheduled meetings planned for the first Monday of each month at 1:00 pm. Attached to this report are the minutes from the first two Commission meetings as well as the agenda for the upcoming November 3, 2008 meeting to be held at 1:00 PM in room 305 of the Legislative Office Building in Concord. Minutes, agendas, handouts, and presentations can be accessed online by visiting:

<http://www.nh.gov/oep/legislation/2008/hb1295/index.htm>

Respectfully submitted on behalf of the Commission,

Dari Sassan, Chair

References:

Currier, Paul, P.E., and Jillian McCarthy. *Stormwater in New Hampshire*, HB1295 Stormwater Legislative Commission Meeting. Legislative Office Building, Concord, NH. 4 September 2008.

Roseen, Robert, P.E. *Stormwater Management, Community Resiliency, and Climate Change*. HB1295 Stormwater Legislative Commission Meeting. Legislative Office Building, Concord, NH. 6 October 2008.

MEMORANDUM

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FROM: David Cedarholm, Chair

SUBJECT: Interim Report on HB 1295, Chapter 71, Laws of 2008

Please find the enclosed Interim Report of the Commission to Study the Issue of Stormwater Management, Submitted in compliance with HB 1295, Chapter 71:5, Laws of 2008.

If you have any questions or comments regarding this report or the work of the Commission, please do not hesitate to contact me at 603-868-5578 or dcedarholm@ci.durham.nh.us.

DC: jem
Enclosures

HB 1295 COMMISSION TO STUDY THE ISSUE OF STORMWATER MANAGEMENT INTERIM REPORT

November 1, 2009

Duties

As dictated by Chapter 71:3, the Commission shall study:

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Chris Devine	New Hampshire Local Government Center
Karen Ebel	The Nature Conservancy
Mark Hemmerlein (replacing Charlie Hood)	New Hampshire Department of Transportation
Steve Kahl	New Hampshire Lakes Association
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Josh Cline (replacing Carl Paulsen)	New Hampshire Rivers Council
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Donald H. Sienkiewicz	Home Builders & Remodelers Association of New Hampshire
David Borden (replacing Eric Stohl)	New Hampshire House of Representatives
Mike Trainque	American Council of Engineering Companies of New Hampshire

Duties in Progress

In response to duties a – f listed in Chapter 71:3, the Commission reports the following:

Presentations and Guest Speakers as informational background for the Commission

9/4/08	“Stormwater in New Hampshire” Paul Currier, PE, PG, Jillian McCarthy, NH Department of Environmental Services
10/6/08	“Stormwater Management, Community Resiliency and Climate Change” Robert Roseen, Ph.D, P.E., Director of the UNH Stormwater Center
11/3/08	“The NH Water Primer and Stormwater Permitting at NHDES” Ted Diers, NH Department of Environmental Services ----- “Water from the Hills: Preparing Our Communities for Change” Michael Simpson, Antioch University – New England
12/1/08	“Small MS4 General Permit” Barbara McMillan, NH Department of Environmental Services
1/5/09	“Stormwater Implications of the September 2008 Flood Commission Report” Steve Couture, NH HB648 Flood Commission ----- “Summary of the Effects of Land Use on Water Quality” John Magee, NH Fish and Game Department
2/2/09	Discussion of Municipal Authority to Regulate Stormwater Eric Williams, NH Department of Environmental Services Allen Brooks, NH Attorney General’s Office Paul Sanderson, NH Local Government Center
4/6/09	“Event Mean Concentrations and Land Use” Paul Currier, PE, PG, DES Watershed Management Bureau Administrator
7/7/09	“Stormwater Utilities” Eugene Forbes, PE, Hoyle, Tanner & Associates, Inc.
8/3/09	Land Use Development Commission Update Rep. Susan Gottling, Land Use Development Commission Chair

Draft Work Products

- “Draft Summary of Needs for Improved Stormwater Management in New Hampshire” Attachment A
- “Draft Complete Summary of Stormwater Law” Upon request
- “Draft Funding Mechanisms for Stormwater Management” Upon request

Meetings

The Commission has met monthly since September 2008 with regularly scheduled meetings on the first Monday of each month at 1:00 PM in room 305 of the Legislative Office Building in Concord. Minutes, agendas, handouts, and presentations can be accessed online by visiting:

<http://www.nh.gov/oep/legislation/2008/hb1295/index.htm>

Sub-Committees

To more efficiently address the duties of the Commission, three sub-committees were formed to address key topics, identified by the Commission, requiring further consideration:

NEEDS SUBCOMMITTEE

Purpose:

- To compile a list of pertinent findings from Commission discussions, presentations, and guest speakers including regulatory gaps, areas for improvement, and other stormwater related “needs” for improved stormwater management, in accordance with the statutory duties of the Commission.
- To propose potential solutions/opportunities to achieve the identified stormwater related needs.

REGULATORY AUTHORITY SUBCOMMITTEE

Purpose:

- To identify existing regulatory authority for federal, state, and local governments.
- To determine whether sufficient authority sufficiently exists to implement potential solutions to stormwater-related needs identified by the Needs Subcommittee.
- If regulatory authority does not exist, to propose legislative changes needed to create appropriate authority
- Based on feedback from the full Commission, to draft recommendations for amended or new legislation to create appropriate authority.

FUNDING SUBCOMMITTEE

Purpose:

- To estimate the cost of meeting the stormwater-related needs identified by the Needs Subcommittee, including costs of implementing new legislation identified by the Regulatory Authority Subcommittee, if applicable.
- To identify existing funding sources to meet the stormwater-related needs identified by the Needs Subcommittee.
- If sufficient funding does not exist, to identify opportunities for new funding sources to meet the stormwater-related needs identified by the Needs Subcommittee
- To propose marketing approaches to promote funding sources/mechanisms
- To research funding mechanisms used by other states and municipalities of other states for stormwater programs and activities

Future Actions

The following actions are anticipated to be completed by the Commission to fully address the duties set forth in Chapter 71:3:

1. Prioritize the stormwater-related needs identified by the Needs Subcommittee. This will be accomplished through discussion of the full Commission as well as input from public participation at the 2009 New Hampshire Joint Water and Watershed Conference.

2. Propose solutions/recommendations to address the stormwater-related needs, or a sub-set of these needs as determined by prioritization.
3. Determine potential legislative changes necessary, if any, to better enable implementing the proposed solutions/recommendations.
4. Propose new legislation or amendments to existing legislation, as determined in task 3.
5. Identify potential new and continued funding sources and mechanisms to implement recommendations.
6. Provide a final report of Commission findings and any recommendations for proposed legislation on or before November 1, 2010.

Respectfully submitted on behalf of the Commission,

David, Cedarholm, Chair