



Flood Lines

New Hampshire's Floodplain Management Newsletter

Summer 2008

Volume II, Issue II

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What's New? Independent Evaluation of Recent Flooding

On June 25, 2008, approximately 50 people attended New Hampshire Department of Environmental Services' third and final meeting in Rochester to hear the results of the independent evaluation to determine the specific causes of New Hampshire's recent floods and the recommendations for ways to mitigate future flooding. The final report of the study is expected to be completed by the end of July.

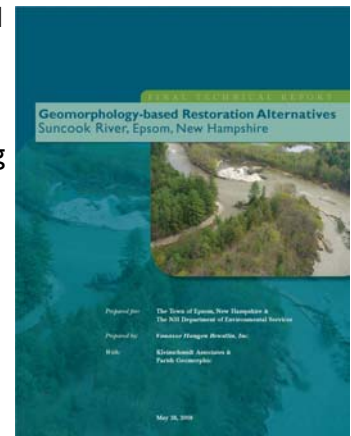
The engineering consultants who performed the evaluation discussed what can be done in the future to reduce flooding impacts in New Hampshire. In addition, they reviewed their findings on the causes of the May 2006 and April 2007 floods, which they also presented in detail at the second public meeting on March 18.

Also present at the meeting was the independent panel of national experts in water resources management, who oversaw the entire study to ensure that the work and recommendations met the highest level of professional independence and expertise.

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What's New? Suncook River Study Finalized

On May 28, 2008, the NH Department of Environmental Services and the Town of Epsom held the third and final public informational meeting on the *Suncook River Avulsion, Geomorphology-based Alternatives Analysis* at the Epsom Central School. Approximately 40 people, including residents and state legislators, attended the meeting. The study was conducted following a 100-year flood event in May 2006 which caused the Suncook River to change course (known as an avulsion) in the Town of Epsom.



The meeting began with an open house where study maps were available and study team members were available to answer questions. A presentation about the study was then made by Vanasse Hangen Brustlin, Inc., the engineering consulting firm that conducted the study. The presentation covered the main findings of the study, reviewed the different alternatives, and discussed the evaluation that was done for each alternative. The meeting concluded with an open public comment period.

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NFIP & Mapping Update

NFIP Update

One NH Community Joins the NFIP and Two are Pending

Congratulations to the town of Gilman-ton, which joined the NFIP on April 16, 2008! This brings the total number of participating communities in New Hampshire to 201.

FEMA is currently reviewing applications for the Towns of Effingham and Washington, which were both submitted in May. We hope to hear very soon of their entrance into the NFIP.

Map Modernization Update

The following is an update on FEMA's Map Modernization Program activities in New Hampshire.

Merrimack County

Letters dated April 8, 2008 were sent

by FEMA to all communities in Merrimack County regarding the start of the 90-day appeal period. The appeal period began on April 28, 2008 and will end on July 28, 2008.

The City of Concord and the Town of Webster were notified of modifications to base flood elevations in their communities. If any resident wishes to appeal these modifications, they must submit the required scientific or technical data to their community. The community is then responsible for submitting it to FEMA.

All other communities, as well as Concord and Webster, were notified that the appeal period is also an opportunity to submit other data changes to the maps (e.g. incorrect street names, typographical errors). These changes are considered comments and should be submitted before the end of the appeal period.

**The
NFIP
turns
40!**



The U.S. Congress established the NFIP on August 1, 1968, with the passage of the National Flood Insurance Act of 1968.

Flood Hazard Mitigation Update

Letters of Intent Requested for FEMA Mitigation Grants

NH's Homeland Security and Emergency Management (HSEM) office sent letters dated June 20, 2008 requesting a letter of intent from communities and state agencies interested in applying for FEMA's mitigation assistance program funds. Those interested are asked to identify projects that are a priority for their jurisdiction to reduce or eliminate future emergency or disaster costs.

A completed letter of intent is due to HSEM by August 1, 2008.

NH HSEM Grant Workshops

NH HSEM will be holding a daytime and evening workshop in each county at the end of July and early August. The purpose of the workshops is to give information about the application process for FEMA's Emergency Management Performance Grants and Hazard Mitigation Grants. Letters with more information about these workshops will be sent to each community. More information about the workshops can also be obtained from your NH HSEM field representative at (603) 271-2231.

**To learn more
about the FEMA
Mitigation Grants:**

Please contact:

Richard Verville,
State Mitigation
Officer at the NH
Homeland Security and
Emergency Manage-
ment at (603) 223-
3619 or
Richard.
Verville@hsem.nh.gov

Flood Insurance Update

May 2008 Policy Rate Changes

On May 1, 2008, FEMA implemented a rate change for flood insurance policies. On average, premiums for flood insurance policies written or renewed on or after May 1, 2008 will increase by 8 percent. For more information about these rate changes, please go to: www.fema.gov/business/nfip/manual200805.shtm

Ten Essential Rating Factors

Did you know that there are 10 essential rating factors that determine the cost of the premium for a flood insurance policy? The following is a list of these 10 factors.

1. Flood Zone
2. Date of Construction
3. Pre/Post FIRM status
4. Occupancy Type
5. Number of Floors
6. Amount of Coverage
7. Amount of Deductible
8. Basement/Enclosure
9. Elevation
10. Community Rating System discount (if applicable)

More information about flood insurance can be found on FEMA's Flood Smart web site at: www.floodsmart.gov. If you have any questions on how your flood insurance policy is rated, please contact your insurance agent.

Number of Flood Insurance Policies in NH by County (06/30/2008)	
Belknap	330
Carroll	541
Cheshire	551
Coos	192
Grafton	867
Hillsborough	1,301
Merrimack	611
Rockingham	3,745
Strafford	451
Sullivan	150
State Total	8,739

Suncook River Study

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Below is a summary of the alternative that are detailed in the study and were discussed at the meeting. Approximate costs for each alternative were also discussed (see table at right). These costs were developed as a way to compare the alternatives but subject to change.

Alternative 1 - No Action - This involves allowing the Suncook River and its tributaries to achieve equilibrium through natural adjustment over time without any substantial intervention.

Alternative 2 - Strategic Treatment of Degrading and Aggrading Stream Reaches - This involves leaving the river channel in its current position but addressing erosion and sedimentation at strategic locations along the system.

Alternative 3 - Alternative 2 Plus Restoration - This involves implementing Alternative 2 as defined above and restoring the remainder of the New Channel to its equilibrium endpoint.

This is the recommended alternative.

Alternative 4 - Restore the Suncook to pre-May 2006 Avulsion Position - This involves restoring the Suncook River to its original channel, which would require a replacement of the river bank that failed during the May 2006 avulsion by way of an engineered lateral dam structure. Two options within this alternative were discussed.

The study concludes with a summary of the eight key findings and recommendations for what still needs to be done to address the issues along the Suncook River.

Estimated Costs of Each Alternative	
Alt 1	\$0
Alt 2	\$1,275,000
Alt 3	\$1.8 - \$2.1 million
Alt 4	\$4.0 - \$5.5 million

To view the final version of the Suncook River Study:

Please go to:
www.vhb.com/suncook/

Upcoming Events and Training - USGS Workshops

The U.S Geological Survey (USGS) and OEP's Floodplain Management Program staff will be holding a series of workshops for community officials and other interested parties on how to estimate base flood elevations in Zone A floodplain areas. USGS will identify sources of information that can be used for floodplain management purposes in the

special flood hazard areas in which base flood elevations have not been determined.

The workshops will be held in August and September at various locations around the state. Information about the workshops will be sent to all communities and interested parties (see sidebar).



If you are interested in receiving information about these workshops, please contact Jennifer Gilbert (see page 7 for contact information).

Independent Evaluation

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The three key findings that were presented and will be included in the final report include:

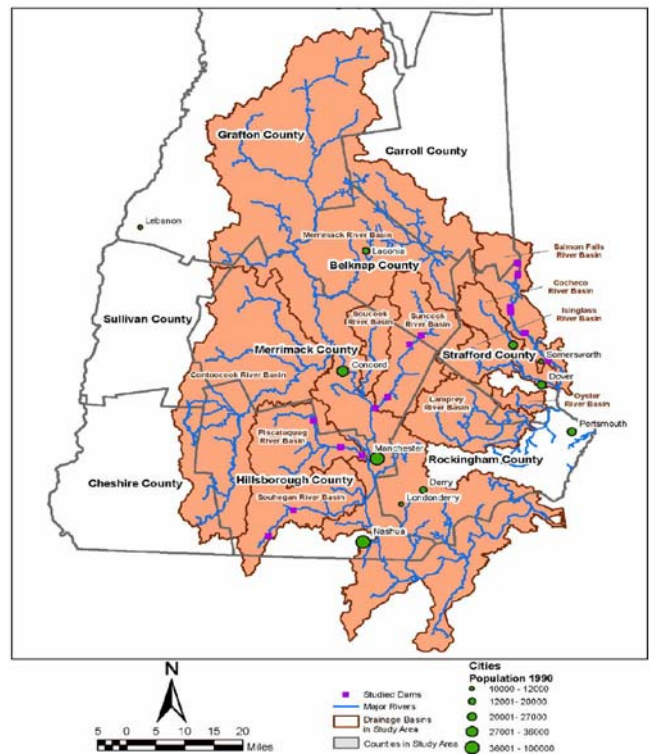
- The May 2006 event was caused by extremely heavy rainfall. The April 2007 event was caused by a combination of rain and snowmelt.
- Dam operations generally did not aggravate flooding.
- Actions to mitigate future flooding range from improving floodplain management and flood forecasting to using a watershed-based approach to flood operations.

Some of the recommendations from the study that were discussed during the meeting included the need to improve floodplain management through more accurate floodplain mapping and by protecting the floodplain from development. Also discussed is the need for improved flood forecasting with additional river forecast points, longer range forecasts (5 to 6 days), and for DES to further develop its forecasting capability by providing flood stages not currently covered.

Other recommendations mentioned include:

- Apply Vermont's Fluvial Erosion Hazard Mapping Methodology to NH rivers and streams.
- Remove sediment and debris to the extent allowed by law.
- Make sure flashboard operations are safe.
- Determine the benefits and costs of renovations at Kelly Falls Dam and Milton Three Ponds Dam.

New Hampshire Flood Investigation Study Area



The presentation slides from this meeting are now available on DES's web site (www.des.state.nh.us/dam/floods.htm) for viewing. The final study will be posted on this web site when it is completed at the end of July.

NFIP Feature Topic: *Why Would You Want a Certified Floodplain Manager in Your Community?*

The following article appeared in the Fall 2007 issue of the Ohio Department of Natural Resources' newsletter, Antediluvian.

By: Cynthia J. Crecelius, CFM—Program Manager, ODNR, Division of Water, Floodplain Management Program

Once again, many Ohio communities found themselves “knee deep” in flooding this summer. The floods seem to be happening on a much more frequent, if not almost regular basis. The good news is that many communities have new options and better recovery strategies because they have Certified Floodplain Managers (CFMs) serving their residents and businesses.

The Certified Floodplain Manager program is a national certification authorized by the Association of State Floodplain Managers (ASFPM). It was created to recognize the need for continuing education and professional development in support of local, state, federal and private-sector floodplain managers. As the number of flood disasters continues to rise, and communities are looking for ways to remain sustainable in the face of repeat damage and repair – there is a growing demand for qualified professionals to help solve the problems.

Certified Floodplain Managers demonstrate knowledge of basic national standards for flood protection and the complex concepts of floodplain management by successfully passing an exam. The exam covers broad floodplain management concepts, flood hazard mapping, National Flood Insurance Program regulations and administrative procedures, flood insurance, flood hazard mitigation techniques and the natural and benefi-

cial functions of floodplains.

ASFPM has designed the goals of the Certified Floodplain Manager program to benefit communities. The CFM program builds knowledge and capability in local floodplain managers. It promotes the visibility and credibility of the professional CFM nationally and in your community resulting in more influence. The program requires renewal of the CFM every two years, and has established continuing education requirements. By employing a CFM who understands how development actions impact neighboring properties and communities, your community may reduce legal liability. The CFM commits to a professional code of conduct that is focused on the health and safety of your residents and community. Having a CFM as your resident floodplain management expert is a reasonable way to address the challenge of balancing development demands with effective and efficient use of your floodplain resources.

A CFM knows what federal, state, and local laws impact development in the floodplain. They know how to apply the FEMA map and Flood Insurance Study information to explain the flood risk and vulnerability for specific development sites, buildings and the community in general. A CFM has been exposed to options and strategies that will help individuals better manage or avoid future flood risk altogether. They can be an integral part of your community development team by recommending reasonable land use decisions that will protect citizens and property throughout your community. A Certified Floodplain Manager can improve your position when the next flood hits!

CFMs in New Hampshire

Currently there are 4 CFMs in New Hampshire, including Jennifer Gilbert, NH's NFIP state coordinator.

If anyone is interested in becoming a CFM, please visit ASFPM's web site below for more information and to review the study guide.

The CFM exam can be taken every year at ASFPM's annual conference. The 2009 ASFPM conference will be held June 7-12 in Orlando, Florida.

Jennifer Gilbert can also administer the exam here in New Hampshire. If you are interested in taking the exam, please see page 7 for Jennifer's contact information.

ASFPM Web Site:
www.floods.org

Click on the Certification box at the top of the page.

Community Spotlight — Town of Peterborough

The Town of Peterborough is located in the south central portion of the state in Hillsborough County. The town's estimated 2007 population is 6,186.

Several waterbodies are located in Peterborough and include the Contoocook River, Nubanusit Brook, MacDowell Reservoir, Cranberry Meadow Pond, and Cunningham Pond. The Contoocook River flows from south to north through downtown Peterborough and is the main source of occasional flooding for the town. The most common causes of flooding in Peterborough are heavy rains, rapid snowmelt, and ice jams.

Peterborough joined the NFIP on May 1, 1980. Currently, there are 49 flood insurance policies in Peterborough. There have been 42 paid losses totaling \$446,699 in Peterborough.

Residents in Peterborough have been receiving a discount on their flood insurance premiums since May 2004 when the community joined the Community Rating System (see sidebar for more information). Residents in Peterborough and the City of Keene receive the highest percent discount (10 percent) on their flood insurance policies in the state. The amount of the discount is determined by the number of credit points a community receives for its floodplain management activities.

Peterborough is being recognized because it currently enforces a floodplain management regulation and conducts several additional floodplain management activities that go beyond the NFIP's minimum requirements.

The additional floodplain regulation that Peterborough has adopted in its Zoning Ordinance is the prohibition of placing or locating a mobile home in a designated floodway. Although the NFIP requires mobile homes to be anchored to a permanent foundation, Peterborough's regulation keeps mobile homes out of these high risk areas where they would be vulnerable to deep, fast-moving water when flooding occurs.

To view Peterborough's floodplain regulations, please see their Zoning document at the following:

www.townofpeterborough.com

The following is a list of the floodplain management activities that Peterborough conducts and receives credits for under the Community Rating System.

- Requires and maintains elevation certificates on all new and substantially improved structures in a special flood hazard area.
- Provides residents information about the Flood Insurance Rate maps and flood insurance purchase requirements.
- Sends outreach materials to lenders, insurance agents, and real estate offices about their mapping services.
- Maintains a library of flood protection materials at the town hall.
- Preserves open space in the floodplain areas in town.
- Uses and updates a Geographic Information System (GIS).
- Implements a drainage system maintenance program.

**For More
Information on the
Community
Rating System**

<http://www.fema.gov/business/nfip/crs.shtm>



To Spotlight Your Community

If you would like to spotlight your community for a regulation or a project that goes above and beyond the minimum requirements of the NFIP, please send your information to the mailing address listed under *NFIP Contact Information* on page 7 or email jennifer.gilbert@nh.gov

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NH Floodplain Management Program Contact Information

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Subscription Information

Flood Lines is available on OEP's web site. If you would like to be notified by email when the next issue is available or if you would like to unsubscribe, please go to:
www.nh.gov/oep/programs/floodplainmanagement/newsletter.htm

NH Public Works Mutual Aid Agreement

FEMA Region I held its annual mitigation conference at the Margate Resort in Laconia from April 30 to May 2. One of the guest speakers on May 1 was Alan Cote of Derry's Department of Public Works. Mr. Cote is also President of the NH Public Works Mutual Aid Program Board of Directors. His presentation was about the Public Works Mutual Aid Program, the first state-wide program of its kind that we have here in New Hampshire.

The NH Public Works Mutual Aid Program is a network of municipalities that assists one another during emergencies through partnering agreements and a protocol for requesting and receiving aid. Approximately 100 communities participate in this program.

The idea for the program was developed in 1988 following an ice storm that impacted many New Hampshire communities. Many found it to be a long and difficult process to get their towns up and running again on their own. The program proved its effectiveness during the flood events in 2005, 2006, and 2007.

Following the devastating floods in October 2005, three communities requested assistance from the program. Eight communities came to their aid by providing mostly equipment and drivers.

Seven months later, in May 2006, storm events caused the rivers to rise again and caused state-wide damage. Six communities requested assistance and 12 communities responded with equipment and drivers, building inspectors, signs, barrels and barricades, and flaggers. One of the communities offering assistance was the

New Hampshire Public Works



City of Keene, which was impacted by the 2005 flood. The City returned the favor to one of the communities that assisted them, the Town of Goffstown.

During the April 2007 flood event, one community received building inspector assistance from three communities.

Although flood events have dominated the types of request for assistance, other events have resulted in requests for assistance such as a wind event in August, 2006.

Since Mother Nature pays no attention to lines drawn on a map or to community boundaries, having a program like this in New Hampshire is a great resource for communities. By participating in the program for a fee of only \$25, communities have the assurance that their fellow communities will be there to assist them to repair and restore damaged infrastructure following an emergency.

To learn more about this program, please visit the University of New Hampshire's Technology Transfer Center's (T2) web site at: www.t2.unh.edu/ma/.