



# Franklin Regional Council of Governments

## Franklin Regional Planning Board

Date:	January 28, 2016
Time:	6:00 p.m.
Location:	Hampton Inn, Shelburne Road, Greenfield, MA
Duration:	2 hours
Facilitator:	Jerry Lund, Chair

### Attendees:

- Jerry Lund, Leyden At-Large
- John Baronas, Deerfield Planning Board
- Thomas Hutcheson, Conway Select Board
- Tom Miner, Shelburne At-Large
- Ted Cady, Warwick Planning Board
- Mike Shaffer, Erving Planning Board
- James Basford, Orange At-Large
- Kenneth Miller, Ashfield Planning Board
- Tom Herrick, Sunderland At-Large
- Tracy Rogers, Northfield Select Board
- Patricia Marcus, Greenfield At-Large
- Chuck Washer, Shelburne Select Board
- Lloyd Crawford, Hawley Planning Board
- Joan Rockwell, Colrain At-Large
- Gisela Walker, Charlemont Planning Board
- Don Sluter, Whately Planning Board

### Guests

- Nancy Hazard, Greening Greenfield
- Brian Yellen, UMASS
- Christine Hatch, UMASS
- Ben Warner, UMASS

### Staff:

- Peggy Sloan, Planning Director
- Gretchen Johnson, Planning Grant Administrator

### **1 – Introductions: J. Lund, Chair**

J. Lund, Chair, called the meeting to order at 6:00 p.m. A round of introductions followed.

## **2 – Review and Approval of December 3, 2015 FRPB meeting minutes**

T. Cady MOVED to approve the December 3, 2015 minutes. G. Walker SECONDED. The minutes were APPROVED unanimously.

## **3 – Presentation on Tropical Storm Irene, Historic Storms and Future Flooding Events: B. Yellen, UMASS**

B. Yellen gave a PowerPoint presentation on Tropical Storm Irene, Historic Storms and Future Flooding Events. B. Yellen explained that according to how storms have been measured historically, there have been quite a few 1,000 year floods in the United States this year. B. Yellen stated that he would like to argue that scientists should look at the changes to the landscape rather than rainfall amounts as we commonly do now. Tropical Storm Irene in terms of rainfall was a 100 year flood. This means that there is historically a one percent chance of this level of flooding in a given year. However, Tropical Storm Irene resulted in unprecedented erosion. B. Yellen explained that significant flooding from hurricanes in the last 100 years resulted in large particle erosion deposits but Tropical Storm Irene resulted in very small particle erosion deposit. The sediment load and the eroding material were unprecedented. The sediment load in the Connecticut River was mineral and clay rich. The core samples taken showed high levels of potassium. Potassium is found in hill slope sediment. This sediment has not been moved since the glaciers moved through this region 14,000 years ago.

Tropical Storm Irene was the first significant flood since flood control was installed along the rivers. Land Use change is not the cause because the land in Massachusetts is more forested than it has been in the last 100 years. The precipitation during the storm was similar to the precipitation of the 1927 Hurricane. However, a major difference was the amount of rainfall in New England in the previous 30 days prior to the event.

The rainfall per year has been increasing in New England. Due to changing statistics with respect to storm antecedent conditions, this type of event is four times more likely to occur again than it was in the 1920's.

J. Lund asked if the hillsides were unstable because they were more saturated due to the previous month of rain. B. Yellen replied that the runoff and the saturated soil made the hillsides more unstable resulting in the land slides and land erosion. P. Sloan asked if the increased rainfall is due to climate change. B. Yellen answered that yes, New England is receiving more rainfall on average per year. C. Hatch stated that warmer temperatures mean that the air will hold more water. If there are ten storms in the year but the temperature is higher it will result in more precipitation. J. Baronas stated that storm water management is important. B. Yellen stated that there are many water quality benefits to storm water management.

#### **4 – Presentation on Best Practices to Increase Resiliency to Flooding: C. Hatch, UMASS**

C. Hatch stated that there are five main recommendations from the UMASS report: Supporting New England Communities to Become River Smart

1. Develop and implement fluvial erosion hazard assessment mapping and user access systems across New England states
2. Support upgrades of stream crossing infrastructure vulnerable to damage
3. Support River-smart community planning and mitigation
4. Prepare and disseminate outreach materials and training on river dynamics, lessons for river flood hazards and river-smart best management practices
5. Support Regional intermediaries to provide flood support services to municipalities and land owners

C. Hatch explained that for the purposes of this presentation the discussion will focus on the first recommendation.

C. Hatch stated that the most erosion in the Connecticut River Watershed during Tropical Storm Irene occurred in the upland areas with the steepest channels. The middle reaches of the watershed had flatter grades and meandering streams. The delta area was the area that had the main deposition of sediment. A flood is not just the rise of water levels but the transport of sediment and debris. When rivers can't access the flood plain, the force and damage of the flood continues downstream. Rivers sometimes break through obstacles to reach the flood plains. Either way the result is often disastrous for human built structures.

River management often does not include best river practices. River-smart management of rivers and riverside landscapes, as well as our own actions and expectations, will better protect public health and safety, reduce flood severity, damage and costs through understanding and accommodating the natural dynamics of rivers, and allowing Massachusetts to make better use of the land near rivers. To do this, we need new policy based on sound river science that limits development in areas prone to erosion and deposition, but allows development in areas that are considered safe so people and communities are more resilient to river floods.

How to achieve this vision:

- Design a Massachusetts specific river corridor delineation methodology with a multi-agency, volunteer based Fluvial Geomorphology (FGM) Task Force
- Map the river corridors (and stream power) for all of Massachusetts using the delineation methodology
- Enact river-smart state policy based on these new maps that limits

development in areas prone to erosion, deposition, and inundation but allows development in areas that are considered safe

K. Miller asked how this differs from a 100 year flood zone. C. Hatch replied that it will be very similar but will take into account the erosion aspect as well.

The FGM Task Force leads the development tools to guide communities, regulators, and practitioners in the improved, science based management of Massachusetts river corridors for the purposes of protecting infrastructure, public health and safety, and enhancing ecosystem functions, natural river movement and transport purposes.

C. Hatch stated that there is a detailed fluvial geomorphic-based methodology supported by the State of Vermont for delineating and protecting the river corridor and managing activities on the lands within it. This policy is applicable to Western Massachusetts. The policy would need to be re-tooled for urban and coastal regions.

Mapping will tell us:

- Neither FEMA FIRM zones (inundation based map) nor wetlands protection act (arbitrary land-use based setbacks) necessarily correspond to Geomorphic hazard zones
- Different approaches identify different regions that do not overlap completely
- River corridors include Geomorphic hazard zones (most of the time)
  - Pro: process-based, accurate area, science based
  - Con: no type of hazard inherent in corridor but Geomorphic hazard zones can be added

Watershed scale maps will help identify locations for detailed assessments. Detailed fluvial geomorphic assessments can help with land use management and prioritization of conservation and restoration projects. Pilot maps were generated by Massachusetts Geological Survey and NEE in 2013. C. Hatch stated that the maps should be completed by August. The next step will be to figure out the best way to share the maps.

J. Lund suggested hosting a conference to allow for questions. J. Rockwell asked if there is interstate cooperation on this project. C. Hatch stated that representatives from Vermont and New Hampshire are involved with the project. However, policies are set by each State. Vermont is the only State that has river guidelines. T. Miner suggested adding local government and land owners to the FGM Task Force. J. Rockwell suggested asking farmers from both lower and higher elevations to join the task force as well. C. Hatch stated that a farmer focused outreach project will begin once the maps are completed. T. Hutcheson suggested involving school curriculum developers for civic education. J. Basford asked how the river planning may affect the Kinder Morgan Pipeline project and the Northfield Mountain Pump Storage project. C. Hatch responded that there are significant risks to infrastructure such as a gas pipeline are located in Geomorphic Hazard areas. P. Sloan asked if UMASS

Scientists could look at the proposed placement of the pipeline and evaluate possible risks.

J. Lund thanked B. Yellen and C. Hatch for their presentations. A round of applause followed.

#### **5 – Update on the FERC Relicensing of the Northfield Mountain Pumped Storage Facility: T. Miner, CRSEC**

T. Miner stated that FERC denied First Light’s request to grant a permanent amendment to the license to allow them to use the excess capacity of the upper reservoir. FERC is requiring better reporting of river and erosion conditions, as requested by stakeholders. EOEE Secretary Beaton confirmed that MassDEP will issue a 401 Water Quality Control and that the stakeholders will have a seat at the table. There has been ongoing collaboration of a diverse group of stakeholders to prepare comments on the Draft License Application that was filed with FERC in December. First Light is moving ahead with work on their list of projects under the current license. The Connecticut River Streambank Erosion Committee (CRSEC) will meet on February 16<sup>th</sup> to discuss the list of projects. The Connecticut River Watershed Council (CRWC) has hired a consultant to do a peer review of the “causation” study. FRCOG staff and CRSEC will work with CRWC on this.

#### **6 - Update on the Proposed Kinder Morgan/TGP Pipeline Project: P. Sloan, FRCOG**

P. Sloan stated that the “Application” was filed by Kinder Morgan on November 20<sup>th</sup>. The deadline to apply for intervenor status was January 15<sup>th</sup>. The FRCOG has filed for intervenor status. P. Sloan passed out a few copies of the intervenor request and stated that the request is available on the FRCOG website, [www.frcog.org](http://www.frcog.org).

The FRCOG has also requested that FERC hold a formal evidentiary hearing about the need for the NED Pipeline since the market path component still only has commitments for 41% of the capacity of the proposed pipeline. Discussion ensued.

P. Sloan stated that the Pipeline Advisory Committee has continued to meet to share information. The four towns that have committed funds for special studies include Conway, Erving, Montague and Northfield. The special studies being considered are road and infrastructure impacts and aquifer and drinking water supply impacts.

T. Miner stated that there is a DPU hearing scheduled for March 30<sup>th</sup> at 7:00 p.m. at the Greenfield Middle School to discuss giving Kinder Morgan/TGP access to conduct surveys on private properties.

The recent news article by the Greenfield Recorder addressing gas exports that could occur if the NED pipeline is built was discussed.

**7 –Other Topics not reasonably anticipated 48 hours  
in advance of the meeting/Adjourn: Jerry Lund, FRPB**

J. Rockwell MOVED to nominate T. Hutcheson for the FRPB Executive Committee.  
T. Cady SECONDED. The motion PASSED unanimously. J. Lund thanked T.  
Hutcheson for accepting the nomination.

Copies of the handouts are available. Please contact G. Johnson at  
[gjohnson@frcog.org](mailto:gjohnson@frcog.org) or 413-774-3167 x126.

The next meeting will be held on March 24, 2016.

T. Miner MOVED to adjourn the meeting at 7:56 p.m. P. Marcus SECONDED  
the motion. The motion was UNANIMOUSLY approved.

Respectfully submitted by:

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J. Rockwell, Clerk