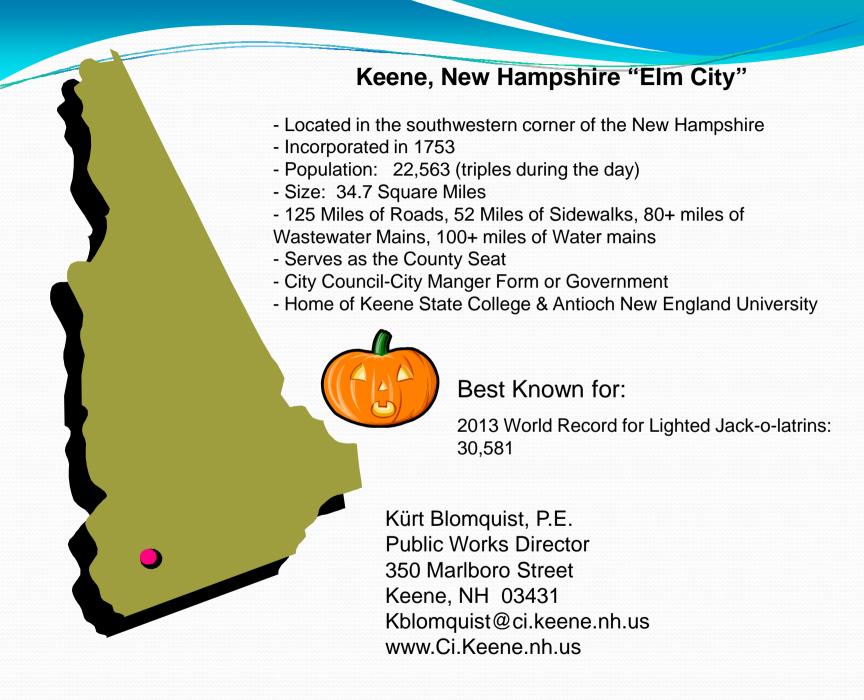
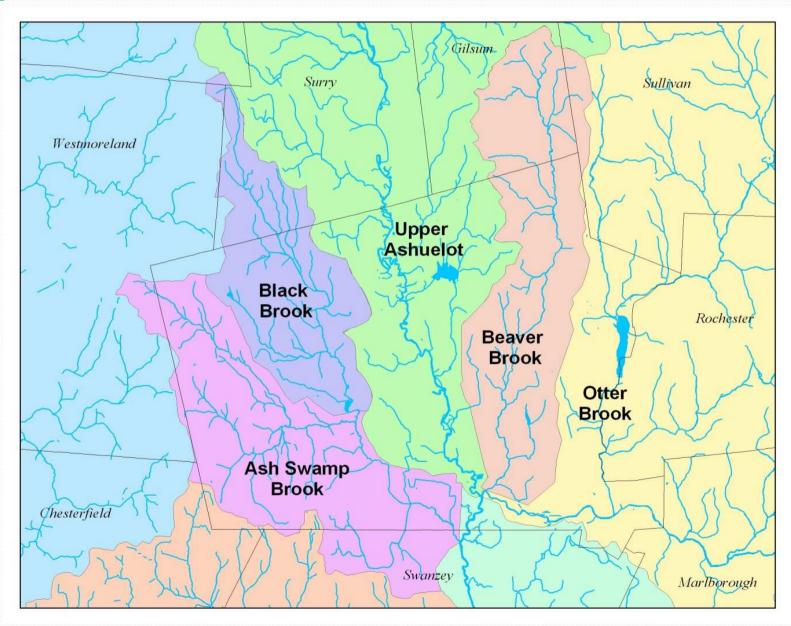
Is Your Town Ready for the Next Flood?

Upper Valley Adaption Workgroup April 28, 2014



- City of Keene sits on the valley floor "Bottom of the Bowl"
- Numerous brooks and streams flow through the City, Ash Swamp Brook, Beaver Brook, Black Brook, Branch River, Minnewawa River, and Tannery Brook.
- Waters flow into the Ashuelot River

Keene Watersheds



Keene has a history of Major Flood Events



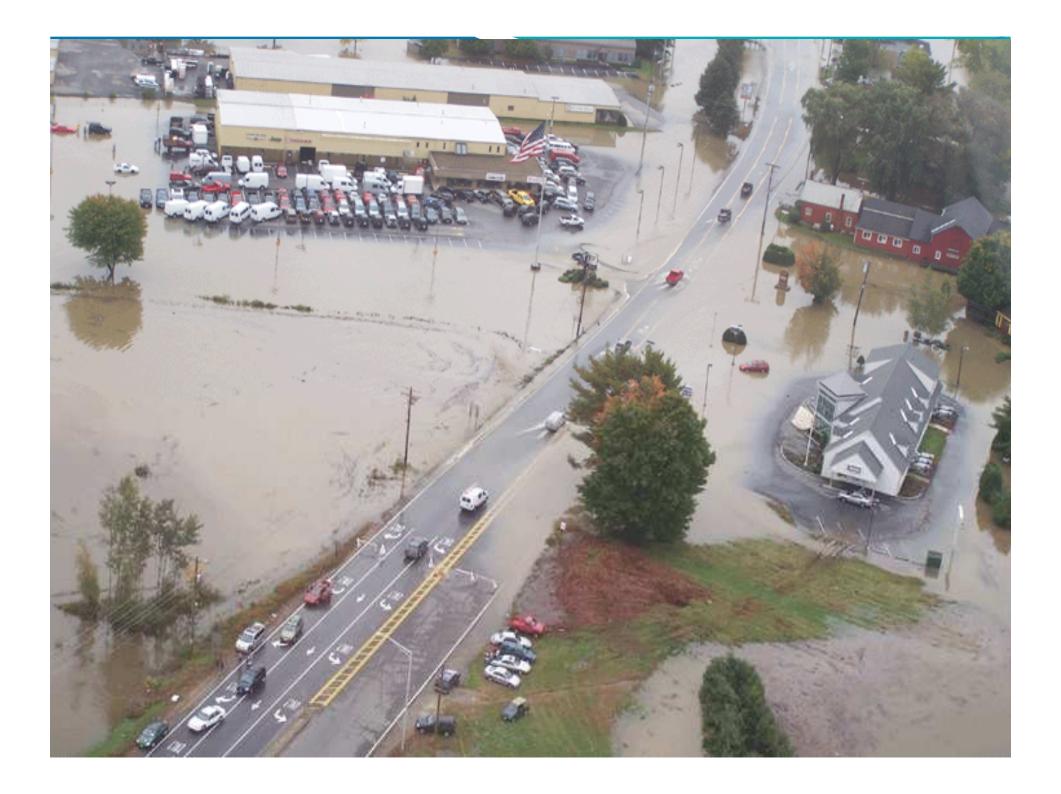
Keene Planning Activity

- Flood Hazard Mitigation Plan
 - Adopted 2000
- Cities for Climate Protection Local Action Plan
 - Adopted 2004
- Climate Adaption Plan
 - Adopted 2007
- Comprehensive Master Plan
 - Adopted 2010
- Hazard Mitigation Plan (FEMA)
 - Updated 2013
- Capital Improvement Plan
 - Updated, Reviewed, and Adopted Annually

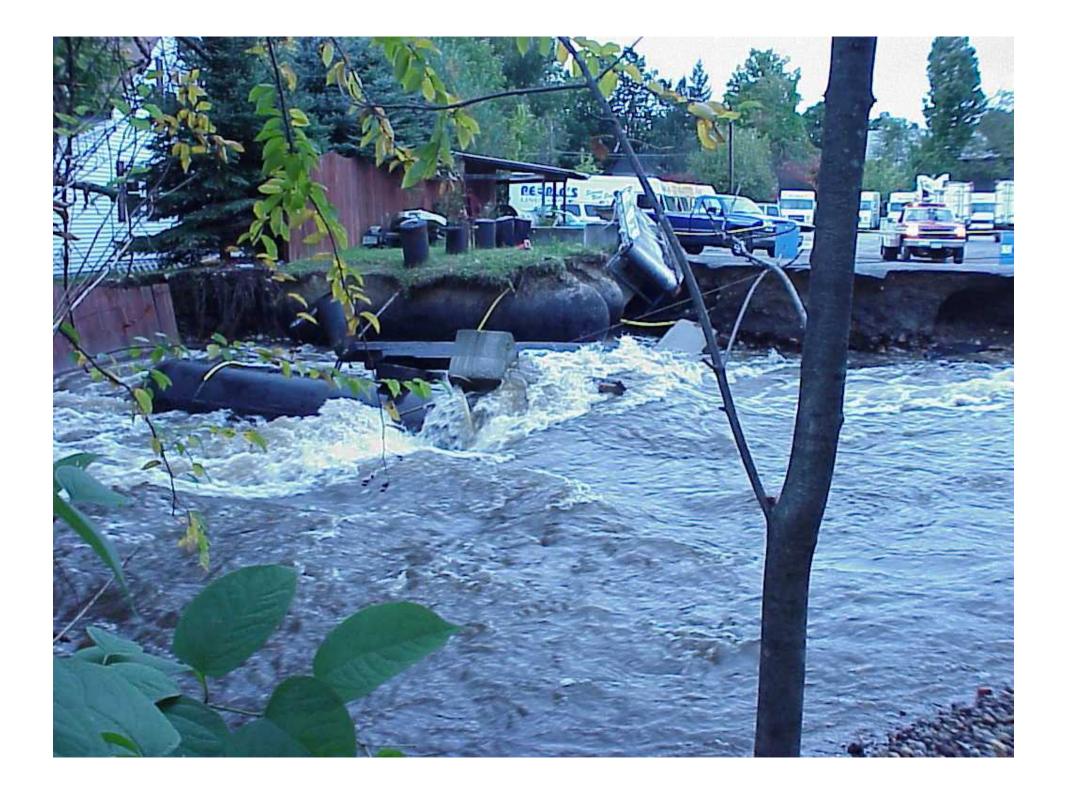
Flooding Events

- October 2005 Flooding Event
 - October 9 through October 12
 - Over 12 plus inches of rain fell in 12 hour period
 - Estimated that it was a 500 + year storm event
- May 2012 Flooding Event
 - May 29th/30th
 - Approximately 4.9 inches of rain over a 3 hour period
- Have had 3 additional 100+ storm events between 2005
 - 2014 with latest in September 2013



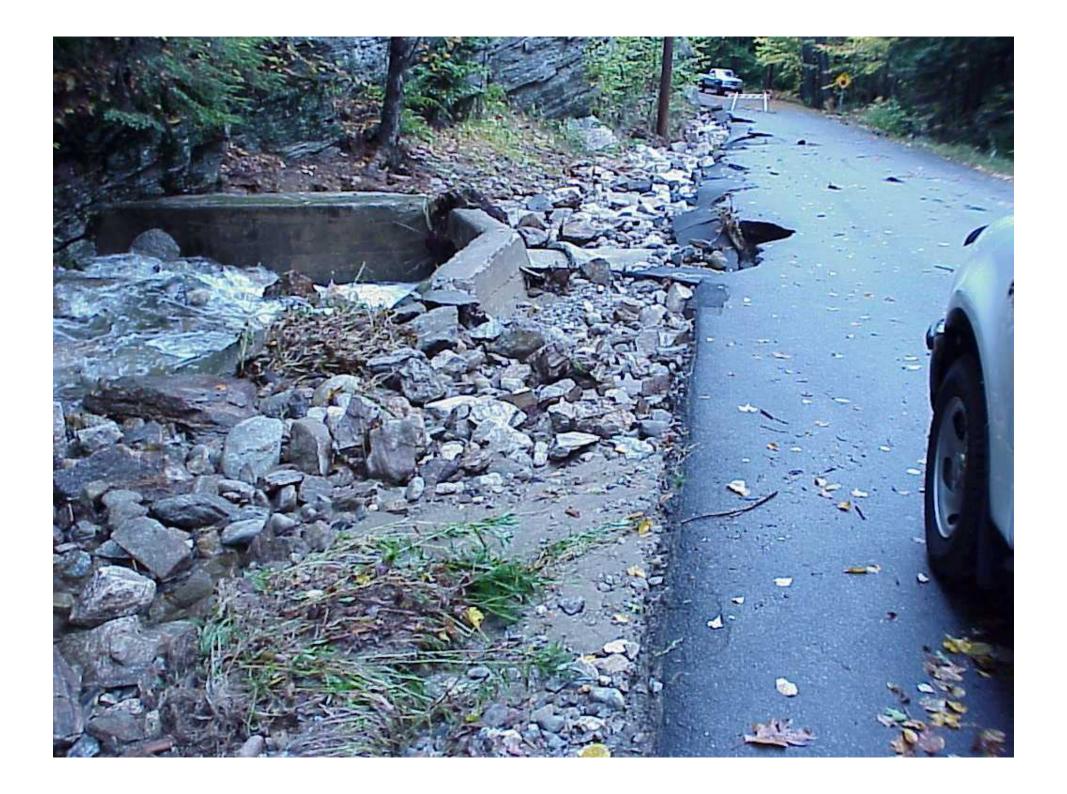


























Belvedere Road

- October 2005
 - Road was severely damaged,
 - City requested to upgrade culverts as part of Category C Work, and
 - Requested mitigation project
- May 2012
 - Road was severely damaged again, and
 - City requested to upgrade culvert as part of Category C Work

Thoughts

- It will happen
 - Higher frequency, more intense
 - Higher man-made activities
- There is no White Knight,
- Planning
 - Identified vulnerabilities
 - Risk assessment
 - Prepare outside the heat of battle