



# *City of Barre, Vermont*

## *“Granite Center of the World”*

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### **Gunners Brook Flood Mitigation Initiative**

#### **Update #1**

**(10-18-15)**

As promised by the Mayor, City Manager, and City Council, I am forwarding this first of periodic updates advising interested property owners and residents of the Harrington Avenue /Brook & Maple Streets neighborhood, and well as the general public, of initiatives and progress-to-date related to flood mitigation efforts in the Gunners Brook Flood Zone.

#### **Since the July 19, 2015 Gunners Brook flood event, the following flood mitigation activities have occurred to date:**

1. City staff created a Flood Information & Update link on the City web-site ([barrecity.org](http://barrecity.org))
2. The Agency of Commerce and Community Development (VACCD) prepared and released the Final version of the **VERI Report** (Vermont Economic Resiliency Initiative) addressing short and long term Gunners Brook flood mitigation planning and action steps. This report is available on-line at the City web-site ([barrecity.org](http://barrecity.org))
3. On July 29, 2015, the Mayor, City Manager and Chief of Emergency Services met with, and at the request of, a core group (8+/-) of neighborhood property owners, to discuss the causative factors and response actions during the flooding event, as well as a general discussion of action steps going forward.
4. Following the meeting, the Manager prepared this **Gunners Brook Flood Recovery Group** distribution list to affected neighborhood individuals, in addition to the City Council, City Department Heads, VACCD, and the Times-Argus. The purpose of this list is to provide a mechanism for periodic notice to those flood zone individuals with a vested interest in mitigation planning of post-flood mitigation planning and action steps. Notice via US mail of this distribution list was sent to approximately 120 flood zone property Owners on August 24, 2015. To date, approximately 25 individuals have requested to be on this update list.
5. On July 28, 2015 the Mayor presented a proposal to the City Council for creation of a **\$1M Stormwater Management Fund (Bond)** to be used for the purpose of funding/supporting annual maintenance and meaningful flood mitigation projects over a

ten (10) year period, inclusive of a funding mechanism that would raise and/or allocate approximately \$150,000 annually for flood mitigation efforts. This proposal will be the subject of a March, 2016 Town Meeting ballot item seeking voter approval to authorize this funding source.

6. On August 21, 2015, the City Manager contacted, as a courtesy, the three (3) prospective buy-out property owners to advise that their properties are under consideration as components of a Phase 1 Buy-out Program should it be determined feasible. No buy-out commitment will be made until and unless funding for such a program can be identified and secured.
7. At the request of the Mayor, the Vermont Economic Development Authority (VEDA) and VACCD established a **Non-Owner-Occupied Multi-Family Loan Program**, to make available expedited, low-interest loans to owners of damaged rental properties in the flood zone, who would otherwise not be eligible for any flood related facial assistance.
8. The Mayor organized a **Flood Recovery Public Information Meeting** held at Alumni Hall on August 5, 2015.
9. On August 25, 2015, the City Council designated donations totaling \$7,325 to Capstone Community Action for use through the Flood Relief Center.
10. On July 31, 2015, the City of Barre, in partnership with Capstone Community Action, the Vermont Disaster Relief Fund and others, established a **Flood Recovery Center** at the Capstone Community Action Campus at 20 Gable Place.
11. The City Manager has identified a **Harrington Avenue Short-term Targeted Buyout and Debris Control Management Concept** (see attached sketch) involving the buy-out of three damaged/destroyed structures and associated properties for the purpose of constructing future flood event/high-water debris physical containment and control improvements.
12. On August 6, 2015, a team comprised of the City Manager, the Interim Director of Public Works, representatives of the Agency of Natural Resources, the VERI project team, and DuBois & King, Inc., conducted a post-flood inspection and (base-line) stream inventory of Gunners Brook from the vicinity of the LePage Gravel Pit to the lower Brook Street Bridge. A detailed photo documentation of key stream post-flood characteristics was prepared (woody and stone debris accumulation and entrapment locations, scoured and (severely) eroded stream banks and siltation sources, and failed, damaged or deteriorated retaining walls, etc.)
13. On August 25, 2015, pursuant to Item 11 above, the City Council authorized \$25,000 to engage the engineering firm of DuBois & King, Inc., to conduct a **Gunners Brook Phase 1 Flood Mitigation Study**. (See below)
14. On August 21, 2015 the City Manager has prepared and submitted to the Agency of Transportation (VTrans) a **Town Highway Grant Application** in the amount of

\$200,000 to reimburse the City for municipal (not private) expenses associated with the emergency response, recovery (clean-up) and infrastructure repairs necessitated by the flood.

15. On August 27<sup>th</sup>, 2015, the City Manager, with the Interim Director of Public Works and representatives of Dubois & King, Inc., conducted a second inspection of the lower reach of Gunners (Buzzi's Garage to North Main Street) to flag woody debris for removal.
16. With the assistance of a work crew(s) from the Department of Corrections working with City DPW staff, the City Manager organized a "woody debris" removal operation for the lower reach of Gunners Brook. This occurred during the weeks of September 7<sup>th</sup> and 16<sup>th</sup>, with the intent to remove loose woody debris (branches, trees, vegetation) that is susceptible to re-floatation and downstream clogging in a future high-water event.
17. On September 29<sup>th</sup>, the City Coil authorized the City Manager to prepare a state/federal HMGP (Hazard Mitigation Grant Program) Grant Application for submission to the Vermont Department of Emergency Management and Homeland Security (DEMHS) and FEMA.

#### **Flood Mitigation Activities anticipated in the (near) future:**

1. Complete the **Gunners Brook Phase 1 Flood Mitigation Study** (anticipated during the week of October 19, 2015). Hi-lites of the study will include, but not be limited to, the following items:
  - a. Feasibility, effectiveness and cost of implementing the Manager's flood mitigation concept.
  - b. Feasibility of primary (LePage pit area) and secondary (Harrington Avenue area) engineered debris "trash racks" to control the locations and amount of debris accumulation., with the goal of safely passing high water with minimal, if any, flood damage in the upper Brook Street Bridge to the Harrington Avenue area.
  - c. Contingent upon Items a and b, evaluate and plan for the removal of the Harrington Avenue Bridge.
  - d. A **Public Information Meeting** is anticipated to be scheduled on/about **October 29, 2015** for public presentation of the study and to obtain public feedback on the recommended course of action.
2. During the week of October 19<sup>th</sup>, conduct a final "sweep" of the lower brook to remove any remaining woody debris that was not removed during the September work sessions.
3. Review with the Agency of Natural Resources (ANR) as to the more difficult challenge of removal of some of the larger stone debris deposited in the lower reach of the Gunners Brook stream bed. While some large stones may be obvious candidates for removal, the logistics (equipment, equipment access, and removal mechanics) are not necessarily

straightforward. In addition, all in-stream operations must be pre-approved by ANR. Lastly, removal of embedded stones and/or stones adjacent to the base of existing retaining walls must be examined closely, as removal or disturbance of some of these embedded stones may, in fact, cause further stream bed erosion/damage and/or associated undermining of the exiting retaining walls.

4. Confer with ANR staff and consulting professionals regarding the feasibility, regulatory acceptability, logistics, cost and funding targeted and limited sediment removal primarily from the lower Gunners Brook (between the upper and lower Brook Street bridges).
5. The City Manager, with the assistance of the City Permits Administrator (Janet Shatney) have been coordinating with the appropriate State and Regional Agencies (Department of Emergency Management and Homeland Security [DEMHS], Agency of Commerce and Community Development [ACCD], Central Vermont Regional Planning Commission, [CVRPC]) and the cooperation of the affected property owners, have initiated preparation of an HMGP (Hazard Mitigation Grant Program) application for financial assistance in future flood mitigation steps. The Application submission deadline is November 6, 2015.

I anticipate preparing future Flood Mitigation Updates on an approximately quarterly basis, and more frequently if substantive developments have occurred in the interim.

Please feel free to contact me at [manager@barrecity.org](mailto:manager@barrecity.org) if you have questions/comments /input reading this Update or flood mitigation activities in general. Also, please feel free to encourage any of your neighbors to contact me to add their name to this distribution list. I will also add names to a smaller US mail list for those who do not have computer access as long as I am supplied (476-0241) with names and mailing addresses.

Respectfully,  
Steven E. Mackenzie, P.E.  
Barre City Manager