

## FREQUENTLY ASKED QUESTIONS REGARDING THE ATKINS AND FACTORY HOLLOW (PUFFER'S POND) DAMS

The Town of Amherst owns two dams in the North Amherst/Shutesbury area. These dams are the Atkins Dam, which impounds the Atkins Reservoir, and the Factory Hollow Dam, which impounds Puffer's Pond. The Atkins Reservoir is used to supply drinking water to the Town of Amherst, and Puffer's Pond is used for recreational purposes such as swimming and fishing.

The Massachusetts Department of Dam Safety requires dam owners to prepare and update Emergency Action Plans (EAPs) for both dams. One important part of an EAP is a plan to quickly notify residents who live downstream of the dams and could, therefore, be impacted by a dam emergency. The Town of Amherst would like to update our emergency alert system so that we could quickly notify residents by telephone, text message, and/or email in the event of a dam emergency. We have prepared the following information to provide background information regarding the dams and the alert system.

### ***What is the risk of living downstream of these dam(s)?***

Both dams are classified as High Hazard Potential, indicating the failure of either dam at maximum water level will likely cause loss of life and damage to the railroad. **Note that this classification does not take into consideration the condition of the dam, how well it is managed, or the history of any problems.** As described below, Town of Amherst personnel perform regular inspection and maintenance tasks on the dams. In the unlikely event of a dam breach, residents downstream of the dam(s) could experience impacts ranging from less than one foot to more than 20 feet of water, depending on their location relative to the dam as well as the severity of the breach.

### ***What does the Town of Amherst do to maintain the dams?***

Both dams are inspected by a Professional Engineer from an engineering consulting firm on a biannual basis. The goals of the inspections are to evaluate the condition of the dam and appurtenant structures, as well as to provide information that will assist the Town in prioritizing dam repair needs and planning/conducting maintenance. The next inspection will be performed in July, 2014. After the inspection, the engineer will provide the Town with a written report detailing the results. These reports are reviewed by Town personnel, and the results are used in dam planning and decision-making.

In addition, Town of Amherst personnel check the dams on a regular basis for leakage and/or other problems. They also perform maintenance such as cutting vegetation and removing nearby trees as necessary.

### ***How likely is a dam breach?***

A breach of either dam is unlikely, because no structural deficiencies have been observed during dam inspections. Both dams are classified by the inspector as being in "Fair" condition. This rating is for the overall condition of the dam and is based on factors including structural integrity,

operational procedures, maintenance, and compliance with design standards. A “Fair” rating indicates significant operational and maintenance deficiencies, but no structural deficiencies.

***What is the extent and water depth of the potential inundation area?***

According to our dam safety consultant, the potential inundation area is located in portions of North Amherst, Hadley, Sunderland, Leverett, and Shutesbury. The inundation would generally follow existing stream channels in Cushman Brook and the Mill River, but flooding would extend beyond the channels. The size and depth of the inundation depth area depend in part on weather conditions at the time of failure as well as the level of the reservoir. In general, the inundation area immediately downstream of Atkins dam is narrow due to the steep topography, resulting in a relatively fast, deep flood wave. Flood wave depths in this area could range from up to 10 to over 20 feet. The depth of flooding will be greatest in and near the stream channels.

In the area downstream of Factory Hollow Dam, the flood wave spreads into a slower, shallower flood wave. Flood wave depths could range from up to 26 feet immediately downstream of the dam to 4 to 15 feet in gently sloping agricultural areas near and to the west of Route 116. In isolated areas located far from the stream channel, the flood wave would lessen to shallow surface flooding.

***What is the purpose of the EAP and its associated emergency alert system?***

The purpose of the EAP and its associated emergency alert system is to save lives and possibly reduce property damage in the event of a dam failure. The EAP identifies emergency conditions and specifies responses to them. It also provides a procedure for early notification to local and state officials. In addition, the EAP must include an emergency alert system to notify potentially-impacted residents of a possible dam failure. Instituting an emergency alert system that can automatically notify landlines, cell phones, and/or emails will allow the Town to notify residents as quickly as possible.

***How does the emergency alert notification system work?***

Authorized officials will record a voice message that can be quickly delivered to individual phones in the inundation area. Our engineering consultant has provided us with a map of the potential inundation area, which is based on reservoir capacities and downstream topography. The alert system for a dam emergency is set up to only contact phones located within the potential inundation area. The system will contact landlines in the area, and cell phones will be contacted if they are registered in the system to an address in the area.

When an alert goes out, the alert system keeps track of the numbers for which the call went through. If the system reaches a busy signal or is not answered, it will attempt to call several more times. After the alert goes out, town officials can review the list of numbers for which the call did not go through and take appropriate actions.

***What should I do if I receive a notification that a dam has failed?***

You should go as quickly as possible to higher ground. It is not possible to predict with certainty how much time you would have to get out of the inundation area, so it's important that you go as quickly as possible. Stay away from streams and other low-lying areas.

***How can I sign up to receive emergency alerts?***

You can sign up on the Town of Amherst website. Answers to frequently asked questions about the emergency alert system can be found at:

<http://www.amherstma.gov/ealerts>

To sign up to receive alerts, use the link at the top of the FAQ page or go to:

<https://portal.blackboardconnectcty.com/welcome.aspx?eiid=1207B6088C3477A2627C>

***Who can I contact for more information?***

Guilford Mooring, Superintendent of Public Works  
586 South Pleasant Street  
Amherst, MA 01002  
413-259-3050, extension 0