

The Borough of Milton Dam Failure Threat Recognition System

Currently, there are two Size Category "A" Hazard Potential Category "1" dams located upstream of the Borough of Milton. The first, the George B. Stevenson Dam, being located 132 miles upstream, and the second is the Little Pine Creek Dam which is located 65.8 miles upstream of the Borough. If either should fail, PEMA will notify Northumberland County PSAP / 911, and Northumberland County PSAP / 911 will notify the Borough of Milton Fire & Police Department, and the Milton Borough Manager. The orders given will be for a Stage 1 Evacuation or a Stage 2 Evacuation.

A Stage 1 Evacuation order will not threaten or increase the height of the River at the Borough.

A Stage 2 Evacuation order means that the River will rise and cause additional flooding beyond the 100 Year Floodplain. How much of an increase depends on whether the dam slowly failed or had a catastrophic failure. The projected increase could be as much as 3' higher to the flooding of the 100 Base Flood Elevation.

The residents will be notified by the Borough Siren System and the broadcasted alert messages from the Siren System. The National Weather Service of State College, Pa will also issue dam failure alerts with forecasted River Crest Heights and the amount of time until that inundation starts and the river crest height is achieved, along with potential areas of flooding. This will alert all County Emergency 911 Centers and Emergency Responders, as well as the general public. There is also a media message from the Emergency Action Plan (for the specific dam) that the County PSAP / 911 Centers are to send out to the media. The Borough will use phone, website and social media to alert the public as well as emergency responders with PA broadcast systems. Also, the Milton Borough Manager and EMA Director will be alerted by the Northumberland County PSAP / 911 to open the Milton Emergency Operations Center.

The Milton Emergency Operations Center will use the NOAA West Branch Susquehanna River Gauge (NOAA National Weather Service) information from the NOAA website to monitor the river. This website receives data from the West Milton River gauge for real-time river heights and the flood water velocity, and shows the potential forecasted river crest height. This data not only verifies the alert from the National Weather Service in State College, PA but also the forecasted river crest height in hours which helps to plan for inundation and evacuation times.

Historic river crest data indicated the Borough experienced a river crest height of 35.10 feet in June 1972, 28.00 feet in September 2004, and 21.74 feet in March 2011. Thankfully Milton has never received flooding from a dam failure.

There are 2,132 structures at risk in the Dam Failure Hazard Area of which 1,893 residential and 239 non-residential structures.

Zoning District Land Uses affected by flooding are Residential Districts R-2 and R-3, General Commercial (C), Commercial Business District 1 & 2 CBD 1 & 2), Manufacturing (M), Industrial - Economic Development District (EDD), and the Open Space District (OS).

The flooding will impact the community by the destruction to structures and will bring the productivity of the community to a standstill. Passage into and out of the Borough can be cut down to just two routes. Local jobs will cease to operate until the flooding recedes. Health can be affected due to the sewage and bacteria the flood waters carry. The safety of the public can be affected not only by damage caused by the flooding, but by looting which can happen due to homes being temporarily abandoned, and by Emergency personnel being tied up with traffic control, fire and search & rescue efforts.

Utility services can cease to function including gas, sewer, public water, and electric which means the structures will be unsafe and unfit for habitation, especially if it is cold. No heat and freezing temperatures could bring ice jams and also cause broken pipes, and difficulties for the Emergency Responders to move about the Borough and perform their duties.

The Borough of Milton Dam Failure Warning and Response Plan

In the event that it is reported to the Milton Borough EMA Director or the Milton Borough Office from either PEMA, Northumberland County 911 or Union County 911, that the George B. Stevenson Dam or the Little Pine Creek Dam has failed and the west Branch of the Susquehanna River will crest above flood stage, the Milton Borough EMA Director or Milton Borough Office Staff is to immediately notify the Milton Borough Manager of imminent flooding, The Borough Manager will then give the order to set up and staff the Milton Borough Emergency Operations Center (EOC), and the Flood Emergency Action Plan will commence as follows:

- ❖ River height of 17 feet: Notification Phase
 - PEMA, Northumberland County 911, Union County 911, the National Weather Service in State College, PA, or another reliable source will notify the Emergency Operations Center (EOC) Manager, Section Chiefs, and staff on the potential flooding.
 - The Code Enforcement Officer will monitor and record the West Branch Susquehanna River Gauge (NOAA National Weather Service) information.
 - The Code Enforcement Officer will send out Information on the flooding to the Special Flood Hazard Area (SFHA) residents.

- ❖ River height of 18 feet:
 - The PA American Water Company will start their Emergency Action Plan (EAP).

- ❖ River height of 19 feet: **Flood Stage**
 - Borough staff, as designated by the Borough Manager, will report to the EOC. The Milton Borough Mayor, EOC Manager, Council, Police Chief, EMA Director, Highway Director, and Code Enforcement Officer will be notified to report to the Milton EOC. Once there, they will be briefed on the forecasted flooding and River Crest heights as indicated by the National Weather Service.
 - EMA notifies Northumberland County EMA that flooding is imminent within the Borough.
 - EMA Director holds a briefing.
 - The Code Enforcement Officer distributes the Flood Inundation Maps.
 - Section Chiefs will notify their staff on the potential flooding and plan for the event.
 - The Alert Sirens will be manually sounded (LEVEL 1) by the EMA Director and messages on evacuation will be broadcasted. The staff will post flooding and evacuation information on Social Media, as well as alert the Radio and TV News Media.
 - Evacuation plans will begin.
 - The EMA Director will be notifying the local shelters, arranging transportation and supplies, as well as notifying the critical facilities, special needs facilities, the daycares, and schools of the forecasted flooding.
 - The Emergency Responders, and others, who are going out to broadcast messages from vehicle pa systems will be given documents to hand out door to door on the flooding, when to leave and where to go, evacuation routes, and shelter locations.
 - The Police Chief and the Fire Chief will direct their people as needed to protect the residents from fire and theft, and also assist in traffic control and evacuation and rescue.
 - The Highway director will direct his people to assist as needed and to assist traffic control with barricades. Evacuation routes will be set up and marked.
 - Code Enforcement will continue to provide mapping and GIS information as needed. He will also map out where the flooding is occurring and at specific crest heights for references. He will also assist EMA.
 - The Mayor will be ready to issue curfews and orders for the protection of the residents.
 - The Milton State Park is then closed to the public by the Shikellamy State Park Office.
 - UGI Penn Natural Gas Company will begin their Emergency Action Plan.

- ❖ River height of 19 foot 9 inches the following highways are impassable:
 - Milton to Watsonstown (north of Borough limits)
 - Milton to Northumberland (blocked below East Lewisburg)
 - Watsonstown to White Deer (blocked at west end of bridge)
 - West Milton to New Columbia (River Road)

- Evacuation of the north end of the Borough at Lincoln and North Front Street areas.
 - The Milton Regional sewer Authority will begin their Emergency Action Plan.
- ❖ River height of 22 feet the following highways are impassable:
- Milton to Northumberland (now blocked at House's Run also).
 - West Milton to New Columbia (River Road).
 - Code Enforcement will begin mapping the areas of flooding as is happens for future references.
- ❖ River height of 23 foot 3 inches:
- Race Street underpass is flooded.
 - Water in sewer at Garfield and Ferry Lane which is 1'6" below street level.
 - There is no notable flooding in other parts of the Borough at this river crest height.
 - The Code Enforcement Officer will continue to monitor the NOAA West Branch Susquehanna River Gauge on the West Milton side for real-time information and to notify the Section Chiefs of any changes.
 - The north end of the Borough at Lincoln and North Front Street areas will have been already evacuated. Evacuation will continue in a southern direction.
 - The Borough Police Department and Fire Police have established traffic control points and evacuation routes.
 - The Fire Department will set up Search and Rescue.
 - Northumberland County EMA will be notified by Milton EMA that there is flooding in the Borough of Milton.
 - Milton EMA will communicate any need for assistance to the Northumberland County EMA.
- ❖ River height of 24 foot 9 inches:
- Flood waters will come down North Front Street to the 7th Street areas.
 - Long and River Alleys, and Lincoln Street has begun to flood.
 - West 4th and 5th Streets are flooded.
 - Milton to Northumberland (River Road under water south of bridge) are impassable.
 - Montandon to Lewisburg (east end of bridge cut off) are impassable.
 - Allenwood to Dewart (cut off across bridge) are impassable.
 - Evacuation of the South Front Street areas by Cameron Ave, Ferry Lane and Lower Market Street will begin if not already underway.
- ❖ River height of 26 feet:
- The area of North Front Street is flooded to Locust Street.
 - Parts of Lincoln and North Arch Street is flooded.
 - The ConAgra Foods Plant, South Front Street, Center Street and South Arch Street will begin to experience flooding.
 - The EOC staff will broadcast notifications will be given out with new information continually as it becomes available. Social Media will also be continually updated.
- ❖ River height of 27 feet:
- The Milton fire Department will begin to evacuate their stations and relocate to the Milton Area High School.
 - Flooding will be experienced all along North & South Front Street Areas.
 - Limestone Run will start to backup at the entrance to the box culvert.
 - All side streets west of North and South front Streets will be flooded.
 - The Brown Avenue Park will begin to flood.
 - Evacuation of Race & Myrtle Streets and Limestone Run areas.
- ❖ River height of 28 feet:
- Areas west of Cherry Street, North & South Arch Streets, and Lincoln Street will begin to flood.
 - The EOC staff will broadcast notifications will be given out with new information continually as it becomes available. Social Media will also be continually updated.

- ❖ River height of 30 foot 6 inches:
 - Most of the areas west of Cherry Street, North & South Arch Streets, and Lincoln Street are flooded.
 - Limestone Run is backed up and flooding into Marsh Park and the areas along Race and Myrtle Streets.

- ❖ River height of 30 foot 9 inches:
 - Milton to West Milton Route cut off at Milton end of bridge.
 - Routes out of the Borough to west, north, and south cut off for travel.

- ❖ River height of 32 feet:
 - All vehicular travel in the Borough is restricted to Brown Avenue Bridge over Limestone Run in order to travel through the Borough.
 - Most of the areas west of the Railroad tracks is flooded.
 - Mahoning and Broadway are the only routes in and out of the Borough.
 - The EOC staff will broadcast notifications will be given out with new information continually as it becomes available. Social Media will also be continually updated.

- ❖ River height of 37 feet:
 - All areas west of the railroad tracks are flooded.
 - All areas along Limestone will be flooding.
 - Evacuation of Ridge and Center Street, and South Turbot Avenue Areas area.

- ❖ River height of 42 feet:
 - Ridge and Center Street, and South Turbot Avenue Areas will begin to flood.
 - Evacuation of the areas east of the railroad tracks.

- ❖ River height in excess of 42 feet:
 - Flood waters will flow over the railroad tracks and into the eastern areas as indicated on the Little Pine Creek Dam or the George B. Stevenson Dam Downstream Flood Inundation Maps.

The EOC staff will broadcast notifications that will be given out with new information continually, as it becomes available. Social Media and the Borough website will also be continually updated.

As the river recedes, information will be distributed on when it is safe to return home, and not to pump out the basement too soon or fast to prevent collapse.

Barricades will be removed and vehicle traffic allowed to move about after the roads have been cleared of debris and approved for traffic.

Cleanup will begin.