Historic Dam Failures Serve as Reminders of the Need for Continuing Vigilance and an Ongoing Commitment Needed to Ensure All Dams Are Safe

Lexington, Ky. – Extreme rainfall with accompanying flooding in the USA’s Midwest is testing the strength of dams in that region. This event coincides with National Dam Safety Awareness Day—May 31—a day that reminds us of the consequences of dam failure. It marks the anniversary of the Johnstown Flood (PA) of 1889 when over 2,000 people perished after the South Fork Dam failed.

Another significant dam failure occurred ten years ago. On Saturday, July 2, 2005, at about 5:30 p.m., Hadlock Pond Dam in Fort Ann, New York, failed suddenly, releasing about 520 million gallons through the Fort Ann community. The flood flows from the dam failure caused extensive damage downstream of the dam, totaling about $10 million in value. Fortunately, prompt activation of the Emergency Action Plan for the dam alerted downstream residents and helped to prevent any casualties.

The failure occurred as the reservoir refilled following construction of a new spillway and emergency spillway. Internal erosion of the embankment soils near the emergency spillway created an enlarged flow conduit through the embankment soils, which progressively breached the entire dam width.

The 10th anniversary of the Hadlock Pond Dam failure highlights the importance of having updated Emergency Action Plans. To meet the New York Department of Environmental Conservation permit requirements for the new spillway structures, Fort Ann had recently set up the Hadlock Pond Dam Emergency Action Plan. Emergency responders acted to prevent deaths and injuries by following the Emergency Action Plan procedures to evacuate downstream residents and close affected bridges.

The anniversary of this dam failure is a reminder that, as more people live and work in locations downstream from new and existing dams, it is important to be prepared and to have complete and routinely practiced Emergency Action Plans.

“Emergency Action Plans are valuable tools that can help save lives by putting important safety and evacuation procedures in place before an emergency occurs,” said Lori Spragens, executive director of the Association of State Dam Safety Officials (ASDSO). “Everyone has a role to play in creating a future where all dams are safe, and the anniversary of the Hadlock Pond Dam failure
reminds us of the importance of understanding the risks associated with potential dam incidents and failures.”

Following the failure of Hadlock Pond Dam, New York issued new regulations requiring, among other dam safety requirements, Emergency Action Plans for all high- and intermediate-hazard potential dams. According to the New York Department of Environmental Conservation, New York has over 5,700 dams in its inventory, of which 400 are classified as high-hazard potential dams. The high-hazard potential classification indicates that a dam is likely to cause loss of life if it were to fail. Of the state’s 400 state-regulated, high-hazard potential dams, 393 (98%) now have emergency action plans in place. State dam safety programs throughout the country, including New York, have made a concerted effort in recent years to increase the number of emergency action plans for high-hazard potential dams, with the national percentage increasing from just over 30% in 2000 to 71% in 2014.

ASDSO encourages members of the public to educate themselves on both the benefits of dams and the risks of dam incidents and failures. Residents can determine if they live in a dam failure flood inundation zone by contacting their local emergency management agency or the state dam safety program. New York residents can view an electronic map of the state’s dam inventory by going to the NYS Department of Environmental Conservation’s Dam Safety web page (http://www.dec.ny.gov/lands/4991.html), and following the link to “New York State Dams Inventory for Google Earth.”

ASDSO recommends that people who live near dams familiarize themselves with evacuation routes, make sure all family members know what to do in the event of an emergency and prepare an emergency kit.

More information on staying safe near dams can be found in ASDSO’s informational guide, Living with Dams: Know Your Risks, which the organization developed in conjunction with the Federal Emergency Management Agency.

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The Association of State Dam Safety Officials (ASDSO) is a national, non-profit organization founded in 1984 and dedicated to improving dam safety through research, education and communication. Web: www.damsafety.org