Association of State Dam Safety Officials Marks 20th Anniversary of Fatal Virginia Dam Failure

Lessons learned lead to enhanced protection of public safety but risks remain

Twenty years ago, tragedy struck in southwest Virginia when Timberlake Dam failed during an extreme summer rainfall event.

On June 22, 1995, between 4:00 PM and 11:00 PM, portions of southwest Virginia received 8.7 to 11 inches of rain, greatly surpassing the six-hour “100-year flood” event total of 4.9 inches. The downpour caused the failure of the Timberlake dam at 10:30 PM, which released about 528 million gallons of water, enough to fill about 58,000 large semi-trailer tanker trucks.

The dam failure took two lives. Rescue worker Carter Martin was swept from a bridge over Buffalo Creek between Bedford and Campbell counties while assisting stranded motorists. The second victim, Doris Stanley, perished after her car was washed from the road between Forest and Richmond.

The dam failure washed out Virginia 683 in three places and caused extensive damages to three properties along Troublesome Creek near Evington, but most businesses in the floodpath sustained only low to moderate damage.

The dam failure raised questions about safety regulation of Virginia's dams. The Virginia Division of Dam Safety and Floodplain Management had determined that the dam did not meet modern safety standards. Although the dam was subject to an annual inspection, the State lacked authority at that time to require upgrades to the dam as an exemption was in place for dams built prior to promulgation of some dam safety laws. That specific exemption in the law is no longer in place.

“The 20th anniversary of the Timberlake failure serves as a reminder of the importance of stringent safety regulations for dams,” said Lori Spragens, Executive Director of the Association of State Dam Safety Officials. “The failure provides a clear example of the need for all dams to meet current design and safety requirements, regardless of when they were constructed.”
Inspections alone do not make dams safe. It is essential that regulators charged with ensuring public safety have the necessary authorities in place.”

The dam break also prompted questions about the impacts of commercial and residential development near dams. Four years prior to the dam failure, the 1991 Radford University Timberlake Watershed Study had noted a dramatic increase in runoff from impervious surfaces into Timberlake. Years later, the state now has in place laws that require developers whose projects impact nearby lakes and reservoirs to help pay for consequential required safety upgrades to impacted dams.

Spragens said that Virginia is to be commended for its proactive policies regarding development around dams, but that the public needs to understand the potential risks posed by dams. “The Timberlake failure demonstrated that even privately owned dams can pose public safety risks. While such total failures are uncommon, their consequences can be devastating. It is important for property owners to know if they or their loved ones may be affected by the presence of a dam, and, if so, what to do.”

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.

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.

In conjunction with the Federal Emergency Management Agency, ASDSO created a booklet, Living with Dams: Know Your Risks, that is a good starting point for individuals seeking answers about dams near their communities. An accompanying guide, Living With Dams: Extreme Rainfall Events, explains how communities can reduce the chances of a dam failing from an extreme rainfall event, such as that which occurred in Virginia in June 1995. Both booklets are available at www.livingneardams.org.

###

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