

## **Dam Safety Assurance History**

The Huntington District, U.S. Army Corps of Engineers has recently analyzed and conducted stability analyses of Dover and Bolivar dams using modern day design standards with the latest information available. The current analysis for Dover indicates that the dam is safe through pool elevations up to and including 909 feet, or 51 feet on the Dover dam gage. Bolivar dam has seepage problems and through previous analysis was thought to be safe through pool elevations up to and including 949 feet, or 54 feet on the Bolivar dam gage, however due to several unexpected artesian-type boils that occurred at pool elevations of 935-936 feet during the March 2008 event, future safe operating elevations may be somewhat less. Pools above these elevations do not necessarily mean imminent dam failure, rather concerns regarding the possibility of a dam failure increase as pool elevations rise above these thresholds. In the history of the Dover dam, the pool upstream of the dam has reached alert pool, elevation 900, only four times and has reached elevation 907 once.

The Corps of Engineers is committed to operating the dams within a safe range of pool elevations. To minimize the potential of the pool elevation at these dams from reaching these thresholds, the Corps may be required to release water above current downstream flood control levels. The dams will continue to provide downstream flood protection against rainfall events similar to what has historically occurred. Although the possibility exists, there is a low likelihood of experiencing downstream inundation worse than experienced in January 2005 for the period prior to completion of the dam improvements. The operation of Dover and Bolivar dams is largely dependent on the rainfall, ground saturation, pool elevation and other conditions at the time. Therefore, if an extreme event occurs, monitor local communications and please follow all notices for evacuation or otherwise as directed by your local and community officials.

The Corps of Engineers is working closely with Tuscarawas County Officials to help develop downstream inundation mapping and identifying various inundation areas for emergency planning purposes. The inundation mapping will associate probabilities in terms of low, very low, and extremely low likelihood for the period prior to completion of the improvements to the dams. Other interim risk reduction measures under consideration for Dover dam include one structural improvement and several other non-structural measures.”

The District looks forward to continuing the implementation of improvements to the Dover and Bolivar dams. The current schedule of construction is anticipated to begin in 2010 for Dover and 2011 for Bolivar, with completion by 2014 for both dams; however the Corps is looking at all opportunities to expedite the construction schedule.