

# DAM RISK REDUCTION MEASURES

## at Lake White

January 2015

### BACKGROUND

Lake White Dam in Pike County is part of Lake White State Park. Built in 1935, and measuring approximately 4,200 feet long Lake White Dam is among Ohio's older dam structures. Age and deterioration have led to safety deficiencies that included a significant seepage event below the dam in August 2014, which required an emergency response and temporary repairs. Long-term improvements are needed for this structure to meet dam safety requirements.

### CURRENT STATUS OF THE DAM

- The Lake White Dam is aging and deteriorating; improvements are critical and needed for this state-owned structure to meet dam safety requirements.
- The lake was impounded in 1935 and then incorporated into Lake White State Park with the creation of Ohio Department of Natural Resources (ODNR) in 1949. While much of the land surrounding the lake and the lake itself is privately owned, the dam, spillway and picnic area are publicly owned by the State of Ohio.
- The earthen dam is 4,200 feet long and supports State Route 104, which features a short bridge that crosses the top of the dam and spillway.
- Dam deficiencies are documented in recent engineering investigations and Ohio Dam Safety Program inspection reports. Some examples of the deficiencies include:
  - Insufficient storage and discharge capacity.
  - Seepage and instability concerns at the concrete spillway and along the earthen embankment.
  - Inoperable lake drain.

### SAFETY FIRST

- ODNR owns and maintains 179 dams statewide and also is the safety regulator of more than 1,500 public and privately-owned dams statewide.
- The Lake White Dam has a Class I potential high hazard rating, meaning a catastrophic failure could cause loss of life.
- ODNR is obliged to preserve and enhance public safety through responsible dam operation, maintenance and inspections of its dams.
- As part of its overall mission, ODNR has developed a statewide Dam Risk Reduction Program to address known safety deficiencies in its dam structures.
- In late summer 2014, significant seepage was detected below the Lake White Dam, prompting an emergency response and interim risk reduction measures by ODNR. Included in these risk reduction measures was a lowering of the lake level to approximately 8 to 11 feet below winter pool – a level that continues to be maintained until permanent repairs and risk reduction measures can be completed.

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### NEXT STEPS

- The goal of the Ohio Dam Safety Program is reflected in ODNR policy – to ensure our dams do not present unacceptable risks to people, property or the environment, with the emphasis on people. Focusing on public safety is critical to an effective dam safety program, including timely dam inspections and evaluations.
- The lowered lake level is a standard risk reduction measure that reduces the likelihood of seepage under the spillway. Lake levels will be maintained at their current level of approximately 8 to 11 feet below winter pool until long-term risk reduction measures are completed.
- ODNR's consultant has expedited the schedule for final project design and dam structure repairs, and the site is monitored daily.
- ODNR is working in partnership with Ohio Department of Transportation (ODOT), which plans to replace the existing bridge on State Route 104, reconstruct the highway by widening the roadway, construct turn lanes at the roadways intersection with State Routes 551 and 552, and improving the intersection of State Route 104 and County Road 105 (Forest Hills Road).
- ODNR's portion of the shared project includes making improvements to the dam to meet regulatory and safety requirements, reinforce State Route 104, permanently repairing the seepage, installing a new lake drain, and relocating a portion of Crooked Creek away from State Route 104.
- ODOT will manage the shared dam risk reduction and roadway improvement projects. The current estimate for project completion is summer 2016.

### COMMUNITY INVOLVEMENT

- The State of Ohio will seek to minimize the impact to recreation, business and agricultural activity, and public roadway use during its combined dam risk reduction and roadway improvement construction projects.
- We will listen to and respond to all interests and concerns related to the successful completion of our projects.
- Monthly project updates and additional dam risk reduction information will be posted online at [engineering.ohiodnr.gov](http://engineering.ohiodnr.gov) or sooner if available.
- The State of Ohio previously held a public comment period during the fall of 2014, concerning the proposed Lake White State Park area improvements.
- Comments and questions about dam risk reduction projects also may be communicated via email to [DamRiskReduction@dnr.state.oh.us](mailto:DamRiskReduction@dnr.state.oh.us) or by calling 614-265-6860.



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