

East Branch Dam Safety Initiative



STATUS REPORT May 04, 2010



**US Army Corps
of Engineers** ®
Pittsburgh District

SUMMARY

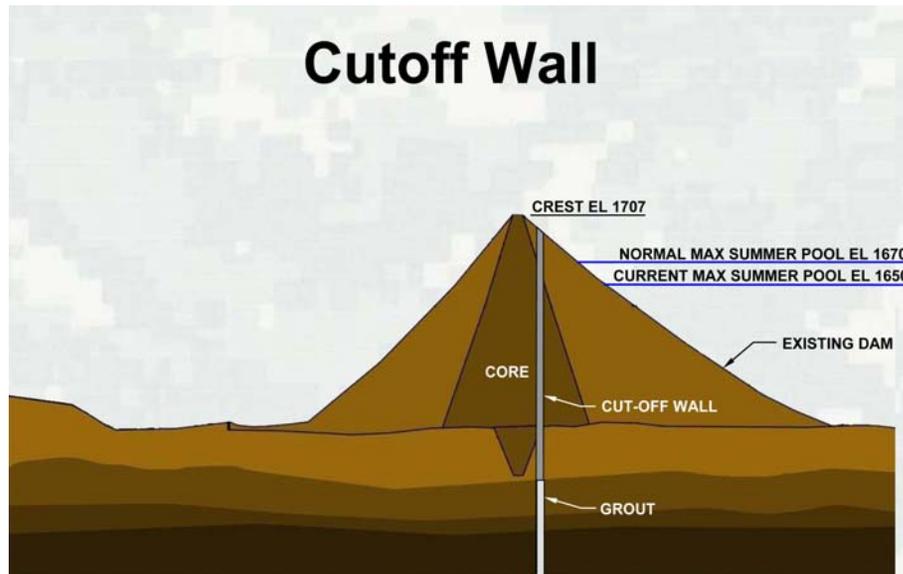
The primary objective of our Dam Safety Program is to maintain public safety by ensuring the dams, we own and operate, are safe and risk to the public is minimized. East Branch Dam is considered to have confirmed and unconfirmed, potentially unsafe issues which merit further analysis and evaluation. In February 2008, the Corps lowered the lake level and implemented an interim operations plan as a reasonable and prudent measure. This allowed the Corps to provide immediate and substantial interim risk reduction while limiting negative impacts on project purposes, such as flood damage reduction. Even though the Corps has implemented interim measures to reduce risk, these measures cannot serve as long-term remediation. During the Summer of 2008, Draper, a Utah-based Willowstick Technologies Inc., conducted a geophysical survey to indicate possible seepage paths through and under the dam. The survey was conducted at the right abutment portion of the dam, which is an area of great concern. Results indicate that seepage is generally consistent with known conditions and supports the need to pursue long-term repairs. In addition, seepage mapping suggests the presence of several possible seepage paths not previously recognized. These locations are not believed to pose an imminent risk to dam stability and were subsequently checked by drilling and sampling. The data gathered was used to develop long-term risk reduction measures and long-term repair alternatives. The Dam Safety Modification Study includes our evaluation of the long-term repair alternatives to optimize risk reduction and cost, and propose a plan for approval. The study will define the scope, cost and schedule of the proposed long-term risk reduction plan.

FOR YOUR REVIEW AND COMMENT:

Finding of No Significant Impact (Draft FONSI) and Environmental Assessment documents for the Army Corps' proposed repair plan are available for public comment until May 21, 2010. Visit:
www.lrp.usace.army.mil

DAM SAFETY MODIFICATION STUDY

The Dam Safety Modification Study evaluates ways to reduce risks and proposes an alternative plan for approval by Headquarters, U.S. Army Corps of Engineers. The study defines the scope, cost and schedule of the proposed long-term risk reduction plan. Completed in April 2010, the study proposes to construct a full-length, full-depth concrete cutoff wall through the dam to reduce risk and restore the dam to normal operation. This proposed plan must now be reviewed by a Corps technical team and by an Independent External Peer Review team, which is comprised of international dam safety experts. This independent review is a new requirement, by law, for all Corps of Engineers project studies associated with a modification to a water resources project. The Study can not be submitted for Headquarters approval until after the Independent External Peer Review is complete. Following Headquarters approval of the Study and receipt of funding, work could begin on implementing the long-term risk reduction plan.

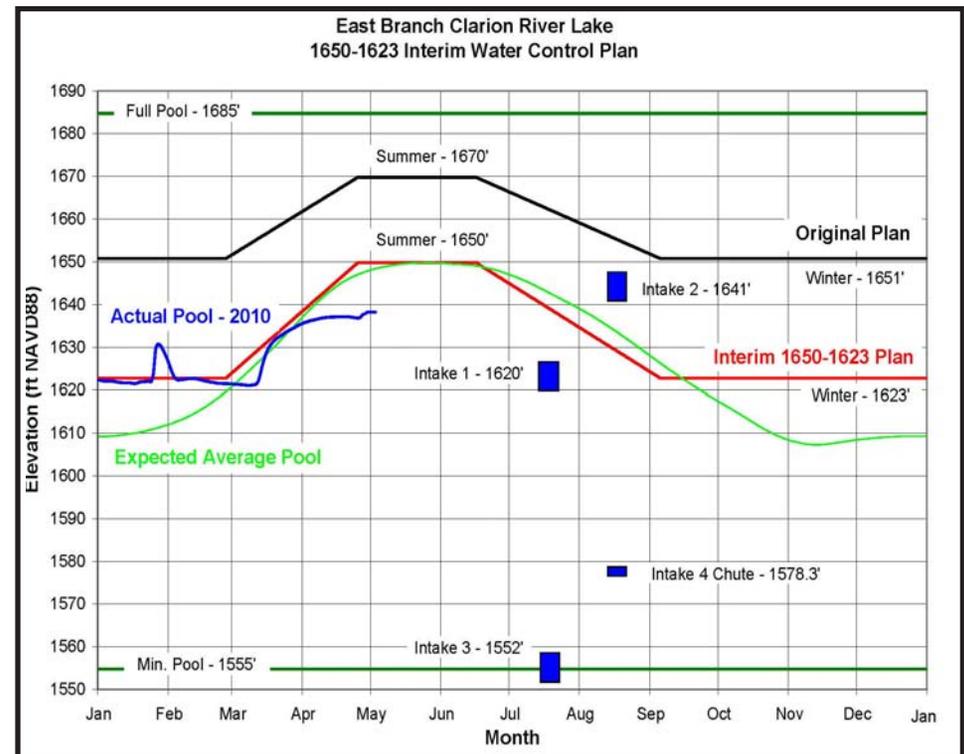


As part of the Dam Safety Study, the Army Corps considered several alternatives for reducing risk and weighed them according to five impacts: public safety, authorized purposes of the project, the environment, the economy, and the cost of the project. The proposed plan submitted by the district staff for review and approval is a concrete cutoff wall that runs the entire length of the dam from abutment to abutment and through the dam down into a rock foundation.

RESERVOIR OPERATION

The district is currently operating East Branch Dam and Reservoir under a lowered pool to reduce risk as part of the Dam Safety Initiative. Currently, the district is attempting to fill the lake to the restricted summer pool of Elevation 1650, which is 20 feet lower than normal summer pool. The success of filling the lake is dependent of the amount of precipitation within the Clarion River Basin. The dam is continuing to provide additional water to maintain downstream water quality and temperature. As of May 3, 2010 East Branch Lake is at 1638.7 feet. To obtain the latest lake level and outflow information, please visit: wmw.lrp.usace.army.mil/current/forecast.html

An annual review of how the Corps will operate the reservoir pool for the 2010 recreation season was recently conducted. The review recommended the district to maintain its current interim water control plan.

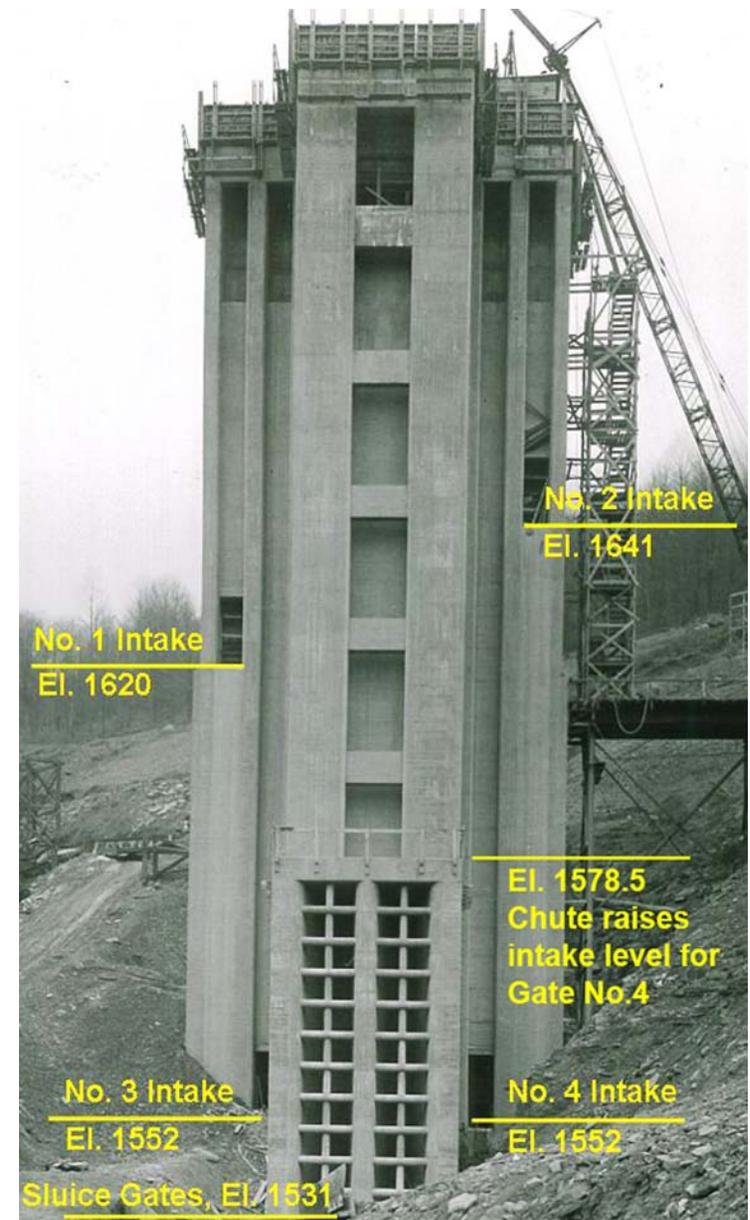


INTERIM RISK REDUCTION MEASURES

- Cross-training of Corps personnel from other lake projects was completed in March 2008.
- The lake has been staffed 24 hours a day, seven days a week since March 2008.
- Maintenance of the existing sluice gates and machinery was completed in 2008 to improve reliability.
- Control Tower Number 4 intake extension was installed in 2008.
- On-site equipment and supplies were delivered in 2008.
- Lighting has been installed in 2009 to enhance monitoring and surveillance.
- The 2010 annual dam safety refresher training was completed in April.

NEPA AND WATER QUALITY

- The district completed an Environmental Assessment and signed a Finding of No Significant Impact (FONSI) document, in compliance with the National Environmental Policy Act (NEPA), to assess environmental, cultural, and economic impacts related to implementation of the East Branch Dam interim water control plan and the Dam Safety Study's risk reduction alternatives.
- The district also has an environmental assessment and FONSI out for public comment addressing the Dam Safety Study's risk reduction alternatives.
- March through November real-time water temperature monitoring at the dam outflow. (Water temperature information available on the Dam Outflow Information link at www.lrp.usace.army.mil/rec/lakes/eastbran.htm.)
- Real-time lake water temperature profile monitoring at a location near the dam intake tower.
- Ongoing twice monthly water quality analyses at the dam outflow.



One of East Branch Dam's authorized purposes is to provide additional water flows to maintain downstream water temperature to offset industrial and sanitary discharges. The Corps does this by opening the control tower's water intakes at different levels and temperature elevations. This water mixes in the outflow to achieve the required temperature. To ensure this requirement was met during lower water levels, the Corps fabricated an extension that allows intake water from an additional lower elevation where cool water is available.

TO DO LIST

2008

- Received Willowstick Seepage Flow Path Mapping Final Report
- Emergency Telephone Exercise
- Control Tower Maintenance Work
- Lighting and Material Storage Contract Award
- Drilling and Sampling Contract Award
- Advisory Panel Contract Award
- Number 4 Intake Extension Installation
- In-Progress Drilling Status Report

2009

- Study Management Plan Approval
- Water Temperature Model
- Preliminary Risk Reduction Measures Identified
- Installation of Lighting and Storage Bins
- Finding of No Significant Impact signed for Interim Water Control Plans Environmental Assessment
- Geotechnical Investigations Report
- Conducted Semi-Annual Stakeholder Briefing
- Conducted an Inter-Agency Review of Proposed Long Term Risk Reduction Measures
- Completed Extension of the Federal Boat Launch Ramp
- Conducted Table-Top Dam Safety Exercise with Emergency Responders

2010

- Dam Safety Alternatives Screening Report
- Annual Review of Interim Risk Reduction Measures
- Inundation Mapping Complete
- Draft Dam Safety Modification Study for Agency Technical Review
- Environmental Assessment for the Long-Term Risk Reduction Measure Available for Public Review
- Independent External Peer Review of Dam Safety Modification Study
- Dam Safety Modification study submitted for Agency Approval



To lengthen the time that boaters can access the federal boat launch, the Army Corps extended the concrete portion by 76 feet. The extension lowered the end of the ramp more than 10 feet from Elevation 1625.6 feet to 1614.8 feet. The ramp extension project was completed in November 2009. The Army Corps has also waived all launch fees for the 2010 recreation season.

For more information, please contact the following:

Gary Froelich, East Branch Park Manager (814) 965-2065
Jeff Hawk, Public Affairs Officer (412) 395-7500

Email: Eastbranch@usace.army.mil

The East Branch Dam Safety Initiative Team has created a Rumor Control Website to ensure that proper information is being disseminated.

Visit www.lrp.usace.army.mil/rec/lakes/EBRumors.htm

Also visit www.lrp.usace.army.mil/rec/lakes/ebdam_safety.htm