

TVA Pickwick Landing Dam Fact Sheet



TVA has decided to draw down Pickwick Landing Reservoir to winter pool level at an accelerated rate to support further evaluation of the integrity of Pickwick Landing Dam and enhance safety.

- During a recent seismic stability assessment of Pickwick Landing dam, the factor of safety during a large earthquake for the south embankment dam (earthen section south of the concrete section) was determined to be unacceptable based on current TVA and industry standards.
- Conditions at the dam have not changed, however in the remote chance that a large seismic event occurs along the New Madrid Fault in West Tennessee, it could damage the earthen embankment dam. Such a seismic event would be considered a major earthquake capable of widespread damage.
- We continue to analyze the data and develop our path forward to address this risk. By lowering the reservoir upstream of the dam to winter pool levels in the interim, the potential damage to the public downstream of Pickwick from a large seismic event will be reduced.
- TVA is working with emergency management agencies to coordinate public safety in the event of an earthquake.
- The concrete portion of the dam will be evaluated in FY15, but no concrete dam in the U.S. has failed in a seismic event.
- We have a long history of operating our dams across the Valley, and they have performed well.

Learn more about Pickwick Reservoir: <http://www.tva.com/sites/pickwick.htm>

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History

The Pickwick Landing Project is a system of dams, a lock and hydroelectric units located in southwest Tennessee. Construction for the project began in 1934 and commercial operation of the first two hydroelectric units began in 1938.

Operation

Pickwick Landing Dam is a hydroelectric facility. It has six generating units with a net dependable capacity of 229 megawatts. Net dependable capacity is the amount of power a dam can produce on an average day, minus the electricity used by the dam itself.

The Pickwick Landing Reservoir has a planned annual pool elevation variation of approximately 6 feet with an additional 4 feet during flood events.

Location

The Pickwick Landing Project is located at Tennessee River Mile 206.7 in Hardin County. The project is approximately 184.3 miles upstream of Kentucky Dam, 52.7 miles downstream of Wilson Dam, and 100 air miles east of Memphis. State Highway 128 crosses the dam.

Dam Project Features

The principal features of the project include the main dam (with north and south embankments, North Dam, spillway and powerhouse intake), two navigation locks and a six-unit powerhouse).

South Embankment Dam

The South embankment dam is 4,380-feet long with a crest elevation at 436.5 (with 23.5-feet of freeboard). It is an earthen dam, and it was built using the hydraulic fill method.

While the dam has performed well, this method of dam building does not take seismic stability into account, and our recent evaluation shows that a large seismic event may cause damage to the dam. This is the only dam in the TVA system built by the hydraulic fill method.