



US Army Corps
of Engineers

USACE Dam Safety Facts for Jamie L. Whitten Lock and Dam

Project location and description: Jamie L. Whitten Lock and Dam were designed and built by the U.S. Army Corps of Engineers (USACE) and completed in 1983. USACE operates Jamie L. Whitten Lock Dam for navigation and recreation. The project is located on the Tennessee-Tombigbee River, near Fulton, Mississippi.



The main components of the project are an earthen embankment section, a lock chamber, five saddle dikes, a water quality dike, and outlet works. The earthen dam is 2,750 feet in length, and 120 feet in height. The dam has a crest width of 40 feet with a crest elevation of 449.2 feet¹. The foundation consists of rock. The lock is 110' x 600' with an 84 foot lift at normal pool elevation. Six saddle dikes were constructed at five locations around Bay Springs Lake. A rockfill dike is constructed across the upper lock approach perpendicular to the right guidewall. The outlet works consists of a 48" outlet pipe to supply water downstream when the lock is inoperative.

Jamie L. Whitten Lock and Dam does not operate to control the level of the lake behind it. The project has capability to pass a nominal amount of flow for the water quality purpose.

Benefits associated with Jamie L. Witten Lock and Dam: The project provides approximately \$76.6 million in annual navigation benefits.

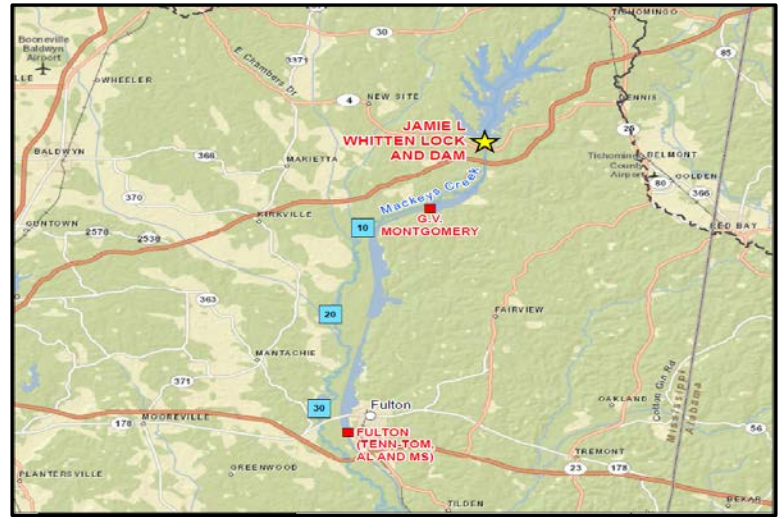
Risks associated with locks and dams in general: Every day, thousands of vessels move people, animals, and products across the country via the nation's inland rivers and harbors. This water traffic is a vital component of the nation's economy. However, the navigation infrastructure is aging. Over half of the locks and dams are over 50 years old, and the consequences of this aging infrastructure are increasing incidents of downtime, with disruption to river navigation, and a higher risk of major component failures. Both of which have significant economic risks. Also, dams reduce but do not eliminate the risk of economic and environmental damages and loss of life from flood events. When a flood exceeds the reservoir's storage capacity, large amounts of water may have to be released that could cause damaging flooding downstream. A fully-functioning dam could be overtopped when a rare, large flood occurs, or a dam could breach because of a deficiency, both of which pose risk of property damage and life loss. This means there will always be flood risk that has to be managed. To manage these risks, USACE has a routine program that inspects and monitors its locks and dams regularly. USACE implements short- and long-term actions, on a prioritized basis, when unacceptable risks are found at any of its locks and dams.

Risk associated with Jamie L. Whitten Lock and Dam: Based upon the most recent risk assessment in 2016, USACE considers this dam to be a low risk dam among its more than 700. USACE manages this risk by conducting routine monitoring and evaluation. USACE has implemented interim risk-reduction measures and/or long-term measures to reduce this risk.

¹ North American Vertical Datum of 1988 (or NAVD 88)

What residents should know: One of USACE's primary missions is to ensure that the navigation traffic can move safely, reliably, and efficiently and with minimal impact on the environment. Dams do not eliminate all flood risk, so it is important that residents downstream from the dam are aware of the potential consequences should the dam breach, not perform as intended, or experience major spillway or outlet works flows.

Public awareness: Navigation dams are designed to pass large amounts of water on a regular basis, and this means there will always be flood risk for residents, passersby, and visitors in the downstream floodplain that has to be managed (see facts below).



Recommendations for Residents	Jamie L. Whitten Lock and Dam Facts
<ul style="list-style-type: none"> • Living with dams and along rivers comes with risk – know your risk. • Living with dams is a shared responsibility – know your role. • Know your risk, know your role, and take action to reduce your risk. • Listen to and follow instructions from local emergency management officials. • Strongly consider purchasing flood insurance. • Contact your elected local, county, and state officials to make sound flood risk management decisions in your area. 	<p>Annual goods passing through locks: 4,744 ktons Annual transportation savings: \$76.6 million Estimated consequences with rare flood event and breach:</p> <ul style="list-style-type: none"> • Population at risk:~4,478 • Structures at risk: 1,779 • Land and property at risk: \$397 million <p>Estimated consequences with rare flood event and no breach:</p> <ul style="list-style-type: none"> • Population at risk:~581 • Structures at risk: No data available • Land and property at risk: \$37 million <p>National Inventory of Dams (NID) No.: MS03605</p>

Residents should listen to and follow instructions from local authorities. For more information, please contact the USACE Mobile District office using the information on this fact sheet.

For additional information about dam safety and living with dams, please visit <http://www.usace.army.mil/Missions/CivilWorks/DamSafetyProgram.aspx> and <https://damsafety.org/resourcecenter/asdso-resources>