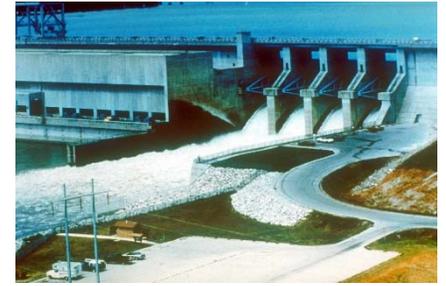




US Army Corps
of Engineers.

USACE Dam Safety Facts for Harry S. Truman Dam

Project location and description: Harry S. Truman Dam was designed and built by the U.S. Army Corps of Engineers, Kansas City District and completed in 1978. USACE operates Harry S. Truman Dam for flood damage reduction, hydroelectric power generation, recreation, water quality, water supply, and fish and wildlife.



The main components of the project are an earthen embankment section, which serves as the main water barrier composed of compacted earth, concrete gated spillway structure that allows controlled water flow out of the dam, and a hydroelectric powerhouse. The earthen dam is 5,964 feet long, 123.9 feet high, and top of the dam is 35 feet wide. The elevation of the top of the embankment is 756.4 feet (NAVD88). The foundation is made up of earthen materials. The concrete spillway is located at the right end of the embankment section (looking downstream) and is 190 feet wide with an elevation of 692.7 feet (NAVD88). The spillway can pass up to 2,124,20 gallons per second (284,000 cubic feet per second) or approximately the volume of three and a half Olympic-sized swimming pool each second. Sterett Creek dike is a rolled earthfill embankment approximately 7,500 feet long and 55 feet tall and located to the northeast of the main embankment. The project also includes three smaller rim dikes located around the reservoir.

During normal operations, the lake is kept at a relatively consistent level (referred to as conservation pool). Should heavy rains occur in the spring or at any other time, surface water runoff is stored in the lake until the swollen streams and rivers below the dam recede and can handle the release of stored water without damage to lives, property or the environment. Sometimes water must be released to protect the dam's integrity even though streams and rivers may have already reached or exceeded their capacity.

Benefits associated with Harry S. Truman Dam: This dam has provided \$103.2 million in average annual flood damage reduction since placed into service. During the 1993 flood, the dam prevented flooding of \$260 million in flood damages. The dam provides 1,500 acre-feet of water, and the annual water supply benefit is about \$886,300. Annual recreational benefits to the area are about \$22.4 million.

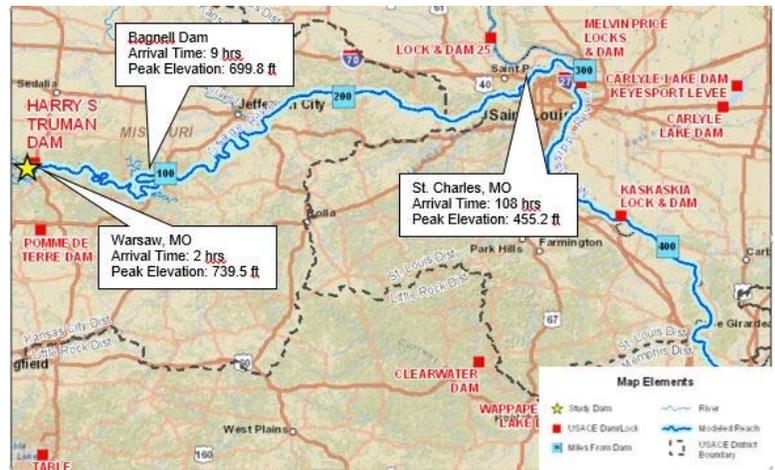
Risks associated with dams in general: Dams reduce but do not eliminate the risk of economic and environmental damages and loss of life from flood events. When a flood exceeds the reservoir's storage capacity, large amounts of water may have to be released that could cause damaging flooding downstream. 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 dams regularly. USACE implements short- and long-term actions, on a prioritized basis, when unacceptable risks are found at any of its dams.

Risk associated with Harry S. Truman Dam: Based upon the most recent risk assessment in 2018, USACE considers this dam to be a low to moderate risk dam among its more than 700 dams due to the large population located below the dam and due to the potential for overtopping during an extreme flood. USACE manages this risk by conducting routine monitoring and evaluation and has implemented interim risk-reduction measures and/or long-term measures to reduce this risk.

What residents should know: 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. The moderate to high risk in Warsaw, MO and the related consequences further downstream warrant increased efforts on the part of USACE, local emergency management officials, and residents to heighten awareness of the potential flood risk associated with the dam.

The primary areas impacted should the dam breach with a full reservoir during a rare flood event or experience major spillway or outlet works flows are shown on the map. The potential for loss of life is highest within a couple of miles of the dam but loss of life concerns remain substantial beyond 60 miles downstream of the dam. Advanced warning of problems and events plays a major role in protecting life and property. See the map for a general indication of flooding with a rare flood event and breach.

Public awareness: Dams are designed to pass large amounts of water on a regular basis, and this means there will always be flood risk that has to be managed (see facts below).



Flooded area with rare flood event and breach is displayed on the map. Map Disclaimer: Actual areas flooded and flood arrival times will depend on specific flooding and failure conditions and may differ from the areas shown on the map.

Recommendations for Residents	Harry S. Truman Dam Facts
<ul style="list-style-type: none"> • Living with flood risk-reduction infrastructure comes with risk – know your risk. • Living with flood risk-reduction infrastructure 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>Estimated consequences with rare flood event and breach:</p> <ul style="list-style-type: none"> • Population at risk: ~90,200 • Structures at risk: 36,700 • Land and property at risk: \$11.3 billion <p>Estimated consequences with rare flood event and no breach:</p> <ul style="list-style-type: none"> • Population at risk: ~15,800 • Structures at risk: 12,400 • Land and Property at risk: \$2.3 billion <p>Damages prevented: \$3.7 billion (1981-2016) National Inventory of Dams (NID) No.: MO20725</p>

Residents should listen to and follow instructions from local authorities. For more information, please contact the USACE Kansas City District office at (816) 426-6320.

For additional information about dam safety and living with dams, please visit:
www.usace.army.mil/Missions/Civil-Works/Dam-SafetyProgram/
www.damsafety.org/