

MANSFIELD DAM

Flood Operations

During a flood, LCRA manages the Highland Lakes on the lower Colorado River to reduce flooding in Austin and other locations downstream of the lakes.



Lake Travis

Created by Mansfield Dam.

One of two water supply reservoirs in the Highland Lakes.

Together with Lake Buchanan, provides water for more than 1.4 million people, businesses and industries, the environment and agriculture.

Considered “full” at 681 feet above mean sea level.

When full, holds 1.1 million acre-feet of water.

The only one of the six Highland Lakes with room to store floodwaters.

Has an additional 776,062 acre-feet of space for water in its flood pool.

Any area with an elevation within the flood pool range of 681-714 feet msl is subject to being inundated.

Without Mansfield Dam, floodwaters from the Colorado River would periodically inundate Austin and other downstream communities.

Mansfield Dam Facts

Built 1937-1942
by LCRA and the U.S. Bureau of Reclamation

Original Name
Marshall Ford Dam

Height / Length
278 feet / 7,089 feet

Overflow Spillway Elevation
714 feet msl

Top of Dam
754 feet msl

Floodgates
24

Total Discharge Capacity
More than 131,000 cubic feet per second

Individual Discharge Capacity
23 floodgates at 5,250 cfs each; one variable discharge gate at 2,290 cfs; two turbines at 2,530 cfs each; one turbine at 2,520 cfs

Hydroelectric Power Generation
Up to 108 megawatts

One acre-foot is 325,851 gallons.

Flood Operations at Mansfield Dam

When the elevation of Lake Travis exceeds or is projected to exceed its “full” water supply storage capacity at 681 feet msl, LCRA can begin floodgate releases in accordance with the Army Corps of Engineers Water Control Manual for Mansfield Dam and Lake Travis.

LCRA controls the release of floodwaters through Mansfield Dam using any combination of three hydroelectric generating units and 24 floodgates. The amount of water LCRA releases from Mansfield Dam is determined based on the current level of Lake Travis, expected inflows and downstream conditions.

Releases from the dam generally increase as levels on Lake Travis are projected to rise, but flood releases may be halted or reduced depending on flood levels measured at three river gauges downstream of the dam – at Austin, Bastrop and Columbus – to not worsen downstream flooding. If the limits at any downstream control point are observed or forecast to be exceeded due to additional runoff downstream of Mansfield Dam, LCRA must reduce or stop releases from Mansfield Dam.

Should Lake Travis rise above 714 feet msl, water would flow over the spillway of Mansfield Dam in an uncontrolled release.

This has never happened in the history of Mansfield Dam.

Flood Resources

LCRA Website

lcra.org/flood

LCRA's Hydromet

hydromet.lcra.org

LCRA Flood Operations Notification Service (FONS)

lcra.org/fons

Facebook

@LCRA

Instagram

@lowercoloradoriverauthority

X (formerly Twitter)

@LCRA

Local Emergency Officials

NOAA Weather Radio

Area Media

Key Lake Travis Elevations & Maximum Floodwater Discharge Rates Allowed from Mansfield Dam

754 feet msl Top of Mansfield Dam	Discharge Rate: As necessary to maintain the safety of the dam. Downstream Flow Limits: Not limited by downstream conditions.
722 - 754 feet msl 8 ft. above spillway - top of dam	Discharge Rate: As necessary to maintain the safety of the dam. Downstream Flow Limits: Not limited by downstream conditions.
714 - 722 feet msl Top of spillway - 8 ft. above spillway	Discharge Rate: Up to 90,000 cfs. Downstream Flow Limits: Not limited by downstream conditions.
710 - 714 feet msl 4 ft. below spillway - top of spillway	Discharge Rate: Up to 50,000 cfs. Downstream Flow Limits: 50,000 cfs at Austin, Bastrop and Columbus.
683 - 710 feet msl 2 ft. into flood pool - 4 ft. below spillway	Discharge Rate: Up to 30,000 cfs. Downstream Flow Limits: 30,000 cfs at Austin, 45,000 cfs at Bastrop and 50,000 cfs at Columbus.
681 - 683 feet msl Full - 2 ft. into flood pool	Discharge Rate: Up to 7,500 cfs. Downstream Flow Limits: 30,000 cfs at Austin, 45,000 cfs at Bastrop and 50,000 cfs at Columbus.

One cubic foot per second equals 448.8 gallons per minute.