Mansfield Dam Flood Operations

Lake Travis is one of two water supply reservoirs in the Highland Lakes. Together, lakes Travis and Buchanan provide water for more than 1 million people, businesses and industries, the environment and agriculture.

Of the six Highland Lakes, only Lake Travis – formed by Mansfield Dam – is designed to hold back water in its flood pool. The floodwater otherwise would inundate Austin and other downstream communities.

Lake Travis is considered full at 681 feet above mean sea level (feet msl). At that level, the lake contains 1.1 million acre-feet of water in its conservation pool for water supply. One acre-foot is 325,851 gallons.

The lake also can hold an additional 787,000 acre-feet of water in its flood pool, which stretches from 681 feet msl up to the Mansfield Dam spillway at 714 feet msl. Any area in the flood pool is subject to being inundated.

Flood Operations at Mansfield Dam

- When the elevation of Lake Travis exceeds or is projected to exceed 681 feet msl, LCRA can begin floodgate releases following protocol from the U.S. Army Corps of Engineers (USACE).
- LCRA makes controlled releases of floodwater through Mansfield Dam using any combination of three hydroelectric generating units and 24 floodgates.
- Under the USACE protocol, the amount of water LCRA releases from Mansfield Dam is determined based on how much water is in the Lake Travis flood pool, downstream river conditions and the amount of projected inflows into the lake.
- Releases from the dam generally increase as Lake Travis is 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.
- Water would flow over the spillway of Mansfield Dam in an uncontrolled release should Lake Travis rise above 714 feet msl. This has never occurred.

Mansfield Dam Facts

- LCRA and the U.S. Bureau of Reclamation built the dam from 1937 to 1942.
- The dam is 278 feet high and 7,089 feet long.
- Floodgates: 24
- Total discharge capacity: More than 131,000 cubic feet per second (cfs).
  - 23 floodgates at more than 5,250 cfs each.
  - 1 variable discharge gate at 2,290 cfs.
  - 2 turbines at 2,530 cfs each.
  - 1 turbine at 2,520 cfs.
- Can generate up to 108 megawatts.
- Overflow spillway elevation: 714 feet msl.
- Top of dam: 750 feet msl.
- Original name: Marshall Ford Dam.

Flood Resources

- lcra.org
- Flood Operations Report: floodstatus.lcra.org
- LCRA's Hydromet: hydromet.lcra.org
- Flood Operations Notification System (FONS): lcra.org/fons
- Twitter: @LCRA
- Facebook: lowercoloradoriver authority

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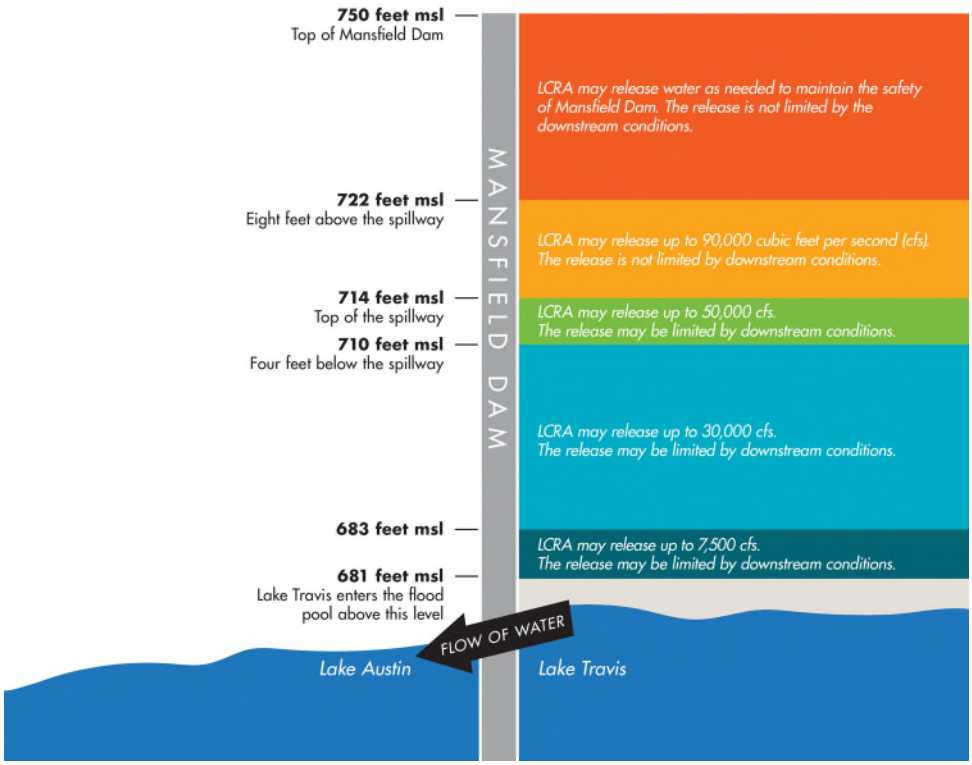
Mansfield Dam Flood Operations

Key Lake Travis elevations during floods



If the limits at any downstream control point are observed or forecasted to be exceeded due to additional runoff downstream of Mansfield Dam, LCRA must reduce or stop releases from Mansfield Dam.

The maximum allowable discharges from Mansfield Dam:

- 30,000 cubic feet per second (cfs) when Lake Travis is forecast not to exceed 710 feet msl.
    - Downstream limits on flow are 30,000 cfs at Austin, 45,000 cfs at Bastrop and 50,000 cfs at Columbus.
- 50,000 cfs when Lake Travis is forecast to reach between 710 and 714 feet msl.
    - Downstream limits on flow are 50,000 cfs at Austin, Bastrop and Columbus.
- 90,000 cfs when Lake Travis is forecast to reach between 714 and 722 feet msl.
    - There are no downstream limits when the maximum release from Mansfield Dam is 90,000 cfs or more.
- As necessary to protect the dam when Lake Travis is above 722 feet msl.

(One cubic foot per second equals 448.8 gallons per minute.)

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