

The Prior Lake Outlet Structure



PURPOSE: Prior Lake is a naturally landlocked basin that is volume sensitive. The outlet structure is designed to allow water to flow out of Prior Lake during times of high lake levels in order to minimize the effects of flooding on structures around Prior Lake. Monitor the level of Prior Lake on the District's website at: www.plslwd.org/waterbodies

HOW IT WORKS: The outlet box on Lower Prior Lake houses an accordion-shaped fixed crest weir which holds back water until the water level reaches an elevation of 902.5 feet. Above 902.5 feet, water flows over the weir through a 36 inch diameter pipe toward Raspberry Ridge Park. Similar to a drain in a bathtub, when the water level is above the weir, it can be difficult to tell if the water is flowing, even though the water is moving below the surface through the pipe. From Raspberry Ridge, water flows north through the 7-mile long Prior Lake Outlet Channel to the Minnesota River. When conditions are right, the lake level can rise to 904.0 feet, at which point the City of Prior Lake's no-wake ordinance goes into effect to reduce erosion caused by wave action. For more info about the slow no-wake restriction on Prior Lake, please review the City's ordinance. Sec. 703.405.



QUICK FACTS

- ◆ **Watershed Area:** 19,160 acres (about 30 square miles)
- ◆ **Original Construction:** 1983
- ◆ **Reconstruction:** 2010
- ◆ **Maximum Flow:** 65 cubic ft/sec
- ◆ **40 Year Average Lake Elevation:** 901.92 ft
- ◆ **Outlet Elevation:** 902.5 ft
- ◆ **No-Wake Zone Elevation:** 904.0 ft

HISTORY: The desire for an outlet structure for Prior Lake was one of the primary reasons for the citizen petition that led to the formation of the Prior Lake-Spring Lake Watershed District in March of 1970. After a second petition by Prior Lake residents in 1976 and several public hearings, the Prior Lake Outlet Structure was finally constructed in 1983. By the early 2000s, normal wear and tear had taken its toll on the Outlet Structure and it was reconstructed in 2010 to include a new, more efficient fixed crest weir.

PRIOR LAKE - SPRING LAKE
WATERSHED DISTRICT