

Shawano Lake Water Levels and the Shawano Dam – What’s the connection?

SAWM gets more questions about the water levels on the lake than probably any other issue. We will attempt to examine the issue, explain how SAWM is working to address it, and hopefully answer the questions we hear most from our members.

What are the factors that cause the Shawano Lake water levels to fluctuate?

Everyone would agree that Mother Nature plays a major role, with rainfall, snow and ice melt, drought conditions, water evaporation and even wind direction all having a significant impact on the lake water level throughout the year. These are things that, as much as we may wish at times we could, we obviously cannot control.

However, it is a little more complex than that. Shawano Lake is classified as a drainage/impound lake. The drainage classification refers to the lake water that comes from rain and other natural occurrences as mentioned above, as well as run off from the land surrounding the lake and the inflow from the creeks that feed directly into the lake. The impound classification is because some of our lake water comes from the Wolf River. Shawano is a partial impound lake because less than half of the lake water comes from the Wolf River. This happens during periods when the water in the river is higher than the lake, resulting in the river feeding water to the lake.

Another less understood variable that has the potential to impact the lake level is how the water flow is controlled at the Shawano dam. The dam is owned by Eagle Creek Renewable Energy, who operates the dam under the terms of an exempt license that dictates a target water level that was determined in their licensing process with input from various stakeholders impacted by the dam (as well as with the consideration of safety concerns). Under its license, which is regulated by the Federal Energy Regulatory Commission (FERC) in Washington, DC, Eagle Creek is mandated to maintain the water level at the dam between 802.1 and 803.17 median sea level (MSL). This is a range of about 12 inches. If they allow the water level to fall below or rise above this 12-inch range they are subject to substantial fines from FERC. Eagle Creek must keep records that monitor the water level at all times to demonstrate their compliance with the water level requirement.

Historically, the dam operation has been handled quite well by Eagle Creek to the satisfaction of all stakeholders, which includes lake property owners, the Wisconsin Department of Natural Resources (WDNR), and the U.S. Fish and Wildlife Service. To ensure compliance with the mandated range, Eagle Creek had targeted the water level at 802.9 MSL, which kept the water level within the required range. However, due to extenuating circumstances, in spring of 2015 FERC mandated Eagle Creek to reduce their target water level to 802.5 MSL, which is about five inches less than the 802.9 MSL they had previously been targeting. The result of this mandate, especially during periods of below normal precipitation, is low water levels that are unacceptable to Shawano Lake, river, and channel property owners and waterway users. Specifically, the low water levels present environmental issues, along with challenges to recreation, while creating very real safety concerns. Because the low water levels are of such concern to our members and can have serious implications for the water quality as well as recreational use of the lake, members of the board of SAWM have been meeting regularly since 2015 to find a solution to this problem. SAWM initiated a collaborative effort with Eagle Creek, the Wisconsin Department of Natural Resources (WDNR), and the U.S. Fish and Wildlife Service. All of the parties are

very sensitive to the concerns that Shawano Lake property owners have and are committed to working together to address this concern.

Since 2015 our efforts have been instrumental in Eagle Creek obtaining temporary amendments from FERC that allowed Eagle Creek to target the higher water level during the boating season. Over the past several years we have conducted a two-year study that monitored water levels at seven different locations on the lake, channel, and river, and participated with Eagle Creek in having their consultant prepare information required by FERC. To date these studies have cost SAWM in excess of \$40,000, a necessary investment in order for FERC to consider a permanent amendment setting the target water level at 802.9.

Currently Eagle Creek continues to operate at the higher target level during the boating season under a temporary amendment from FERC. We will continue to work with Eagle Creek and the other stakeholders to obtain temporary amendments until a permanent amendment authorizing the higher target water level is obtained.