

## **TAHKODAH LAKE DISTRICT AND TOWNS OF DRUMMOND AND CABLE, BAYFIELD COUNTY**

### **CONDITION REPORT FOR ORDINANCE No. 20220712 (Town of Drummond) and No. 2022-49 (Town of Cable)**

The Town of Drummond and Town of Cable, Bayfield County have seen a recent increase in enhanced elevated wake activity on Lake Tahkodah. The lake is within the Lake Tahkodah Lake Protection District established in 1976. (<https://laketahkodah.lakekit.net/>) Concerns have been raised regarding the increased damage to the shorelines, effects on wildlife, safety of small boaters, and increased lakebed disturbance.

Numerous studies have been conducted regarding the effects of recreational boat wakes on lakes and rivers by showing the impact they can have on shoreline erosion and sediment resuspension. Shallow lakes, shallow parts of lakes, narrow channels connecting lakes are the most susceptible to the impacts of large wake activity. These examples typify Lake Tahkodah.

*Lake description:* The Town of Drummond has within its boundaries 50.6 percent of the acreage and 54.8 percent of the shoreline of Lake Tahkodah. The Town of Cable has 49.4 percent of the acreage and 45.2 percent of the shoreline. Lake Tahkodah is a 148 acre lake with an average depth of 12 feet and a maximum depth of 18 feet. It is a seepage lake with no flow through of water from other bodies. Both motorized and non-motorized boats have operated on the lake for decades.

*Safety of small boaters and swimmers:* The creation of large, sustained wakes creates a safety concern for other recreational users: danger of capsizing small watercraft such as fishing boats, paddleboards, canoes and kayaks, along with interference to water skiing and fishing activities. Swimmers are also impacted.

*Effect on wildlife:* Birds, particularly waterfowl, nest close to shorelines and are especially vulnerable when molting to shoreline disturbances. Studies have shown that when boaters pass repeatedly too close to shorelines inhabited by birds and wildlife creating large wakes, the following impacts can occur: relocation of nesting sites, abandonment of nests and loss of young. There can also be long term impacts as many species of birds that normally would return year after year to the same nesting area are forced elsewhere to perhaps less desirable bodies of water. This disturbance and dislocation are often associated with narrow or small bodies of water. Please note that Lake Tahkodah has a shoreline with nesting birds as well as a floating platform that harbors loons that nest close to the water's edge.

In addition, disturbance of aquatic vegetation by wave energy and propellers near the shoreline can reduce vegetation, impacting fish habitat.

*Effect on shoreline and water quality:* Maintaining water quality is in the best interest of all property owners and the public at large relative to the use of the lake. Not only for recreational activities such as boating, skiing, and tubing, but also for fishing and swimming. Increased

sedimentation which can reduce light penetration and inhibit primary production, abrade and clog fish gills, and prevent feeding by sight feeders, will negatively alter fish populations. While shoreline erosion can be reversed with much effort within years, changes to water quality by disturbance of the lake bed can be even more difficult to remedy. Disturbance of the lake bed can release nutrients such as phosphorus that took decades to accumulate. Once released and resuspended, it can take decades for a lake to return to its former status.

Lake Tahkodah has been part of the Wisconsin DNR citizen lake monitoring program since 1999. After more than two decades of average July-August lake secchi disk transparency measuring about 9 to 12 feet, in the fall of 2021 monitors measured water clarity of only 3.5 to 4.5 feet. Reports received of previously unheard of fall algal blooms were documented in aerial photography. Without adequate protections, erosion and sedimentation will accelerate lake eutrophication with a negative impact on all who use these water resources.

*Regulation of Enhanced Wakes:* After receiving many complaints and requests to limit wake enhancement activities from damaging the shoreline and lake beds within Lake Tahkodah, members voted to revise their guidelines to strongly discourage enhanced wakes at the July 2021 annual meeting. Wake surf boat activity continued after the revision of the guidelines. The Lake District Board continued to work on the problem and developed a proposed ordinance to minimize the adverse effects of enhanced wake activity, and provide for safety of non-motorized use of the lakes.

At the March 31, 2022 Special Meeting of the Lake District, 33 members voted to request the Town of Drummond and the Town of Cable to approve this ordinance that limits the creation of enhanced wakes on Lake Tahkodah (2 abstained and no one voted against proceeding). This ordinance is based on similar ordinances enacted by the Towns of Hayward, Hunter, and Bass Lake regulating enhanced wakes. These towns in Sawyer County have enacted ordinances requiring boats that produce wakes in excess of 24 inches for over 50 feet in length to operate at a minimum distance of 700 feet from shore or bogs to minimize the damage to the lakes by providing enough distance for the wake to dissipate, and protect a majority of the shallow water areas. Given the small size of Lake Tahkodah, allowing creation of enhanced wakes at distances greater than 700 feet from the shoreline is impracticable and therefore is not included in this ordinance applying only to Lake Tahkodah.

The safety and welfare of those using Lake Tahkodah within the Town of Drummond and the Town of Cable as well as the lake's environmental security will be compromised if this ordinance is not adopted. This ordinance affords users of Lake Tahkodah in the two Towns an opportunity for safe lake usage. Without this ordinance frequent user conflicts and water accidents could occur as well as further potential degradation of the lake's water quality.

Certain individuals may be opposed to any or all forms of regulation. For individual users who live on or recreate on Lake Tahkodah this will be a new regulation. These individuals may feel

the ordinance is infringing on their rights to lake usage by limiting the area of usage relative to their activities.

Per Wisconsin Statute 30.77(3)(am)(1), both the Town of Drummond and the Town of Cable must pass an ordinance applying to Lake Tahkodah for it to be effective given that neither Town has 60 percent or more of lakeshore within its boundaries. After reviewing all current data and public input, the Town Board of Drummond and the Town Board of Cable concluded that public safety and protection of one of its valued resources, Lake Tahkodah, would be best served by the ordinances.

Signage will be placed at the Lake Tahkodah public boat landing within the Town of Cable this summer.