

## **SUMMARY OF 2017 JORDAN LAKE SHORELAND AND SHALLOWS HABITAT ASSESSMENT**

During fall 2017, a shoreland and shallows habitat assessment was conducted on Jordan Lake by staff from District and Adams County Land & Water Conservation Department and a Jordan Lake District member. The protocol developed by the Wisconsin Department of Natural Resources and released in 2016 was used. This protocol has three parts: (1) photography of the entire shore of the lake; (2) completion of a data sheet for each lot; (3) data sheet & GPS location of all woody debris meeting the description outlined in the protocol. 123 lots were evaluated.

Jordan Lake is a 233 surface acre lake with depths of over 90 feet in both basins. There is a public boat ramp owned by Adams County on the northwest part of the lake. Most of the shores are developed for residential use except for the far eastern end of the lake.

**Canopy:** The average canopy cover in the riparian (35 feet landward of the ordinary high water mark) was 40.9% on the lake. 19 lots (15.4 %) had no canopy at all; another 15 (11.4%) had 10% or less canopy. Shading by canopy can produce a microclimate on the land and/or shore that provides additional habitat for different wildlife.

**Bank zone:** This area is the land/water interface. 92 lots (74.8%) had vegetation at this interface (this includes cultivated lawn). Another 47 lots (38.2%) had bare soil and/or sand at the interface, with 24 of them having only bare soil and/or sand. Hard structure like seawalls and rock riprap were found at 16 lots at this interface. Hard structures provide little habitat for aquatic creatures or plants. Soil and vegetation generally provide more habitat than hard structures, but may be open to other problems like erosion.

**Erosion and Runoff Issues:** Although there are several lots with very steep slopes, especially at the east end of the lake, erosion around Jordan Lake is not particularly common. Only two sites had any upland erosion, despite the steep slopes. Fortunately, most of such lots around Jordan Lake have been left well-vegetated, reducing the likelihood of serious erosion. Active erosion in the riparian and/or bank zone area was found at 15 (12.2%) of the lots. Sometimes this was undercutting at the bank zone. No erosion over 1 foot high was found.

However, there were a number of factors that could potentially serve as concentrations for runoff. Potential runoff into Jordan Lake may be encouraged by the presence of steep slopes in both the riparian and upland area, as well as several sets of hard-structure stairs. Many of the stairs start upland and go straight through the riparian area into the lake, creating a potential “channel” for runoff.

Several lots had unbroken impervious structure stairs and slopes leading from the primary house on the property straight to the lake. Further, the amount of bare soil/sand in the riparian areas, with no vegetation to promote infiltration or to serve as filters to keep pollutants out of the lake, could also contribute to contaminants ending up in the lake.

**Riparian Area:** Non-lawn vegetation covered 47.8% of Jordan Lake shore riparian areas. This is substantially less than the state-mandated 65-70%. Cultivated lawn, often right to the bank zone, cover 31.7 % of the riparian areas. Bare soil/sand cover another 12.8%. Impervious surface coverage was low at 45.3%. The remaining cover was split between duff and gravel/rock.\*

**Littoral Zone (in water):** The littoral (shallow) zone and its plant communities provide essential habitat for fish, wildlife, and the invertebrates that feed on them, but also provide erosion protection and water quality protection. Almost all the lots on Jordan Lake had significant aquatic vegetation in the water near the shores, including emergent, rooted floating-leaf and submergent types.

**Woody Debris:** Part of the protocol included GPSing all woody debris in the water near the shores. This protocol only enumerates “large wood,” defined as greater than 4 inches in diameter somewhere along its length and at least 5 feet long. Only count wood that is between the HWL and the 2 foot depth contour is counted. Jordan Lake is greatly lacking in woody debris that can be used for habitat. Besides serving as habitat, woody debris help buffer waves and ice, thus protecting shores. When the survey was done for woody debris, there were two sites with qualifying wood. Since that time, one of those sites was removed, leaving only one spot on Jordan Lake.

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- These percentages may be under or over 100% due to rounding.