

Lake Recommendations in the Des Plaines River Watershed

To: Des Plaines River Watershed Workgroup (DRWW) Executive Board

From: DRWW Lakes Committee

April 2022

The Lakes Committee (hence “Committee”) of the Des Plaines River Watershed Workgroup (DRWW) is charged with assessing lake water quality issues as they relate to the overall mission of the DRWW, which is to improve water quality in the Des Plaines River watershed. Currently, most of the lakes and many stream segments in the watershed do not meet water quality standards set by the Illinois Environmental Protection Agency (IEPA). The most common impairments are for phosphorus, fecal coliform, and chlorides.

The watershed is rich with surface waters including 94 lakes over 6 acres. Of these, 50 lakes are greater than 20 acres, which is the minimum acreage that IEPA considers for assessing water quality standards in lakes. These lakes vary greatly by size, drainage area, morphometry, and origin. The largest lake in the watershed is Fourth Lake (305 acres) and the deepest is Third Lake (65 feet). Detailed lake assessment reports for most of these lakes can be found on the Lake County Health Department’s website: <https://www.lakecountyil.gov/2400/Lake-Reports>.

The Committee conducted two water quality assessments in the watershed. In 2018, focused on three glacial lakes (Gages, Third, and Druce) and 2019 focused on man-made lakes (Little/Big Bear and Lake Charles). These studies refined the nutrient contributions from the watershed.

With this information and the current development of the NARP, the Committee is submitting to the Executive Board a list of recommendations specifically targeting lake water quality in the watershed.

- Lake Management Plans
 - Every lake should have a plan which addresses the various aspects of lake management including water quality, aquatic plants, fisheries, shoreline erosion, and watershed management. Specific projects should be identified that can be used in a decision-making process as potential project implementation occurs. A step-by-step planning guide can be found: <https://www.lakecountyil.gov/4084/Lake-Management-Planning-Guide>
- Coordinated Education
 - A comprehensive education program for all stakeholders in the DRWW watershed, targeting lakes.
- Routine Monitoring of Lake and Stormwater Inlets
 - Monitoring can detect changes in water quality and identify pollution discharges. Lake and stormwater networks within the watershed should be monitoring in accordance with the lake management plan and identify possible solutions.
- Nutrient Reduction
 - Combining education and monitoring to achieve reductions in key nutrients. Identify key areas for future project implementation.

- Project Implementation
 - Prioritize projects in the watershed and lakes. Identify funding sources. These projects may be coupled with other DRWW projects located in the Des Plaines River mainstem or tributaries or focused on inlets draining subwatersheds entering the lake, nutrient reduction (i.e., internal loading), habitat, or biological manipulation.