3/3/2025

Addendum: Lake Ocheda Management Plan

Lake Ocheda: Public Water No. 53-24 (53002400)

The Lake Ocheda Project Advisory Team is comprised of the DNR, Okabena-Ocheda Watershed District, Worthington Public Utilities, and other stakeholders. The purpose of this advisory team is to cooperatively implement the comprehensive management plan for Lake Ocheda, which was approved in 2017. The goal of this management plan is to improve water quality by reducing undesirable fish and promoting submersed aquatic plant growth.

There have been two winter drawdown attempts on Lake Ocheda since 2017. These attempts resulted in one substantial winter fish kill but did not improve habitat conditions or water quality in the basin. Resource managers think the winter drawdown attempts were unable to consolidate and aerate sediment enough to shift the lake to a clear water state. Wind driven sediments and loose bottom substrates are currently preventing sunlight from penetrating through the water column, which is inhibiting the establishment of rooted plants in the basin. Rooted aquatic plants are key to improved water quality and habitat conditions.

The advisory team meets on a regular basis to discuss lake management objectives and goals. The current water control structure at the outlet allows for a 2-foot gravity drawdown. Using a pump system to achieve a more significant water level drawdown has been considered by the advisory team but is not being proposed at this time. The use of a pump system may be investigated more in the future if other management tools are not able to improve conditions in Lake Ocheda.

The advisory team is proposing to use the existing water control structure to implement a longer drawdown period, which would extend drawdowns for 1-2 growing seasons. A growing season drawdown is when water levels in a basin are lowered to the maximum extent in late summer, then kept low through the winter, following summer, and following winter (Figure 1). In this scenario, water levels are held low for a minimum of one growing season, with the possibility of being extended into a second summer (Figure 2). The advisory team would notify stakeholders prior to initiating a growing season drawdown and plan a public meeting to discuss lake conditions before extending drawdown into a second summer. The purpose of a growing season drawdown is to encourage new aquatic plant growth in the summer and increase the chance of a fish kill in the winter. Increased aquatic plants and decreased populations of undesirable fish (e.g., common carp, black bullheads, fathead minnows) will help improve water quality and other habitat conditions in the basin. The first growing season drawdown could begin as early as August 2025, if climatic conditions allow.

Growing season drawdowns that are successful would be conducted infrequently, specifically no more than once every 6 years (i.e., the period between growing season drawdowns from full refill to start of next growing season drawdown) with the hopes of 8-10 years between growing season drawdowns, if predator fish management is effective. Growing season drawdowns will

only be considered successful if water levels in the basin are lowered by ≥ 2ft. and held low throughout the entire drawdown period (i.e., the drawdown is not aborted early due to unexpected precipitation or other issues). Liberalized fishing opportunities will be considered prior to any growing season drawdown. Growing season drawdowns will last no longer than two winters and two summers and will be conducted only under certain conditions (i.e., low-to-normal water levels, high undesirable fish populations, poor water clarity, and little submersed/emergent vegetation). Winter drawdowns could still take place outside of these growing season drawdown periods, in accordance with the criteria listed in the comprehensive management plan for Lake Ocheda, if resource managers think a winter drawdown would be beneficial to the basin.

The primary public concern with a growing season drawdown is loss of summer recreational opportunities due to low water levels and excessive cattail germination. The advisory team is aware of these concerns and can work with area resource managers to pursue necessary permits, as well as consider available tools as control options. Cattail management tools may include mechanical removal and/or approved chemical treatments. The DNR Section of Wildlife can assist but will not be responsible for excessive cattail management and removal. Landowners also can pursue individual Aquatic Plant Management (APM) permits. Any cattail removal efforts and/or permitting must be approved by a DNR APM Specialist. A lakewide aquatic plant management plan may be necessary, if required by the APM Specialist. Water levels would only be lowered temporarily (i.e., 1-2 years; Figure 1 and Figure 2), as outlined in this addendum and the comprehensive management plan.

The comprehensive management plan for Lake Ocheda is an adaptive plan. The advisory team and other stakeholders must continue to consider reasonable alternatives and shift management strategies to improve water quality and habitat conditions in Lake Ocheda. Resource managers feel that extending drawdown periods to include growing season drawdowns for the purposes of consolidating and aerating bottom sediments will be necessary to meet the goals and objectives laid out in the management plan. The advisory team is hopeful that the existing water control structure can be utilized to improve habitat conditions. This approach is the most cost-effective option, and no additional infrastructure is needed. However, if extending the drawdown period is not able to improve water quality and habitat conditions in the basin, the advisory team will investigate other management options (e.g., pump systems, alum treatments). It is important to note that these other options would be very expensive and are not guaranteed to work. Lake Ocheda has been degraded from many years and it is going to take time, effort, and continued patience to improve water quality and habitat conditions within the lake. Efforts to improve conditions on Lake Ocheda are not possible without partner and stakeholder support.

The advisory team will continue to coordinate habitat improvement activities with the public as they help guide and shape the adaptive management approach for Lake Ocheda.

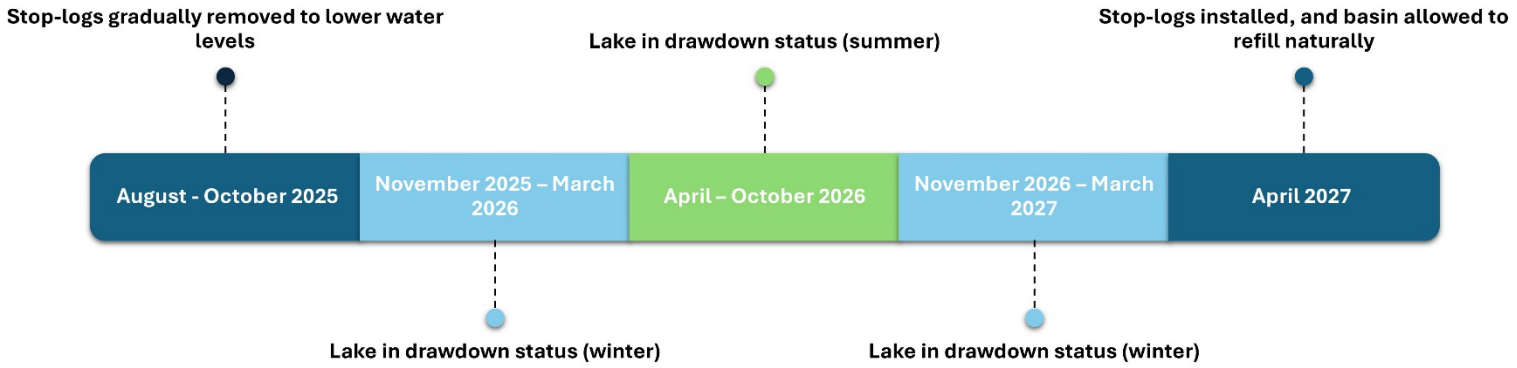

Figure 1. Example timeline for a typical growing season drawdown. A growing season drawdown is when water levels in a basin are lowered to the maximum extent in late summer, then kept low through the winter, following summer, and following winter.

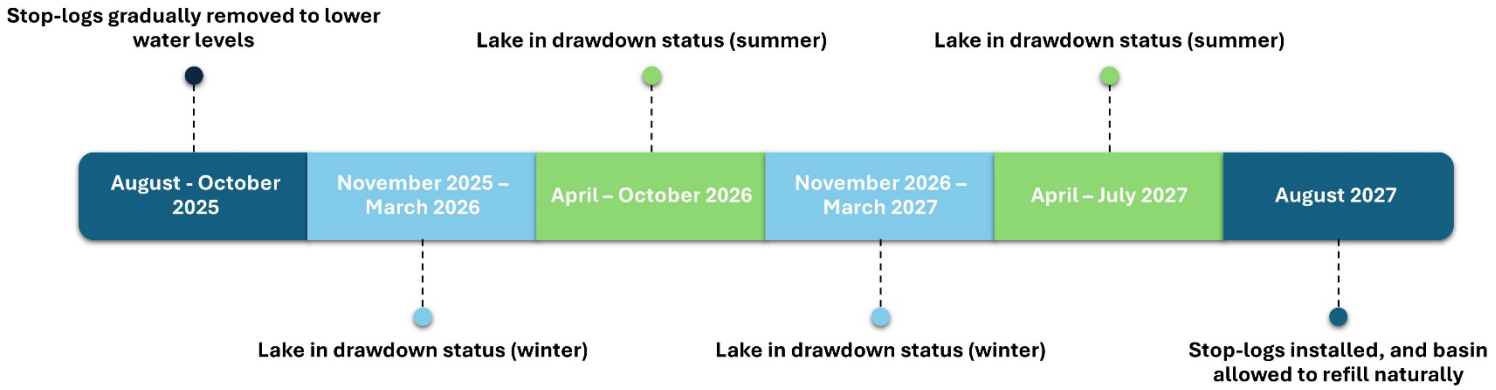

Figure 2. Example timeline for a growing season drawdown, extended into a second summer. Growing season drawdowns will last no longer than two winters and two summers and will be conducted only under certain conditions (i.e., low-to-normal water levels, high undesirable fish populations, poor water clarity, and little submersed/emergent vegetation).

Lake Ocheda (Public Water No. 53-24), Nobles County

Management Plan Addendum

Signature/Approval Sheet

Signatures
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