

Wisconsin Department of Natural Resources Glacial Lake Grantsburg Work Unit 2023 Water Management Plan

Wetland Management Objectives

- Maintain and restore the hydrology, extent and quality of the sedge meadow, emergent marsh and deep-water marsh community types on all sites where they occur. These objectives will be for the benefit of common species (e.g., mallard, blue-winged teal, wood duck, trumpeter swans, beaver, muskrat and otter), uncommon species (e.g., king rail, American bittern, least bittern, black tern, willow flycatcher and sharp-tailed grouse) and migratory species (e.g., shorebirds, water birds and passerines).
- Provide maximum wildlife benefits on wetlands, particularly habitat for waterfowl nesting, brood rearing and migratory stopover.
- Protect and enhance avian and herptile nesting opportunities.
- In consultation with tribal representatives and other stakeholders, manage wetlands to provide a sustainable wild rice source for human consumption and wildlife benefit.

Water Management Strategies

- The design level is the engineered normal water level for a flowage to achieve goals while maintaining safety. However, creating optimal wildlife habitat often requires the flowages to be held well below the design level, which is reflected in the elevation goals for many of the flowages.
- Seasonally manipulate flowage water levels to mimic natural fluctuations, improving and enhancing waterfowl and shorebird habitat and use.
- Conduct periodic partial or complete drawdowns as needed to promote the growth of desirable wetland species such as wild rice, smartweeds, arrowheads and bidens and provide stopover habitat for migratory shorebirds. Typically, full drawdowns occur every 6-8 years. In the months following the drawdown, new emergent vegetation is slowly flooded, creating optimal wildlife habitat. Weather patterns often influence flowage management for that season. For this reason, implementation may differ from annual objectives in practice. Depending on precipitation, flowage complexity, size and watershed, flowages are checked and monitored daily, weekly or monthly.

Target Water Levels For Glacial Lake Grantsburg Flowages ***Elevations Below Are Referenced According To Sea Level***

All flowages went into winter 2022-23 at low water levels due to less than average precipitation in the fall of 2022 and were below management goals. Weather permitting, in 2023, levels on most flowages will be brought back up and held at the management levels below.

North Fork Flowage (Design level 939.5): 937.75 or lower by mid-June to optimize wild rice growth. Wild rice germinates and grows best in water 6 inches to 3 feet deep, and the proposed water level has shown to be a good water depth for rice growth. Raise water to 938.75 by mid-September to provide favorable conditions for wild rice harvest, waterfowl hunting and trapping opportunities. Water level manipulation will be considered successful if wild rice stands are robust, harvesters are able to access most of the rice bed, and waterfowl hunters and trappers have boat access to desirable hunting and trapping locations.

Middle North Fork Flowage (Design level 943.3): 942.0 or lower by mid-June to optimize wild rice growth. Wild rice germinates and grows best in water 6 inches to 3 feet deep, and the proposed water level has shown to be a good water depth for rice growth. Raise water to 943.0 by mid-September to provide favorable conditions for wild rice harvest, waterfowl hunting and trapping opportunities. Water level manipulation will be considered successful if wild rice stands are robust, harvesters are able to access most of the rice bed, and waterfowl hunters and trappers have good boat access to desirable hunting and trapping locations.

Upper North Fork Flowage (Design level 952.0): 951.0 by mid-August. This flowage was drawn down in 2022 for wetland health and is still below full pool. Raise the water level for increased boat access for waterfowl hunting and trapping following 2022 drawdown. Water level manipulation will be considered successful if waterfowl hunters and trappers have boat access to desirable hunting and trapping locations.

Monson Lake (Design level 943.0): 938.5 by September to optimize waterfowl hunting and trapping opportunities. This flowage is recovering from a drawdown and raising the water level will increase boat access for waterfowl hunters and trappers. Water level manipulation will be considered successful if waterfowl hunters and trappers have good boat access to desirable hunting and trapping locations.

Dike 1 Flowage (Design level 946.5): 944.5 by mid-June. Hold water in Dike 1 to release into Reisinger (inside the wildlife refuge) in early September to raise the water level for resting waterfowl. Water level manipulation will be considered successful if waterfowl hunters and trappers have good boat access in Dike 1 and there is sufficient water to flow into Reisinger for resting waterfowl.

Dike 2 Flowage (Design level 942.5): 942.0 by mid-June. Hold water in Dike 2 to release into Reisinger in early September to raise the water level for resting waterfowl. Dike 2 and Reisinger are inside the wildlife refuge, where no hunting is allowed. Water level manipulation will be considered successful if there is sufficient water to flow into Reisinger for resting waterfowl.

Dike 4 Flowage (Design level 937.0): 935.5 by September to optimize waterfowl hunting and trapping opportunities. Water level manipulation will be considered successful if waterfowl hunters and trappers have boat access to desirable hunting and trapping locations.

Dike 5 Flowage (Design level 937.0): Raise water level to 935.4 by September to optimize waterfowl hunting and trapping opportunities. Water level manipulation will be considered successful if waterfowl hunters and trappers have boat access to desirable hunting and trapping locations.

Dike 6 Flowage (Design level 937.0): Maintain at 933.0. Wild rice germinates and grows best in water 6 inches to 3 feet deep, the proposed water level will propagate wild rice but will limit opportunities for waterfowl hunting, trapping and wild rice harvest by watercraft. Water level manipulation will be considered successful if the wild rice stand area and density increase and waterfowl hunters and trappers have walk-in access to desirable hunting and trapping locations.

Refuge Extension Flowage (Design level 939.5): 938.5 or lower by mid-June to optimize wild rice growth for waterfowl forage. This flowage is in the wildlife refuge, where no hunting or rice harvesting is allowed. Wild rice germinates and grows best in water 6 inches to 3 feet deep, and the proposed water level is a good water depth for rice growth. Water level manipulation will be considered successful if wild rice stands are robust.

Reisinger Lake (Design level 942.2): 938.0 by Aug. 1. This target water level will result in a summer drawdown for wetland health and encourage an annual plant bloom for waterfowl forage. Raise water level to 941.0 by mid-September for waterfowl resting and feeding on annual seeds. Water level manipulation will be considered successful if annual plants grow and set seed prior to raising the water level.

Erickson Flowage (Design level 930.0): 928.7 by September to optimize waterfowl hunting and trapping opportunities. Currently the water level in this flowage is very low. The higher level will result in more open water for increased waterfowl production and waterfowl hunting and trapping opportunities. Water level manipulation will be considered successful if water is deep enough to attract waterfowl during the hunting season for increased walk-in and boat-in hunting and trapping opportunities.

Phantom Lake (Design level 933.5): 931.6 or lower by June 1 to optimize wild rice growth. Wild rice germinates and grows best in water 6 inches to 3 feet deep, and the proposed water level is a good water depth for rice growth. Raise water level to 932.5 by mid-September to provide favorable conditions for wild rice harvest and waterfowl hunting and trapping opportunities. Water level manipulation will be considered successful if wild rice stands are robust, harvesters are able to access most of the rice bed, and waterfowl hunters and trappers have boat access to desirable hunting and trapping locations.

Whiskey Flowage (Design level 923.5): 921.5 (partial drawdown level) by September for potential winter drawdown for lily pad management. If the 2022-2023 winter kills a substantial amount of the lily pads, a drawdown will not be necessary in winter 2023-2024. Monitor flowage in spring and summer 2023 to determine the need for a winter 2023-2024 drawdown. Water level manipulation will be considered successful if lily pad density or distribution is reduced.

Grettum Flowage (Design level 902.0): 902.0 by mid-June for cattail management. Cattails in this flowage were treated with herbicide in late summer 2022. Holding water as high as possible (902.0 – full pool) in 2023 will further stress and kill the cattails by drowning. Water level manipulation will be considered successful if cattails are stressed or killed by drowning.

Dueholm Flowage (Design level 888.0): 885.0 by September to optimize hunting and trapping opportunities. This flowage was drawn down in 2022 and is still low (below half pool) due to lack of late summer and fall precipitation. Water level manipulation will be considered successful if waterfowl hunters and trappers have boat access to desirable hunting and trapping locations.

Black Brook Flowage (Design level 968.0): 960.0 by Aug. 1. This is a drawdown for wetland health, wild rice management, annual plant production and to facilitate dike maintenance. The last time this flowage was drawn down to this level, the wild rice responded well. Raise water level to 965.0 by mid-September to optimize waterfowl hunting, trapping and wild rice harvest. Water level manipulation will be considered successful if dike maintenance is completed, wild rice stands are robust, harvesters are able to access most of the rice bed, and waterfowl hunters and trappers have boat access to desirable hunting and trapping locations.

Summer Drawdowns

Reisinger Lake (Crex Meadows Wildlife Area): A drawdown is planned to promote wetland health and stimulate an annual plant bloom for waterfowl forage. The drawdown will begin late April with a target elevation of 938.0 or lower by mid-August. Once annual plants have bloomed and set seed, boards will be placed in

structure to raise water levels to approximately 941.0 to provide wildlife feeding and viewing opportunities.

Black Brook Flowage (Amsterdam Sloughs Wildlife Area): A drawdown is planned to facilitate dike maintenance work and promote wetland health. The drawdown will begin near the end of April if the ice is off and turtles and other hibernating wildlife are active. The goal will be good shorebird habitat by mid-May to coincide with their migration north. The target elevation will be 960.0 by mid-June, continuing to drop until mid-August. Mudflats will remain moist, allowing wild rice germination and growth. Water levels will be brought back up to 965.0 in September (water level may be too low for rice harvest).

Winter Drawdown

Phantom Lake (Crex Meadows Wildlife Area): This area will be closely monitored this spring and summer to determine lily pad and wild rice density and distribution. Due to ample rice grown and density in August 2022, a winter drawdown was not conducted. The wild rice growth and density will be evaluated again in August 2023 if lily pad density increases, rice density decreases, we will conduct a winter drawdown in 2023-24.

Whiskey Flowage (Crex Meadows Wildlife Area): This area has been choked out by lily pads. A potential drawdown is planned for 2023 to freeze out root mass. Observation of the effects of the 2022-2023 drought and winter on lily pad density will occur this spring and summer. If lily pad density has not decreased, a 2023 winter drawdown will occur.

Other Flowages With Water Control Structures

The following flowages do not have set elevation goals and will be managed to provide recreational opportunities for hunting, trapping, gathering, wildlife viewing and scenic enjoyment. Management levels can vary from 1.5 to 3 feet or more below the dike top and will not exceed the design level.

CREX MEADOWS WILDLIFE AREA

Curry Pond
Hay Creek Flowage
Reed Lake
Upper Hay Creek Flowage
West Paulson Flowage

FISH LAKE WILDLIFE AREA

Assembly Flowage
Astrup Flowage

Corduroy Dike Flowage
County O Flowage
Daniels Flowage
McCann Pond
North Dike Flowage
Southwest Dike Flowage

AMSTERDAM SLOUGHS WILDLIFE AREA

Horseshoe Flowage
Jewel Pond
WWA Flowage