

## DRAFT

# Friendship Lake District Inspection - Operation - Maintenance (I.O.M.) Plan

## INTRODUCTION:

An Inspection, Operation, and Maintenance Plan (I.O.M.) as discussed in Chapter NR335 of Wisconsin Administrative Code is a document prepared for existing and proposed dams in the State of Wisconsin. The purpose of the Friendship Lake District Dam Plan I.O.M. is to provide specific guidance and responsibilities to primarily reduce the likelihood of a dam failure event and secondarily to safeguard the lives of the general public along The Little Roche-a-Cri Creek.

The Wisconsin Department of Natural Resources (WDNR) and The Friendship Lake District have a joint responsibility to see that the Friendship lake dam is adequately operated and maintained in the interest of public rights in navigable waters to promote safety and protect life, health, and property. The WDNR's role is one of regulatory control whereas the dam owner, Friendship Lake District, has the sole financial burden of costs related to building or repairing their dams. In order for The Friendship Lake District to fulfill their responsibility the WDNR requires the District to prepare, maintain, and utilize an I.O.M.

The remainder of this document is divided into six sections as listed below:

- **General Dam Information:** General information on The Friendship Lake Dam.
- **Inspection:** Inspections are divided into weekly, monthly, and yearly activities for routine inspection, operation, and maintenance.
- **Emergency:** When identified storm-events or other dam-related emergencies occur, The Friendship lake District Emergency Action Plan (E. A. P.) shall be followed.
- **Water Levels/Hydrology:** Water-levels will be recorded during inspections with the exception of unscheduled storm-events. Water levels will be recorded in the appropriate dam binder.
- **Contact Information:** General contacts for regular operation
- **Maps:** Appropriate maps indicating location, orientation, and relative size of each dam in relation to the respective impoundment.

## **GENERAL DAM INFORMATION:**

The Friendship Dam was first constructed in 1919 and a powerhouse built in 1928. The powerhouse contains one vertical hydroelectric turbine/generator capable of producing up to 25 kilowatts. The Tainter gate is located under the powerhouse with a tail water channel extending below the State Highway 13 Bridge. An old abandoned gated spillway is located on the north side of the powerhouse.

The original embankment was constructed in 1928 and 1933. The dam embankment is formed by a combination of embankments used for impoundment of Friendship Lake and construction of State Highway 13.

## **INSPECTION:**

### **Responsibilities:**

**Friendship Lake District:** Inspection/Operation/Maintenance on Friendship Lake Dam

### **Inspection Procedures:**

Rainfall Events (1 inch or less in 24-hour period/non-emergency)

1. Call watershed contacts listed in EAP and document watershed conditions. If needed adjust flow control structure prior to rising water thereby creating a proactive approach to watershed runoff. Call Downstream Contacts. If downstream contacts can not be made by phone, one should make direct contact at residence.

### Weekly (Monday-Wednesday-Friday)

1. Provide a weekly printout documenting predicted forecasts from NOAA.gov website. Maintain printout in log clipboard until following week.
2. Monitor and record lake water levels based on the USGS markers if applicable. Record in feet/tenths. Adjust water flow control structure to meet Friendship Lake District water levels and 25% Low Flow.
3. Check inlet and outlet to assure free flowing conditions. Remove trash and debris from inlet and outlet as needed.
4. Check required signs to maintain readability and proper placement. Report missing or damaged signs to supervisor.
5. Look for wildlife damage and repair as needed. If significant damage has occurred, report it to A Commissioner immediately.
6. Inspect dam and dam structures for settlements, sinkholes, seeps, turbid discharge, structural cracking, foundation movement, erosion, depressions, boils, fence damage, and vandalism, if any of these are

found, report them to a commissioner immediately.

7. Pick up litter and dispose in garbage container.
8. Identify all needed repairs (non-emergency).
9. After snowfall, remove snow and maintain access to all required points of the dam necessary for inspection, operation, and maintenance.
10. During ice-cover, measure and record average ice thickness. Caution shall be used. Individuals will not measure ice thickness if alone.

### Monthly

1. Mow and trim grass in as needed. If mowing contract exists, abide by documented schedule.
2. Operate water flow control structure to insure working condition.
3. Eliminate woody plants, noxious weeds, and invasive plants growing on dam by means of chainsaw, Herbicides, or other Department approved methods.

### Yearly

1. Update and review any existing dam related contracts, ordinances, I.O.M. EAP, inspection reports, or other maintenance related documents.
2. Conduct a comprehensive walkover using WDNR standards and sound engineering principles.

## **EMERGENCY (NAMES & CONTACT INFORMATION TBD)**

All emergencies shall follow the procedures set forth in the applicable Emergency Action Plan (E.A.P)

1. Identify Problem and immediate corrective action.
2. Contact A Commissioner.
- 3.

## **WATER LEVELS/HYDROLOGY: (TBD)**

At the present time there is no operating level established at Friendship Dam, only a normal water level reference of 937.49 LBM elevations. The minimum interest flow established below the dam is based on standard 25% of normal flow, but has not been specifically established for the stream, nor are there any measurable references.

## **CONTACT (FRIENDSHIP LAKE BOARD, WALLY SEDLAR, DAM OPERATOR ETC.)**

### EXAMPLES:

Ayers and Associates

Pete Haug: 715-271-1829

Adams County Sheriff Department

Sam Wollin: 608-339-4243

Highway (Adams County Highway Department)

Pat Kotlowski: 608-339-3355; 608-547-1762

Emergency Management (Adams County)

Jane Gervais: 608-339-4248

WDNR

Joe Behlen: 715-421-9940