

# **Indian Lake Dam Inspection Report**

Dam Identification No.: 687 Hazard Potential: Low Section 31; T.5N. – R.11E. Addison Township, Oakland County, Michigan Located on a tributary of West Branch of Stony Creek Per Part 315, Act 451 of 1994



Prepared for: Eric Goetz Indian Lake Improvement Association 210 Indianside Rd. Oakland, MI 48363 (248) 408-1320 Operator email: <u>eric@tourconnection.com</u> INSPECTION FEE billed January 2023 \$2492.75 \*Unpaid as of 4/20/2023

GRAHAM, III PROFESSIONAL

ENGINEER No. 5201062039

**Prepared By:** 

Spicer Group, Inc. 125 Helle Blvd #2 Dundee, Michigan 48131 (734) 823-3308

**Inspected By:** Richard V. Graham III, P.E. # 62309

Date of Inspection: December 16, 2022 Date of Final Report: December 23, 2022

Project No. 133689SG2022

## Spicer Group Indian Lake Dam Inspection - December 2022 Abbreviated Summary

### **II. CONCLUSIONS AND RECOMMENDATIONS**

#### A. Overall Condition

The visual inspection of the dam indicates the dam and its appurtenant structures are in satisfactory overall condition. However, there are deficiencies which should be monitored and/or corrected. The following list is a summary of the areas of concern that were observed during the visual inspection.

### **B. Observed Deficiencies/Prioritized Recommendations**

Specific deficiencies and recommended corrective measures, listed in order of priority are as follows:

- 1. Erosion from surface runoff is evident on the downstream face of the dam near the west corner of the dam.
- Recommend: Install filter fabric and plain riprap in these areas to prevent further erosion from storm events.
- 2. Multiple cracks (mostly sealed), spalling, and patches in the concrete were observed.
- Recommend: Monitor cracks for increased separation, loss of material, or delamination of the patches. Fill cracks and repair concrete section loss as necessary.
- 3. The metal safety railings of the dam are corroding.
- Recommend: Paint the metal safety railings and replace corroding sections with holes in them. Also, plan to either fully repair or replace all metal safety railings in the next 10 years if possible.

### C. Further Detailed Studies and/or Investigations

At this time, we do not recommend any further investigation of the dam, outside of the visual inspection required every five (5) years by an engineer and periodic inspection by the Indian Lake Improvement Association.

### **D. Hazard Potential Classification**

The hazard potential classification of the Indian Lake Dam is currently listed as a low hazard potential dam. Based on our inspection and the recent repairs, we do not recommend changing this classification.

### **Recommend:**

Paint the metal safety railings and replace corroding sections with holes in them. Also, plan to either fully repair or replace all metal safety railings in the next 10 years if possible. The hazard potential classification is only an indication of the potential for loss of life and economic loss due to failure of the dam. The hazard potential is not an indication of the stability or integrity of the dam.