

# Dewey Lake Outlet

MDNR ID #01977

Hazard Potential: Low

Lenawee County, Michigan  
Cambridge Township Sec. 17 (T5S, R2E)

Inspection conducted June 18, 2015  
Act 451 P.A. of 1994 Part 307

Owner of Lake Level  
Lenawee County

Represented by: Jennifer L. Escott  
Lenawee County Drain Commissioner  
320 Springbrook Ave., Suite 102,  
Adrian Michigan 49221

Inspectors:

Joseph P. Brezvai

Lenawee County Drain Commission

Brian J. Cenci, P.E.

Eng., Inc.

Professional Engineer:

Brian J. Cenci, P.E.



*Brian J. Cenci*  
10-18-15

## DEWEY LAKE LEVEL CONTROL STRUCTURE

### LAKE LEVEL HISTORY

The property owners around Dewey Lake had expressed the desire for a court-ordered lake level to be established. The residents petitioned the Lenawee County Board of Supervisors and a resolution was soon passed. This allowed the prosecuting attorney to initiate the necessary legal proceedings to establish the natural level of the lake.

In order to complete an in-depth evaluation, the Michigan Department of Conservation (MDC) was approached in 1962. The study made a recommendation based upon effects of erosion, flood and ice damage, recreational use and domestic sewage disposal. The MDC suggested a lower Winter level (999.5 ft. above mean sea level) and a higher Summer level (1,000.0 above mean sea level). They also revealed that the establishment and maintenance of a legal level is feasible and can be justified economically.

The Honorable Rex B. Martin, Lenawee County Circuit Judge, set the lake levels at the levels recommended by the MDC. The levels were fixed on May 15, 1962 in the Lenawee County Courthouse, Adrian, Michigan.

### RECOMMENDATIONS AND CONCLUSIONS

See attached report.

It should be noted that the amount of money available to spend on a lake level is limited to \$10,000.00 per year. In order for the Drain Commissioner to exceed this limit, an emergency condition or a petition by the district is necessary.



**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
LAND AND WATER MANAGEMENT DIVISION  
DAM INSPECTION REPORT**

This form is to be used for inspection reports required by Part 307, Inland Lake Levels, for those dams that do not meet the size criteria as defined by Part 315, Dam Safety, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Dams six (6) feet or more in height, as defined by Part 315, and impounding five (5) acres or more at the design flood elevation, must meet the inspection report format as outlined in Section 31518 of Part 315.

A person failing to comply, or falsely representing dam conditions, is guilty of misconduct in office.

DAM NAME Dewey Lake Outlet		DAM ID 01977	COUNTY Lenawee
DATE OF INSPECTION June 18, 2015	NAME OF WATERBODY Dewey Lake	SECTION, TOWN, RANGE Sec. 17 T 5-S, R 2-E	LEVEL THIS DATE 1000.17
DATE ELEVATION SET BY COURT 7-9-2012	LEGAL LEVEL 1000.00 Summer 999.50 Winter	DRAWDOWN LEVEL 999.50	HIGH WATER MARK ELEVATION 1000.33

**EARTH EMBANKMENTS** LEFT EMBANKMENT NA FT. RIGHT EMBANKMENT NA FT. TOTAL LENGTH NA FT.  
(LOOKING DOWNSTREAM)

	UPSTREAM	CROWN	DOWNSTREAM
VEGETATIVE COVER	N/A	N/A	N/A
EROSION	None observed	None observed	None observed
SEEPAGE			None observed at time of inspection
SLIDES, SLUMPS & CRACKS	N/A	N/A	N/A
ANIMAL BURROWS	N/A	N/A	N/A
WAVE ACTION PROTECTION	Yes, minor amounts of rip rap		N/A
REMARKS*	None	None	None

**CONTROL STRUCTURE**

TYPE Stop log weir upstream 212 feet of 21 inch concrete pipe & 40 ft. 24 " HDPE at outlet in 2009.	YEAR CONSTRUCTED 1963	STRUCTURAL HEIGHT (top of dam elevation minus stream invert) 4.0 feet
LENGTH OF SPILLWAY 15 feet	FREEBOARD 2.0 feet	HYDRAULIC HEIGHT (design flood elevation minus stream invert) 4.0 feet
VERTICAL PIPE SIZE Not applicable.	HORIZONTAL PIPE SIZE 212 feet of 21 inch concrete pipe & 40 ft. 24 " HDPE at outlet in 2009.	HEAD (normal headwater minus normal tailwater) 3.0 feet

**DESCRIBE CONDITION OF THE FOLLOWING ITEMS.**

**STOPLOG VALVES AND GATES** (open and close to check condition): Check location of top stoplog in relation to top of riser pipe intake box or fixed crest, for leakage, and condition of stoplogs, valves and gates.

Stoplogs and gates in good condition

**CONTROL STRUCTURE (continued)**

OUTLET PIPE: Check for damage from ice, logs, vandalism; inside discharge pipe for settlement and/or joint separation; condition of pipe coating.  Good condition.	
CONCRETE STRUCTURE: Check for erosion; location of cracking or spalling. If old or new; settlement; need for crack repairs.  Fair condition. There is a crack (noted in 2003, 2006, 2009 and 2012 reports) that is in both the east and west wing walls. It does not appear to be getting larger or increasing in size. Monitor these surface cracks as needed	
WALKWAY & RAILING: Check if in place or removed, condition, and if adequate protection provided.  Fair condition. Metal Bar Railing	TRASHRACK OR LOG BOOM: Check if operable.  N/A
EMERGENCY SPILLWAY: Size, type, and condition.  None exists	

**INLET & OUTLET CHANNELS**

	INLET	OUTLET
SIZE	Lake side.	Natural 3 to 4-foot wide drain channel
EXISTING CONDITION	Good	Good
EROSION	None	None
DEBRIS & OBSTRUCTIONS	None	None
RIPRAP PROTECTION	Good	None required or needed
REMARKS*	Overall in Fair condition.	Good

**RECOMMENDATIONS**

List work needed, how to be done, by whom, estimated cost, source of funds, recommended completion date. If emergency, to what extent. ADDITIONAL COMMENTS.

Inspection Ordered By: Jennifer L. Escott, Lenawee County Drain Commissioner  
  
Lenawee County Delegated Agent

Brian J. Cenci, P.E.

4063 Grand Oak Drive, Suite A109

INSPECTOR'S NAME (PRINTED)

ADDRESS

SIGNATURE

Lansing, MI 48911

CITY, STATE, ZIP CODE

No. 6201053847

517-887-1100

P.E. REGISTRATION NO.

TELEPHONE NUMBER

Please submit this completed report and photographs of the dam, downstream channel, and deficiencies cited in the report to:

DAM SAFETY PROGRAM  
 LAND AND WATER MANAGEMENT DIVISION  
 MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
 PO BOX 30458  
 LANSING MI 48909-7958

\*NOTE: If space is inadequate for remarks, attach additional sheets as needed.



DEWEY LAKE LEVEL CONTROL STRUCTURE



Inlet Structure-West Side



Outlet Pipe



Inlet Structure Upstream



Inlet Structure-East Side