



LONG LAKE CONTROL STRUCTURE  
DAM SAFETY INSPECTION

**Hartland Township, Livingston County, Michigan  
Section 33, T03N, R06E**

Dam ID No.: 806  
Owner/Operator: Livingston County Drain Commissioner  
Mr. Brian Jonckheere  
2300 East Grand River Avenue Howell,  
MI 48843  
517.546.0040

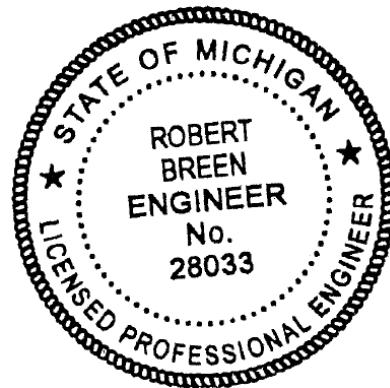
Tributary: Tributary to South Ore Creek  
Hazard Potential: Low  
Prepared for: Livingston County Drain Commissioner  
Inspected &  
Prepared by: Robert R. Breen  
Wade Trim Associates, Inc.  
25251 Northline Road  
Taylor, MI 48180  
734.947.2675  
[rbreen@wadetrim.com](mailto:rbreen@wadetrim.com)

---

Robert R. Breen, PE No. 28033

Inspection Date: August 11, 2021

Report Date: December 20, 2021



# Long Lake Dam Location Map





**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER RESOURCES 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 Long Lake		DAM ID 806	COUNTY Livingston
DATE OF INSPECTION 08/11/2021	NAME OF WATERBODY Long Lake	SECTION, TOWN, RANGE Sec.: 33 T: 3N R: 6E	LEVEL THIS DATE 953.1
DATE ELEVATION SET BY COURT 08/14/1946	LEGAL LEVEL 953.00	DRAWDOWN LEVEL 953.00	HIGH WATER MARK ELEVATION 954.20 estimated

**EARTH EMBANKMENTS** LEFT EMBANKMENT \_\_\_\_\_ FT. RIGHT EMBANKMENT \_\_\_\_\_ FT. TOTAL LENGTH 60 FT.  
(LOOKING DOWNSTREAM) Previously Noted

	UPSTREAM	CROWN	DOWNSTREAM
VEGETATIVE COVER	Grass and vegetation growth in NE quadrant Heavy overgrowth in NW quad	Asphalt road with conc curb both sides	Extremely dense with tree growth
EROSION	None noted. Heavy overgrowth and grass areas seem stabilized	South curb has erosion backside Settlement/erosion between north curb & headwall	Negligible action at banks. More rip rap in stream needed.
SEEPAGE			None noted
SLIDES, SLUMPS & CRACKS	Some slumping behind curb between curb and headwall	None Noted	Some slumping behind back of curb and curb settlement. Embankment appears solid and stable still
ANIMAL BURROWS	None Noted	None Noted	None Noted
WAVE ACTION PROTECTION	Steel sheeting and concrete pad		Natural vegetation
REMARKS*	Fencing failing around drop structure, head wall deteriorated		

**CONTROL STRUCTURE**

TYPE Concrete walls with level structural steel cap	YEAR CONSTRUCTED 1951	STRUCTURAL HEIGHT (top of dam elevation minus stream invert) 7 ft.
LENGTH OF SPILLWAY 38 ft.	FREEBOARD 2.5 ft (estimated )	HYDRAULIC HEIGHT (design flood elevation minus stream invert) 2 ft.
VERTICAL PIPE SIZE None	HORIZONTAL PIPE SIZE 44" x 72" CMP Arch Pipe	HEAD (normal headwater minus normal tailwater) 2 ft

**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.

N/A

OUTLET PIPE: Check for damage from ice, logs, vandalism; inside discharge pipe for settlement and/or joint separation; condition of pipe coating.  
44" x 72" CMP under Blaine Road, vertical deflection in crown under road, surface rust and holes.. Notify Livingston County Road Commission

**CONTROL STRUCTURE (continued)**

CONCRETE STRUCTURE: Check for erosion; location of cracking or spalling. If old or new; settlement; need for crack repairs.  
Poor condition, Settlement between head wall and curb, headwall spalling and deterioration,

WALKWAY & RAILING: Check if in place or removed, condition, and if adequate protection provided. Fencing around structure in poor condition. Guardrail-N/A	TRASHRACK OR LOG BOOM: Check if operable. N/A
---	--

EMERGENCY SPILLWAY: Size, type, and condition.  
None

**INLET & OUTLET CHANNELS**

	INLET	OUTLET
SIZE	26 ft width +/-	15 ft width +/-
EXISTING CONDITION	Concrete approach solid. Minimal rusting of channel cap along top of spillway	Outlet of CMP in good condition
EROSION	None noted	Some erosion along embankment
DEBRIS & OBSTRUCTIONS	Heavy vegetation in water immediately upstream of spillway	None noted
RIPRAP PROTECTION	Concrete slab and vegetation	Some rip rap in stream, at banks and at culvert pipe
REMARKS*	Fence around drop structure in poor shape	Culvert in poor condition


**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.

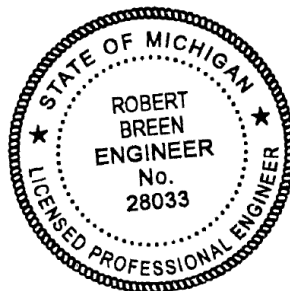
- Crown deflection at CMP pipe under road – Recommend replacement – Coordinate with Road Commission
- Upstream headwall deterioration – see photos
- Fencing around drop structure poor - Recommend replacement
- Repair some downstream erosion and place riprap.
- Rebuild settling road surface curb and behind curb.
- Heavy vegetation prevented inspection of all sheet piling of stilling basin, noted in 2018 inspection was to replace a failing portion of sheet piling part of basin, may still need done.

Inspection Ordered By: Brian Jonckheere, Drain Commissioner  
Livingston County Delegated Agent

Robert R. Breen, PE  
INSPECTOR'S NAME (PRINTED)

  
SIGNATURE

28033  
P.E. REGISTRATION NO.



ADDRESS 25251 Northline Road

CITY, STATE, ZIP CODE Taylor, MI 48180

TELEPHONE NUMBER 734-947-2675

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

DAM SAFETY PROGRAM  
WATER RESOURCES 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.

EQP 4526 (Rev. 9/2004)

**From:** EGLE-wrd-qreq <EGLE-wrd-qreq@michigan.gov>  
**Sent:** Thursday, September 30, 2021 4:21 PM  
**To:** Williams, Tia  
**Subject:** RE: flood or low flow discharge request (ContentID - 168812)

This message originated from outside of Wade Trim

We have processed the discharge request submitted by email on September 7, 2021 (Process No. 20210460), as follows:

South Ore Creek at Long Lake Control Structure, Dam ID 806, Section 33, T3N, R6E, Hartland Township, Livingston County, has a total drainage area of 4.4 square miles and a contributing drainage area of 4.3 square miles. The design discharge for this dam is the 1% chance (100-year) flood. The 2%, 1%, and 0.5% chance peak outflows are estimated to be 70 cubic feet per second (cfs), 90 cfs, and 110 cfs, respectively. (Watershed Basin No. 15 Huron).

Please include a copy of this letter with your inspection report or any subsequent application for permit. These estimates should be confirmed by our office if an application is not submitted within one year. If you have any questions concerning the discharge estimates, please contact Ms. Susan Greiner, Hydrologic Studies and Floodplain Management Unit, at 517-927-3838, or by email at: [GreinerS@michigan.gov](mailto:GreinerS@michigan.gov). If you have any questions concerning the hydraulics or the requirements for the dam safety inspection report, please contact Ms. Amira Oun of our Dam Safety Unit at 517-230-5866, or by email at: [OunA@michigan.gov](mailto:OunA@michigan.gov).

-----Original Message-----

From: [DoNotReply@michigan.gov](mailto:DoNotReply@michigan.gov) <[DoNotReply@michigan.gov](mailto:DoNotReply@michigan.gov)>  
Sent: Tuesday, September 7, 2021 9:16 AM  
To: EGLE-wrd-qreq <[EGLE-wrd-qreq@michigan.gov](mailto:EGLE-wrd-qreq@michigan.gov)>  
Subject: flood or low flow discharge request (ContentID - 168812)

Requestor: Tia Williams  
Company: Wade Trim  
Address: 555 Saginaw St. #201  
City: Flint/Michigan  
Zip: 48502  
Phone: 810-620-0048  
Date: 2021-09-07  
F2percent: Yes  
F1percent: Yes  
F0.5percent: Yes  
ContactAgency: None Selected  
ContactPerson:  
Watercourse: Long Lake Control Structure Dam #806  
LocalName: South Ore Creek at Long Lake Control Structure Dam  
CountyLocation: Livingston  
CityorTownship: Hartland Township

Section: 33

Town: 03 N

Range: 06 E

Location: Long Lake Dam, ID #806, Blaine Road, 120' E. of Peterson Drive

FFR1: Dam

fpReqEmailAddr: [twilliams@wadetrim.com](mailto:twilliams@wadetrim.com)

# 2021 LIVINGSTON COUNTY DRAIN COMMISSION DAM INSPECTIONS



VIEW INSIDE OUTLET CMP PIPE LOOKING UPSTREAM

2021 LIVINGSTON COUNTY DRAIN COMMISSION DAM INSPECTIONS



VIEW OF DOWNSREAM OUTLET CMP PIPE



2021 LIVINGSTON COUNTY DRAIN COMMISSION DAM INSPECTIONS



MINOR EROSION A DOWNSTREAM BANK

2021 LIVINGSTON COUNTY DRAIN COMMISSION DAM INSPECTIONS



SETTELEMENT/EROSION BEHIND SOUTH ROADWAY CURB OVER OUTLET PIPE

2021 LIVINGSTON COUNTY DRAIN COMMISSION DAM INSPECTIONS



LOOKING SOUTH AT CONCRETE CURB SHOWING MINOR EROSION OVER OUTLET PIPE

2021 LIVINGSTON COUNTY DRAIN COMMISSION DAM INSPECTIONS



LOOKING WEST AT OVERFLOW STRUCTURE

## 2021 LIVINGSTON COUNTY DRAIN COMMISSION DAM INSPECTIONS



CLOSE UP OF OVERFLOW STRUCTURE – OUTLET PIPE TO LEFT; UPSTREAM CHANEL TO RIGHT

# 2021 LIVINGSTON COUNTY DRAIN COMMISSION DAM INSPECTIONS



LOOKING SOUTH AT OVERFLOW STRUCTURE WITH OUTLET PIPE AND CONCRETE HEADWALL

# 2021 LIVINGSTON COUNTY DRAIN COMMISSION DAM INSPECTIONS



VIEW OF UPSTREAM CHANNEL SHOWING HEAVY WATER VEGETATION GROWTH

2021 LIVINGSTON COUNTY DRAIN COMMISSION DAM INSPECTIONS



LOOKING SOUTH TOWARDS BLAINE ROAD – UPSTREAM CONCRETE HEADWALL IN BACKGROUND



## 2021 LIVINGSTON COUNTY DRAIN COMMISSION DAM INSPECTIONS



LOOKING NORTH OF UPSTREAM CHANNEL (LONG LAKE IN BACKGROUND)

# 2021 LIVINGSTON COUNTY DRAIN COMMISSION DAM INSPECTIONS



DRY HYDRANT LOCATED ALONG WEST UPSTREAM BANK

# 2021 LIVINGSTON COUNTY DRAIN COMMISSION DAM INSPECTIONS



LOOKING EAST AT CONCRETE HEADWALL

2021 LIVINGSTON COUNTY DRAIN COMMISSION DAM INSPECTIONS



VIEW OF CONROL STRUCTURE - NOTE HEAVY VEGATATIVE GROWTH

## 2021 LIVINGSTON COUNTY DRAIN COMMISSION DAM INSPECTIONS



VIEW OF CONROL STRUCTURE – NOTE HEAVY WATER VEGETATION GROWTH

## 2021 LIVINGSTON COUNTY DRAIN COMMISSION DAM INSPECTIONS



LOOKING WEST AT CONCRETE HEADWALL (LEFT) AND CONTROL STRUCTURE (RIGHT)  
NOTE HEADWALL SPALLING AND DELAMINATION