

CASS COUNTY MICHIGAN

Drain Commissioner



Hilltop Road Drain - Winter Flooding

2014 Annual Report

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“ Both residents and visitors of Cass County enjoy the beauty of over 250 lakes and ponds, along with numerous streams, creeks, and wetlands that offer some of the best boating, fishing, swimming, wildlife habitat, and other recreational opportunities in Southwest Michigan. Maintaining county drains for agricultural, commercial, industrial, and residential use is critical to our economy and our quality of life. Managing established lake levels and protecting the waters of our county through a strong Soil Erosion Control Program will ensure the protection of these waters as one of our county’s most valuable resources for our current and future generations. ”

– Bruce Campbell, Cass County Drain Commissioner

Forward

Extreme weather conditions throughout the year presented a number of challenges while dealing with the county drains and lake levels. The fall of 2013 was typical and slightly below normal in temperatures. However, the county witnessed one of the most severe winters (2013-14) in recent memory. Snow fall and extreme cold temperatures persisted from December through mid-April. There were many days that were well below zero both during the day and night. A few days even experienced double digit below zero temperatures. The ice buildup and the resulting ice jams along roads and fields caused localized flooding come spring. Both spring and summer were cooler than normal with above average precipitation, especially in June when the Michiana area experienced its’ 3rd wettest month (+10”) in recorded history. There were many areas in the county that experienced localized flooding. While summer was cooler and wetter than most years the county experienced a dry and warm September of 2014 with many days pushing the upper 70’s. The Drain Office was involved through the Board of Public Works with the highly controversially proposed waste water treatment plant in Ontwa Township that would discharge into Cobus Creek which is also the Garver Lake Drain. As of the date of this report the future of this project was still undecided.

**ANNUAL REPORT
OF THE
CASS COUNTY DRAIN COMMISSIONER**

**October 1, 2014
By Bruce Campbell**

I. COUNTY DRAINS

Inspection of County Drains

County drains are inspected on a weekly basis.

New Drainage Districts

Petitions received and district formed: None.

Subdivision plats, with new drainage districts are: None.

And being contemplated for: None.

Cleaning, Maintenance and Repair

Petitions were received for cleaning, maintenance or repair of drains for: none

Drains cleaned or maintained from drain fund accounts or revolving drain funds:

Beaver Dam & Stateline Drain – Ontwa Township
Hilltop Road Drain – Porter Township
Happy Homes Drain – LaGrange Township
G.D. Mann Drain – Silver Creek Township
Patrick Hamilton Drain – Silver Creek Township
Regal Place Drain – Ontwa Township
Breezy Beach Drain – Howard Township
Kestrel Hills Drain – Milton Township
Brandywine Drain – Howard Township

Drains needing cleaning or maintenance include: Most.

Status Report

Beaver Dam State Line Drain

Ontwa Township

Completion of the petitioned dredging project occurred in the fall of 2013 with restoration completed in the spring of 2014. Maintenance consisting of small tree and brush removal was performed in the summer of 2014 south of Redfield Street.

G.D. Mann Drain

Silver Creek Township

The Indian Lake Improvement Association obtained a permit from the Drain Office to install nutrient capturing structures in the drain before its outlet into Indian Lake.

Happy Homes Drain

Lagrange Township

Thomas Excavating performed intersection work on the Happy Drive and Spencer Road Intersection in the fall of 2013. New pipe and a basin were installed at the intersection with new tile installed down to the new retention pond to the west.

Hilltop Road Drain

Porter Township

Modifications were done at the northern most portion of the drain as it crossed Hilltop Road. The pipe and birdcage were anchored and stabilized.

Patrick Hamilton Drain

Silver Creek Township

The City of Dowagiac worked on the dam/weir at the outlet of the pond at the beginning of the drain. New pipe was installed and the city located and made the overflow valve once again functional. Bank stabilization is scheduled just north of Sarabyn Street in October of 2014.

Regal Place Drain

Ontwa Township

Inspection showed that the outlet of the drain took a lightning strike in a storm in June which destroyed the end of the plastic pipe. The pipe is scheduled to be fixed the first week of October, 2014.

Breezy Beach Drain

Howard Township

Inspection showed a sink hole was forming at the retaining wall by the beach. Exploratory excavation is scheduled for October 2014 to determine the cause.

Brandywine Drain

Howard Township

New 42" CMP pipe was installed at the Yankee Street crossing. Drain cleaned from Yankee Street to Beebe Road

Kestrel Hills Drain

Milton Township

Poor soil erosion measures from a new single dwelling construction site caused sediment to reach the retention ponds in the subdivision. Further inspection in the fall of 2014 will be performed to determine if the ponds need to be dredged.

II. INTERCOUNTY DRAINS

The Department of Agriculture Intercounty Drain program was funded for the Fiscal Year of 2014 with two agents and one administrative staff.

New Drainage Districts

None

Cleaning, Maintenance and Repair

None

Drains need cleaning

Four County – Marcellus Township

Status Report

None

III. LAKE LEVEL CONTROLS

A wetter than normal spring and summer augmented county lakes and wetlands. The augmentation was reversed in late summer and early fall by drier conditions.

Barron Lake

Howard Township

The augmentation pump was not operated on Barron Lake in 2014. A survey distributed by the Drain Office to all of the riparian owners showed that the majority of the lake residents did not want the Drain Commissioner to spend an additional \$36,000 to have Dr. Shuang Li of Michigan State University perform further study on the lake, pump, local wells, and the watershed.

Priest Lake

Silver Creek Township

The outlet structure was cleaned of debris in the summer of 2014. Patching of the interior pipe is scheduled for the fall of 2014.

Magician Lake

Silver Creek Township

A few branches were removed from the creek above the dam by a local tree service. A new dam custodian (Bill Boehnlein) was appointed in the summer of 2014.

Shavehead Lake

Porter Township

Further inspection on the dam's footings is scheduled for the fall of 2014.

MacMillan Dam, Finch, Fish, Saddlebag Lake

Volinia/Marcellus Townships

Beaver control issues were prevalent at the outlet of Finch Lake and a professional and state permitted trapper was used to deal with the problem.

All lake level structures were inspected on the mandatory 3 year cycle by Peter VanDop of PAV in 2014 and reported to the MDEQ. Next inspection is due in 2017.

IV. SOIL EROSION AND SEDIMENTATION CONTROL PROGRAM

The Board of Commissioners transferred the authority of the Soil Erosion and Sedimentation Control Program to the Drain Commissioner as the enforcing agency on July 3, 2008 by Resolution R-93-08.

Statistics

| | | |
|----------------|---|----|
| Permits Issued | - | 72 |
| Complaints | - | 9 |

Major Sites Permitted

| | | |
|--------------------------------|---|--------------------|
| Cedar Lake Sewer | - | Marcellus Township |
| Moose Lake Aggregates | - | Howard Township |
| Aggregate Industries | - | Milton Township |
| Lakeland Immediate Care Center | - | LaGrange Township |
| ANR Pipeline | - | Mason Township |
| BP Pipeline | - | Porter Township |
| Milton Township Hall | - | Milton Township |
| Postle Operating LLC | - | LaGrange Township |
| Our Lady of the Lake Church | - | Ontwa Township |
| Wayne Township (water main) | - | Wayne Township |
| Wolverine Pipeline | - | Pokagon Township |

Future Major Permits

Unknown.

V. FINANCIAL

Assessments

The following special assessments have been approved for 2014:

| Drain/Lake Level | Township | Amount |
|--------------------------------|-----------------|----------------------------|
| Hilltop Road Drain | Porter | \$ 23,523.39 (year 3 of 3) |
| Union & State Line Drain | Porter & Mason | \$ 2,625.00 |
| Happy Homes Drain | LaGrange | \$ 11,400.00 |
| Twin Lakes Level | Wayne | \$ 7,920.00 |
| Crooked Lake Level Intercounty | Silver Creek | \$ 10,816.20 (year 5 of 5) |
| Red Run Intercounty Drain | Volinia | \$ 540.33 |
| Stock Farm Drain | Pokagon | \$36,548.50 (year 2 of 3) |

Drain Funds

On June 25, 2014, the cash balances in the following accounts were:

| | <u>Amounts</u> |
|---------------------|----------------|
| 801 Drain | \$ 228,177.06 |
| 841 Lake Level | \$ 93,773.42 |
| 802 Revolving Drain | \$ 14,164.95 |

Notes Payable

None.

Delinquent Tax Fund Notes

| | Outstanding Borrowing: | Loan Amount | Loan Date | Due Date | Balance |
|-------|---|--------------------|------------------|-----------------|----------------|
| 1.50% | #80 Hilltop Road from Treasurer | 70,000.00 | 2/14/2012 | 5/31/2015 | 63,105.77 |
| 1.50% | #111 Happy Homes from Treasurer | 30,000.00 | 2/14/2012 | 5/31/2015 | 26,204.83 |
| 0.00% | #111 Happy Homes from 802-not treasurer | 15,000.00 | 9/30/2013 | | same |
| 1.00% | #3 Beaver Dam & State Line | 35,000.00 | 12/13/2013 | 5/31/2014 | 17,115.04 |
| 2.00% | #7 Stock Farm | 115,000.00 | 12/13/2013 | 5/31/2016 | 42,142.71 |

VI. OTHER ISSUES

Lake Augmentation Projects

None

MS4 of NPDES

The Drain Office decided to administer the program internally and not utilizing an outside paid consultant as in previous years.

Cass County Road Commission

The Drain Commissioner and the Cass County Road Commission continue to work together in several areas throughout the county.

VII. DRAIN COMMISSIONER'S OFFICE

1. Implementing drain and lake level districts into county GIS System continues. SAW Grant funding was preliminarily approved for either 2016 or 2017.
2. Drawing route and courses of drains into GIS System continues.
3. Developing electronic spreadsheets for assessment rolls continues.
4. Web page development for the Drain Office is completed and updated as needed.

VIII. PROFESSIONAL

The Drain Commissioner attended the following professional meetings:

- 10.07 SWMACDC Fall District Meeting – Ottawa County
- 12.02 Two river Coalition Annual Meeting – Lawrence, MI
- 12.05 Wetlands Working For Your Community – SWMPC – Osceola, IN
- 05.09 SWMACDC District Meeting – Calhoun County
- 05.16 14th Annual St Joseph River Symposium - Fernwood
- 06.21 Attended Indian Lake Improvement Association Annual Meeting
- 07.15 Attended MACDC Summer Conference – Crystal Mt / Thompsonville,MI

IX. OTHER

Besides regular office hours and field inspections, the Drain Commissioner attended:

- Board of Public Works – Member
- Parks Board – Member and 2014 President
- Board of Commissioners - Bi-monthly meetings
- Numerous County, Township, Village and City meetings

X. ACKNOWLEDGEMENTS

The Drain Commissioner is appreciative of the assistance of many individuals over the past year, but wants to give special recognition to:

Jackie Taylor, Debra Troche, and Tara Myer for their administrative assistance.

Financial Officer Angie Steinman and Treasurer Linda Irwin and her staff for their assistance for the accounting of the drain and lake level funds and ledgers.

Katherine Blakley and Tami Stewart from the Equalization Department for assessment assistance.

Clerk Monica Kennedy and her staff for assistance with deeds, plats, and easement information.

Information Systems Director Kerry Collins and his staff for mapping and GIS support.

County Administrator's Roger Fraser for administrative support.

Cass County Board of Commissioners.

APPENDIX A

LAKE LEVEL CONTROL STRUCTURES VISUALLY INSPECTED BY DRAIN COMMISSIONER
*(note – all lake level structures were inspected on the mandatory 3 year cycle by a licensed engineer.
Statutory dam inspections were performed in the spring of 2014.*

Barron Lake*
Garver Lake
Magician Lake
Twin Lakes
Lilly Lake
Diamond Lake
Shavehead Lake
Pleasant Lake
Priest Lake*
Corey Lake
Eagle Lake
McMillan Dam*
Harwood Lake
Hutchens Lake
Baldwin Lake
* - work was performed

OTHER INSPECTIONS / DRAINS

Drain Inspections - numerous throughout the year.
Drain Complaints - 9

DRAIN CROSSING / OTHER PERMITS

1 - G.D. Mann Drain – Indian Lake Improvement Association – Nutrient Capturing Project



Kestrel Hills 433 Drain Agreement



G.D. Mann Drain – Nitrate Control Project for Indian Lake Improvement Association



Flooding US-12 – June Rain Event



Flooding Wayne Street – June Rain Event



Brandywine Drain – Howard Township



Priest Lake Level Control