

CASS COUNTY MICHIGAN

Water Resources Commissioner



New Cass County Drain - Happy Homes Drain

2012 Annual Report

Table of Contents

	Beginning Page Number
Forward	2
I. County Drains	3
II. Intercounty Drains	5
III. Lake Level Controls	5
IV. Soil Erosion Program	6
V. Financials	7
VI. Other Issues	8
VII. Water Resources Commissioner Office..	8
VIII. Professional	8
IX. Other	9
X. Acknowledgements	9
Appendix	10
Photos	11

“ 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 Water Resources Commissioner

Forward

The fiscal year 2012 found the Drain Office both busy and productive. A new retention pond was created on the Hilltop Road Drain by local contractor Andy Merrill in the Spring of 2012. New easements were acquired and an additional detention pond was dredged on Hilltop Road. Also in the spring of 2012 construction of a new retention pond was completed on the Happy Homes Drain Project in Cassopolis after a land transfer from the Cassopolis Schools. The Drain Office obtained ownership of the Michigan Department of Transportation (MDOT) pond for the Happy Homes Drainage District. Maintenance easement was obtained from the Village of Cassopolis for their retention pond and maintenance was performed on this pond and the former MDOT pond by Contractor Brad Thomas. A new catch basin was installed on Spencer Road and further improvements are being discussed with the Road Commission. It was an unusually warm winter with many days in the 40’s to low 50’s and very little snowfall. A number of the bigger lakes in the county never froze over. There was a two week period at the end of March where temperatures reached from the mid 80’s to near 90. The County experienced severe drought like conditions from late May to mid-July with a number of days that recorded over 100 degrees. Several drains, creeks, and streams either dried up or saw there levels dramatically drop. Most lakes in the county dropped over 6” to 2-3 feet over this period. There were lake level concerns from the residents on Barron Lake and Dr. Li from MSU in Lansing is looking into the augmentation pump and its performance. The Drain Office is continuing to work with the townships on adopting its’ Site Development Rules for storm water management and is formulating a plan for document preservation.

ANNUAL REPORT OF THE

CASS COUNTY WATER RESOURCES COMMISSIONER

October 1, 2012
By Bruce Campbell

I. COUNTY DRAINS

Inspection of County Drains

Since October 1st, 2011 63 inspections have occurred on 31 different drains.

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: Beaver Dam Stateline Drain and the California Stock Farm Drain.

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

Lilly Lake Drain – Newberg Township
Twin Lakes Channel – Wayne Township
Patrick Hamilton Drain – Silver Creek Township
Eggleston Drain – Marcellus Township
Dibble Drain – Howard Township

Drains needing cleaning or maintenance include: Most.

Status Report

Beaver Dam State Line Drain

Ontwa Township

A Board of Determination was held April 26, 2012 at the Ontwa Township Hall and an Order of Necessity was issued. Maintenance design, engineering, survey, bid letting and contract awards will occur in the winter of 2013. Drain maintenance is scheduled for the Spring of 2013.

MEANDERS

Pokagon Township

A new description and easement needs to be written and recorded.

Breezy Beach Drain

Howard Township

A drainage district was established and the transfer of the drain from Howard Township to the Drain Office is still in process.

Happy Homes Drain

Lagrange Township

In the spring of 2012 construction of a new retention pond was completed on the Happy Homes Drain Project in Cassopolis after a land transfer from the Cassopolis Schools. The Drain Office obtained ownership of the Michigan Department of Transportation (MDOT) pond for the Happy Homes Drainage District. Maintenance easement was obtained from the Village of Cassopolis for their retention pond and maintenance was performed on this pond and the former MDOT pond by Contractor Brad Thomas. A new catch basin was installed on Spencer Road and further improvements are being discussed with the Road Commission

Hilltop Road Drain

Porter Township

A new retention pond was created on the Hilltop Road Drain by local contractor Andy Merrill in the Spring of 2012. New easements were acquired and an additional detention pond was dredged on Hilltop Road. This was a petition project.

Patrick Hamilton Drain

Silver Creek Township

More maintenance was planned for the drain in the fall of 2012 or the spring of 2013. The farm crossing may have to be widened. With lower water levels a spraying program is being investigated for fiscal year 13 to address the vegetative growth.

Frantz Drain

Pokagon Township

The Road Commission unplugged the culvert at the end of Smith Court. The owner gave permission to open cut the crossing if needed.

Eggleston Drain

Marcellus Township

After the Road Commission replaced the tube under Loveridge Street contractor Brad Thomas cleaned the drain a couple hundred feet to the north.

California Stock Farm Drain

Pokagon Township

A petition was turned into the Drain Office in the summer of 2012. A Board of Determination Hearing is scheduled for November, 2012.

II. INTERCOUNTY DRAINS

The Department of Agriculture Intercounty Drain program was funded for the Fiscal Year of 2012 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

Smith Lake

Pokagon Township

With lower water levels a spraying program is being investigated for fiscal year 13 to address the vegetative growth.

III. LAKE LEVEL CONTROLS

The County experienced severe drought like conditions from late May to mid-July with a number of days that were recorded over 100 degrees. Most lakes in the county dropped over 6” to 2-3 feet over this period.

Barron Lake

Howard Township

There were lake level concerns from the residents on Barron Lake and Dr. Li from MSU in Lansing is looking into the augmentation pump and its performance. The pump panel took a power surge in May and the pump was down three weeks waiting on parts. The outlet structure was stabilized with some additional rip rap.

Priest Lake

Silver Creek Township

Further sinkhole issues at the outlet structure will be addressed in the fall of 2012.

Magician Lake

Silver Creek Township

The lake stayed near the court ordered decree level of 753’ throughout the summer and

The control board was put in place in the summer. The lake dropped about 6-10” over the drought like condition of the summer.

Shavehead Lake

Porter Township

The shoreline was stabilized under DEQ and Drain Office permit to protect the staff gauge and shorelines off the west end of the peninsula.

Baldwin Lake

Porter Township

A new staff gauge to measure lake level was installed just south of the boat launch on Sunset Boulevard. The previous one had broken off during the winter due to ice movement.

All lake level structures were inspected on the mandatory 3 year cycle by Merritt Engineering in 2011 and reported to the MDEQ. Next inspection is due in 2014.

IV. SOIL EROSION AND SEDIMENTATION CONTROL PROGRAM

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

Statistics

Permits Issued	-	94
Total Site Inspections	-	164
Final Site Inspections	-	112
Complaints	-	5

Major Sites Permitted

Lakes Area Sewer Authority	-	Marcellus Township
Moose Lake Aggregates	-	Howard Township
Aggregate Industries	-	Milton Township
Diamond Lake Water System	-	Penn, LaGrange, Calvin, Jefferson Townships
Donnell Lake Water System	-	Penn Township
Enbridge Pipeline	-	Calvin, Jefferson, Penn, Howard Townships
Pokagon Band Potowatomi	-	Pokagon Township
Merit Fiber Network	-	Across County M-62 to M-60

Future Major Permits

Total pipeline replacement in the county for Enbridge Pipeline 6B. 36" crude oil.

V. FINANCIAL

Assessments

The following special assessments have been approved for 2012:

Drain/Lake Level	Township	Amount
Hilltop Road Drain	Porter	\$ 23,523.09 (year 1 of 3)
Barron Lake Level	Howard	\$ 67,628.00
Glenwood Drain	Wayne	\$ 5,000.00
Happy Homes Drain	LaGrange	\$ 30,398.25 (year 2 of 3)
Twin Lakes Level	Wayne	\$ 7,920.00
Crooked Lake Level Intercounty	Silver Creek	\$ 11,464.33 (year 3 of 5)
Pleasant Lake Drain	Ontwa	\$ 2,000.00
Beaver Dam and State Line Drain	Ontwa	\$ 10,000.00
Patrick Hamilton Drain	Silver Creek	\$ 5,000.00

Drain Funds

On September 26, 2012, the cash balances in the various accounts were:

	<u>Amounts</u>
801 Drain	\$ 40,580.25
841 Lake Level	91,389.80
802 Revolving Drain	29,159.29

Notes Payable

None

Delinquent Tax Fund Loans

\$70,000 plus interest to be paid by May 31, 2015 from the Hilltop Road Drain Fund.
\$30,000 plus interest to be paid by May 31, 2015 from the Happy Homes Drain Fund.
\$30,000 plus interest to be paid by May 31, 2015 from the Barron Lake Level Fund.

VI. OTHER ISSUES

Lake Augmentation Projects

None

MS4 of NPDES

The Drain Office is continuing to work with the townships on adopting its' Site Development Rules for storm water management. New updates were incorporated into the rules.

Cass County Road Commission

The Water Resource Commissioner and the Cass County Road Commission continue to work together in several areas throughout the county including Redfield Street, Spencer Road, May Street, Green Lake Rd, Lakeview Drive, and Cara Avenue to name a few.

VII. WATER RESOURCES COMMISSIONER'S OFFICE

1. Developing drain and lake level districts into county GIS System continues.
2. Drawing route and courses of drains into GIS System continues.
3. Developing electronic spreadsheet for assessment rolls continues.
4. A Facebook page was developed for the Drain Office and is updated.
5. Web page development for the Drain Office is completed and updated.

VIII. PROFESSIONAL

The drain commissioner attended the following professional meetings:

MACDC – Fall District Meeting	10.28.12 – Allegan County (did not attend)
MS 4 Storm Water Meeting	02.13.12 – Road Commission
Township Supervisors Meeting	02.28.12 - EOC
MACDC – Winter Conference	02.15.12 - Traverse City
Intergovernmental Forum	03.08.12 – SMC
FOTSJR Annual Watershed Meeting	03.26.12 – Sturgis
Planning Commission Visioning Meeting	03.29-12 – Road Commission
MACDC – Spring District Meeting	05.18.12 – Sturgis
MS 4 Storm Water Meeting	02.13.12 – Niles
MACDC – Summer Conference	08.14.12 – Crystal Mountain
Township Supervisors Meeting	05.22.12 - EOC
MS 4 Storm Water Meeting	02.13.12 – Lincoln Township
SWMPC Clean Water Tour	06.07.12 – Covert
Emergency Management Exercise	06.23.12 - EOC

IX. OTHER

Besides regular office hours and field inspections, the Water Resources Commissioner attended:
Board of Public Works – Member
Parks Board – Member and President
Road Commission monthly meetings
Board of Commissioners bi-monthly meetings
Numerous County, Township, Village and City meetings

X. ACKNOWLEDGEMENTS

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

Jackie Taylor and Tara Myer for their administrative assistance.

CPA Becky Moore and Treasurer Linda Irwin for their assistance on the accounting of the drain and lake level funds and ledgers.

Clerk Barb Runyon 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 Charles Cleaver and Louis Csokasy for administrative support.

Cass County Board of Commissioners.

APPENDIX A

DRAINS INSPECTED BY WATER RESOURCES COMMISSIONER

Brandywine	Smith Lake Intercounty
Dowagiac IC	Pleasant Lake
Garver Lake Drain	Pitcher Lake
Hilltop Road	Huckleberry
Twin Lakes	Whitaker NE Extension
Patrick Hamilton	Nottingham Jones
Goose & Mud Lake	Red Run
Bame & Huntley	Stock Farm
Jones Bair Lake	Happy Homes
Birch Williamsville	Glenwood
Eggleston	Red Run Extension
Miller Robinson	Park Shore No 1 & 2
Mud Pine Lake	Union State Line
Michiana Shores	Chicago Trail Farms
Wilkinson Trail	Regal Place
Dibble Drain	

LAKE LEVEL CONTROL STRUCTURES INSPECTED BY WATER REOSURCES COMMISSIONER

(note – all lake level structures were inspected on the mandatory 3 year cycle by Merritt Engineering in 2011)

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 (complaints)

Numerous throughout the year.

DRAIN CROSSING PERMITS

1 – Brandywine Drain – Enbridge Pipeline Replacement Project



Happy Homes Drain



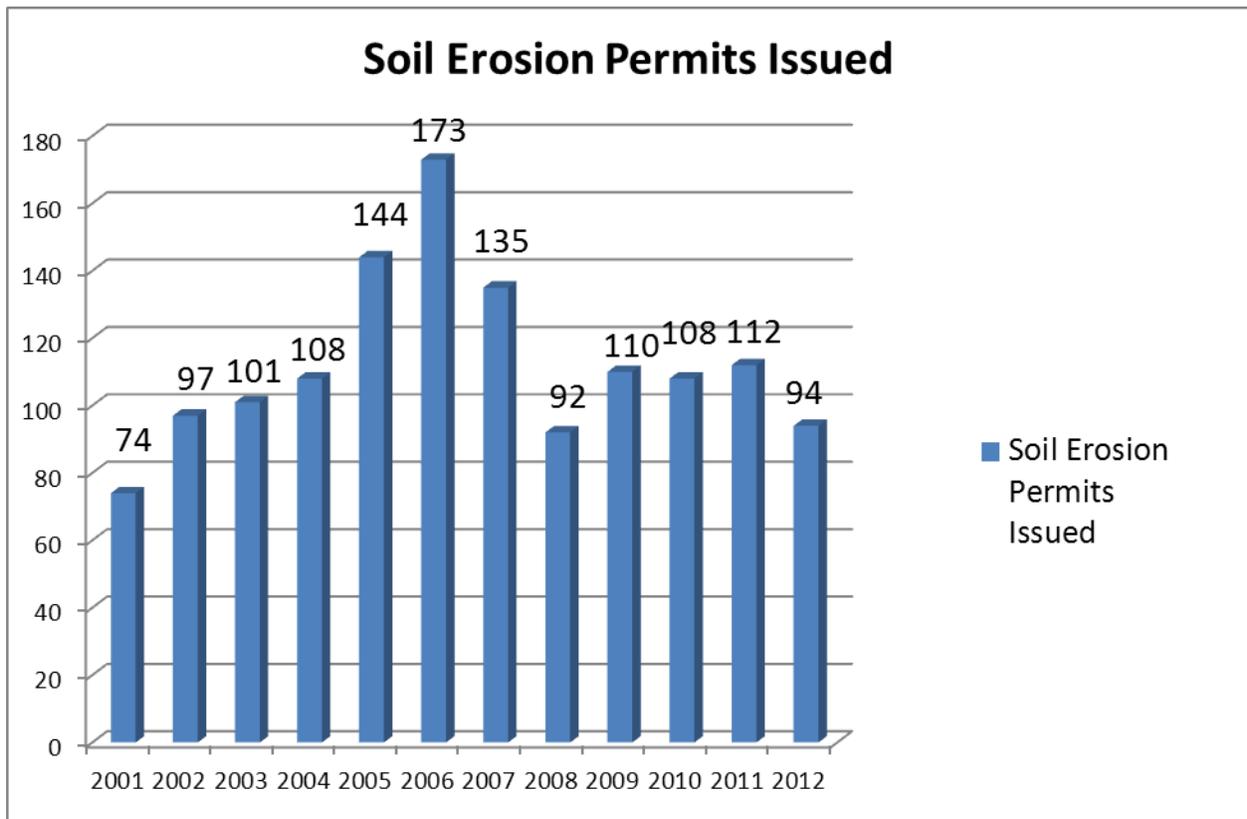
Eggleston Drain



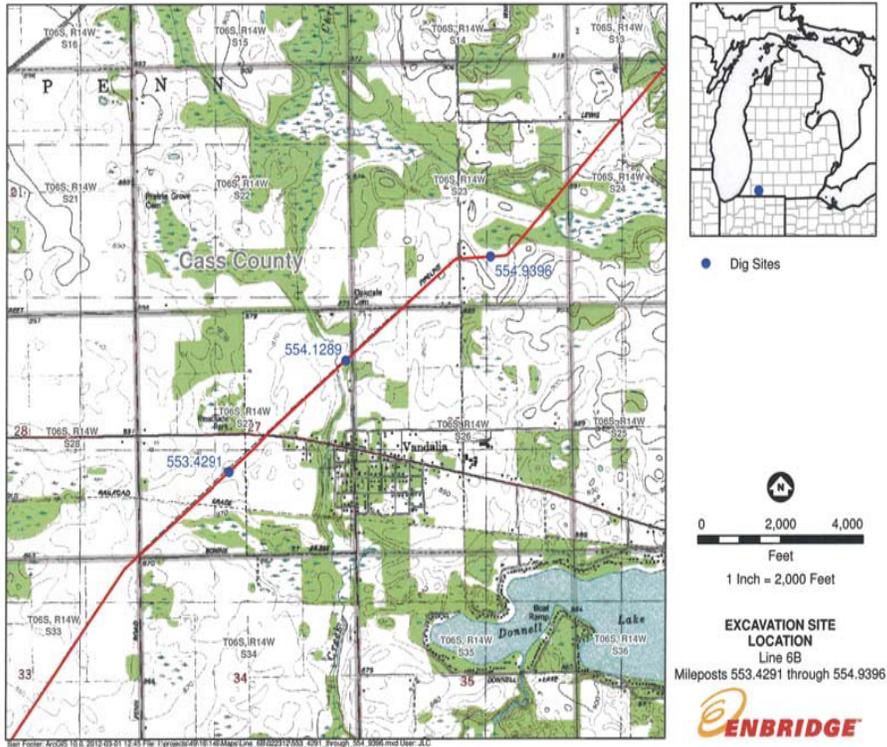
Peavine Drain North Branch



Hilltop Road Drain



Soil Erosion Statistics – FY 2012



Enbridge Pipeline Replacement Project – Line 6B