

Oakland County Drain Commissioner's Office Phase II Storm Water Annual Report Summary for Community Use October 1, 2005 – September 30, 2006

The Oakland County Drain Commissioner's Office has prepared the following summary to assist Oakland County communities in preparing their Phase II Storm Water Annual Report. The following items represent projects implemented by OCDC during fiscal year 2006 to protect and restore water resources in Oakland County and are generally applicable county wide. A complete copy of Oakland County's 2006 Storm Water Annual Report will be available on the Oakland County Web site, www.oakgov.com/drain, after November 1, 2006. For additional information on the projects listed below or other environmental programs offered by OCDC please contact the Environmental Unit at 248-858-0958 or envreq@oakgov.com.

Project Summary

Stream Flow Gauges

The OCDC financially supported the collection of stream flow data at nine United States Geological Survey (USGS) stream gauges in Oakland County. These gauges are located at Sashabaw Creek and the Clinton River in Waterford, Paint Creek in Rochester, the Rouge River in Southfield, the Clinton River in Auburn Hills, the Upper Rouge River in Farmington, the Evans Ditch in Southfield, the Rouge River in Birmingham and the Franklin Branch in Birmingham. The data can be accessed from the USGS Web site at <http://waterdata.usgs.gov/mi/nwis/rt>.

Walnut Lake Pump Station and Force Main Project

The OCDC coordinated the startup of the \$12,000,000 Walnut Lake Pump Station and Force Main Project in August 2006 after more than two years of construction. The completion of this 21.8 cfs pumping station along with the installation of approximately 21,000 feet of 20-inch force main, eliminates sanitary sewer overflows at this location. This project substantially improves downstream water quality in the Rouge River by using the innovative solution of utilizing available combined sewer overflow storage for a sanitary sewer overflow issue.

Clinton River Basin – Watershed Initiative

The OCDC received a \$670,000 Environmental Protection Agency (EPA) grant to complete a comprehensive Clinton River Watershed Initiative to integrate existing Clinton River watershed information and generate easy-to-use tools that will promote coordinated local decision making and action. Four planning and implementation tools are being developed as part of this project including:

- Watershed information management system,
- Watershed model,
- Site evaluation tool to assist stakeholders in selecting BMP's
- Update to the Remedial Action Plan (RAP).

This project will provide tools that can be used to assist communities and local stakeholder groups with their ongoing watershed management efforts to improve water quality in the Clinton River watershed. For more information on this project please visit the OCDC Web site at www.oakgov.com/drain/projects.

OCDC Phase II Storm Water Annual Report Summary for Community Use October 1, 2005 – September 30, 2006

Oakland County Water Resources Master Plan

The OCDC received an EPA grant to complete a comprehensive water resources master plan. This project includes a number of tasks including developing a GIS based Water Resource Atlas of Oakland County, educational programs including watershed signage, and studies to investigate water quality, quantity and infrastructure issues in various drains. Work started in 2006 and will be completed in late 2007.

OCDC Wastewater Treatment Operations

The OCDC successfully operates and maintains the Commerce Township and Walled Lake-Novu Waste Water Treatment Plants (WWTPs) and the Acacia, Birmingham, Bloomfield Village, and the George W. Kuhn Retention Treatment Basins (RTBs). For the first nine months of 2006, approximately 987 million gallons of treated wastewater was discharged from the WWTPs while approximately 470 million gallons of treated combined sewage was discharged from the four RTBs during 13 overflow events. During this period, nearly 1.5 billion gallons were discharged to Oakland County's surface waters and all discharges were compliant with permit limitations. To recognize this compliance record, the National Association of Clean Water Agencies awarded its "Silver Award" to the Walled Lake-Novu WWTP and its "Gold Award" to the Commerce Township WWTP. These awards acknowledge OCDC's exceptional waste water treatment operation. OCDC remains committed to continued water resource protection and preservation.

Public Education Summary

Oakland Lakefront Magazine Advertisements

Public education messages were placed in the June, July, August, September and October issues of Oakland Lakefront magazine. Oakland Lakefront is published monthly and reaches approximately 19,000 homeowners on the waterways of Oakland County.

Oakland County Dirt Doctors Program

The Dirt Doctors program was designed to teach children how individual actions affect our waterways. It explains the connections between vegetation, soil erosion, and water quality in a fun-filled, interactive program. During fiscal year 2006, the OCDC Dirt Doctors gave 45 presentations at eight events located in Bloomfield Hills, Auburn Hills, Farmington Hills, Lake Orion and Waterford.

Watershed Signage

The OCDC arranged a bulk purchase of Clinton River Watershed road and trail signs. The Road Commission of Oakland County lettered the signs. More than 200 signs were lettered and installed as part of this effort to raise residents' awareness of the Clinton River. The following communities participated in the sign purchase: Addison, Brandon, Clarkston, Keego Harbor, Independence, Oakland Township, Oxford Village, Pontiac, Rochester, Rochester Hills, Springfield, Waterford, West Bloomfield and Lake Angelus. The OCDC plans to extend the watershed signage program to the Kent Lake and Upper Huron Watershed in 2007.

OCDC Phase II Storm Water Annual Report Summary for Community Use October 1, 2005 – September 30, 2006

Cable Television Programs

OCDC partners with Bloomfield Township cable to create cable television shows geared towards environmental issues. H₂Oakland cable television shows feature OCDC employees and others who have specialized expertise in various disciplines associated with environmental protection. This year, H₂Oakland added four new shows increasing its library to 30 shows. A tape of each of the four new shows will be distributed to every cable outlet in Oakland County. The cable shows taped in 2006 are:

- Dirt Doctors (children's educational program)
- Maintaining Lakes in Oakland County
- What is IDEP? Everything You Should Know About IDEP!
- George W. Kuhn Drain Retention Treatment Basin Tour

Rouge River Water Festival

The OCDC again partnered with the Cranbrook Institute of Science to present the Water Festival for the Oakland County portion of the Rouge River Watershed. The fourth annual Cranbrook Water Festival provided an educational and enjoyable learning experience that supports the objectives of school science programs for fifth grade students. The 2006 Water Festival played host to more than 1,200 participants from 25 schools in 11 different Oakland County Rouge Communities. Cranbrook and OCDC plan to continue the Water Festival in 2007. Schools participated from the following communities: Bloomfield Hills, Detroit, Farmington, Franklin, Novi, Pontiac, Rochester, Rochester Hills, Southfield, Troy and Walled Lake.

Clinton River Water Festival

The OCDC is part of a planning committee to present the first Clinton River Water Festival at Oakland University on May 17, 2007. The Water Festival plans to involve more than 1,000 fourth and fifth grade students.

Landscaping Lakefront Property Workshops

The OCDC was part of a cooperative effort led by Michigan State University – Extension to hold four Landscaping Lakefront Property Workshops. The workshops were developed to teach the principles of landscaping lakefront property for water quality. Information about the workshops was sent to approximately 5,000 property owners in Oakland County. The workshops were held in Clarkston, Lake Orion, West Bloomfield and White Lake. Approximately 200 residents attended the workshops.

Kids' Calendar Contest

The Kids' 2007 Calendar Contest is underway. Fourth and fifth grade students from throughout Oakland County have been invited to participate in the contest. Winning entries will be included in more than 3,000 calendars that will be distributed to community governments, businesses and schools throughout Oakland County.

Clinton River Review

On September 22, 2006, more than 120 people were on hand at Oakland University to hear presentations related to the protection and restoration of the Clinton River Watershed. Presentations covered a wide range of topics from the assessment of contaminated sediment to protecting and Connecting Green Spaces. The EPA's Robert Tolpa was the keynote speaker.

OCDC Phase II Storm Water Annual Report Summary for Community Use October 1, 2005 – September 30, 2006

Illicit Discharge Elimination Program Summary

Environmental Hotline

Oakland County continues to staff the 24-hour environmental hotline. Complaints are logged in a database and referred to the appropriate agency for action. Oakland County received 40 complaints in 18 communities during the reporting period. Investigation of these complaints resulted in the identification of 17 illicit discharges. Of these, 15 have lead to the identification of a discharge source. Of those discharges, 11 have been corrected and four remain under investigation or corrective action is pending.

Summary of OCDC IDEP Complaint Investigations for 2005-2006

Community	Number of			Source of Discharge
	Complaints	Illicit Discharges	Illicit Discharges Corrected	
Auburn Hills	1	1	0	Spill from an auto accident
Bloomfield Township	6	2	1	Sanitary sewer misconnections (2)
Brandon Township	1	0	N/A	N/A
Commerce Township	3	1	1	Force main break
Farmington Hills	3	3	2	Salt storage, landscaping runoff, Slurry mix from granite cutting
Highland Township	1	0	N/A	N/A
Royal Oak Township	1	0	N/A	N/A
Lyon Township	1	0	N/A	N/A
Novi	1	0	N/A	N/A
Orion Township	1	0	N/A	N/A
Pontiac	2	2	2	Spill- Gas station Fuel /Oil separator
Rochester Hills	2	1	N/A	Illegal dumping - source not found
Springfield Township	1	0	N/A	N/A
Troy	5	0	N/A	N/A
Waterford Township	3	2	1	SESC at a Construction site Grass Clippings
West Bloomfield Township	3	2	1	Spill at a gas station Detergent - Source not found
Walled Lake	2	2	2	Illegal dumping – oil, paint ball material
White Lake Township	3	1	1	Deck stain from boat dock

OCDC Phase II Storm Water Annual Report Summary for Community Use October 1, 2005 – September 30, 2006

Outfall Surveys and Dry Weather Investigations

The OCDC continues to investigate county drains during dry weather to locate pollutant sources. During this reporting period outfall surveys were conducted on 68 county drains located in 13 communities within the Clinton River Watershed. Thirty-one county drains suspected of containing illicit discharges were walked and surveyed locating 898 inlets to the drains. Testing and screening of these inlets has led to the identification of 24 illicit discharges. Investigation of these discharges has led to the identification and elimination of eight discharge sources. The remaining 16 illicit discharges are under investigation or corrective action by Oakland County, the local municipalities or other appropriate enforcement agencies. An additional 11 county drains with suspected illicit discharges are scheduled to be investigated in 2006. The following table contains a summary of these investigations.

In 2006-2007, Oakland County plans to begin outfall surveys and investigations on subdivision drains discharging to inland lakes in the Upper Clinton Watershed under a Clean Michigan Initiative grant issued to the OCDC in conjunction with the Road Commission for Oakland County (RCOC). Oakland County also plans to perform additional outfall surveys and follow up illicit discharge investigations in the Rouge River Watershed under a grant issued to the OCDC by the Rouge Program Office and will begin both wet weather and dry weather sampling and investigation of the large enclosed inter-county drains in Madison Heights and Hazel Park under a grant issued to OCDC by the EPA.

Oakland County Drains Surveyed During 2005 - 2006

Drain Name	Community	Suspected Illicit Discharges	Illicit Discharges Discovered	Illicit Discharges Corrected	Source
Addison/Dryden	Addison Twp.	No	N/A	N/A	N/A
Augusta Drain	Pontiac	Yes	2	1	Sanitary
Big Meadows Drain	Brandon Twp.	No	N/A	N/A	N/A
Bishop Drain	Rochester Hills	No	N/A	N/A	N/A
Boyd Drain	Auburn Hills	No	N/A	N/A	N/A
Brandon-Oxford Drain	Brandon Twp. / Oxford Twp.	No	N/A	N/A	N/A
Brown Drain	Orion Twp.	No	N/A	N/A	N/A
Clark Drain	Leonard Village / Addison Twp.	Yes	3	1	Failed septic systems
Chester Drain	Troy	Yes (scheduled)	0	0	N/A
Cowden Drain	Brandon Twp.	Yes	0	0	N/A
Crake Drain	Rochester Hills	No	N/A	N/A	N/A
Dohany Drain	Troy	Yes (Scheduled)	0	0	N/A
Drahner Drain	Oxford Twp.	Yes	0	0	N/A
Dry Run Drain	Independence Twp./ Orion Twp.	Yes	1	0	Unknown
Dutton Drain	Auburn Hills/ Rochester Hills	Yes	1	0	Unknown
Elliot Drain	Troy	No	N/A	N/A	N/A
Ferry Drain	Troy/ Rochester Hills	Yes	1	1	Sanitary
Fessler Drain	Troy	No	N/A	N/A	N/A
Fetterly	Troy	Yes	0	0	N/A
Fred D. Houghton	Rochester Hills	No	N/A	N/A	N/A
Fredericks Phase 2	Troy	Yes	0	0	N/A
Fredericks Phase 1	Troy	Yes	1	1	Catch basin screenings
Frost Drain	Oakland Twp.	Yes	0	0	N/A
Gabler	Rochester Hills	Yes	2	1	Sanitary, Catch basin screenings
Gosling	Oakland Twp.	Yes	0	0	N/A
Greenacre	Rochester Hills	No	N/A	N/A	N/A
Halfpenny Drain	Troy	Yes (Scheduled)	0	0	N/A
Hamilton	Rochester Hills	No	N/A	N/A	N/A

OCDC Phase II Storm Water Annual Report Summary for Community Use October 1, 2005 – September 30, 2006

Oakland County Drains Surveyed During 2005 – 2006 - continued

Drain Name	Community	Suspected Illicit Discharges	Illicit Discharges Discovered	Illicit Discharges Corrected	Source
Hampton	Rochester Hills	No	N/A	N/A	N/A
Henry Graham	Troy / Madison Heights	Yes (scheduled)	0	0	N/A
Houghten	Troy	No	N/A	N/A	N/A
Ireland-Varner	Rochester Hills	No	N/A	N/A	N/A
Jackson	Troy	No	N/A	N/A	N/A
Jackson phase 2	Troy	Yes (Scheduled)	0	0	N/A
Jensen	Rochester Hills	No	N/A	N/A	N/A
Karas	Rochester Hills	Yes (Scheduled)	0	0	N/A
King	Troy	Yes (Scheduled)	0	0	N/A
Krohn Drain	Addison Twp./ Oakland Twp.	Yes	0	0	N/A
Ladd Drain	Rochester Hills	Yes	2	0	Landfill (groundwater)
Lane Drain	Troy	Yes (Scheduled)	0	0	N/A
Leonard Drain	Addison Twp. Leonard Village	Yes	0	0	N/A
Mainland Drain	Pontiac	Yes	3	1	Oil, car washing, Sanitary
Mastin	Troy	No	N/A	N/A	N/A
McClure Drain	Oakland Twp.	Yes	0	0	N/A
McConnell	Troy	(Scheduled)	0	0	N/A
McIntyre	Rochester Hills	No	N/A	N/A	N/A
Moxley Phase 2	Troy	(Scheduled)	0	0	N/A
Moxley Phase 1	Troy	No	N/A	N/A	N/A
Nancy Dingeldey	Rochester Hills	No	N/A	N/A	N/A
Nelson	Troy	Yes	1	1	Sanitary
Paint Creek Drain	Orion/ Brandon /Oxford Twp.	Yes	0	0	N/A
Pontiac Clinton River 2	Pontiac	Yes	5	0	Sanitary (unconfirmed)
Prince Drain	Oxford Twp./ Addison Twp.	Yes	0	0	N/A
Quinn	Troy	No	N/A	N/A	N/A
Reid & Branch Drain	Orion Twp.	Yes	0	0	N/A
Ramiro	Rochester Hills	No	N/A	N/A	N/A
Renshaw	Troy	Yes	0	0	N/A
Rewold	Rochester Hills	Yes	0	0	N/A
Robert Huber	Rochester Hills	No	N/A	N/A	N/A
Roth Drain	Troy	Yes	2	1	Road Yard, Sanitary
Shoup Drain	Oakland	Yes	0	0	N/A
Spencer	Troy	Yes	1	1	Sanitary
Sprague	Troy / Rochester Hills	Yes	0	0	N/A
Shanahan	Troy	No	N/A	N/A	N/A
Sharkey	Madison Heights	Yes (Scheduled)	0	0	N/A
Sturgis	Troy	No	N/A	N/A	N/A
Sue Ann Douglas	Troy	No	N/A	N/A	N/A
Swan Drain	Troy	No	N/A	N/A	N/A
Van Maele	Rochester Hills	Yes	0	0	N/A
Vogt Phase 1	Troy	Yes	1	0	Sanitary (unconfirmed)
Vogt Phase 2	Troy	No	N/A	N/A	N/A
Wolf	Rochester	No	N/A	N/A	N/A