

Oakland County Phase II Storm Water Annual Progress Report Summary for Community Use

**Prepared by the Oakland County Water Resources Commissioner's Office
October 1, 2008 – September 30, 2009**

The Oakland County Water Resources Commissioner's Office (WRC) has prepared the following summary to assist Oakland County communities in preparing their Phase II Storm Water Annual Progress Report. The following items represent projects implemented by Oakland County during fiscal year 2009 to protect and restore water resources throughout Oakland County. A complete copy of Oakland County's 2009 Storm Water Annual Progress Report will be available on the Oakland County Web site: www.oakgov.com/water, after November 2, 2009. For additional information on the projects listed below or other environmental programs offered by the WRC, please contact our Environmental Team at 248-858-0958 or envreq@oakgov.com.

Project Summary

USGS Stream Flow Gauges

The WRC financially supported the collection of continuous stage and stream flow data at eight United States Geological Survey (USGS) stream gauges in Oakland County in FY 2009. These gauges are located at Sashabaw Creek and the Clinton River in Waterford, the Clinton River in Auburn Hills, Paint Creek in Rochester, the Rouge River in Birmingham, the Rouge River in Southfield, the Evans Ditch in Southfield and the Upper Rouge River in Farmington. The information was collected at 15-minute intervals and can be accessed from the USGS Web site at: <http://waterdata.usgs.gov/mi/nwis/rt>.

In FY 2010, the Sashabaw Creek and Clinton River in Waterford stations will be reduced to annual peak stage and discharge only and the Evans Ditch station will be eliminated.

Combined Sewer Overflow Retention Treatment Facility Operation

The WRC successfully operates and maintains the Acacia, Birmingham and Bloomfield Village Treatment Basins (RTBs) in the Rouge River Watershed, as well as the George W. Kuhn RTB in the Red Run Subwatershed of the Clinton River Watershed. For FY 2009, approximately 1.77 billion gallons of treated combined sewage were discharged from the four RTBs during 28 overflow events. During this period, all discharges were compliant with permit limitations. The WRC remains committed to continued water resource protection and preservation.

Water Trails Planning

Oakland County Planning and Economic Development Services (OCPEDs) has initiated a program to provide planning support for the development, implementation and promotion of paddling/water trails in Oakland County. For more information contact OCPEDS at 248-858-2470.

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Countywide Green Infrastructure Vision Map and Greenways Planning Support

Oakland County's Green Infrastructure Visioning Project focuses on identifying an interconnected network of green space that conserves natural ecosystem values and functions, guides sustainable development and provides associated economic and quality-of-life benefits to Oakland County communities. OCPEDs has completed mapping for 45 communities. Plans are underway to map additional communities.

Sample Ordinances

OCPEDs has compiled a list of sample ordinances for municipalities to utilize for water quality and resource protection. They are available on the Oakland County Web site at:

www.oakgov.com/es.

Public Education Summary

Riparian Education

In June 2008, the WRC completed the development of riparian education materials entitled, "Waterfront Wisdom-Healthy Habits for Clean Water." The materials consist of a comprehensive booklet, as well as individual pamphlets on each of the seven "Healthy Habits for Clean Water." These materials can be viewed and downloaded at: www.oakgov.com/riparian. As of September 30, 2009, more than 10,300 booklets have been distributed throughout southeast Michigan. A total of 15,000 booklets were printed by the WRC and are available upon request.

The following Lake Improvement Boards sent *Waterfront Wisdom* booklets, in conjunction with annual newsletter mailings, to the riparian landowners on the following lakes:

1. Cranberry Lake in Oakland Township – 123 riparians
2. Dixie Lake in Springfield Township – 210 riparians
3. Lake Oakland in Independence and Waterford Townships – 914 riparians
4. Van Norman Lake in Independence and Waterford Townships – 498 riparians
5. Walters Lake in Independence Township – 463 riparians

Oakland Lakefront Magazine Advertisements

Public education messages were placed in the April to October issues of Oakland Lakefront magazine. The messages included pet care, fertilizers, household hazardous waste disposal, earth-friendly landscaping, car care and storm drain awareness. Oakland Lakefront is published monthly and reaches approximately 19,000 homeowners on the waterways of Oakland County.

Kids' Clean Water Calendar Contest

The WRC received nearly 1,800 entries from fourth and fifth-grade students throughout Oakland County for the 2009 Calendar Contest. Winning entries were included in 5,000 calendars that were distributed to municipalities, businesses and schools throughout Oakland County.

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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 FY 2009, the WRC Dirt Doctors educated more than 1,700 students through 54 presentations at 12 events located in Bloomfield Hills, Clarkston, Davisburg, Lake Orion, Macomb, Oakland Township, Oxford, Rochester and Wolverine Lake.

Watershed Signage

To date, the WRC has helped coordinate the purchase and installation of more than 650 watershed signs throughout the Flint, Clinton, Rouge and Huron River Watersheds in Oakland County, including:

- 215 signs throughout the Huron, Clinton and Flint Watersheds in 2007-2008
- 206 Clinton River Watershed signs in 2005
- 230 Rouge River Watershed signs in 2001-2003

Web Site

The WRC continues to enhance and maintain its Web site: www.oakgov.com/water with county residents in mind. A separate e-mail address is used for handling environmental questions, requests for services and materials at envreq@oakgov.com. OCPEDES continues to host and update the Oakland County Environmental Stewardship Web site: www.oakgov.com/es. The WRC also created a new Web link to its riparian education information at: www.oakgov.com/riparian.

Cable Television and Radio Public Service Announcements

As part of a Rouge Project grant, the WRC broadcast public service announcements (PSAs) on cable and radio. The PSAs ran on Fridays, Saturdays and Sundays to reach homeowners working on weekend home projects such as lawn mowing and cleaning the garage. The cable channels were selected to target the weekend do-it-yourselfer. More than 1,700, 30-second spots were broadcast on cable television. Nearly 200 spots were broadcast on a local radio station that spans much of the southeast Michigan region.

Communities Served by the Public Education Cable PSAs

Auburn Hills	Berkley	Beverly Hills	Bingham Farms	Birmingham
Bloomfield Township	Bloomfield Hills	Clawson	Huntington Woods	Franklin
Farmington	Farmington Hills	Lathrup Village	Livonia	Novi
Oak Park	Orchard Lake	Pontiac	Redford	Rochester
Rochester Hills	Royal Oak	Southfield	Troy	West Bloomfield

The WRC currently is running a Fall PSA campaign on network television, cable TV and radio. To view the PSAs visit our Web site:

www.oakgov.com/drain/program_service/ws_7_simple_steps_to_clean_water.html

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Clinton River Water Festival

The WRC was part of the planning committee to present the third annual Clinton River Water Festival at Oakland University on May 21, 2009. The Water Festival reached 1,210 fifth-grade students from 28 schools in 17 different school districts. More than 50 classes were held for the students with the help of more than 50 presenters.

Rouge River Water Festival

The WRC partnered with the Cranbrook Institute of Science to present the Water Festival for the Oakland County portion of the Rouge River Watershed. The event was held on Sept. 15-Sept. 18, 2009. The seventh annual Cranbrook Water Festival provided an educational and enjoyable learning experience that supports the objectives of school science programs for fourth and fifth-grade students. The 2009 Water Festival played host to more than 1,660 participants from 25 elementary schools in 10 different Oakland County Rouge River Watershed communities. Schools from the following communities participated: Auburn Hills, Birmingham, Bloomfield Hills, Franklin, Farmington, Novi, Beverly Hills, Southfield, Troy and Walled Lake. Eighty-one presenters from 35 organizations provided their time and expertise over the course of this four-day event.

Michigan Green Schools Program

This program encourages public and private schools to participate in energy savings and environmental activities to be designated as "Michigan Green Schools." During the 2008/2009 school year, 98 public and private schools in Oakland County were designated Michigan Green Schools. This was the most of any county in the state. A goal of having 200 of Oakland County's public and private schools participate in the program has been set for the 2009/2010 school year.

Illicit Discharge Elimination Program Summary

Pollution Hotline

The WRC continues to staff the 24-hour Pollution Hotline (248-858-0931) where residents, municipalities and others can call to report surface water pollution in Oakland County.

Oakland County created this Pollution Hotline to address Phase II Storm Water Permit requirements and because individuals and municipalities wanting to report surface water pollution often were unclear about how to do so. This Hotline provides a clearinghouse for surface water pollution complaints resulting in a consistent 24-hour response.

Complaints are logged in a database and referred to the appropriate agency for action. Oakland County received 52 complaints from 26 communities in FY 2009. Investigation of these complaints resulted in the identification and elimination of 25 illicit discharge sources. An illicit discharge is pollution draining to surface water or the dumping of polluting material that can impact surface water. Results of complaint investigations are summarized in the table below.

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Summary of FY 2009 WRC IDEP Complaint Investigations

Community	Number of			Source of Discharge
	Com-plaints	Illicit Discharges Identified	Illicit Discharges Corrected	
Addison Township	1	0	0	NA
Berkley	1	0	0	NA
Bingham Farms	1	1	1	Fuel Oil – Illegal Dumping
Birmingham	2	2	2	Restaurant – Grease Dumping, Residential Pool – Backwash / Filter
Bloomfield Hills	3	2	2	School – Misconnected Mop Sink, Fungicide – Golf Course (Fish Kill)
Bloomfield Township	1	1	1	Misconnected Septic – Residential
Brandon Township	1	0	0	NA
Commerce Township	1	1	1	Restaurant – Grease Dumping
Farmington	1	1	1	Yard Waste / Debris Dumping
Farmington Hills	4	2	2	Residential-Misconnected Sanitary, Carpet Cleaner – Illegal Dumping
Hazel Park	3	2	2	Fuel Spill – Race Track Vehicle Oil Leak
Lake Orion Village	1	0	0	NA
Milford Township	2	0	0	NA
Orion Township	1	1	1	Misconnected Mop Sink – Service Station
Ortonville Village	1	0	0	NA
Oxford Township	2	1	1	Carpet Cleaner – Illegal Dumping
Oxford Village	1	0	0	NA
Pontiac	5	3	3	Hydraulic Fluid – Construction Equip. Soap Suds – WWTF Pass Through Oil – Unknown Source
Rochester	5	1	1	Iron from Water Treatment Plant to Paint Creek
Rochester Hills	2	1	1	Coolant Spill – Rochester Hills High School
Rose Township	1	0	0	NA
Southfield	2	0	0	NA
Troy	2	2	2	Diesel Fuel Spill – Barnard Drain Restaurant – Grease Dumping
Waterford Township	5	3	3	Grease / Oil Discharge – Road Ditch Asphalt Dumping – Road Ditch Hydraulic Fluid – Garbage Truck
West Bloomfield Township	2	1	1	Restaurant – Grease Dumping
White Lake Township	1	0	0	NA
Totals: 26 Communities	52	25	25	

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Discharge Point Surveys and Illicit Discharge Investigations

The WRC continues to conduct storm water discharge point surveys and follow-up investigations to locate and eliminate pollution from our waterways. A discharge point survey consists of Global Positioning System (GPS) point location and illicit discharge screening, which includes visual inspection and sampling. Surveys were conducted at 373 discharge points in 25 communities including: 312 discharge points on 150 county drains in the Rouge, Huron, Shiawassee, Flint, and Clinton River Watersheds, 50 discharge points on Oakland County Road Commission drains in the Clinton River Watershed, and 11 discharge points on local drains located in Southfield in the Rouge River Watershed.

In addition, the WRC performed surveys, wet and dry weather sampling and follow-up investigations on 29 enclosed drain systems in Madison Heights, Hazel Park and Troy. A total of 640 *E. coli* samples were collected during 17 sampling events.

Testing and screening of discharge points has identified 44 illicit discharges, and follow-up investigations have resulted in 35 of these being eliminated. The remaining nine illicit discharges are under investigation for corrective action by the WRC, Oakland County Health Division (OCHD) or the local community. The following table summarizes the results of the WRC discharge point surveys and investigations.

Summary of Discharge Point Surveys and Illicit Discharge Investigations

Identifier	Community	Illicit Discharges		Source
		Identified	Corrected	
County Drains				
Bloomfield Highlands Drain ⁽¹⁾	Bloomfield Twp.	1	0	Misconnected Septic System
Clark Drain ⁽²⁾	Leonard Village	0	0	Failed Septic Systems
Campbell Drain ⁽²⁾	Hazel Park	0	0	Potential Wet Weather Overflow
Clarenceville Drain ⁽²⁾	Farmington Hills	0	0	Misconnected Septic Systems
Devonshire Drain	Bloomfield Twp.	1	1	Misconnected Septic System
Fracassi Drain ⁽²⁾	Southfield	0	0	Residential Sanitary
Gabler Drain ⁽¹⁾	Rochester Hills	1	0	Runoff – Commercial Facility
Gorsline Drain ⁽¹⁾	Troy	0	0	Residential Sanitary, Commercial
GWK North Drain ^(1, 2)	Madison Heights	4	3	DPW Yard, Residential Sanitary Connections, Wet Weather Overflow
GWK South Drain ^(1, 2)	Madison Heights	3	2	Residential Sanitary Connections, Cross – connected combined sewer, Sanitary Overflows
Hazel Drain ^(1, 2)	Farmington Hills	0	0	Misconnected Septic Systems
Joslyn Drain	Pontiac	1	1	Diesel Fuel – Industrial
Kutchey Drain ⁽²⁾	Hazel Park	1	1	Misconnected Sanitary
Lane Drain ⁽²⁾	Troy	0	0	Residential Sanitary
McCoy Drain ⁽²⁾	Madison Heights	0	0	Potential Wet Weather Overflow
Moxlley Phase 3 Drain ⁽²⁾	Troy	0	0	Residential Sanitary Connection
Oxford Avenue Drain ^(1, 2)	Farmington Hills	0	0	Residential Sanitary Connection
Pearl St. Drain ^(1, 2)	Farmington Hills	0	0	Residential Sanitary Connection
Westwind Lake Drain	West Bloomfield	1	1	Restaurant Grease Dumping
West End Drain	Waterford	1	1	Residential Sanitary Connection

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Identifier	Illicit Discharges		Source
	Identified	Corrected	
City of Southfield			
Southfield – 07.4.1C	1	1	Illegal Dumping, Apartment Complex
Southfield – 20.02 ⁽¹⁾	1	0	Misconnected Sanitary, Commercial Facility
Southfield – 21.01 ⁽¹⁾	1	0	Misconnected Sanitary, Hotel
Southfield – 19.03 ⁽¹⁾	1	0	Misconnected Sanitary, Residential
Southfield – 31.04 ⁽¹⁾	1	0	Misconnected Sanitary, Residential
Totals	19	11	
⁽¹⁾ Indicates an ongoing investigation or corrective action enforcement by the WRC, the OCHD or local community to be completed in FY 2010 ⁽²⁾ Suspected illicit discharges identified, but unconfirmed. Follow-up testing and confirmation to be conducted in FY 2010			

In summary, during FY 2009, 44 illicit discharges were discovered by the WRC during complaint investigations, discharge point surveys and follow-up investigations. Of these, a total of 35 illicit discharges were corrected with the identified sources being eliminated. The remaining nine illicit discharges continue to be investigated for ultimate removal, or are in the process of being corrected through enforcement actions.