



Oakland County, Michigan 2005 Annual Report

Certificate of Coverage MIG610042 General Storm Water Discharge Permit MIG619000

Submitted to:

**State of Michigan Department of Environmental Quality
Surface Water Quality Division**

Prepared by:

**Oakland County Drain Commissioner's Office
Environmental Unit
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Background

In March of 2003, Oakland County transitioned from a Voluntary Storm Water Permit to a mandatory watershed-based storm water permit for the Rouge River Watershed, as the National Pollution Discharge Elimination System (NPDES) Phase II rules came into effect. At the same time, Oakland County applied for an extension of the permit coverage to include all of the other watersheds within Oakland County. In July 2005, Oakland County resubmitted their Stormwater Pollution Prevention Initiative (SWPPI) to consolidate goals and actions from the Watershed Management Plans (WMPs), Illicit Discharge Elimination Plan (IDEP) and Public Education Plan (PEP).

The Oakland County Drain Commissioner's Office (OCDC), as the designated Phase II representative for Oakland County, is working to meet permit requirements and Watershed Management Plan (WMP) goals within Oakland County's control and jurisdiction. These goals are consistent in that they all focus on protecting and restoring surface water quality in Oakland County. The Oakland County Stormwater Committee (OCSC), which is facilitated by OCDC's Environmental Unit, was formed in November 2003 to guide and provide oversight to Oakland County's overall Phase II Storm Water Permit compliance efforts.

The current departments and agencies comprising the OCSC include:

- Oakland County Drain Commissioner's Office (OCDC),
- Road Commission for Oakland County (RCOC),
- Oakland County Parks & Recreation (OCPR),
- Offices of the Oakland County Executive
 - Department of Facilities Management (OCFM),
 - Waste Resource Management (WRMD)
 - Planning and Economic Development Services Division of the Community and Economic Development Department (PEDS),
 - Department of Aviation and Transportation (OCIA),
 - Information Technology (OCIT),
 - and the Oakland County Health Division (OCHD).

The current Watershed Permit for Oakland County regulates Municipal Separate Storm Sewer Systems (MS4's) and related programs as defined in the permit. The Rouge River Watershed has previously completed required WMPs, whereas, remaining Oakland County WMPs are still being developed and will be finalized soon.

Annual Report

This Annual Report summarizes Oakland County's progress toward meeting the goals and objectives of County WMPs and outlines activities performed between October 1, 2004 and September 30, 2005 (FY 2005). For simplicity of review, this Annual Report follows the main topics and activities outlined in the County's Storm Water Pollution Prevention Initiative (SWPPI). Activities not specifically included in the SWPPI, which also accomplish the goals and objectives of the WMPs, are identified as "extras" in the Annual Report.

Goal 1 – Remove Sources of Pollution that Threaten Public Health

Infrastructure Maintenance & Inspection

OCDC – Municipal Separate Storm Sewer System (MS4) Database

Target: Work with OCDC, RCOC, OCFM, OCIA, and OCPR to create a GIS-based database for tracking IDEP progress on Oakland County owned and operated storm water conveyance systems. OCDC will make the database available to other Oakland County departments and divisions for population.

Timeline: Ongoing; task completion anticipated mid 2006.

Progress:

OCDC database staff have met regularly with the Environmental Unit and Operations and Maintenance to finalize the needed database structure to encompass IDEP for county drains, county roads, county parks, and other county facilities. Phase 1 of this task was to migrate all existing IDEP GIS data to ArcGIS 9.x. This was completed in October 2005. Phase 2, the needs assessment and design phase for the MS4 database design ran concurrent with Phase 1 and was completed in August 2005. Remaining work (Phase 3) is expected to be completed in mid 2006. This final phase involves field testing with GPS devices, revisions to database suggested by staff and final demonstration of the product. Upon completion, Oakland County will have an integrated database to manage all Phase II Storm Water information, which will substantially improve reporting capabilities.

OCDC - Storm Drain and Pond Maintenance and Inspections

Target: Perform routine inspections of OCDC owned and operated storm drains and ponds for evidence of sedimentation, blockage, or improper function on a three-year schedule, or as staff/resources are available. Record findings on field reports and generate repair sheets for any corrective actions required. Track inspections and repair sheets.

Timeline: Ongoing inspections on a three-year cycle.

Progress:

OCDC inspected 3,897 structures, 123 drains and performed 182 structure repairs during FY2005. Reports are available from OCDC Operations and Maintenance upon request.

OCDC – Sanitary Sewer Maintenance and Inspections

Target: Continue to perform routine inspections on OCDC owned or operated sanitary sewer systems to insure proper operation and prevent overflows and/or release of sewage to surface waters.

Timeline: Ongoing inspections on a five-year cycle.

Progress:

OCDC staff performed 4,449 inspections and 738 repairs to OCDC owned or operated sanitary sewer systems as of October 1, 2005. Reports are available through OCDC Operations and Maintenance upon request.

Goal 1 – Remove Sources of Pollution that Threaten Public Health – Continued

Infrastructure Maintenance & Inspection - Continued

OCDC – Verify New Connections - Prevent Illicit Connections

Target: For new construction and/or reconstruction projects of storm and sanitary systems managed by OCDC, proper connection is verified by inspection staff.

Timeline: Ongoing

Progress:

OCDC employs nine trained inspectors to inspect drain and sewer projects throughout Oakland County. The inspector is responsible for inspecting connections and other related items to insure that work is constructed in accordance with the plans and specifications. The inspector is also present to insure that the integrity of the existing system is maintained and that proper compliance with state and local regulations is observed.

In FY 2005, Inspection Field Staff issued 1,149 sewer connection permits throughout Oakland County and also provided full time inspection on eight new construction projects.

OCDC – Infrastructure Mapping

Target: Continue progress on conversion of Drain Office Water/Sewer/Storm/Combined data to GIS format.

Timeline: Ongoing; completion anticipated during 2007 calendar year.

Progress:

Water infrastructure has been fully converted as of October 2004 and is currently undergoing a quality assurance/quality control (QA/QC) process. Sanitary/combined sewer infrastructure is currently being converted, with final delivery of product expected in early 2006. Contract negotiations for storm sewer data conversion will begin in February 2006 and data conversion is expected to begin in May 2006. Projected completion has not yet been determined.

OCDC – Spill Response

Target: Prepare spill response procedures that address sanitary discharges impacting surface waters, county drains, and facility pollutant spills. The spill response procedure will address containment, source identification, source removal, notification and reporting.

Timeline: Complete procedure by the end of FY2005. Spill response is ongoing.

Progress:

Several meetings were held in FY 2005 to clarify surface water spill responsibilities for Oakland County's rivers lakes and streams. OCDC coordinated meetings with the Oakland County Emergency Response and Preparedness Division and the North Group Consortium HAZMAT team leader. Meeting topics included discussion of the Oakland County's existing comprehensive HAZMAT Response Program, which is designed to respond to hazardous material spills throughout Oakland County. Currently, there are five active Mutual Aid Consortiums (East Group, North Group, Oakway Group, West Group, Western-Wayne Group) that are fully equipped and trained as "first responders" to address hazardous material spills throughout the County. OCDC staff coordinates with these "first responder" teams on an as needed basis. The OCDC Environmental Unit continues to implement the IDEP, which deals with illicit sanitary discharges and connections. The IDEP includes, sampling, complaint response, illicit discharge/connection elimination and reporting/notification as required to protect public health and the environment.

Goal 1 – Remove Sources of Pollution that Threaten Public Health – Continued

Infrastructure Maintenance & Inspection - Continued

OCDC – Spill Response - Continued

During this reporting period, OCDC assisted with seven spills throughout the County including, a hydraulic oil spill in Birmingham (Rouge River), a gasoline spill in Waterford (Wilmont Drain), a sludge hauler spill in Oakland Township, a hydraulic oil spill in Addison Township (Joslyn Drain), a oil spill in Waterford, a gas spill in Farmington Hills and a chlorine spill in Pontiac (Clinton River).

On-site Sewage Disposal System (OSDS) Program

OCHD – Oakland County OSDS Program

Target: Oakland County Health Division will continue to authorize issuance of permits for new OSDS's and investigate and seek correction for reported failing systems.

Timeline: Ongoing

Progress:

The Oakland County Health Division issued 1,441 on-site sewage disposal system permits for the first three quarters of FY 2005 as reported to the Michigan Department of Environmental Quality. This number consists of 1,099 new systems and 342 repair/replacement permits. Data for the fourth quarter of FY 2005 has not been compiled.

The Oakland County Health Division has acted on 174 customer complaints in FY 2005 as reported to the Michigan Department of Environmental Quality.

OCDC/RCOC/OCPR – Oakland County Facilities with OSDS

Target: Identify Oakland County Facilities with OSDS's

Timeline: Ongoing

Progress:

Oakland County has eight facilities with OSDS's. OCDC and Facilities Management have no facilities with OSDS's. The RCOC has two garage facilities with OSDS's (Milford-District #1, Davisburg-District #2) and each has their tanks pumped on a regular basis as needed. The Oakland County Parks Commission has six OSDS's listed below and each is maintained as outlined in their respective Operations & Maintenance Manual.

OC Parks

- *Addison Oaks – Septic (Sewage Lagoon and Drain Field)*
- *Groveland Oaks - Septic*
- *Independence Oaks - Septic*
- *Lyon Oaks - Septic*
- *Orion Oaks - No Service (Port-a-potty)*
- *Rose Oaks - No Service (Port-a-potty)*
- *Springfield Oaks - Septic*
- *White Lake Oaks - Septic converting to City Sewer*

Goal 1 – Remove Sources of Pollution that Threaten Public Health – Continued

Project and Grant Facilitation

OCDC – George W. Kuhn Facility Contract IV

Target: Act as project manager for the duration of the project. This phase includes: construction of the Retention Treatment Basin (RTB) improvements including, a 30.7 million gallon concrete basin expansion, a 9,140 square foot treatment facility, modifications to existing control structures, modifications to electrical and mechanical systems and various control modifications.

Timeline: Construction began in October 2001. Project is scheduled to be complete by December 22, 2005

Progress:

A contract has been awarded to Tetra Tech MPS to design the new Retention Treatment Facility. The improvements are to include the new inlet weir structure, existing inlet structure modifications, dewatering pumping station and sodium hypochlorite storage building, dewatering pumping station outlet sewer and force main, connection to the rerouted Madison Heights combined sewer overflow and the extension of the parallel storm drains adjacent to the new inlet weir structure. The construction contract was awarded to Walbridge Aldinger Construction Co. Inc., in the amount of \$79,460,000. This project's additional 30 million gallons of storage and state of the art screening and disinfection system is expected to substantially improve downstream water quality in the Red Run Drain, Clinton River and Lake St. Clair.

OCDC – George W. Kuhn Facility Contract V

Target: Act as project manager for the duration of the project. Project consists of the rehabilitation of several existing regulators and installation of level sensors to improve sewer system control. A U.S. Army Corps of Engineers grant funded the project design, which was completed by a joint venture of Wade-Trim Associates, Inc. and NTH Associates.

Timeline: Ongoing

Progress:

Bids were received on July 19, 2005 and the construction contract was awarded to Weiss Construction Company, LLC, for the amount of \$1,275,000. Construction shall begin after September 22, 2005. Project completion will improve operational control resulting in fewer sanitary discharges and overall improved water quality.

WRMD – Oakland Brownfield Initiative

Target: Continue facilitating the Oakland Brownfield Initiative which serves to protect the County's natural resources, particularly critical water and waterways, while restoring the environment and urban vitality.

Timeline: Ongoing

Progress:

In 2005, Oakland County was awarded \$400,000 from the United States Environmental Protection Agency (USEPA) for two separate Brownfield Assessment grants. \$200,000 will be used for hazardous substance sites while the other \$200,000 will be used for petroleum sites. These grants will help assess Brownfields within the County. In addition, Oakland County has \$550,000 in its Brownfield Cleanup Revolving Loan Fund (BCRLF) to provide low interest loans to private developers and local communities that spend money on remediation of Brownfield Sites. In the future, Oakland County expects to become even more proactive with the Brownfield issue. Oakland County is currently implementing a database which will list potential redevelopment sites in all of the County's Cities, Townships and Villages.

Goal 1 – Remove Sources of Pollution that Threaten Public Health – Continued

Project and Grant Facilitation – Continued

OCDC – Clinton Watershed County Drain IDEP

Target: Survey Oakland County Drains for Illicit Discharges including mapping outfall locations and performing IDEP investigations on County Drains in the Clinton Watershed.

Timeline: Completion in September 2006.

Progress:

OCDC began its survey of County Drains under the CMI IDEP Grant for the Clinton River Watershed in Oakland County. OCDC has surveyed 58 County Drains in the Clinton Main and Upper Clinton Subwatershed locating 666 outfalls and discovering 14 illicit discharges. Surveys are expected to continue during October and November of 2005 in the Upper Clinton, Paint Creek and Stony Creek Subwatersheds. Surveys of the remaining portions of the Clinton Main Subwatershed in Rochester Hills and Troy and the Red Run Subwatershed in Troy, Madison Heights and Hazel Park are scheduled to commence in Spring 2006. The project is due to be completed in September 2006.

OCDC – Rochester Hills Extension No. 5 – Contract 3

Target: The purpose of this project was to provide water and sanitary sewer to unserved areas. It involved the installation of approximately 3,000 feet of sanitary sewer and 2,300 feet of water main.

Timeline: Construction completion was estimated for the end of 2005.

Progress: *Construction of the project was completed in the summer of 2005.*

OCDC – Rochester Hills Extension No. 5 – Contract 4

Target: The purpose of this project is to provide water and sanitary sewer to areas currently not serviced. It involves the installation of approximately 18,300 feet of water main and 16,500 feet of sanitary sewer. Also included will be 2,300 feet of pressure sewer and 27 grinder pumps.

Timeline: Construction completion is estimated for summer 2006.

Progress:

This project has been split into 2 phases, contracts 4A and 4B. Contract 4A is currently being constructed by the Road Commission for Oakland County as part of their Rochester Road improvement project. The contract for 4B has been awarded to Tyger Excavating, Inc., for their low bid amount of \$1,745,778.00. The sale of bonds for construction financing is currently in progress.

Goal 1 – Remove Sources of Pollution that Threaten Public Health – Continued

Project and Grant Facilitation – Continued

Extras

OCDC – Walnut Lake Pump Station Project

The scope of the Evergreen Farmington Sewage Disposal System Segment III – Walnut No. 1 Pumping Station Improvement Project consists of planning, design and reconstruction of the Walnut Lake Pump Station No. 1. The Pumping Station serves portions of Bloomfield and West Bloomfield Townships.

The project was planned, designed and constructed concurrently with a force main sewer from the Walnut No. 1 pumping station easterly along 14 Mile Road to the Evergreen Interceptor and with modifications to regulators from the existing CSO basins. This will provide an interconnection from the Farmington Interceptor to the Evergreen Interceptor to allow the transfer of up to 14 CFS of wet weather sanitary flow. This flow transfer will virtually eliminate Sanitary Sewer Overflows (SSOs) at the Walnut No. 1 pumping station and at the Farmington Interceptor resulting in a significant improvement in water quality during wet weather events.

Design commenced for the Walnut Lake Project in August 2003 and both projects were bid concurrently in May 2004. Construction of both projects commenced in September 2004. The contract work for the force main was completed in June 2005 and the new pump station is expected to start performance testing in December 2005.

OCDC – IDEP of Oakland County Drains in the Clinton River Watershed

OCDC continued to locate and map outfalls and perform surveys and investigations on Oakland County Drains in the Clinton River Watershed under a Clean Michigan Initiative (CMI) grant awarded by the MDEQ. OCDC has surveyed 58 County Drains in the Clinton Main and Upper Clinton Subwatershed locating 666 outfalls and discovering 14 illicit discharges. Tables of drains surveyed and outfalls with suspected illicit discharges appear in Attachment 1.

Surveys are expected to continue during October and November of 2005 in the Upper Clinton, Paint Creek and Stony Creek subwatersheds. Surveys of the remaining portions of the Clinton Main subwatershed in Rochester Hills and Troy and the Red Run subwatershed in Troy, Madison Heights and Hazel Park are scheduled to commence in Spring 2006. The project is due to be completed in September 2006.

OCDC/RCOC – IDEP of County Road Drains and Drains to Inland Lakes in the Clinton River Watershed Headwaters

OCDC in collaboration with the Road Commission for Oakland County (RCOC) was awarded a second CMI grant for the Clinton River Watershed. Under this grant, which began in September 2005, OCDC will investigate storm water discharges to County road drains and drains to the myriad of inland lakes in the headwaters of the Clinton River Watershed. The project is scheduled for completion in December of 2007.

Goal 1 – Remove Sources of Pollution that Threaten Public Health – Continued

Project and Grant Facilitation – Continued

OCDC – IDEP of County Drains and Follow-up Investigations for Previously Surveyed Outfalls in the Rouge River Watershed

OCDC applied for funding to perform IDEP on County Drains and revisit outfalls to perform follow-up IDEP investigations on outfalls identified as potential illicit discharge sources from the 1999-2002 initial outfall survey. The grant application was submitted in 2005 and award consideration is currently on hold due to an EPA freeze of grant project funding. We are hopeful that this funding freeze will be lifted and this grant will be awarded to OCDC soon.

OCDC – Lake St. Clair Regional Monitoring Project

The OCDC Environmental Unit is participating with Macomb County, St Clair County, Wayne County, USGS, and others in a regional monitoring system for watersheds within the Lake St. Clair basin, which is funded through the state and administered through the MDEQ. 23 monitoring stations have been set up in 5 watersheds that discharge to Lake St. Clair. Continuous water quality monitoring data is collected at 8 USGS stations. Field staff have collected water quality data by grab sampling and automatic sampling at 23 locations. Sixteen dry weather sampling events and ten wet weather sampling events were conducted during 2004-2005. Three stations are established on the Clinton River in Oakland County. Real-time data at the USGS station is available at <http://mi.water.usgs.gov/splan3/sp10200/oaksurf.php>. All data from the project, along with information on Lake St. Clair, is available at <http://www.lakestclairdata.net>. The water quality data portion of the project is scheduled to be complete on October 31, 2005.

Recreational Vehicle Waste

SEMCOG – Recreational Vehicle Waste Dumpsites

Target: Post links and/or locations to recreational vehicle waste dumpsites in the region on the Ours to Protect website at <http://www.semco.org/OursToProtect/7SimpleSteps/HouseholdWaste.htm> and continue correspondence with <http://www.rvdumps.com/mi.htm> for updates.

Timeline: Ongoing

Progress:

The Oakland County Waste Management webpage, <http://www.oakgov.com/waste/nohaz>, and the Ours to Protect website, include links to the [RVdumps.com](http://www.rvdumps.com) website directing residents to recreational vehicle waste dump sites throughout the region.

Goal 1 – Remove Sources of Pollution that Threaten Public Health – Continued

Illicit Discharge Elimination Program (IDEP)

OCDC – OC Owned and/or Operated Storm Drains

Target: Review maps and plans, and/or make field surveys necessary for determining storm drain systems located in the Phase II Permit area of coverage. Develop prioritization procedures and schedules for surveying open and enclosed drainage systems for illicit discharge sources.

Timeline: Completion by end of FY2005.

Progress:

Oakland County completed the Illicit Discharge Elimination Plan for the county and submitted it to the MDEQ for approval as required. This plan includes procedures and schedules that reflect the County's ongoing IDEP.

OCDC began implementing IDEP on County Drains in the Clinton River Watershed in 2004 and is scheduled for completion in September, 2006. OCDC and the RCOC received funding to perform IDEP on County Road Drains and Subdivision Drains discharging to inland lakes in the Upper Clinton Watershed in 2005. This project is scheduled for completion in December 2007.

OCDC recently applied for a grant from the Rouge Program Office to perform IDEP in the Rouge Watershed as follow up to the original 1999-2002 outfall inventory. Despite this grant award being on hold due to a current funding freeze, OCDC performed some preliminary work on previously identified outfalls including E. coli sampling of 31 County Drain outfalls. Thirteen of these County Drain outfalls located in Bloomfield Township, Southfield, Farmington Hills, and Troy were identified as still exceeding State Water Quality Standards for partial body contact. Again, OCDC is pursuing funding sources to further investigate these drains and is working with affected communities and the Oakland County Health Department to identify possible sources.

In summary, OCDC surveyed 95 County Drains locating 734 outfalls to drain systems in the Clinton and Rouge River Watersheds and responded to 43 pollution complaints. In total, 55 illicit discharges were identified including 20 that were eliminated and their sources identified, 4 that were investigated and no sources were identified (illegal dumping, one time spill, etc.), 31 that are still pending further investigation (not closed out, still looking for source, corrective action pending). Tables of drains surveyed and outfalls with suspected illicit discharges are included in Attachment 1.

OCDC – OCDC Owned and/or Operated Facilities

Target: Identify properties and facilities owned by Oakland County that are located in the Phase II Permit area of coverage and have separate stormwater collection systems.

Timeline: Completion by end of FY2005.

Progress:

OCDC has identified facilities that have separate stormwater collection systems.

Goal 1 – Remove Sources of Pollution that Threaten Public Health – Continued

Illicit Discharge Elimination Program (IDEP) – Continued

RCOC – IDEP Facilities and/or Operated Storm Drains

Target: Review maps and plans, and/or make field surveys necessary for determining storm drain systems located in the Phase II Permit area of coverage. Develop prioritization procedures and schedules for surveying open and enclosed drainage systems for illicit discharge sources.

Timeline: Ongoing

Progress:

The road storm drainage outfalls subject to RCOC jurisdiction have been inventoried in the Rouge watershed. In 2003, the inventory moved beyond the Rouge. During FY 2004, the RCOC completed inventories in Highland and Milford Townships and partially inventoried Auburn Hills and Rochester Hills. In 2005, the inventory was completed in Waterford Township. Several maintenance personnel attended the IDEP training in the spring of 2005.

OCDC/RCOC/OCPR/OCIA/OCFM – OC Outfall Location Data Review

Target: Review existing maps of drain systems, GIS data, and property and facility plans as necessary to identify and locate existing known point source outfalls. Each department or division will provide a table of outfalls, a map of outfall locations and GIS data if available.

Timeline: Ongoing

Progress:

OCDC continues to review existing maps of drain systems, GIS data, and property and facility plans to assist with the ongoing task of identification of County outfalls within the Phase II Permit area. See associated task below for the status of mapping of these Oakland County outfalls.

OCDC/RCOC/OCPR/OCIA/OCFM – Map OC Outfall Locations

Target: Make arrangements to have the locations of all known outfalls identified and recorded using GPS equipment. OCDC will work with each department to develop an anticipated schedule of outfall mapping activities and provide annual reports on outfall mapping progress, as well as develop maps as needed for annual reporting.

Timeline: Ongoing

Progress:

OCDC has identified and mapped all County Drain outfall locations (terminus points) and is currently working with the RCOC to map their outfall locations in the Clinton River Watershed under a recently received CMI grant that is summarized in this report.

OCDC has mapped outfalls at two WWTPs in conjunction with their Industrial Storm Water Permit's. Additionally, OCDC also performed a field survey of the Oakland County Pontiac Complex (Mainland Drain), which included locating storm water outfalls along the drain. Additionally, OCDC surveyed and mapped outfall locations for the RCOC Troy Yard (complaint follow-up) and mapped outfall locations for Pontiac Creek and the Waterford Oaks County Park.

In September 2005 OCDC purchased and received new and improved GPS equipment for the purpose of mapping storm water outfalls for the County. This new GIS equipment makes downloading of field data into the GIS mapping database much easier and more efficient. County outfall mapping is an ongoing task that is largely driven by IDEP grant funding.

Goal 1 – Remove Sources of Pollution that Threaten Public Health – Continued

Illicit Discharge Elimination Program (IDEP) – Continued

OCDC – Dry Weather Discharge Screening (OCDC)

Target: OCDC will create standardized procedures to be used in conducting dry weather screening activities at identified outfalls which establish criteria for determining priorities for dry weather screening activities. This will include, at a minimum, an examination of each outfall during dry weather for the presence of flow and indication of primary pollutants using physical, water quality, chemical, and biological indicators of sewage contamination. OCDC will make the procedures available to the departments and divisions.

Timeline: Completion by end of FY2005.

Progress:

Outfall survey, dry weather screening and standardized sampling procedures were developed under the Clinton River Watershed CMI grant and are included in the quality assurance project plan for that project. These same procedures are followed throughout the Oakland County IDEP.

OCDC – Property and Facility Survey

Target: OCDC will develop procedures to prioritize and survey properties and facilities for evidence of illicit discharges and assess their potential for stormwater contamination. OCDC will define information needed for the MS4 database.

Timeline: Completion by end of FY2006

Progress:

OCDC completed surveys of the following facilities in FY 2005 as part of the comprehensive Environmental Health and Safety Audits conducted by OCDC administration. Seven facilities were inspected including:

- 1. Administration / Operations and Maintenance Building,*
- 2. Pump Maintenance Facility,*
- 3. Eight Mile Road Pumping Station and Septage Hauling Facility*
- 4. The GWK Retention Basin*
- 5. Acacia Park Retention Basin*
- 6. Commerce Wastewater Treatment Facility, and*
- 7. Walled Lake/Novi Wastewater Treatment Facility.*

During the audits, facilities were inspected with regards to storm water permit compliance issues including good housekeeping practices. These audits resulted in the construction of a new chlorine storage facility and completion of a Pollution Incident Prevention Plan (PIPP) for the pump maintenance facility.

The Commerce Township and the Walled Lake / Novi Wastewater Treatment Facilities completed and submitted Storm Water Pollution Prevention Plans (SWPPP's) required under NPDES General Storm Water Permits for Industrial Sites. Certified Storm Water Operators are in place for both facilities and facility staff and plant operators have been trained on stormwater monitoring and pollution prevention activities including illicit discharge detection and reporting. Both facilities have successfully completed two audits of their SWPPPs and have completed Pollution Incident Prevention Plans (PIPPs) for their facilities during FY 2005.

Goal 1 – Remove Sources of Pollution that Threaten Public Health – Continued

Illicit Discharge Elimination Program (IDEP) – Continued

OCDC – Property and Facility Survey – continued

The OCDC Environmental Unit also assisted the Oakland County International Airport (OCIA) with their General Industrial NPDES Permit. The Airport has successfully completed and submitted their SWPPP and trained three Certified Storm Water Operators to manage their storm water permit and facilities.

The information or data necessary to develop storm water pollution prevention plans and IDEP outfall surveys is being consolidated to assist with the development of a facilities database for inspection of Oakland County facilities.

Complaint Tracking and Investigation

OCDC – Oakland County Environmental Hotline Program

Target: Update hotline program including coordination with communities to correct contact lists, establish costs, educate operators, and update brochure. Implement updated program.

Timeline: Ongoing.

Progress:

The OCDC Environmental Hotline is intended to handle citizen complaints regarding surface water pollution. The 24-hour environmental hotline is staffed by Oakland County Facilities Management staff (call receipt) and OCDC staff (call response). OCDC staff continues to respond to surface water pollution complaints by coordinating a response with the appropriate jurisdictional entity on a case by case basis. OCDC continues to promote the hotline to communities at various meetings and events such as the August 2005 Assembly of Rouge Communities Public Education Workshop where OCDC presented the hotline program. In addition, a survey was distributed to local communities regarding how communities utilize the hotline program. Discussions continue as to how to best implement, improve, and publicize the program in the future.

RCOC – Complaint Tracking and Investigation

Target: The Department of Citizen Services will continue documenting phone complaints regarding storm drainage and will forward them to the appropriate RCOC department for action. OCDC will continue to be notified of complaints and steps taken regarding complaint resolution for reporting purposes.

Timeline: Ongoing

Progress:

The following four pollution complaints were received by the RCOC during FY 2005.

- December 3, 2004: Paint was released from a hose on a road painting truck on Adams Road north of Silverbell Road. The paint crew returned to remove the soil and grass and paint.*
- May 4, 2005: A truck hit a concrete barrier and ruptured a diesel fuel tank spilling 20 gallons in the Oakland Mall parking lot. The Troy Fire Department responded to the release.*

Goal 1 – Remove Sources of Pollution that Threaten Public Health – Continued

Complaint Tracking and Investigation – Continued

RCOC – Complaint Tracking and Investigation - Continued

- *May 16, 2005: A release of oil was reported in a catch basin on Pontiac Lake Road & M59, which discharged to a small pond. The Waterford Township Fire Department responded with booms and MDEQ investigated the cause of the release. At this time, no illicit connection has been found.*
- *June 2005: The RCOC paved over 2,000 feet of Snell Road at the intersection with Orion Road due to complaints of sediment entering Paint Creek. The project included installation of storm sewers on this steep section of roadway, eliminated the outlet at Paint Creek, and storm water was redirected to a vegetated area.*

OCDC – Complaint Tracking and Investigation

Target: Document complaints regarding storm water pollution and forward them to the appropriate agency for action. OCDC/RCOC will keep records of complaints, referrals and corrective actions taken and will provide resources necessary to investigate illicit discharges, under their jurisdiction, discovered through outfall screening activities, drain surveys and complaint investigations.

Timeline: Ongoing

Progress:

OCDC tracks complaints received from the OCDC Environmental Hotline, communities, citizens, county departments, outside agencies, etc., regarding surface water pollution. The status of complaints is tracked in a complaint database. Complaints leading to illicit discharge investigations are opened as investigation files. Both complaints and IDEP investigations are reported on quarterly for IDEP grant projects and annually through this annual report. Complaint and IDEP investigations are filed with the OCDC Environmental Unit.

OCDC continues to perform investigations of complaints. A total of 43 complaints were investigated during FY 2005. Of the 48 complaints received, 28 led to the discovery of an illicit discharge, while 15 did not, resulting in the file being closed. Of the 28 that led to discovery of an illicit discharge, 14 have been eliminated, 10 are pending further investigation and corrective action, and 4 were spills or discharges to the drain with no known source found.

A complaint and illicit discharge investigation summary is included in Attachment 1.

Goal 2 – Restore/Maintain Aesthetically Appealing Conditions

Oakland County Waste Reduction Program

WRMD – Solid Waste Plan

Target: Continue to implement Oakland County's Solid Waste Plan which establishes an enforceable program and processes that, when implemented, will minimize future adverse impacts upon public health, the environment and the landscape as a result of the generation, handling, processing and disposal of Act 451, Part 115 non-hazardous solid wastes.

Timeline: Ongoing

Progress:

The 1999 Oakland County Solid Waste Management Plan received approval from the Michigan Department of Environmental Quality on June 24, 2003. The Director of the MDEQ recently sent a letter to Oakland County stating that the next round of Solid Waste Management Plan updates is currently on hold. Based on recent correspondence with the MDEQ regarding this matter, staff has suggested that the update process may begin in late 2006. Oakland County will begin updating the current Solid Waste Management Plan when directed by the MDEQ.

WRMD – Household Hazardous Waste Information

Target: Continue to publicize information on the NO HAZ, Resource Recovery and Recycling Authority of Southeastern Oakland County (RRRASOC) and Southeastern Oakland County Resource Recovery Authority (SOCRRA) programs to citizens and employees of Oakland County. NO HAZ, RRRASOC, and SOCRRA continue to provide safe disposal of household hazardous waste to Oakland County municipalities to the maximum extent practicable (as budget allows).

Timeline: Ongoing

Progress:

Oakland County's Waste Resource Management Division maintains a webpage on the main Oakland County website directing residents to the municipally sponsored household hazardous waste disposal information for their community. There are three individual consortium or authority based programs operating in Oakland County - NO HAZ, RRRASOC and SOCRRA - serving the majority of Oakland County residents with environmentally sound HHW disposal options. Many communities who are not a part of this group maintain their own HHW programs. Information is passed along to residents via webpage data listed at <http://www.oakgov.com/waste/nohaz/> or verbally when residents telephone the office with specific questions about proper disposal. The amount of household hazardous waste collected by RRRASOC and NO HAZ for the year was 139,368 pounds and 69,970 pounds, respectively. Amounts collected by SOCRRA and the individual municipal collections were not available.

Goal 2 – Restore/Maintain Aesthetically Appealing Conditions – Continued

Oakland County Waste Reduction Program – Continued

WRMD – America Recycles Day

Target: Continue to publicize America Recycles Day to Oakland County employees. America Recycles Day (ARD) is a national event that takes place annually on November 15. This day and the events surrounding it, serve to raise public awareness and promote the social, environmental, and economic benefits of buying recycled and recycling.

Timeline: Ongoing

Progress:

America Recycles Day 2004 was celebrated in the weeks leading up to November 15, 2004 throughout Oakland County. Posters, bookmarks and contest entry forms/pledges to recycle were displayed in different locations throughout the County and in the Executive Office Building. A press release was sent to all Oakland County employees. Pamela Tremble, Oakland County employee, sat on the state-wide organizing committee for America Recycles Day through the Michigan Recycling Coalition. The Michigan Recycling Coalition received recycling pledges from 488 Oakland County residents, which made up 22% of the pledges received for the entire state. Plans for the ARD 2005 promotion are underway.

OCDC – ISO 14000 Registration

Target: Complete ISO 14000 certification.

Timeline: Completion by spring 2005.

Progress:

The Oakland County Drain Commissioner's Office successfully registered to the ISO 14001:2004 standard in April 2005. OCDC's recent certification to this internationally recognized environmental standard is evidence of our commitment to environmental excellence and continuous improvement.

OCFM – Waste Reduction Program

Target: Continue Paper Recycling Program

Timeline: Ongoing

Progress:

Facilities Maintenance conducts paper recycling at Oakland County facilities. Over 320,000 pounds of paper were recycled at Oakland County facilities from July 2004 - July 2005.

RCOC – Adopt-A-Road Clean-Up Program

Target: Continue management of the Adopt-A-Road cleanup program.

Timeline: Ongoing

Progress:

The Adopt-A-Road Program sponsored by the RCOC resulted in approximately 325 cubic yards of trash being removed and properly disposed of during FY 2005.

Goal 2 – Restore/Maintain Aesthetically Appealing Conditions – Continued

Oakland County Waste Reduction Program – Continued

Extras

OCDC – Waste Reduction Program

Progress:

Battery, cardboard and paper recycling programs are in place throughout OCDC. Motor oil recycling is available to all OCDC employees at the Waterford Office. Implementation awareness is promoted through unit meetings and the Watermark Newsletter.

OCPR – Litter Pick-Up Program

Although OCPR does not have a formal SWPPI item under the OC Waste Reduction Program title, OCPR staff and volunteers work very hard to maintain aesthetically appealing parklands including the appropriate deposition, storage and transportation of solid waste. Grounds maintenance staff members, volunteers and members of the Weekend Alternative program for Misdemeanants (WAM) and Trusty Crews (a community service program through the department of corrections) pick up litter on a regular basis. The OCPR Construction Supervisor also monitors all development projects on parkland to insure the compliance of independent contractors with Park waste management standards.

Goal 3 – Improve and Maintain River Ecosystems for Fish and Wildlife

River/Stream Ecosystem Improvement

OCDC – Habitat and Volunteer Events

Target: Publicize clean-up activities to OCDC staff and the general public through website calendar links and in-house bulletin boards.

Timeline: Ongoing

Progress:

Calendars containing detailed information regarding habitat/water quality improvement events are posted on the Oakland County website (www.oakgov.com/drain). A printed copy is also posted on the OCDC public education bulletin board as upcoming environmental activities. OCDC has listed a minimum of 280 events.

OCPEDS – Riparian Lands Mapping

Target: Prepare maps and descriptions of riparian landscapes in Oakland County as staff time allows.

Timeline: Ongoing

Progress:

OCPEDS completed riparian mapping for four geographic townships: Addison, Oakland, Orion, and Oxford, totaling 19,100 acres.

OCPEDS – Michigan Natural Features Inventory (MNFI) Mapping & Community Distribution

Target: Maintain and update the MNFI Oakland County Potential Natural Areas coverage and distribute to communities and environmental groups, as staff time allows.

Timeline: Ongoing

Progress:

OCPEDS distributed 12 reports, 62 maps, and 5 GIS files to communities and environmental groups upon request.

OCPEDS – Riparian Landowner Identification

Target: OCPEDS will develop address listings of riparian landowners for each city, village, township (CVT) upon request and availability of staff time.

Timeline: Ongoing

Progress:

Two address lists were requested and provided to communities: one for the Clinton Main and the other for the Rouge Main 1-2.

OCDC/OCHD – Riparian Information Distribution

Target: Include riparian landowner educational print material when regular mailings are sent out for the following purposes:

- OCDC – Construction information to drain landowners when drain construction projects are underway
- OCDC – Packets given to Lake Association representatives at Lake Board meetings
- OCDC – Seven Simple Steps for riparian landowners.
- OCHD – Beach Notifications to residents at beach openings each season

Goal 3 – Improve and Maintain River Ecosystems for Fish and Wildlife – Continued

River/Stream Ecosystem Improvement – Continued

OCDC/OCHD – Riparian Information Distribution - Continued

Timeline: OCDC will identify procedure changes during FY2005 to incorporate Riparian Information Distribution, as well as explore available riparian information to distribute.

Once procedural changes are in place and riparian information has been obtained, copied, etc, distribution will commence. This is currently scheduled for FY2006. Riparian information will only be mailed when other mailings are scheduled to go out.

Progress:

At the beginning of each bathing beach season, OCHD sends notifications to the individual cities, villages or townships (CVT) in which the beach is located as notification that sampling will occur. These same letters are also mailed to the contact person on record for the individual bathing beaches. Thirty-three CVTs were included in the 2005 season. 126 copies of Waterside Living, a newsletter for Riparian landowners in the Rouge River Watershed, were distributed during the 2005 beach season.

As part of a Rouge Project grant, Oakland County worked with local communities to develop, print and distribute over 3300 copies of a newsletter for riparian property owners. This newsletter includes tips for residents to help them become better stewards of their riparian properties with the overall objective of clean water.

Extras

OCPR – Pebble Creek Best Management Practices (BMPs)

Although OCPR does not have a formal SWPPI item under the River/Stream Ecosystem title, due to their lack of information on the health of Pebble Creek, which cuts through the Glen Oaks County Park, Glen Oaks Grounds Maintenance staff have been working to improve the health of the creek as part of their Best Management Practices (BMP) implementation on the Golf Course. They have maintained and expanded vegetative buffers and planted shade trees along the stream to enhance riparian habitat and provide thermal protection for the stream. Parks continues to be proactive with respect to BMP implementation when new projects are started.

OCDC – Otter Reintroduction Project

OCDC is participating in a Rouge Project grant awarded to Oakland Plus to assess the feasibility of reintroducing river otters into the Rouge River Watershed. The river otter is a pollution sensitive animal that can only survive in clean water and therefore the otter will become an educational mascot, or ambassador, to effectively educate watershed residents, especially children, about water quality and how their day-to-day activities directly impact water quality. The information obtained from this study may be used for feasibility studies for surrounding southeast Michigan watersheds. A strategy, including development of additional partnerships, will be created to support and participate in the project.

Goal 4 – Minimize the Amount of Soil Erosion and Sedimentation

Soil Erosion Program

OCDC – Soil Erosion Program

Target: Continue to operate a State approved Soil Erosion Program, including Staff Training as needed.

Timeline: Ongoing

Progress:

During FY 2005, 1085 residential and 251 commercial soil erosion permits were issued by the OCDC Soil Erosion Unit.

The OCDC Soil Erosion Unit has implemented a new fee structure including a permit class system to identify the severity of earth disruption and assign appropriate inspection priorities. The soil erosion database has been updated to retrieve daily inspections, as well as provide information utilized in monthly quality assurance monitoring. The Soil Erosion Unit is fully staffed and the inspection scheduling system is in place. The office is now concentrating on the financial side of the operation and collection of fees in a more timely manner. The OCDC Soil Erosion Program is an exceptional program that results in significant water quality benefits throughout Oakland County.

OCDC – Catch Basin Cleaning

Target: Continue to clean catch basins as part of drain maintenance on a three-year cycle.

Timeline: Ongoing, three-year cycle.

Progress:

OCDC continues to look at funding opportunities to routinely clean catch basins in the County's storm water systems. Currently, catch basins are cleaned on a case by case as needed basis as funding is available.

RCOC – Curb and Gutter Sweeping Program

Target: Continue to conduct Curb & Gutter Sweeping programs on various roads throughout Oakland County.

Timeline: Ongoing

Progress:

RCOC reported during FY2005 that the following curb miles have been swept to keep our waterways clean:

- *State Roads: 433 curb miles are swept four times per year,*
- *Primary Roads: 368 curb miles are swept four times per year, and*
- *Local Roads: 448 curb miles are swept once per year.*

RCOC – Soil Erosion Program

Target: Continue to serve as an authorized public agency for soil erosion and sedimentation control. This includes implementation and enforcement of our soil erosion and sedimentation control (SESC) operating guidelines and conducting internal SESC inspections and project reviews.

Timeline: Ongoing

Progress:

The Environmental Concerns Department at RCOC has conducted internal SESC inspections for a third year. These inspections insure compliance with State requirements and result in significant improvements to water quality.

Goal 4 – Minimize the Amount of Soil Erosion and Sedimentation – Continued

Soil Erosion Program - Continued

RCOC – Catch Basin Cleaning

Target: Continue the regular cleaning of storm sewer catch basins with vector trucks.

Timeline: Ongoing

Progress:

The RCOC reports that during FY 2005, 4560 structures were cleaned. This includes work performed by RCOC forces and contracted services.

RCOC – Stream Crossing Grading

Target: Continue to use the video “Keep an Eye on It” to train in-house staff on proper grading practices at stream crossings to minimize water quality impacts.

Timeline: Provide County and MDEQ Soil Erosion Staff with a copy of this educational video, as requested.

Progress:

Two copies of the video “Keep An Eye on It” were mailed out as requested by various parties.

Extras

OCPR – Construction Site Best Management Practices (BMPs)

Although OCPR does not have a formal Soil Erosion and Sedimentation SWPPI activity, OCPR construction projects are supervised by a Construction Supervisor who has been certified to operate a Stormwater Management – Construction Site. Soil erosion and sedimentation control compliance is stipulated in the General Conditions for OCPR construction contracts and is monitored by the Construction Supervisor.

Project and Grant Facilitation

OCDC – Edwards Streambank Stabilization Project for West Bloomfield Township

Target: Act as project manager and grant administrator for duration of project.

Timeline: Scheduled for completion of construction by the end of 2004

Progress:

Construction of the Edwards Streambank Stabilization Project commenced in August 2004 and was completed in November 2004. This project consists of 1,100 feet of innovative streambank stabilization measures including a vegetated buffer zone and planted geocells near the low flow channel. Additionally, both live staking and plug plantings are incorporated into this project for a more natural alternative to traditional streambank stabilization methods. This demonstration project highlights issues encountered when retrofitting urban residential streambank erosion sites with innovative bioengineered solutions aimed at providing both water quality and habitat enhancement. This projects total cost was \$620,000 of which \$220,000 was funded by an EPA grant received by OCDC. A comprehensive report documenting this project is available from OCDC upon request.

OCDC – FEMA Project Sites for Bloomfield Township

Target: Act as project manager and grant administrator for duration of project.

Timeline: Projects are in the study phase for 2004 with design and construction following in 2005 and 2006.

Progress:

Study phase of project is complete and design is underway in FY 2005. Construction is expected to begin in FY 2006.

Goal 4 – Minimize the Amount of Soil Erosion and Sedimentation – Continued

Project and Grant Facilitation – Continued

OCDC – Rouge Main 1-2 Inventory Studies - Streambank Erosion Inventory

Target: Act as project manager and grant administrator for duration of project. Pursue additional grant funding for project extension if requested by communities.

Timeline: Scheduled for completion by the end of 2004

Progress:

The Main 1-2 Streambank Erosion Inventory Project was completed in November 2004 for ten participating communities (Village of Beverly Hills, Village of Bingham Farms, Birmingham, Bloomfield Hills, Bloomfield Township, Farmington Hills, Rochester Hills, Southfield, Troy, and West Bloomfield Township). In total, the streambank inventory covered 89.2 miles within the Main 1-2 Subwatershed where the streambank condition was logged and photo-documented at more than 2000 sites. The sites were scored and ranked for prioritization of future improvement projects. Sites with exposed or threatened utilities were given high priority in the ranking process. Each community received a separate report summarizing the status of their community's streambank condition. Conceptual designs and cost estimates were prepared for select severely ranked sites, which communities could use for follow up projects. The total cost of this work was \$104,000 of which \$50,000 was funded by an EPA grant received by OCDC. A comprehensive report documenting this project in its entirety is available from OCDC upon request.

OCDC – Tenhill and Walbrook Streambank Stabilization for West Bloomfield Township

Target: Act as project manager and grant administrator for duration of project. The project consists of channel improvements and streambank stabilization of approximately 300 lineal feet of the Franklin Branch of the Rouge River, located near the outlet of the Edwards Relief Drain, in West Bloomfield Township.

Timeline: Bids for the project are scheduled to be received in January 2006 with construction to commence in the spring of 2006.

Progress:

The design is complete and all MDEQ and West Bloomfield environmental permits have been obtained. Condemnation proceedings to obtain necessary easements will commence in December 2005. The tentative apportionment was approved and the final apportionment is scheduled for December 2005. A grant from the Great Lakes Commission has been obtained for the project. The estimated preliminary project cost is \$1,200,000. Bids for the project are scheduled to be received in January 2006 with construction to commence in the spring of 2006 and be completed by late summer 2006.

OCDC – Franklin and 14 Mile Streambank Stabilization for Bloomfield Township

Target: Act as project manager for the duration of the project. Project will include construction of channel improvements and streambank stabilization of approximately 5,000 feet of the Franklin Branch of the Rouge River in Bloomfield Township. Geocell retaining walls, limestone rip-rap and native plantings will be utilized to stabilize the river banks.

Timeline: A fall 2006 completion is anticipated.

Progress: *Construction is currently in progress. A portion of the project costs are funded by a FEMA grant obtained by Bloomfield Township. The balance of the construction costs were financed by the sale of bonds.*

Goal 4 – Minimize the Amount of Soil Erosion and Sedimentation – Continued

Project and Grant Facilitation – Continued

OCDC – Rouge Upper Subwatershed Stream Bank Inventory Study Project

Target: Act as project manager and grant administrator for duration of project. Funding was pursued to continue the above Inventory Study in the Upper Rouge Subwatershed in Oakland County.

Timeline: Project currently on hold per grant funding freeze.

Progress:

In July 2005 the Oakland County Board of Commissioner's signed a Grant Agreement for implementation of the Upper Rouge River Streambank Inventory Project, which is a continuation of the Main 1-2 Streambank Inventory Project highlighted above. Oakland County is currently waiting for the grantee to execute this Agreement, which has been delayed due to a recent EPA rescission of grant funds. In anticipation of an eventual release of funds for this previously awarded project, OCDC is currently working with participating Upper Subwatershed Communities to obtain the necessary Interagency Agreements. Upon the grantee's release of funds and receipt of Community Interagency Agreements, Oakland County will begin implementation to further inventory the status of streambank erosion in the Upper Subwatershed.

OCDC – Caddell Drain Erosion Control Project – Final Phase

Target: Act as project manager for duration of project. The Final Phase of the Caddell Drain Erosion Control Project is located within the City of Farmington, along the route of the existing watercourse south of Nine Mile Road and east of Drake Road. The purpose of the project is to clean out approximately 1,000 lineal feet of the existing channel and protect it from further erosion. Measures used to accomplish this will include reshaping the channel cross section, the use of erosion control blankets, limestone rock fragment, and willow plantings to stabilize the stream embankment.

Timeline: A fall 2005 completion date is anticipated.

Progress:

The plans and specifications for the project were prepared by the Consulting Engineer, Nowak & Fraus, LLC. The cost of construction is \$280,000. There are no grants for this project. The project was advertised for bids in Spring of 2005, with construction to be completed by early fall 2005.

OCDC – Tamarack Drain

Target: Act as project manager for duration of project. The project comprises a cleanout of an existing MDOT detention basin located near 10 Mile Road and Evergreen Road in the City of Southfield. The detention basin will be improved with a forebay to collect sediment and a water feature with native plantings to improve water quality. Hubbell, Roth and Clark, Inc., are the design engineers for the project.

Timeline: A spring 2005 construction start date is anticipated.

Progress:

The project is currently under design. A spring 2005 construction start is anticipated.

Goal 5 – Minimize Flow Variability and Associated Negative Impacts

Project and Grant Facilitation

OCDC – Franklin Branch Study Grant for Franklin Drainage District

Target: Act as project manager and grant administrator for duration of project.

Timeline: Project scheduled for completion by December 2004

Progress:

This study was completed in FY 2005 and a rain gauge and USGS flow meter is in operation.

OCDC – Rouge Main 1-2 Inventory Studies - Detention Pond Inventory

Target: Act as project manager and grant administrator for duration of project. Pursue additional grant funding for project extension if requested by communities.

Timeline: Scheduled for completion at the end of 2004.

Progress:

The Detention Pond Inventory Project was completed in November 2004 for the seven participating Rouge Main 1-2 Subwatershed communities (Village of Beverly Hills, Village of Bingham Farms, Bloomfield Twp., Rochester Hills, Southfield, Troy, West Bloomfield Twp.). A total of 373 detention ponds were inventoried as part of this project. Once the ponds were identified, a review of each available plan and file was conducted so that a database could be completed with available information for each pond. A field inspection of each pond was also conducted to verify as-built drawings and locate areas for possible water quality improvements and operations and maintenance needs. Each pond was ranked for prioritization of future capital and operations and maintenance improvements. A comprehensive report documenting this project in its entirety is available from OCDC upon request. The total cost for this work was \$126,000 of which \$54,000 was funded by an EPA grant received by OCDC.

OCDC – Rouge Detention Pond Retrofit

Target: Act as project manager and grant administrator for duration of project. Two to four detention ponds will be retrofitted to increase volume and improve water quality.

Timeline: Project currently on hold per grant funding freeze.

Progress:

OCDC was awarded a grant to retrofit detention ponds to improve water quality in the Rouge Watershed. The grant agreement was signed by the R.J. Evans Drainage District in June 2005. Eight consultants submitted Qualifications for Engineering Services to complete this project on August 18, 2005. The grantee notified OCDC of EPA's recent nationwide freeze on grant funding, including Rouge Projects, on August 22, 2005. This funding freeze resulted in Oakland County stopping all work on the Rouge Detention Pond Retrofit Project until such time as the funding freeze is lifted or an alternative funding source is identified. OCDC continues to monitor the funding situation and is hopeful that the freeze will be lifted soon so we can resume project activities. This project's total estimated cost is \$600,000 of which \$300,000 is to be funded by an EPA grant received by OCDC.

Goal 5 – Minimize Flow Variability and Associated Negative Impacts – Continued

Project and Grant Facilitation - Continued

OCDC – Fodera Drain in Rochester Hills

Target: Act as project manager for duration of project. The project will consist of the construction of approximately 2,800 feet of enclosed storm drain, open channel improvements and a detention facility near the newly constructed Stony Creek High School.

Timeline: Project is on hold per the City's request.

Progress:

Project is on hold per the City's request.

OCDC – Jacobs Drain in West Bloomfield Township

Target: Act as project manager for duration of project. The project will consist of detention basin and drainage improvements along approximately 2,000 feet of existing watercourse.

Timeline: Scheduled for completion in FY2006.

Progress:

Bids for the project were received on October 18, 2005. Condemnation proceedings are in progress to obtain property from DTE for the construction of the detention basin. MDEQ and West Bloomfield Township wetland permits have been obtained for the project. A grant from the Rouge Program Office has been obtained for the project. A bond sale for construction financing is in progress.

OCDC – Jamian Drain in West Bloomfield Township

Target: Act as project manager and grant administrator for duration of project. The project will consist of removing sediment from an existing in-line detention pond located in Pebble Creek Condominiums and improvements to approximately 2400 feet of the Pebble Creek corridor.

Timeline: A fall 2005 completion is scheduled

Progress:

Construction is approximately 80% complete. A grant from the Rouge Program Office has been obtained for the project. The project is financed by means of a special assessment district within the Pebble Creek Condominium development. The project was bid in May, 2005 at an estimated construction cost of \$496,000. Construction is scheduled for fall 2005.

OCDC – USGS Stream Gauges

Target: Continue to financially support USGS stream gauges throughout Oakland County for flow information.

Timeline: Ongoing, and as budget allows.

Progress:

Funding has been continued for the following eight existing USGS stations located in Oakland County:

- *Sashabaw Creek near Drayton Plains*
- *Clinton River near Drayton Plains*
- *Paint Creek at Rochester*
- *River Rouge at Southfield*
- *Upper River Rouge at Farmington*
- *Evans Ditch at Southfield*
- *River Rouge at Birmingham*
- *Franklin Branch at Birmingham*

Goal 5 – Minimize Flow Variability and Associated Negative Impacts – Continued

Project and Grant Facilitation – Continued

OCDC – USGS Stream Gauges – Continued

At the request of the Clinton River Watershed Council and the City of Auburn Hills, OCDC has agreed to finance the Auburn Hills Clinton River USGS Flow Station (flow only) for one year allowing them time to identify an alternative funding source for this station into the future.

OCDC is in the process of reviewing potential funding mechanisms with the Lake St. Clair Regional Monitoring Project (LSCRMP) group, Clinton River Watershed Council and the USGS to continue funding of USGS Gauging stations and Water quality monitoring stations established for the Lake St. Clair project beyond October 31, 2005

Extras

OCDC – Clinton River Watershed Initiative Project - Water Quality Modeling & Planning

Target: Act as project manager and grant administrator for duration of project. Develop tools for managing existing and future water quality conditions in the Clinton River Watershed.

Timeline: Scheduled for completion in April 2007

Progress:

In June 2005, OCDC received an EPA grant to develop water quality tools to manage existing and future water quality conditions in the Clinton River Watershed. This project includes development of a comprehensive Clinton River Watershed water quality model, updating the existing Clinton River Remedial Action Plan (RAP) and database development for existing and future water quality data in the Watershed. The grant fiduciary is the Clinton River Basin Inter-County Drainage Board and project stakeholders include, the EPA, MDEQ, US Corps of Engineers, Clinton River Watershed Council, Clinton River Public Advisory Council, OCDC, Macomb County Public Works Commission, Clinton Subwatershed Groups and others. On October 12, 2005, four consultants submitted proposals for engineering services to assist OCDC in completing this project. A consultant will be selected and work will commence in November 2005 with project completion scheduled for April 2007. This project's total estimated cost is \$671,000 and is entirely funded by an EPA Grant received by OCDC.

OCPR – Stormwater Best Management Practices (BMPs) and Impervious Surfaces

Although OCPR does not have a formal SWPPI activity under Goal 5, it is worth mentioning, that OCPR is trying to minimize the negative impacts of flow variability by efforts to restrict parkland development and to implement Best Management Practices into the design of new facilities. OCPR has established a policy of 70% undeveloped to 30% developed in order to minimize the amount of impervious surfaces and preserve natural areas. The OCPR Design and Development department has incorporated bio-swales, stone riprap water control structures and vegetative buffers into the recent construction of the Red Oaks Golf Course and Pro Shop to mitigate the flow of stormwater. The White Lake Oaks Clubhouse parking area, currently under construction, features a detention pond with native emergent vegetation to slow and filter the stormwater entering the nearby wetlands. Naturalized grassland areas, formerly referred to as "no-mow areas" have been established at all 11 county parks to minimize the use of mowing, fertilizers and pesticides while increasing infiltration and reducing the discharge from impervious surfaces into nearby waterbodies.

Goal 6 – Maximize Community Assets Related to the River Improve Recreational Use

OCPEDS – Countywide Green Infrastructure Vision Map & Greenways Planning Support

Target: Assist the Oakland County Natural Area Advisory Group in developing a county-wide landscape ecosystem vision map outlining opportunities, planning process, tools and techniques and funding sources, as staff time allows.

Timeline: Ongoing

Progress:

Three Natural Area Advisory Group meetings were held facilitated by the Environmental Stewardship Division of the Oakland County Planning and Economic Development Services Department in FY 2005. In addition, planning has been started for an ecosystem vision map. Design charrettes have been completed for Addison, Orion, Oakland, and Oxford. Plans are underway to map additional communities.

Although not required by the SWPPI, OCPR has been participating in the Green Infrastructure Planning Process. In this way OCPR has been working to coordinate the management of park resources with the management of the natural areas in the surrounding communities. OCPR is utilizing this coordination share information generated by the Michigan Natural Features Inventory, to target environmental education efforts, to determine potential land acquisition targets and to maximize the benefit of parkland stewardship for the ecological health of the region.

OCPR – Recreational Use

Target: OCPR will continue its efforts to provide access to lake, riparian and wetland habitats through universally accessible trails, piers and boardwalks.

Timeline: Ongoing

Progress:

Glen Oaks Ground Maintenance and Conference Center staff members continue to utilize the Pebble Creek riparian area as a back-drop for park recreational activities. Universal access around the riparian area is provided by golf carts on a series of paved cart paths. Views of the area are maintained by selective trimming. Educational materials on exotic species removal have been distributed to park staff, although staff allocations for 2005 shifted to the removal of dead and dying trees that have resulted from the Emerald Ash Borer infestation.

OCPR is mandated by the 2002 Recreational Master Plan Strategic Objectives to provide access to natural areas that have been created to preserve valuable natural resources. OCPR continues to add to our system of trails, boardwalks and nature center facilities to provide such access. In 2003, OCPR completed a boardwalk to take Independence Oaks park visitors into wetland habitat in the Clinton River headwaters. In 2004, OCPR was awarded a Michigan Natural Resources Trust Fund grant for construction of a boardwalk at Independence Oaks that would span the Clinton River headwaters and three associated wetland habitats. The necessary permits were obtained in 2005 and construction will begin in the winter of 2006.

In 2005, OCPR acquired 11 acres adjacent to Springfield Oaks County Park that include 6 acres of wetlands in the Shiawassee River Watershed. OCPR also acquired 17 acres of wetlands adjacent to Lyon Oaks (Huron River Watershed), and at the start of the 2006 Fiscal Year, OCPR acquired 347 acres adjacent to Addison Oaks including over 150 acres of wetlands in the Headwaters of the Stony Creek. 2006 will also see the start of Phase II of the Lyon Oaks Natural Area Trails project with the design and construction of a bridge that will cross the Norton Drain and a boardwalk that will lead visitors through the adjacent lowland forest.

Goal 6 – Maximize Community Assets Related to the River – Continued

Improve Recreational Use – Continued

OCFM – Pathway Program

Target: As funding permits, implement the pathway program on the Service Center.

Timeline: To be completed when funding permits.

Progress:

Phase one of the pathway program was completed on the Service Center this year, providing access from the South to the center of the campus.

Lake Improvement Activities

OCDC – Lake Improvement Board Assistance

Target: Continue to serve (as required by statute) on Lake Improvement Boards acting as a liaison between the Lake Improvement Board and the Drain Commissioner's Office for technical expertise and public education opportunities and materials. Post Lake Improvement Board Manual, developed by OCDC, on OCDC website.

Timeline: Ongoing

Progress:

OCDC continues to serve as one of the members on designated Lake Improvement Boards. Within Oakland County more than 40 Lake Improvement Boards have been established to address relevant lake improvement issues, including the oversight of aquatic weed control programs, nuisance control and other riparian home owner educational activities.

The OCDC Lake Improvement Board meeting schedule is posted on the OCDC website.

Extras

OCPR – Lake Improvement Best Management Practices (BMPs)

Although OCPR does not have a formal SWPPI item under Lake Improvement Activities, it is important to note that OCPR has implemented Best Management Practices (BMPs) such as the reduction of fertilizers and pesticides near the lakes on or adjacent to park property. OCPR will continue to explore the use of other BMPs such as vegetative buffers, interpretive signage, and integrated pest management.

OCPR also supports the efforts of community lake improvement boards by hosting the composting of aquatic weeds at Orion Oaks County Park.

Goal 7 – Preserve and Enhance the Quality of the Great Lakes

Project and Grant Facilitation

OCDC – Rouge Oakland Public Education Grant – Media Programs

Target: Follow scope of grant to air cable and radio public service announcements.

Timeline: Grant is completed in December 2005

Progress:

OCDC contracted with Mort Crim Communications to air television public service announcements and with Clear Channel Communications to air radio public service announcements. These public service announcements include key messages about how the public directly impacts water quality in our lakes, streams and rivers. Additionally, they inform the public that storm water is “untreated” and flows directly to our recreational surface waters. The target market for these advertisements is weekend do it yourselfers who have significant impacts on water quality. Nearly 5000 cable ads and over 900 radio spots were aired during FY2005.

OCDC – EnviroScape® Program

Target: OCDC staff will present the EnviroScape® Program to educate children about personal actions that can affect the watershed.

Timeline: Grant is complete in December 2005

Progress:

OCDC staff presented the EnviroScape® program at the Cranbrook Institute of Science Summer Camp, CreekFest, and the Cranbrook Water Festival. The EnviroScape® model was also used at other events highlighted elsewhere in this report. The EnviroScape® model was also utilized by residents for various education efforts. OCDC lends this educational tool out to interested communities and residents.

OCDC – Dirt Doctors Program

Target: Train OCDC staff as “Dirt Doctors” to educate children about soil erosion and watersheds.

Timeline: Grant is complete in December 2005

Progress:

OCDC trained five staff as “Dirt Doctors” and prepared all the necessary props and purchased equipment to present this program effectively. Dirt Doctor presentations were made at a variety of events including:

- *Oakland County 4H fair – 3*
- *Cranbrook Institute of Science Summer Camp – 3*
- *Oakland County Water Festival – 17.*

OCDC is currently seeking funding to continue this exciting new educational program aimed at educating children about soil erosion, watersheds and the importance of water quality to sustain fish and other aquatic creatures.

Goal 7 – Preserve and Enhance the Quality of the Great Lakes – Continued

Extra

OCDC – Oakland County Rouge River Calendar Contest

Target: OCDC is participating in a Rouge Project grant, awarded to Oakland Plus, for a calendar contest. The contest is designed to encourage fifth grade students to creatively express the different ways we can work together to protect our water.

Timeline: Grant is complete in December 2005

Progress:

Students attending the Rouge River Water Festival at Cranbrook Institute of Science were targeted for participation. The results of the contest will be included in the 2006 annual report.

Public Education

OCDC – Rouge River Water Festival - U of M Dearborn

Target: Participate as a sponsor in the University of Michigan - Dearborn Water Festival by providing staff and expertise for presentations and/or displays as funding and staff time permits.

Timeline: One Water Festival Annually

Progress:

The Rouge River Water Festival is an interactive learning event for fifth grade students located in the Wayne County portion of the Rouge River Watershed. This years Water Festival, held on May 5, 2005, was presented to approximately 3,000 students. OCDC provided three employees who were presenters of an Illicit Discharge Elimination Program and a stormwater display.

OCDC – Rouge River Water Festival - Cranbrook Institute of Science

Target: Participate as a sponsor in the Cranbrook Water Festival by providing staff and expertise for presentations and/or displays as funding and staff time permits.

Timeline: One Water Festival Annually

Progress:

The Rouge River Water Festival is an interactive learning event for fifth grade students located in the Oakland County portion of the Rouge River Watershed. This years Water Festival on September 14 - 16 was presented to approximately 1,300 students. OCDC provided three employees per day (9/14-16/05) to participate as presenters and guides for the students. Although not required by the SWPPI, OCHD staff volunteered for two half days at the 2005 Rouge River Water Festival at Cranbrook Institute of Science, one day as a volunteer and the other as a presenter.

RCOC/OCDC/OCFM – Watershed Signage

Target: Support coordination of signage of waterways for major road/stream crossings on Oakland County owned roads. Develop maps and estimates of sign locations to aid CVTs.

Timeline: Estimates completed by September 2004.

Progress:

The number of road/stream crossings for possible watershed signage was estimated. In FY 2005, OCDC contracted with a vendor to provide over 200 Clinton River Watershed, crossing, and trail signs. Many cities, villages, and townships requested RCOC to letter and install the signage. The signs will be installed in 2006 and OCDC plans to continue this program of sign coordination to interested CVT's.

Goal 7 – Preserve and Enhance the Quality of the Great Lakes – Continued

Public Education – Continued

OCDC/OCPEDES/OCHD – Presentations and Displays

Target: Provide displays and presentations for water-quality related events, as requested and as staffing permits.

Timeline: Ongoing

Progress:

The OCDC Environmental Unit provided at least six displays or presentations for water-quality related events in FY 2005, including Rouge 2004, Cranbrook Institute of Science, Red Run Public Participation Meeting, City of Novi Natural Features Expo, Brandon Township, and Creek Fest.

OCPEDES delivered a presentation for the Rouge River Water Festival at Cranbrook on September 16, 2005.

The Oakland County Health Division provides on-site sewage disposal informational presentations on an “as requested” basis. For the 2005 fiscal year, OCHD provided one training session in conjunction with the Michigan State University Cooperative Extension’s Water Quality Program. Approximately 35 people were educated on groundwater pollution, onsite sewage disposal maintenance and basic water well function. This training was held in Commerce Township. The Michigan State University Cooperative Extension organizes and administers these outreach programs. Records of this training are held in their offices.

OCPEDES – Special Topic Seminars

Target: Conduct one Special Topic Seminars on an Environmental Stewardship Topics.

Timeline: Within one year.

Progress:

OCPEDES organized and held a Planner’s Gathering Luncheon on September 9, 2005. The seminar included a presentation by Steve Niswander on the Natural Features Inventory work conducted for the City of Rochester Hills for approximately 35 attendees. OCPEDES organized and held an Annual Heritage Conference on September 21, 2005 for approximately 125 attendees. Sessions included Oakland County’s Water and Sewer Master Plan, Oakland County’s Water Resources Study and a Green Building in Ferndale.

OCDC – Technical Support

Target: Provide technical support, equipment, information, and referrals to water-quality-related interest groups, committees, and councils, upon request and as staffing permits.

Timeline: Ongoing

Progress:

All members of the OCDC Environmental Unit routinely provide technical assistance to citizens, municipalities and coworkers requesting guidance or information about water quality. It is the policy of the Drain Commissioner’s Office to never leave a request unanswered. Although we may not have jurisdiction of a particular request, OCDC staff attempts to connect the requestor with the appropriate entity. All requests for information or assistance to the Environmental Unit are tracked in-house via a shared electronic file. Technical assistance during the 2005 fiscal year included coordination of Subwatershed group meetings, participation in regional Phase II efforts, supply of electronic guidance documents, public education supplies, contact information and referrals and answers to various technical questions.

Goal 7 – Preserve and Enhance the Quality of the Great Lakes – Continued

Public Education – Continued

OCPR – Nature Center Programs

Target: Continue to maintain interpretive exhibits discussing aquatic ecology and the impact of personal actions on the watershed. Continue to lead interpretive tours and present interpretive programs that discuss the water cycle and personal impacts on the watershed. Include new information on the quality of parkland habitats in the Clinton River Watershed provided by detailed ecological surveys currently being conducted by the MNFI.

Timeline: Ongoing

Progress:

OCPR Nature Center Programs continue to provide exhibits and programs that discuss aquatic ecology, watershed hydrology, environmental stewardship and personal responsibility. Educational programs reference the Clinton River and Huron River Watersheds where the nature centers are located, but the information is provided in such a way that it is applicable to the larger eco-region that is home to park visitors and classroom outreach programs.

OCPR – Interpretive Signage

Target: Signage will be coordinated with park naturalists and the OCPR Communications Department. Signs indicating the location of the park within the watershed will be added to each park. Signs indicating active OCPR management of natural areas will also be added at some parks as funding allows.

Timeline: Ongoing

Progress:

OCPR has ordered signs that indicate the parks location within the watershed. Installation and visitor feedback will be indicated in the 2006 Annual Report.

OCDC – Public Education Bulletin Boards

Target: Post bulletin boards in the OCDC main lobby that follow the calendar of topics from the Southeast Michigan Partners for Clean Water. In addition, a list of ideas will be compiled for each topic giving resources, links, and/or photos of material relating to the topic. After a full calendar year of materials has been compiled, the idea sheets will be made available to other permittees and interested parties.

Timeline: Ongoing

Progress:

The public education bulletin boards were designed and posted to educate Oakland County residents and employees in addition to supporting the Partners for Clean Water regional public education campaign. Topics displayed on the public education bulletin boards are tracked, all environmental activities that have been posted are captured, and the Partners for Clean Water calendar is used to guide topics.

OCPR – Naturalist Programs

Target: Continue to present Naturalist Programs

Timeline: Ongoing

Progress:

OCPR has continued to provide naturalist programs through the nature centers at Independence and Lyon Oaks. Naturalists at Independence Oaks were able to utilize the recently created headwaters boardwalk to host interpretive programs that focused on wetlands ecology. OCPR is exploring the use of local artistic talent to create a photographic mural of the Clinton River Watershed for the Lewis Wint Nature Center.

Goal 7 – Preserve and Enhance the Quality of the Great Lakes – Continued

Public Education – Continued

OCDC – Oakland County Distribution Network - continued

Progress:

The distribution network has been established and used to distribute storm water education to employees. The OCDC Environmental Unit created a free-standing display board for each of the Oakland County departments represented on the Oakland County Stormwater Committee to display quarterly public education materials. Full size and table top easels were provided as needed.

OCDC – Newsletter Articles

Target: Articles on topics relating to stormwater will be submitted to “The Watermark”, and to special newsletters on a request basis.

Timeline: Articles will be submitted quarterly.

Progress:

Three OCDC Watermark newsletters were published in FY2005: November 04, March 05, and September 05. The newsletters contained ten environmental articles including: Car Maintenance tips to protect water quality, Pet Waste tips to protect water quality, H₂Oakland cable shows, recycling tips, water conservation tips, storm drain awareness parking lot display, storm drain awareness, mercury collection, oil recycling, and Dirt Doctors.

OCDC – Oakland County Parking Lot Drainage Education

Target: Create and rotate a poster illustrating the location of catch basins in the parking lot and where the runoff from the parking lot ultimately goes. This poster will follow the journey from the parking lot through the Oakland County campus, to Lake St. Clair and Lake Erie.

Timeline: Poster to be completed by June 2005.

Progress:

The parking lot display template has been created and two portable display easels were built. Parking lot displays were developed for two pilot locations, Farmers Market and the Public Works Building, where the catch basin markers are being evaluated. Parking lot displays will continue to be created for other Oakland County buildings as catch basin markers are installed. The template for this display was provided to Rochester Hills, Auburn Hills, and St. Clair County for possible duplication at their facilities.

Extras

OCPR – Riparian Education Efforts

Although OCPR does not have a formal Public Education SWPPI activity for the Glen Oaks facility, interpretive signs for the vegetative buffers, natural areas and Pebble Creek have been budgeted for FY 2005.

Interpretive signs for the vegetative buffers and bio-swales have also been installed at Red Oaks and park staff at Independence Oaks is using interpretive signage and creative wildlife management to allow for beaver activity close to park roads and universally accessible trails.

Goal 7 – Preserve and Enhance the Quality of the Great Lakes – Continued

Extras – Continued

OCHD – Beach Monitoring and Riparian Newsletters

The Oakland County Health Division has continued its monitoring activity of inland lakes during the 2005 bathing beach season. This is not a mandated program. A total of 93 beaches on 67 different lakes were sampled for E. coli. The sampling program encompassed nine weeks and began the week of June 6, 2005. A total of 766 sampling events were conducted between June 6, and August 19, 2005 consisting of 2,298 individual samples.

Fifteen of the 2005 beaches were located in the Rouge River Watershed:

- *4 beaches on Walled Lake (Walled Lake)*
- *5 beaches on Walnut Lake (West Bloomfield)*
- *1 beaches on Gilbert Lake (Bloomfield)*
- *1 beach on Fox Lake (West Bloomfield)*
- *1 beach on Hammond Lake (Bloomfield)*
- *2 beaches Woodpecker Lake (West Bloomfield)*
- *1 beach on West Bloomfield Lake (West Bloomfield)*

Of the total 44 beach closures during the 2005 season, five of the closures occurred in the Rouge River Watershed on multiple lakes due to elevated E. coli levels.

At the beginning of each bathing beach season, notifications are sent to the individual cities, villages or townships (CVT) in which the beach is located as notification that sampling will occur. These same letters are also mailed to the contact person of record for the individual bathing beaches. Thirty-three CVTs were included in the 2005 season. 126 copies of Waterside Living, a newsletter for Riparian landowners in the Rouge River Watershed, were distributed during the 2005 beach season.

OCDC – H₂Oakland Cable Shows

OCDC has been airing H₂Oakland cable shows for three years and rely on it to explain to Oakland County residents what they can do to improve water quality and protect the environment. The format of the show is designed to feature employees who have specialized expertise in various disciplines associate with environmental protection. The H₂Oakland cable show has won the 2005 National Environmental Achievement Award from the Association of Metropolitan Sewerage Agencies headquartered in Washington, D.C. The show was selected as the nation's best example of public information and education dedicated to environmental protection. To date, 27 H₂Oakland shows have been completed with eight completed during FY2005.

- *Tour of Commerce Wastewater Treatment Plant*
- *What Happens in Sewers When it Rains*
- *The Challenges of Maintaining Old Drains – Chapter 4 Drains*
- *OCDC Construction Projects*
- *Why Manholes are Important*
- *The Purpose of Confined Space Training*
- *All About Mercury*
- *Purpose of a Lake Improvement Board*

Goal 7 – Preserve and Enhance the Quality of the Great Lakes – Continued

Extras – Continued

OCDC – Clinton River Review – 2005

The Clinton River Review 2005 was held on August 26 at Oakland University. This event was the second annual celebration of the progress of the Clinton River Watershed restoration. Participants heard from experts including Drain Commissioner John McCulloch, and representatives from Oakland University and the Michigan Department of Natural Resources. Steve Allbee of the U.S. Environmental Protection Agency gave the keynote address. This event is designed to educate elected officials and other watershed stakeholders about the importance and status of our ongoing water quality improvement initiatives.

OCDC/OCFM – Oakland County Catch Basin Identification

OCFM has identified catch basins located on the Oakland County campus. The OCDC Environmental Unit began marking the catch basins with curb markers. This program will educate Oakland County employees, as well as the public, on catch basin locations and the effects of storm water runoff/discharge to our important surface waters. The Oakland County Farmer's Market and the Oakland County Public Works Building have received curb markers and will be used to determine durability of catch basin identification products.

OCDC – Bring Your Child to Work Day

OCDC held their third annual Bring Your Child to Work Day hosting 42 children and their parents on April 28, 2005. Presenters from throughout the Drain Office presented a variety of topics including the Enviroscope, water pollution, GIS mapping, vector trucks, TV van, and others. This event focused on education the children about the Drain Office's positive impact on water quality and its importance.

OCPR – Park Staff Education

OCPR has provided education materials from the Phase II Stormwater Permit Process to park supervisory staff. OCPR has created a Stewardship Action Group for the dissemination of information and the implementation of land and water stewardship within the park system.

For the Fiscal Year 2006, Design and Development staff will develop a series of Natural Resources Management Protocols that detail the responsibilities of park staff. This methodology will be based in part on information provided by the Michigan Natural Features Inventory and will include Best Management Practices promoted by the Michigan Department of Natural Resources, Michigan State University Extension and the Oakland County Drain Commissioner's Office.

OCHD – Oakland County Health Spot Displays

OCHD included information from the Southeast Michigan Partners for Clean Water 7 Simple Steps to Clean Water Information on the Health Spot bulletin board displays. Ninety display boards are distributed throughout the Oakland County campus. Over 4000 people are employed by Oakland County and therefore this distribution has significant educational reach.

OCDC – Water Meter Brochure

OCDC Operations and Maintenance staff prepared a brochure explaining how to read your water meter for the general public. The brochure explained how to determine if you have a leak, so that water conservation is achieved. The educational brochures will be included in water and wastewater billings in October 2005. Additional copies were provided to communities for their use.

Goal 7 – Preserve and Enhance the Quality of the Great Lakes – Continued

Extras – Continued

OCDC – Grease Brochure

OCDC Operations and Maintenance staff prepared a brochure explaining why grease is a problem in sewer systems and how it can impact the environment. The educational brochures will be included in water and wastewater billings in October 2005. Additional copies were provided to communities for their use.

OCDC – Unit Meetings

Thirteen OCDC units meet regularly. Relevant environmental information is distributed to staff at these meetings.

Regional Public Education Coordination

OCDC/OCPEDES/SEMCOG – Regional Public Education Efforts

Target: Continue to participate in Southeast Michigan Partners for Clean Water to develop regional public education materials, campaigns, and coordinate material purchases.

Timeline: Ongoing

Progress:

OCDC Environmental Unit staff and OCPEDES staff regularly attend meetings of the Southeast Michigan Partners for Clean Water. Progress reports for the group are posted on the Ours to Protect website at <http://www.semco.org/OursToProtect/OurstoProtect.htm>.

Material developed through the Ours to Protect campaign have been displayed at various special events. Oakland County has made use of all the public education materials received by posting and distributing the information. SEMCOG initiated media coverage for the Partners for Clean Water campaign including newspaper articles, an interview with a local magazine, a television story, a television on-air commentary, and print ads. Comcast developed and aired seven public service announcements highlighting the Seven Simple Steps to Clean Water campaign. A website for the public education campaign has been developed and is located at www.semco.org. The website includes actions the public can take to protect our water resources. The website currently receives 5,000 hits a month. Oakland County is an active member of SEMCOG and provides ongoing financial support to them to continue these important regional educational programs.

OCDC/SEMCOG – Regional Survey

Target: Participate in regional survey on watershed-related topics to establish baseline and focus for public education campaign.

Timeline: Ongoing

Progress:

OCDC provided funds for the regional survey so that the major subwatersheds within Oakland County could be surveyed. The following subwatersheds were surveyed: Paint/Stony Creek, Upper Clinton, Clinton Main, Kent Lake, Red Run, Rouge Main, Rouge Upper, and Rouge Middle. OCDC Environmental Unit staff attended meetings of the survey subcommittee and provided input on survey topics, priorities, and wording of questions. Survey results are available on the Partners for Clean Water website at <http://www.semco.org/OursToProtect/OurstoProtect.htm>

Goal 8 – Integrate Stormwater Management in Planning and Land Use Approval Process

Staff Training in Stormwater Management

OCDC – Staff Education

Target: Create and implement an education plan to educate engineering and field staff on new stormwater BMPs and techniques.

Timeline: A draft education plan is targeted for completion by the end of 2005

Progress:

An education plan for OCDC staff is under development. Needs and opportunities for each type/group of staff members are being identified. Oakland County will continue to participate in the Partners for Clean Water Committee who is working to develop a municipal training program in FY2006.

OCDC employees continue to participate in local and national conferences and workshops. In FY2005 employees attended training or tours on the following topics: illicit discharge elimination, low impact design, Soil Erosion and Sedimentation Control (SESC), construction site BMPs for NPDES permit compliance, and sustainable storm water management. The Oakland County Facilities Management Grounds Chief attended a workshop on rain gardens.

RCOC – Staff Education

Target: Provide training to appropriate RCOC staff on water quality/stormwater management.

Timeline: Prepare a draft education plan for RCOC employees by December 2005.

Progress:

RCOC is working on a draft education plan for all RCOC employees. It is scheduled for completion in 2006. Environmental Concerns staff at RCOC have worked with OCDC on several IDEP complaints that have been educational and will be useful in training staff about illicit discharge detection and reporting.

Update Oakland County Drainage Standards

OCDC – Update Oakland County Drainage Standards

Target: Revise OCDC Storm Water Design Standards to incorporate storm water management and BMP criteria to enhance storm water quality.

Timeline: Distribute for internal review and comment April-May 2004, Final Draft prepared by May 2005, Final version formally adopted January 2006.

Progress:

OCDC Storm Water Design Standards to incorporate storm water management and BMP criteria to enhance storm water quality have been distributed for internal review and comment. Comments have been received and a final draft is complete. The final version has been tentatively scheduled for formal adoption in January 2006.

Goal 9 – Establish Financial and Institutional Arrangements for the Fulfillment of the Management Plan

Drainage District Development

OCDC – Support Drainage District Development

Target: Develop a strategy to implement a comprehensive drainage district funding mechanism for the subwatershed groups.

Timeline: Ongoing

Progress:

OCDC continues to advocate, at SWAG and other meetings, to establish a funding mechanism for the Subwatershed groups. The Comprehensive Chapter 20 Drainage District is one funding option. The Franklin Subwatershed District, a Chapter 20 Drainage District, has worked successfully on a number of stormwater projects.

OCDC – Drainage District Mapping

Target: Continue to map all drainage/assessment districts in GIS. These will serve as catchments within the subwatersheds that have an established legal entity and apportionment.

Timeline: Ongoing

Progress:

To date, we have mapped 126 assessment districts, of which 35 have been approved for use.

Oakland County Stormwater Committee (OCSC)

OCDC – Facilitate and Organize OCSC

Target: Organize, coordinate, and facilitate the OCSC to continue Oakland County's Phase II storm water permit compliance.

Timeline: Ongoing

Progress:

The Oakland County Stormwater Committee (OCSC) was formed in November 2003 and is facilitated by OCDC Environmental Unit Staff. Since its inception, this Committee has conducted thirteen meetings with the purpose of facilitating and overseeing overall County Phase II Permit Compliance. The OCSC continues to meet regularly on an as needed basis and is comprised of representatives from Oakland County agencies and departments including:

- *Oakland County Drain Commissioner's Office,*
- *Road Commission for Oakland County,*
- *Oakland County Parks & Recreation,*
- *Offices of the Oakland County Executive*
 - *Department of Facilities Management,*
 - *Waste Resource Management*
 - *Planning and Economic Development Services Division of the Community and Economic Development Department,*
 - *Department of Aviation and Transportation,*
 - *Information Technology,*
 - *and the Oakland County Health Division.*

Goal 9 – Establish Financial and Institutional Arrangements for the Fulfillment of the Management Plan – Continued

Oakland County Stormwater Committee (OCSC) – Continued

OCDC – Facilitate and Organize OCSC – Continued

During County FY 2005, the OCSC had several meetings to develop the IDEP and PEP and update the SWPPI. Additionally, the County's FY 2004 Phase II Stormwater Annual Report was prepared. Much emphasis this year was placed on obtaining funding for RCOC & OCDC IDEP compliance activities. As a result of these focused efforts, OCDC and the RCOC successfully received a \$338,000 Clean Michigan Initiative (CMI) grant to perform IDEP permit compliance activities on RCOC and OCDC stormwater systems in the Clinton River Watershed. This project is expected to commence in November 2005 with a project completion date of September 2007.

The OCSC will continue to provide input and oversight into the implementation of the Oakland County's Phase II programs through ongoing OCSC Meetings.

OCPEDS/OCHD/OCPR/RCOC/OCFM/OCIA/WRMD/OCIT – Participate as an Active Member of OCS

Target: Participate as an active member of OCS, providing expertise and maintain Oakland County's storm water Phase II compliance.

Timeline: Ongoing

Progress:

All above entities have participated with the Oakland County Stormwater Committee and have reviewed information as provided by the subwatershed advisory groups.

Goal 10 – Enforce Action Plans and Increase Accountability for Stormwater Management

Watershed/Subwatershed Participation

OCDC/OCPEDS/RCOC/OCPR/OCFM/OCIA/WRMD/OCIT – Participate in Watershed/Subwatershed Groups

Target: Participate as a facilitator or member in all active Watershed/Subwatershed groups. Coordinate with county agencies via the OCSC to represent Oakland County interests. Review Subwatershed plan goals as they are developed to determine county applicability.

Timeline: Ongoing

Progress:

Oakland County participation in Watershed/Subwatershed groups can be evidenced by meeting minutes. Typically, OCDC attends all meetings to represent Oakland County, while RCOC, OCPR, and OCPEDS attend groups where they have facilities or when they have been requested to attend. Oakland County Departments and Divisions track the activities of Subwatershed groups through e-mail meeting minutes, etc. and will attend specific Subwatershed group meetings if requested by the group. This year the SWAGs spent much time in developing watershed management plans.

OCDC provides four employees to participate and represent Oakland County in the active Watershed and Subwatershed groups. OCDC continues to act as chair of the Rouge Main 1-2 Subwatershed group and coordinates several Rouge Project grants on behalf of the SWAG. OCDC also serves as the facilitator for the Clinton Main Subwatershed group.

OCPR, OCFM, OCPEDS, and RCOC are participating in the Clinton Main subwatershed group in coordination with other Oakland County staff.

OCHD is represented by OCDC staff at most Watershed/Subwatershed groups. They have attended Rouge Main 1-2 SWAG meetings, as requested by the Watershed/Subwatershed group, and will do so for other groups.

OCIA/WRMD/OCIT is represented by OCDC staff at Watershed/Subwatershed groups. They will attend specific meetings if requested by the Watershed/Subwatershed group.

Goal 10 – Enforce Action Plans and Increase Accountability for Stormwater Management – Continued

Good Housekeeping

OCDC – Vehicle and Motorized Equipment Maintenance

Target: Implement a vehicle maintenance program to minimize pollution from vehicle fluids.

Timeline: Ongoing

Progress:

OCDC contracts with an outside vendor to provide maintenance to service vehicles.

OCDC – Motorized Equipment Washing

Target: Implement a vehicle washing policy to minimize pollution from vehicle washing

Timeline: Ongoing

Progress:

OCDC contracts with an outside vendor or Central Services to wash service vehicles.

OCDC – Mowing Practices

Target: Follow mowing practices that save energy and maximize infiltration potential.

Timeline: Ongoing

Progress:

All mower blades for OCDC owned and operated mowers have been set at a height of three inches. These mowers are used for maintenance areas along drains, as well as service areas where OCDC pump stations and other equipment are located.

RCOC – Facility Inspection – Southfield Maintenance Garage

Target: Inspect the Southfield maintenance garage which is in the Rouge watershed to ensure proper protection of stormwater and good housekeeping practices are followed. These include outfall inspection; updating Pollution Incident Prevention Plans; verify salt storage is in compliance with Part 5 of 1994 PA 451; vehicle maintenance; vehicle washing; waste disposal in compliance with state/federal regulations; recycling of oil, antifreeze, batteries, scrap metal, tires, and woodchips.

Timeline: Ongoing maintenance and update PIPP by December 2005

Progress:

RCOC is currently updating the Pollution Incident Prevention Plan, which will be completed in 2005/2006. RCOC will continue with ongoing maintenance of garages and recycling programs. The Southfield Garages will be inspected by early 2006 to insure proper protection of stormwater.

RCOC – Facility Inspection – Troy Maintenance Garage

Target: Inspect the Troy maintenance garage to ensure proper protection of stormwater and good housekeeping practices are followed. These include outfall inspection; updating Pollution Incident Prevention Plans; Salt storage is in compliance with Part 5 of 1994 PA 451; vehicle maintenance; vehicle washing; waste disposal in compliance with state/federal regulations; recycling of oil, antifreeze, batteries, scrap metal, tires, and woodchips.

Timeline: Ongoing maintenance and update PIPP by December 2005.

Goal 10 – Enforce Action Plans and Increase Accountability for Stormwater Management – Continued

Good Housekeeping - Continued

RCOC – Facility Inspection – Troy Maintenance Garage - continued

Progress:

The Troy Garage was inspected in September 2005 with the OCDC to search for illicit connections. The RCOC is working with the OCDC to correct one illicit connection; the inspection did not find any other illicit connections.

OCDC/OCPEDS/SEMOG – Facilities Guidebook for Facilities Managers

Target: Work with regional partners to create a facilities guidebook for facilities managers. This guidebook will be arranged in modular leaflets to keep in a three-ring binder. This format will allow for future expansion and updates.

Timeline: Development of subjects and content layout are underway. Approximately ten leaflets will be completed by September 2005. The team is pursuing options for funding of final print runs.

Progress:

Several draft leaflets have been prepared and will be reviewed by OC and CVT representatives. A funding source for printing and preparation of additional leaflets is being pursued.

RCOC – South Eastern Michigan Snow and Ice Management (SEMSIM)

Target: Continue to use SEMSIM to help reduce the overall amount of salt that's used to remove ice from roads.

Timeline: Ongoing

Progress:

The first of its kind Southeastern Michigan Snow and Ice Management (SEMSIM) project joins the Road Commission for Oakland County (RCOC), Wayne County Department of Public Services, the City of Detroit and the Road Commission of Macomb County in a partnership that will benefit motorists in all four jurisdictions. The Suburban Mobility Authority for Regional Transportation (SMART) is also a partner, meaning that regional mass transit will also benefit from the project. SEMSIM represents the first time that four governmental road agencies have joined forces to implement such a project. The RCOC now has a total of 72 trucks equipped with SEMSIM.

SEMSIM is introducing cutting-edge technologies that will result in safer roads across the region and more efficient use of resources for the partner agencies. The SEMSIM technologies include:

- *Satellite-based global positioning system (GPS) vehicle tracking devices*
- *Air and pavement temperature sensors*
- *Plow sensors*
- *Computerized salt spreaders*
- *In-vehicle dashboard computer displays*
- *A 900 MHz radio system*
- *Customized computer software*

Goal 10 – Enforce Action Plans and Increase Accountability for Stormwater Management – Continued

Good Housekeeping - Continued

RCOC – South Eastern Michigan Snow and Ice Management (SEMSIM) - continued

The radio system is provided by SMART and serves as the communications “backbone” for SEMSIM. The GPS system allows the partners to track vehicles in real time, so they can see exactly where they are and what they are doing at any time. This allows the agencies to better manage their truck fleets. Each SEMSIM truck is equipped with a number of sensors that record air and pavement temperature and whether the front and ‘underbelly’ plows are up or down. This data is fed continuously to management computers via the SMART radio system. Additionally, the computerized salt spreaders continuously tell the management computers the amount of salt being spread. SEMSIM will allow all four agencies to more efficiently plow and salt their roads. This means improved service for the motorists traveling in Southeast Michigan and reduced costs for the road agencies. SMART will benefit by receiving real-time information about what roads have been salted and plowed, which will help it better manage its fleet during difficult driving conditions.

Extras

OCPR – Stewardship Action Group

OCPR has created a Stewardship Action Group for the dissemination of information and the implementation of land and water stewardship within the park system. This stewardship would include the implementation of BMPs as directed by the OCPR office of Design and Development.

Now that the mechanism for implementation has been established, budget allowances for parkland stewardship have been incorporated into the 2006 Grounds Maintenance Budgets for each of the 11 county parks.

For the Fiscal Year 2006, Design and Development staff will develop a series of Natural Resources Management Protocols that detail the responsibilities of park staff. This methodology will be based in part on information provided by the Michigan Natural Features Inventory and will include Best Management Practices promoted by the Michigan Department of Natural Resources, Michigan State University Extension and the Oakland County Office of the Drain Commissioner.

OCIA – Airport Maintenance

The Oakland County International Airport has a storm water pollution prevention plan. OCIA follows as an established deicing program, has a fuel/water separator in place, and established spill prevention measures.

Attachment 1: Oakland County IDEP Summary – Fiscal Year 2005

Table 1
Oakland County Drains Surveyed in the Clinton River Watershed
Outfalls Screened for Primary Pollutants

Drain Name	Community	Drain Surveyed for Illicit Discharges
Hobart	Auburn Hills	No
Johnson	Auburn Hills	No
Kasper	Auburn Hills	No
Kasper Ext.	Auburn Hills	No
Levinson	Auburn Hills	No
Dutton Drain	Auburn Hills	Yes
Maplehurst	Auburn Hills	No
Wolf	Auburn Hills	No
John E. Olsen	Auburn Hills	No
Taylor	Auburn Hills	No
Sinking Bridge	Auburn Hills / Pontiac	Yes
Augusta Relief	Pontiac	Yes
Joslyn	Pontiac	Yes
Galloway	Pontiac	Yes
Holland	Pontiac	Yes
Bartlett	Pontiac	Yes
Rufe Collier	Pontiac	No
Oaks	Pontiac	Yes
Pontiac Clinton River 1	Pontiac	No
Pontiac Clinton River 2	Pontiac	Yes
Pontiac Clinton River 3	Pontiac	No
Joslyn Drain	Pontiac	Yes
Ward Orchards	Pontiac	Yes
Westend	Pontiac / Waterford	No
Pontiac Creek Ext.	Pontiac	Yes
Guyer	Pontiac	No
Jewel	Pontiac	No
Mainland	Pontiac	Yes
Brewer	Pontiac	No
Joachim	Pontiac	No
Moore	Pontiac	Yes
Vinewood	Pontiac	No
Skaritt	Pontiac	Yes
Brooklyn	Pontiac	No
Palmer	Pontiac	No
Earlmoore	Pontiac	No
Joseph Jones West	Pontiac	No
Joseph Jones East	Pontiac	No
Richton	Pontiac	No
Rowland	Pontiac	No
Skae	Pontiac/ Sylvan Lake	No
Tilden	Pontiac / Sylvan Lake	No

Attachment 1: Oakland County IDEP Summary – Fiscal Year 2005

Table 1 - continued
Oakland County Drains Surveyed in the Clinton River Watershed
Outfalls Screened for Primary Pollutants

Drain Name	Community	Drain Surveyed for Illicit Discharges
Tuttle	Pontiac/ Waterford	No
Birdlands	Waterford	Yes
Drayton Plains	Waterford	Yes
Drayton Plains Ext.	Waterford	Yes
Four Towns	Waterford / W. Bloomfield	Yes
Josephine	Waterford / Pontiac	No
Linden	Waterford / Pontiac	No
Lochaven	Waterford	Yes
Mclvor	Waterford	No
Otter	Waterford	Yes
Silvercrest	Waterford	Yes
Wilmont	Waterford	No
Allen	Independence / Brandon	Yes (In progress)
Dry Run	Independence / Orion	Yes (In progress)
Weir	Brandon / Oxford	Yes (In progress)

Attachment 1: Oakland County IDEP Summary – Fiscal Year 2005

Table 2
Outfalls in the Clinton River Watershed with Suspected Illicit Discharges

Date	Drain	Outfall Type	Size (inches)	Primary Indicators	Pollutants	Potential Source
4/7/2005	Galloway	Pipe	12	Conductivity, Turbidity	Sediment	Construction site Sigma Property 3720 Lapeer Rd
4/7/2005	Galloway	Natural Drain	36	Conductivity, Turbidity, Ammonia	Sediment, Leachate from landfill	Dutton Rd Development Site / Sanicem Landfill
5/4/2005	Pontiac/ Clinton River 2	Pipe	72	Turbidity, Ammonia, <i>E. coli</i>	Potential Sewage	Pontiac Storm Sewer
5/4/2005	Pontiac/ Clinton River 2	Pipe	96	Turbidity, <i>E. coli</i>	Potential Sewage	Pontiac Storm Sewer
5/4/2005	Joslyn Drain	Pipe	80	Oil Sheen	Fuel/ Oil Spill	Unknown
5/17/2005	Dutton Drain	Pipe	4	Conductivity, Dissolved solids, Turbidity, Metals	Iron, Calcium, Sodium	Consumers Power Property
6/7/2005	Pontiac/ Clinton River 2	Pipe	36	Turbidity, Phosphates, <i>E. coli</i>	Potential Sewage	Pontiac Storm Sewer
6/8/2005	Pontiac/ Clinton River 2	Pipe	18	Turbidity, Dissolved Solids, Conductivity, Ammonia, <i>E. coli</i>	Potential Sewage	Pontiac Storm Sewer
6/9/2005	Pontiac/ Clinton River 2	Pipe	72	Conductivity, Dissolved solids, <i>E. coli</i>	Potential Sewage	Pontiac Storm Sewer
6/20/2005	Moore Drain	Pipe	60	Turbidity, conductivity, surfactants, <i>E. coli</i>	Potential sewage	Pontiac Storm Sewer
6/21/2005	Ward Orchard Drains	Manhole	48	Conductivity, Dissolved solids, <i>E. coli</i>	Potential Sewage	Pontiac Storm Sewer
6/27/2005	Mainland Drain	Pipe	30	Turbidity, Conductivity sheen, Surfactants, <i>E. coli</i>	Sewage, oils and grease	Oakland County Complex
6/27/2005	Jewell Drain	Pipe	42	Conductivity <i>E. coli</i>	Potential Sewage	Unknown

Attachment 1: Oakland County IDEP Summary – Fiscal Year 2005

Table 3
Follow Up Investigations of Outfalls in the Rouge River
Watershed with Suspected Illicit Discharges

Sample Date	Name	Pollutant	CVT	Source	Status
12/6/2004	Outfall from school property	Ammonia, Surfactants	Bloomfield Township	East Hills Middle School	Pending Correction
1/7/2005	Bloomfield Highlands Drain	Sewage	Bloomfield Township	Sanitary Connection	Pending Investigation
1/12/2005	Nelson Drain	Sewage	Troy	Unknown	Pending Investigation
1/19/2005	Devonshire Drain	Sewage	Bloomfield Township	Bloomfield Highlands Drain	Pending Investigation
1/25/2005	Cranbrook Institute @ Rouge River	Sewage	Bloomfield Hills	Cranbrook Institute	Corrected
1/25/2005	Evans Drain	Sewage	Southfield	Sanitary Connection	Pending Investigation
1/28/2005	Hamlin Drain	Sewage	Bloomfield Township	Sanitary Connection	Pending Investigation
1/31/2005	Oxford Street Drain	Sewage	Farmington Hills	Sanitary Connection	Pending Investigation
1/31/2005	Hazel Drain	Sewage	Farmington Hills	Sanitary Connection	Pending Investigation
1/31/2005	US 16 Drain MH #3	Sewage	Farmington Hills	Sanitary Connection	Pending Investigation
2/1/2005	Austin Drain Lower Terminus	Sewage	Farmington Hills	Sanitary Connection	Pending Investigation
2/1/2005	Claire Drain 15" Pipe	Sewage	Farmington Hills	Sanitary Connection	Pending Investigation
2/1/2005	Pearl Street Drain Lower Terminus	Sewage	Farmington Hills	Sanitary Connection	Pending Investigation
2/3/2005	Claire Drain (Muirwood St. 24" pipe)	Sewage		Sanitary Connection	Pending Investigation
2/4/2005	Clarenceville Drain Lower Terminus	Sewage	Farmington Hills	Sanitary Connection	Pending Investigation
2/17/2005	Hazel Drain E 30"	Sewage	Farmington Hills	Sanitary Connection	Pending Investigation

Attachment 1: Oakland County IDEP Summary – Fiscal Year 2005

Table 4
Summary of Complaints with Illicit Discharges

Date	CVT	Complaint	Responding Agency	Enforcing Agency	Illicit Discharge	Source	Status
10/27/2004	Birmingham	Oil spill in Rouge River	Birmingham Fire Dep't and DPW, MDEQ, OCDC	MDEQ, Birmingham FD	Yes	Hydraulic fluid from garbage truck	Eliminated and Closed
12/6/2004	Rochester Hills	Deposits and stains in tributary to Red Run at 14 Mile & Dequindre	OCDC	Macomb County DPW for further investigation	Unknown	Unknown	Referred to Macomb County for further investigation
12/7/2004	Waterford	Fuel spill to Wilmont Drain	OCDC, MDEQ, OCIA	MDEQ, OCDC	Yes	Fuel/water separator	Eliminated and Closed
12/13/2004	Lyon Township	Illicit discharge from facility to drainage pond	MDEQ, OCDC	MDEQ Investigation	Yes	Water softener discharge	Ongoing, MDEQ Investigation
12/14/2004	Oakland Township	Sewage spill to tributary of Paint Creek	OC Sheriff, OCDC	Reported to MDEQ	Yes	Septage hauler	Closed
1/3/2005	Village of Bloomfield Hills	Oil spill to Rouge River, Nichols Drain	OCDC	OCDC	Yes	Cutting oil from drain project	Eliminated and Closed
3/29/2005	Addison Township	Oil spill to road drain / wetland near Lakeville Lake	Fire Dept, OCDC, MDEQ	MDEQ	Yes	No	Spill cleaned up. Closed
4/1/2005	Macomb County	Illicit discharge of oily substance on Red Run at Maple Lane Golf Course	Macomb County DPW	Macomb County DPW	Unknown	Unknown	Unknown
4/6/2005	Auburn Hills	Sediment/sanitary discharge to tributary of Galloway Drain	OCDC MDEQ	OCDC, MDEQ	Yes	Leachate and soil erosion from landfill	Ongoing MDEQ, OCDC Enforcement
4/7/2005	Auburn Hills	Sediment/sanitary discharge to tributary of Galloway Drain	OCDC	OCDC	Yes	Sediment from construction site	Eliminated and Closed
4/10/2005	Pontiac	Fuel/oil spill to Joslyn/Augusta Drain	OCDC, Reported to MDEQ	OCDC	Yes	Unknown	Spill cleaned up. Closed
4/21/2005	Bloomfield Township	Illicit discharge coming from the Nichols Drain	OCDC	OCDC	Yes	No	Source not found, Closed
4/26/2005	Lathrup Village	Illegal dumping of grease into Storm Darin	OCDC	OCHD, Lathrup Village	Yes	Grease from restaurant	OCHD Enforcement
27-Apr-05	West Bloomfield Township	Illicit discharge of grey water to storm drain.	OCDC	W. Bloomfield Township	Yes	Laundry discharge from residence	Eliminated and Closed

Attachment 1: Oakland County IDEP Summary – Fiscal Year 2005

Table 4 - continued
Summary of Complaints with Illicit Discharges

Date	CVT	Complaint	Responding Agency	Enforcing Agency	Illicit Discharge	Source	Status
5/4/2005	Pontiac	Oil spilled on ground	OCDC	Pontiac	Yes	Oil storage on property	Site cleaned up, Closed
5/12/2005	White Lake Township	Illicit discharge of grey water to Mandon Lake	OCHD, White Lake	OCHD, White Lake TWP	Yes	Laundry discharge from residence	Pending correction
5/16/2005	Waterford	Oil spill to Pontiac Road storm drain	Waterford Fire Dep't, MDEQ, OCDC, RCOC	MDEQ	Yes	MDEQ investigation	Site cleaned up. Ongoing MDEQ Investigation
5/17/2005	Rochester Hills	Illicit discharge Dutton Drain	OCDC	OCDC	Yes	Metals, Possible groundwater source	Ongoing investigation
5/17/2005	Farmington Hills	Illegal dumping of grease in storm sewer		Farmington Hills	Yes	Grease from restaurant	Eliminated and Closed
6/3/2005	West Bloomfield Township	Illicit Discharge of sewage to Rouge River	OCDC, OCHD, West Bloomfield	OCHD, West Bloomfield	Yes	Failed septic system	Connected to Sewer, Closed
6/10/2005	Southfield	Illicit discharge of sewage to Rummel Drain	OCDC	OCHD, City of Southfield	Yes	Pending investigation	Pending Investigation
7/7/2005	Village of Orion	Illicit discharge of sewage to Kearsley Creek	OCDC	OCHD, Village of Orion	Yes	Failed septic system	Pending Correction
7/7/2005	Waterford	Illicit discharge of sewage to Pontiac Creek	OCDC	Waterford Twp, OC Parks	Yes	Sanitary sewer overflow	Pending Correction
7/20/2005	Farmington Hills	Gasoline spill to 12 Mile Rd. Drain / Minnow Pond Drain	Farmington Hills Fire Dep't, MDEQ, OCDC	MDEQ	Yes	Fuel spill at gas station	Spill Cleaned Up, Closed
7/27/2005	Addison Township	Illicit discharge of sewage to Clark and Leonard Drains	OCHD, OCDC	OCHD, Village of Leonard	Yes	Pending investigation	Pending Investigation
8/2/2005	Novi	Sediment discharge to Ingersol Creek	Wayne County DOE, OCDC	MDEQ, City of Novi	Yes	Dredging project	Discharge eliminated, Ongoing Enforcement
8/2/2005	Auburn Hills	Sanitary sewer discharge	OCDC	Auburn Hills	Yes	Sanitary sewer overflow at catch basin	Eliminated and Closed
8/18/2005	Auburn Hills	Chlorine spill/fish kill in Clinton River	OCDC	MDEQ	Yes	Pontiac Waste Water Treatment Plant	Pending Investigation