

Appendix I
July 2020

WRC Alternative Illicit Discharge Elimination Program (IDEP)

A. History

WRC has had an IDEP in place since 1999. All open and enclosed County drains have been surveyed and inlets to the drains have been identified and dry weather screened. Surveys of County drains and all open watercourses in the Rouge River Watershed were completed under the 1999 voluntary stormwater permit and surveys of County drains in the Clinton, Huron, Flint and Shiawassee River watersheds were completed under the 2003 Watershed-based General Stormwater Permit. In total, 9,990 inlets have been identified and dry weather screened in both MS4 and non-MS4 areas.

In 2010, WRC implemented a Collaborative Asset Management System (CAMS). All stormwater structures on all County drains have been GPS-located and are identified in CAMS. WRC has identified 1,364 MS4 outfalls (O) and 104 discharge point (DP) structures. A list of WRC outfalls and discharge points is included in **Appendix C of the OC MS4 IDEP**. All County drains and structures are currently inspected on a 4-year rotating cycle under WRC's Drain Maintenance Program (see **Attachment 1, "County Drain 4-Year Inspection Cycles"**).

Under the 2003 stormwater permit, WRC developed a procedure for ongoing monitoring of all open and enclosed County drains for illicit discharges. Ongoing dry weather screening, water quality and sampling data has been collected on 369 open and enclosed County drains. Sampling locations were selected to evaluate each drain for the potential of containing upstream illicit discharges. This procedure covered all County drains in both MS4 and non-MS4 areas. This data has been useful in identifying potential illicit discharges to County drains from local MS4's and from public and private property.

WRC has also operated a Countywide 24-Hour Pollution Hotline for the public reporting of surface water pollution since 1999. Under this program, Oakland County and local communities have received and investigated 589 complaints throughout the five (5) watersheds and 62 communities located in Oakland County.

Cooperative IDEP investigations, complaint investigations and enforcement by WRC and local communities has led to the discovery and elimination of 499 illicit discharge sources throughout the County. Table 1 provides a summary of the results of these efforts.

Table 1: Results of the WRC IDEP Program from 2005-2018

Pollutant	Source	Rouge River Watershed		Clinton River Watershed		Huron River Watershed		Shiawassee River Watershed		Flint River Watershed		Total
		No.	estimated amt.	No.	estimated amt.	No.	estimated amt.	No.	estimated amt.	No.	estimated amt.	
Sewage	Failed Septics	16	1,012,525 gal/yr	8	338,331 gal/yr			1	54,750 gal/yr	1	8,400 gal/yr	27,620,255 gal/yr
	Misconnected Sanitary	30	2,020,458 gal/yr	20	5,580,434 gal/yr	1	200 gal/yr					
	Broken Sanitary Leads	1	881,325 gal/yr	6	4,505,196 gal/yr	1	70,518 gal/yr					
	Sewer Overflows	17	10,978,300 gal/yr	15	2,134,013 gal/yr	2	20,900 gal/yr	3	300 gal/yr			
	Illegal Dumping			2	14,605 gal/yr							
Fuels, Oils, & Grease	Spills	4	1,095 gal	35	11,731 gal	3	90 gal					30,928 gal
	Illegal Dumping	12	3,585 gal	13	625 gal	2	201 gal					
	Industrial Discharge	2	1 gal	11	13,600 gal							
Sediment (TSS)	Construction Site	1	500 lbs	10	1,066,427 lbs	3	6132 lbs					2,054,754 lbs
	Industrial/Commercial	4	45,445 lbs	6	936,000 lbs							
	Illegal Dumping					1	250 lbs					

Note: Estimates are not inclusive of all types and quantities of pollutants removed. Contact WRC for additional information.

B. Proposed Alternative Method for Continued Screening, Prioritizing and Scheduling of Illicit Discharge Investigation Activities on County Drains

Under the 2003 stormwater permit, water quality data was collected on all 369 open and enclosed County drains. This data, along with other available sampling data and complaint information, has been used to evaluate each County drain for the potential of having upstream illicit discharges. A process for prioritizing the drains for illicit discharge investigation has been developed and all County drains have been prioritized. The criteria used for evaluating and prioritizing drains appears in Table 2 below. A list of prioritized drains is included in **Attachment 2A**. A map showing the catchment areas for Priority 1 and 2 drains is included in **Attachment 2B**.

Table 2: Criteria for Prioritizing and Scheduling IDEP Investigations and Ongoing Dry Weather Screening (DWS) on County Drains

Criteria	Action Required	Priority Level (1 – 3)
Evidence of pollutants from DWS and/or <i>E. coli</i> values $\geq 10,000$ cfu/100 mL	Immediate follow-up to verify illicit discharge. Initiate upstream IDEP investigation to identify pollutant source(s). Coordinate additional IDEP activities as needed.	1 (High)
No evidence of pollutants from DWS and <i>E. coli</i> values ≥ 5001 and $< 10,000$ cfu/100 mL	Schedule additional sampling within one (1) year for further evaluation. Schedule upstream DWS of O/DPs or initiate IDEP investigation to identify pollutant source(s) as needed.	2 (Medium)
No evidence of pollutants from DWS and <i>E. coli</i> values $\leq 5,000$ cfu/100 mL	Continue DWS of O/DPs per 4-year Drain Maintenance inspection cycle. Review results and re-prioritize as needed.	3 (Low)

Priority 1 Drains

Going forward under the reauthorized stormwater permit, IDEP staff will be focusing follow-up IDEP investigations on County drains meeting the “Priority 1” criteria where the illicit discharge source has not yet been determined. Discharges to these drains have been found to have visible signs of pollutants and/or *E. coli* concentrations greater than 10,000 cfu/100 mL which is considered indicative of an upstream sanitary sewage source. There are currently 10 drains identified as “Priority 1” as outlined in **Attachment 2A**. These drains are currently being evaluated and investigated to identify additional sources of contamination to these drains. These drains will remain on the “Priority 1” list until illicit discharge investigations have been completed and any additional illicit discharge sources are identified and eliminated. At that time, additional sampling data will be collected and the drains will be re-evaluated and re-prioritized using the above criteria. IDEP activities will

continue to be conducted on County drains as outlined in WRC Work Instruction, “EU-1702”, “Procedures for Illicit Discharge Detection and Elimination” which is included in **Appendix E of the OC MS4 IDEP**.

Priority 2 Drains

County drains currently identified as “Priority 2” are drains where *E. coli* sampling data shows a geometric mean average concentration greater than 5,000 cfu/100 mL, but less than 10,000 cfu/100 mL, and where dry weather screening data does not indicate any evidence of illicit discharges occurring. Elevated *E. coli* concentrations in this range may be indicative of upstream sewage discharge; however, it may also be related to animal and other non-point sources of contamination. Drains in this category have been given a secondary, medium priority with regard for the need of investigation. Currently there are eight (8) drains with a “Priority 2” status as identified in **Attachment 2A**. Additional sampling data will be collected on these drains within Year One (1) of the stormwater permit reauthorization. This additional data will be used in evaluating prioritization and scheduling upstream dry weather screening and IDEP investigations on these drains.

Priority 3 Drains

County drains currently identified as “Priority 3” are drains where *E. coli* sampling data shows average geometric mean concentrations of less than 5,000 cfu/100 mL and recent dry weather screening data does not indicate any evidence of illicit discharges occurring. There are currently 351 drains identified as “Priority 3” in outlined in **Attachment 2A**. All drains in this category have been surveyed, upstream outfalls and discharge points have been identified and dry weather screened, and any identified illicit discharges have been investigated and eliminated. The most recent dry weather screening and sampling data indicates that these drains have a very low potential for containing upstream illicit discharges and have been given a low priority with regard for the need of further investigation. Drains in this category include both MS4 and non-MS4 drains located within and outside of the urbanized area. Ongoing dry weather screening of drain structures, including MS4 outfalls and discharge points on these drains, will continue to be conducted on a 4-year rotating cycle as per the Drain Maintenance Inspection cycle included in **Attachment 1**. Additional illicit discharge investigations on drains in “Priority 3” areas will be conducted as additional dry weather screening and complaint investigation data becomes available and is evaluated against the prioritization criteria.

Updating of County Drain Prioritization, DWS and IDEP Investigation Schedules and Reporting

Updates to the current drain prioritization status for “Priority 1” and “Priority 2” drains will be made after scheduling of additional illicit discharge investigation work is completed and any identified illicit discharge sources are eliminated. Additional sampling data will then be collected and the drains will be re-evaluated against the established criteria and re-prioritized. Changes in drain prioritization status for “Priority 3” drains will be updated as new dry weather screening and any complaint investigation data becomes available and is evaluated against the prioritization criteria. Changes made to the drain priority status list will be included in biennial stormwater permit progress reports to EGLE. The WRC’s drain prioritization status will also be shared with groups working under collaborative IDEP plans.

C. Ongoing Illicit Discharge Investigation, Elimination and Reporting

WRC will continue to investigate illicit discharges on all County drains in both MS4 and Non-MS4 areas as identified by dry weather screening activities, complaint investigations and referrals from internal departments and outside agencies. Illicit discharge investigations will continue to be conducted as outlined in WRC Work Instruction, “EU-1702”, “Procedures for Illicit Discharge Detection and Elimination (see **Appendix D of OC MS4 IDEP**). WRC will conduct IDEP investigations on County drains and connected WRC MS4 drain systems up to a point of a change in jurisdiction. Discharges found to be emanating from a source outside of WRC’s

jurisdictional authority will be referred to the local community or other appropriate agency for follow-up investigation.

Response to discharges of hazardous and significant polluting materials will be handled as outlined in WRC's Spill Response Procedure, "P-043", included in **Appendix H of the OC MS4 IDEP**. WRC will continue to work to eliminate identified illicit discharge sources to County drains. WRC will continue to issue illicit discharge notifications and seek corrective actions for discharges directly connected to County drains utilizing WRC's permitting authority and will continue working with local communities, the County Public Health Department and other appropriate regulatory agencies to eliminate discharges from public and private property. Discharges found to be indirectly connected to County drains from a local community or other MS4 system and discharges from private and public property outside of WRC's jurisdiction will be referred to the local community or appropriate regulatory authority for follow-up enforcement and corrective actions.

WRC may assist communities with IDEP investigations, complaint investigations and discharge elimination activities outside of their jurisdictional authority if an interagency or cooperative agreement with WRC is in place to perform this work.

D. Ongoing Scheduling of Dry Weather Screening Activities on County Drains

Dry weather screening of MS4 outfalls and discharge points on County drains will continue to be conducted under WRC's Drain Maintenance inspection program whereby all County drains are currently inspected on a 4-year rotating cycle. During the inspection process, all stormwater structures on each County drain are inspected. This includes the 1,364 structures that have been identified as WRC MS4 outfalls and discharge points. Drain inspection work instructions include dry weather screening procedures for identifying, recording and reporting any evidence of a suspected illicit discharge or illicit connection for follow-up investigation. The drain inspection schedule is included in **Attachment 1**. Suspect outfall and discharge points identified during dry weather screening are reported to the WRC Environmental Unit for further evaluation and investigation. WRC's Drain Maintenance Work Instruction, "CDM-0415", "Drain Inspection, Maintenance and Cleaning" is included in **Appendix D of the OC MS4 IDEP**. The following Drain Maintenance Inspection Forms are included in **Attachment 3**:

- Storm/Combined Drain Structure Inspection Sheet (DC-224)
- Culvert Inspection Form
- Open Channel Inspection Form
- Retention Detention Inspection Form

One final inspection form, "End Treatment (End of Pipe) Inspection Form", is still under development.

E. Ongoing Complaint Investigation and Reporting

WRC will continue to operate the Oakland County 24-Hour Pollution Hotline for reporting of surface water pollution complaints and continue to help with complaint investigations and referrals to local communities. WRC will continue to investigate complaints and conduct complaint investigations on County drains as outlined in WRC's Work Instruction, "EU-1700", "Surface Water Pollution Complaints", included in Appendix E of the OC MS4 IDEP. Complaints outside of WRC's jurisdictional authority will be referred to the local community or other appropriate agencies for follow-up investigation. Complaints involving the potential release or discharge of a hazardous substance, or significant amounts of polluting material are handled as outlined in WRC's Spill Response Procedure, "P-043" (see **Appendix H of the OC MS4 IDEP**).

Complaints and the results of complaint investigations and referrals will continue to be tracked by WRC and reported on in biennial stormwater progress reports to EGLE. A summary of complaints received and results of complaint investigations will also continue to be made available to local communities for use in their Phase II Stormwater Permit reporting.

F. Ongoing Spill Response and Reporting

WRC will continue to respond to spills and discharges of hazardous and significant polluting materials as per WRC Spill Response Procedure, "P-043". WRC will continue to initiate emergency response procedures, notify appropriate emergency response agencies and report spills and discharges of pollutants to "Waters of the State" to EGLE, local communities and the County Public Health Department as required under the permit. Results of spill response and cleanup efforts will be reported to EGLE as required and will continue to be summarized and included in biennial stormwater progress reports.