

ROUGE RIVER COLLABORATIVE ILLICIT DISCHARGE ELIMINATION PLAN (IDEP)



Prepared by:

***46036 Michigan Ave., Suite 126
Canton, Michigan 48188***

***September 25, 2017
Revised January 28, 2020***



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
SOUTHEAST MICHIGAN DISTRICT OFFICE



C. HEIDI GREETHER
DIRECTOR

September 29, 2017

Via E-Mail and U.S. Mail

Ms. Brandy Siedlaczek
Chair, Alliance of Rouge Communities
Storm Water Manager, City of Southfield
26000 Evergreen Road
Southfield, Michigan 48076

Dear Ms. Siedlaczek:

SUBJECT: Municipal Separate Storm Sewer System (MS4)
National Pollutant Discharge Elimination System (NPDES) Permit application
Rouge River Collaborative Illicit Discharge Elimination
Plan (IDEP) IDEP Approval Letter

The Michigan Department of Environmental Quality (DEQ), Water Resources Division (WRD), received the revised Rouge River Collaborative Illicit Discharge Elimination Plan (IDEP) dated September 25, 2017, submitted in response to our remaining review comments dated August 24, 2017. On several occasions, the DEQ colleagues and I met with you and several other members of the ARC Technical Committee to seek clarification on the IDEP procedures and to discuss our concerns about the proposed IDEP.

Based on our review of the revised alternative, collaborative IDEP, we determined that the IDEP meets the requirements of the MS4 Permit Application. The collaborating permittees may begin implementing the approved IDEP immediately and do not need to wait for permit re-issuance.

Please note that this approval letter addresses only the collaborative IDEP document; it does not address other application attachments submitted individually. Individual application components will be reviewed and addressed separately.

Thank you for your commitment to protecting and improving the water resources of the State of Michigan. If you have any questions or concerns, please contact me at 586-753-3769; hendgesm@michigan.gov; or MDEQ, WRD, 27700 Donald Court, Warren, MI 48092-2793.

Sincerely,

Martin Hendges
Senior Environmental Quality Analyst
Water Resources Division
Southeast Michigan District Office

cc: Mr. Thomas Meszler, Village of Beverly Hills
Ms. Kathryn Hagaman, Village of Bingham Farms
Mr. Paul O'Meara, City of Birmingham
Mr. Jay Craven, City of Bloomfield Hills
Mr. Charles Markus, Bloomfield Township
Mr. Bob Belair, Canton Township
Mr. William Zimmer, Dearborn Heights
Mr. Charles Eudy, City of Farmington
Ms. Karen Mondora, City of Farmington Hills
Mr. James Creech, Village of Franklin
Mr. Kevin Roney, City of Garden City
Mr. Jerome Bivins, City of Inkster
Ms. Pamela Bratschi, City of Lathrup Village
Mr. Donald Rohraff, City of Livonia
Mr. Rick Browning, City of Melvindale
Mr. James Gallogly, City of Northville
Ms. Jill Rickard, Northville Township
Mr. Aaron Staup, City of Novi
Mr. Kevin Yee, City of Oak Park
Mr. Chris Porman, City of Plymouth
Mr. Patrick Fellrath, Plymouth Township
Mr. John Selmi, Redford Township
Mr. Steve Vandette, City of Troy
Ms. Colleen Coogan, City of Walled Lake
Mr. Michael Buiten, City of Wayne
Mr. Hassan Saab, City of Westland
Mr. Ronald Fadoir, Oakland County
Ms. Jacy Garrison, Oakland County
Mr. James Wineka, Oakland County
Ms. Kelly Cave, Wayne County
Mr. Noel Mullett, Wayne County
Mr. Mike Wiczorek, Henry Ford Community College
Ms. Annette Demaria, ECT
Ms. Meghan Price, ECT
Mr. Cory Borton, HRC
Ms. Elizabeth Thacker, OHM
Ms. Christe Alwin, DEQ-WRD MS4 Specialist
Ms. Melinda Steffler, DEQ-WRD
Ms. Lishba Varughese, DEQ-WRD
Ms. Hae-Jin Yoon, District Supervisor, DEQ-WRD
MS4 File /Collaborating Permittee/ PDF

From: [Hendges, Martin \(EGLE\)](#)
To: [Annette DeMaria](#)
Subject: RE: Updated Rouge IDEP, TMDL and PEP Plans for Approval
Date: Thursday, January 30, 2020 9:03:52 AM

Annette,

I'm OK with the changes to all 3 plans however I think the original plan approval date and the date of the revision should be included at the bottom of each of the 3 plans.

Also, in the IDEP some of the figures and attachments are showing up but maybe that was intentional in this marked up version.

Martin Hendges

Senior Environmental Quality Analyst
Water Resources Division/Warren District Office
Michigan Department of Environment, Great Lakes, and Energy
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[Follow Us](#) | Michigan.gov/EGLE



From: Annette DeMaria <ademaria@ectinc.com>
Sent: Tuesday, January 28, 2020 11:43 AM
To: Hendges, Martin (EGLE) <HENDGESM@michigan.gov>
Subject: Updated Rouge IDEP, TMDL and PEP Plans for Approval

Marty, on behalf of the Alliance of Rouge Communities, we are providing for EGLE's approval the updated the IDEP, PEP and TMDL plans to include Schoolcraft College and WCAA-Willow Run as described below. I will incorporate the appendices into the IDEP plan once we receive your approval.

- IDEP Plan – provided with track changes on to facilitate your review:
 - WCAA was added and minor changes were made to the plan to incorporate WCAA into the activities
 - Minor typos were corrected
 - West Bloomfield was added to the facility dye testing BMP (this corrected an inadvertent omission)
- TMDL Plan – provided as a pdf:
 - Schoolcraft College and WCAA-Willow Run were added to Attachment A and page 8 where we added "Other Permittees" to account for WCAA in the metrics reporting. No other changes were made.
- PEP Plan – provided as a pdf:
 - Schoolcraft College and WCAA-Willow Run were added to Attachment A which lists the plan participants. No other changes were made.

Please me know if you have any questions.

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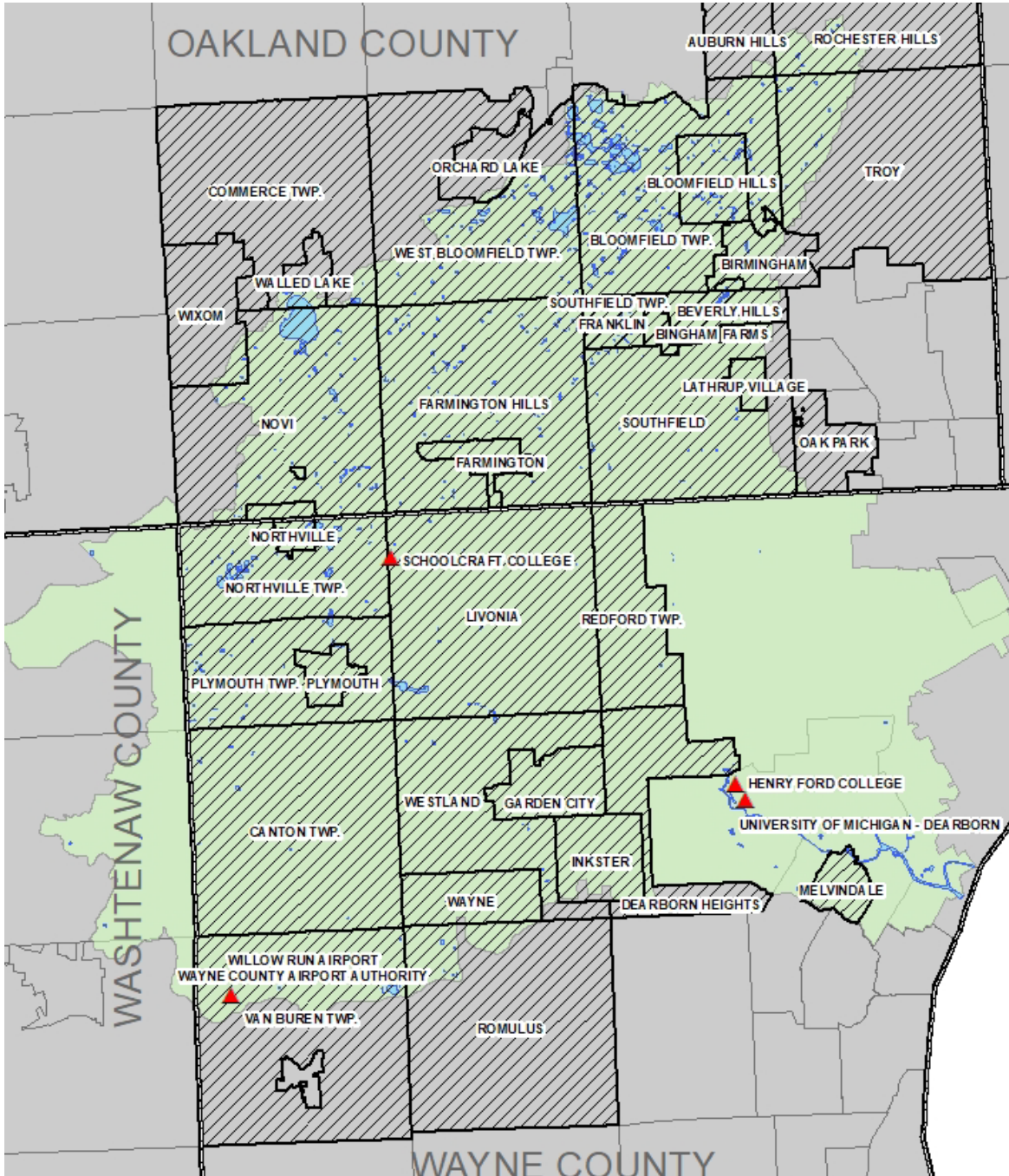
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Attachment C	Outfall Screening Procedure for Identifying Potential Illicit Discharges
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Attachment E	Southeast Michigan Regional IDEP Training Plan
Attachment F	Pollution Complaint Tracking Form and Suspicious Observation Form
Attachment G	State and Federal Regulatory Mechanisms

A. Introduction

The Alliance of Rouge Communities (ARC), a 501(c)(3) organization, is a voluntary public watershed entity currently comprised of municipal governments, counties, schools, and cooperating partners as authorized by Part 312 (Watershed Alliances) of the Michigan Natural Resources and Environmental Protection Act (MCL 324.101 to 324.90106) as amended by Act No. 517, Public Acts of 2004. The purpose of the ARC is to provide an institutional mechanism to encourage watershed-wide cooperation and mutual support to meet water quality permit requirements and to restore beneficial uses of the Rouge River to the area residents.



This Collaborative Illicit Discharge Elimination Plan (Plan) presents the watershed wide approach that is being implemented to effectively and efficiently address illicit discharges in the Rouge River watershed. This Plan was developed by the Technical Committee of the ARC in response to requirements under the State of Michigan’s Permit Application for Discharges of Storm Water to Surface Waters of the State from a Municipal Separate Storm Sewer System (MS4) revised October 2015. This Plan is intended to meet the illicit discharge elimination program (IDEP) elements required by the permit. Specifically, this Plan covers questions 7 – 14, and 16 – 26 within the permit application. Item 15 will be addressed in each permittee’s individual stormwater management plan.

The two primary goals of the Rouge River Watershed Management Plan (WMP) are Protect Public Health and Reduce Stormwater Runoff Impacts. Bacteria is one of the priority pollutants identified in the WMP and prevents 1.35 million watershed residents from safely recreating (swimming, boating, etc.) in the river and its tributaries. Due to the potential human health impacts indicated by elevated bacteria levels, identifying human sources of *Escherichia coli* (*E. coli*) is the primary focus of this Plan, although other pollutant sources will be investigated as issues are identified.

This Plan will be implemented by the participating permittees through the end of the permit cycle for the Rouge River watershed. The list of permittees participating in this Plan can be found in **Attachment A**.

For the purposes of this plan, “ARC staff” will mean the consultant or individual completing the Executive Director Services contract for the ARC. “ARC contractor” will mean consulting firms, municipal agencies or others contracted by the ARC to complete specific tasks. As an example, ARC contractors may include Oakland and Wayne counties and Friends of the Rouge.

B. Background

From 1992 through 2014, the Rouge Project successfully controlled numerous sources of *E. coli* in the watershed. This includes the construction of 88 combined sewer overflow/sanitary sewer overflow control projects, the identification of over 2,008 illicit discharges that have been or are in the process of elimination, and the identification and correction of 898 failed septic systems (RPO, 2014). Nonetheless, there is evidence that human sewage is still impacting the Rouge River and its tributaries based on the data contained in the following studies:

- Total Maximum Daily Load for *E. coli* for the Rouge River (MDEQ, 2007), and
- Alliance of Rouge Communities Bacterial Source Tracking (BST) Final Report (RPO, 2006).

From 2010 through 2015, ARC members have been collaboratively conducting advanced IDEP investigations in targeted areas to locate human sources of *E. coli*. These efforts have led to the identification of 33 illicit connections and 9 illicit discharges that contributed approximately **2.2 million gallons** of untreated wastewater to the river annually (ARC, 2014). Based on our previous success, the ARC recommends this collaborative approach to conducting IDEP activities in the Rouge River watershed.

The ARC's recent IDEP successes build upon the accomplishments of the Rouge River Wet Weather Demonstration Project (Rouge Project) where, since 1987, we have prevented more than **1 billion gallons** of polluted water from entering surface waters just through our facility dye-testing program. This estimate does not include the results of Wayne County's septic system time-of-sale inspection, household hazardous waste, illegal dumping, complaint response, field staff training, monitoring, public education, and pollution prevention good housekeeping (e.g. road sweeping, catch basin cleaning, drain trash rack cleaning, etc.) programs. In 2014 alone, these efforts resulted in more than **13,000 tons** of material being properly disposed of or recycled; and an estimated **4 million gallons** of polluted water being prevented from entering waters of the state county-wide (WCDPS, 2016).

Since 2000, **2,329 municipal staff and thousands of volunteers have been trained** on how to identify and report illicit discharges through the efforts of the ARC, Rouge Project, and Friends of the Rouge (WCDPS, 2016). This has resulted in hundreds of pollution complaint calls from the public and municipal staff which led to the identification of numerous illicit discharges. For example, in 2013, Wayne County responded to 39 pollution complaint calls resulting in the identification of eight illicit discharges (ARC, 2014).

Beyond being a collaborative approach, this Plan meets the Michigan Department of Environmental Quality's (MDEQ) definition of an Alternative Approach as defined within the current permit application guidelines. The primary reason that this Plan is classified Alternative is because it covers multiple permittees who will pool their resources to investigate suspected illicit discharges.

As allowed by the permit, permittees will identify, screen and sample high priority outfalls instead of all outfalls. This will allow for more resources to be targeted to conduct investigations to locate illicit discharge sources. This is being suggested because our experience indicates that individual outfall surveys are inefficient: they identified very few illicit discharges while being very expensive (ARC, 2007). Nonetheless, the permit requires outfall surveys to be completed, so the approach offered herein is a compromise between the permittees and MDEQ.

C. Priority Areas

The ARC has identified several initial priority areas to target which were selected based on available water quality data as described in **Attachment B**. The priority areas are as follows (See **Figures 1 and 2**) and cover almost 25,700 acres which represents 14% of the watershed (based on the separate sewer areas for communities participating in this plan):

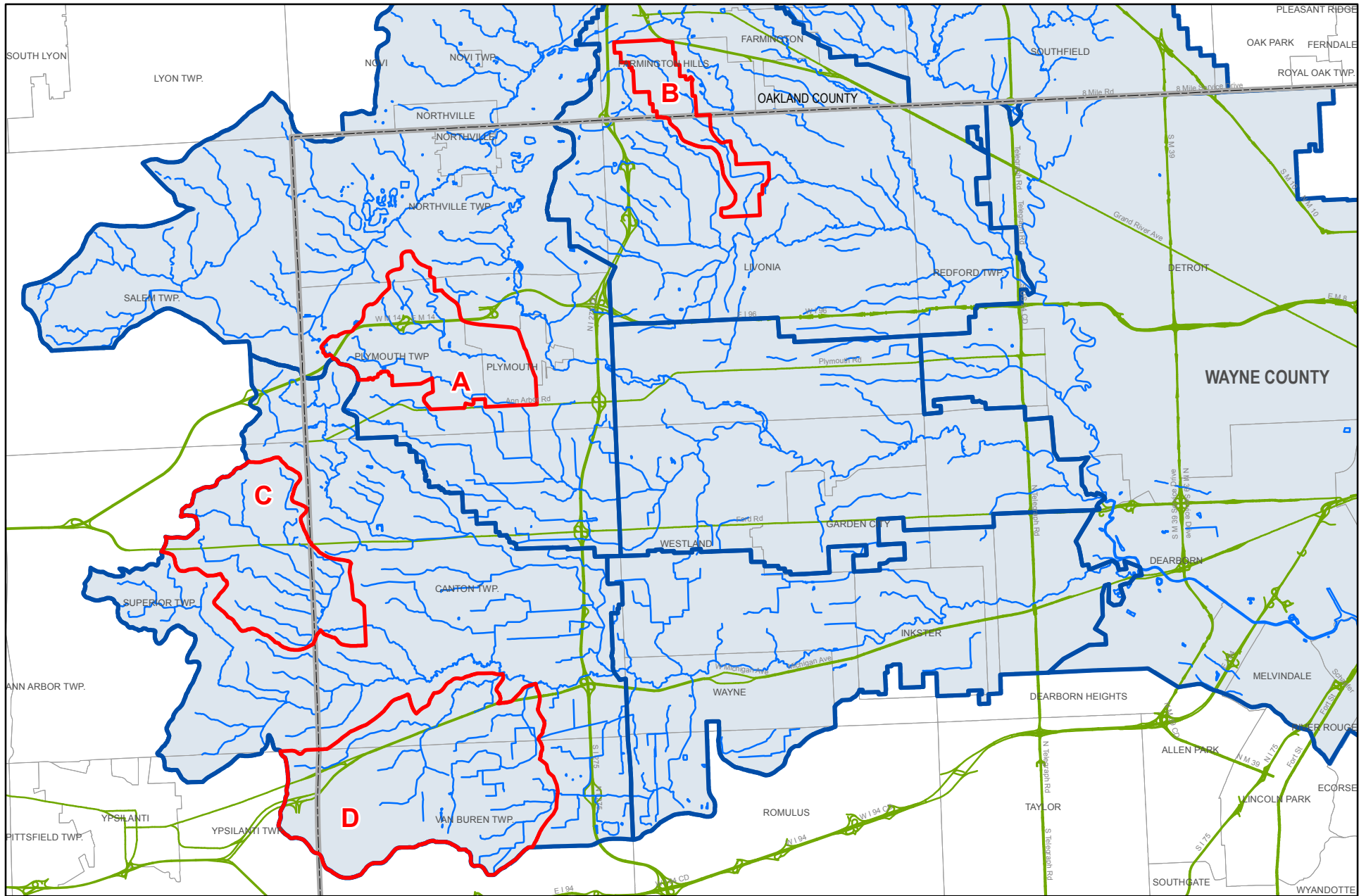
- Initial Wayne County Priority Areas (Figure 1):
 - A. North Branch Tonquish Creek and the Middle Rouge in Plymouth/Plymouth Township from the north side of Joy Road just west of Lilley Road (4,163 acres).
 - B. Tributary to the Bell Branch at the north end of Bicentennial Park which north of 7 Mile Road and west of Gill Road in Livonia (1,730 acres).

- C. Lower Rouge in Canton Township from Proctor and Denton roads west including Superior Township (5,241 acres).
- D. Sines and Arnold Drain in Canton Township at Sheldon Road 0.5 miles north of Michigan Ave and the McKinstry Drain in Canton Township south of Michigan Ave between Lilley and Beck roads including Van Buren and possibly Ypsilanti townships (9,290 acres).
- Initial Oakland County Priority Areas (Figure 2):
 - E. US 16 drainage area in Farmington (200 acres),
 - F. Claude Stevens No. 1, 3, 4 and 10, Bloomfield Highlands and Devonshire drainage areas in Bloomfield Township (784 acres).
 - G. Austin, Eight Mile Road, Fracassi, Flannery and Owens Relief drainage areas in Southfield (3,661 acres)

The ARC is currently in the process of collecting instream *E. coli* data at 90 sites across the watershed. This data will provide the most comprehensive assessment of bacteria conditions in the watershed since 2005. This data will be evaluated and new priority areas will be selected as described in IDEP# 2.

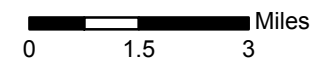
Every 5 years, ARC staff will review available water quality data, outfall screening data and outfalls investigations and reassess the priority areas. ARC staff will identify the priority outfalls and seek input from ARC members. County and municipal staff will review the priority outfalls and their complaint files and add any sites where they suspect the presence of illicit connections/discharges. The draft list will be presented to the Technical Committee for review. Technical Committee input will be addressed and a final priority list will be submitted to the MDEQ for review and approval. The final approved list shall then be distributed for investigations.

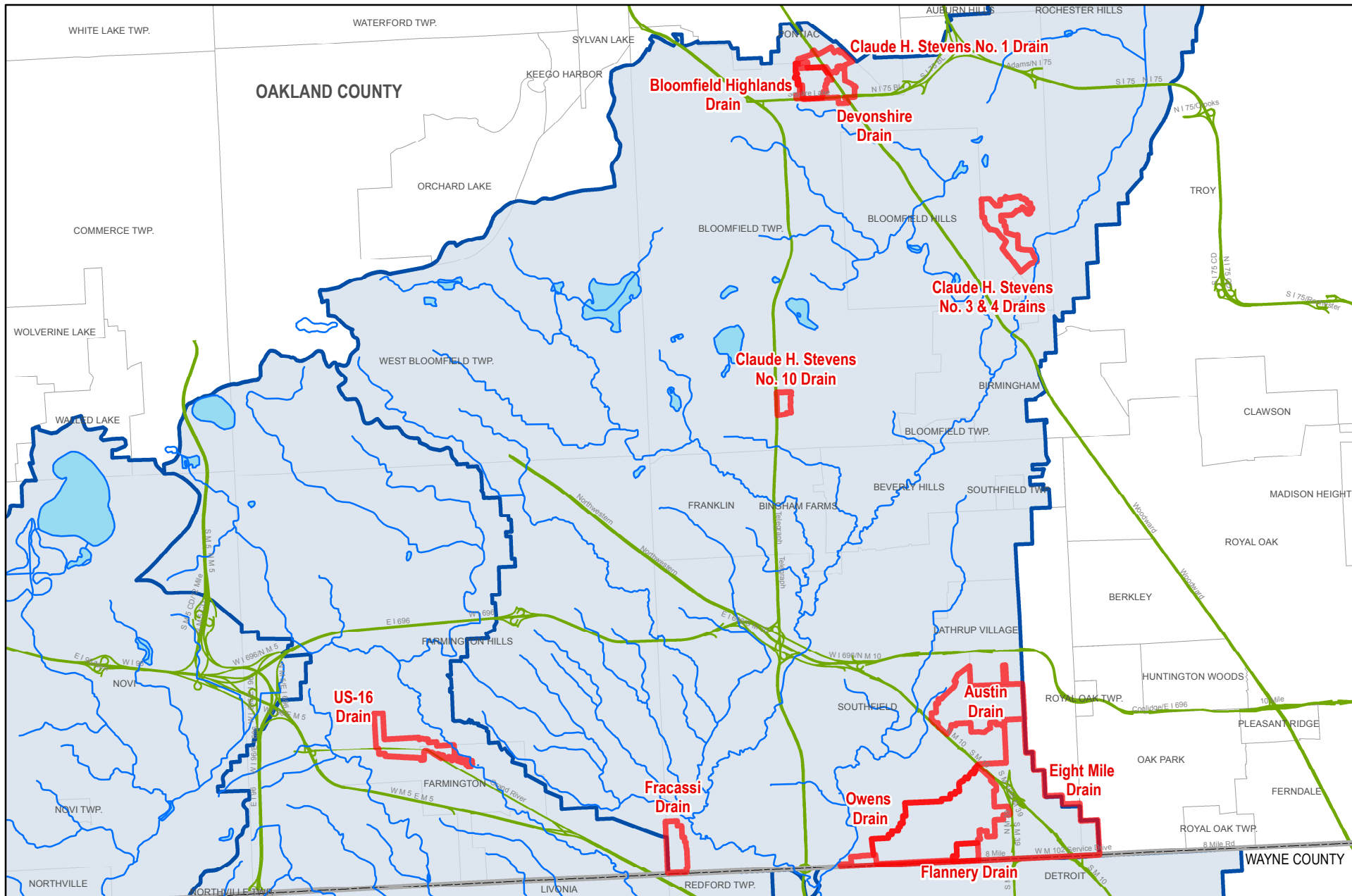
In addition, permittees will have an opportunity to request areas for inclusion on the priority outfall list outside the 5-year cycle. This will occur annually at a Technical Committee meeting and include rationale for inclusion. Committee members will review the request and determine if it should be granted. Considerations for adding a site would include: suspected or known impact to water quality and history of the issue.



Wayne County Rouge River Watershed
IDEP Priority Areas
June 2016

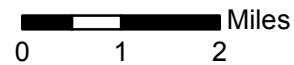
- Rouge River & Tributaries
- Main Roads
- Priority Areas
- Rouge Subwatersheds
- County Boundary
- Township and City Boundaries





**Oakland County Rouge River Watershed
IDEP Priority Areas
May 2017**

- Rouge River & Tributaries
- Main Roads
- Priority Areas
- Rouge Subwatersheds
- County Boundary
- Township and City Boundaries



ECT Environmental Consulting & Technology, Inc.

D. Action Strategies

Each strategy listed in this section includes a description, responsibility and schedule for completion. The Counties, Cities, Villages, Townships, Schools and Others listed in the Responsibility Sections refer to those who are participating in this Plan as listed in **Attachment A**. The timelines presented herein are contingent on plan approval by October 1, 2017.

IDEP #1: Mapping of Storm Sewer Systems

Description: Storm sewer maps for individual jurisdictions are available in various formats and at various levels of detail. For the purposes of this Plan, a storm sewer map will include the location of outfalls, enclosed and open storm drains, roads, and waters of the state. For each permittee, the physical location of these maps is provided in **Table 1**.

In addition, a watershed-wide GIS database of the storm sewer system maps will be developed. This activity will centralize data and facilitate source-tracking investigations and ease reporting to the MDEQ over time.

For Wayne and Oakland counties, this requirement will be dealt with under their individual stormwater management plans.

ARC Member Responsibilities and Schedule:

- ARC staff:
 - Update the watershed’s Storm Sewer GIS by July 30, 2020.
- Cities, Villages, Townships:
 - Convert hard copy storm sewer system maps to GIS format. See schedule in **Table 1**.
 - Provide GIS layers to ARC staff within 6 months of completion or major update of GIS database.

Table 1 – Individual Permittee Storm Sewer System Map and Schedule for GIS

Permittee	Physical Location of Storm Sewer Map(s)	Timeline for GIS Storm Sewer Layer
Municipalities		
Beverly Hills	Oakland County WRC	Spring 2020
Bingham Farms	Oakland County WRC	Complete
Birmingham	Oakland County WRC	Complete
Bloomfield Hills	Department of Public Works	Complete
Bloomfield Twp.	Dave Payne Public Services Building	Complete
Canton Twp.	Department of Public Works	On-going (50% complete)
Dearborn Heights	Department of Public Works	Complete (2007)
Farmington	Department of Public Works	Ongoing, complete by 12/30/19
Farmington Hills	Engineering Department	Complete
Franklin	Oakland County WRC	Spring 2020
Garden City	Department of Public Works	Complete
Inkster	Department of Public Works	Complete
Lathrup Village	Oakland County WRC	Complete
Livonia	Department of Public Works	Complete (2015)

Permittee	Physical Location of Storm Sewer Map(s)	Timeline for GIS Storm Sewer Layer
Melvindale	Department of Public Works	Complete
Northville	Department of Public Works	Ongoing, complete by 12/30/19
Northville Twp.	Department of Public Works	Complete
Novi	Department of Public Works	Complete
Oak Park	Department of Public Works	Complete
Plymouth	Department of Public Works	Complete
Plymouth Twp.	Department of Public Works	Complete
Redford Twp.	Department of Public Works	Spring 2023
Southfield	Department of Public Works	Complete
Troy	Department of Public Works	Complete (updates in progress)
Walled Lake	Department of Public Works	Complete
Wayne	Department of Public Works	Complete
West Bloomfield Twp.	Department of Development Services	Complete
Westland	Department of Public Works	Complete (2015)
Schools		
Henry Ford College	HFC Facilities Building	Spring 2020
Others		
Wayne County Airport Authority (WCAA) – Willow Run Airport	WCAA Department of Environment & Sustainability, Director’s Office	December 2021

BMP goals:

- 100% of IDEP Plan participant outfalls in one GIS database

Measures of assessment:

- Portion of watershed (area) where known outfalls are mapped in GIS.

IDEP #2: Outfall Prioritization and Dry Weather Screening

Description: The goal of this activity is to identify and screen priority outfalls in each city and village. Priority outfalls are those that have a high potential to convey an illicit discharge. ARC staff will review outfall information from each city and village to identify at least 20% of their outfalls for screening. This will be done on an individual community basis. The information reviewed will include the previous outfall screening report, size of the outfall, receiving water quality, age of infrastructure and history of the outfall (past illicit discharges, conversion from combined sewer system, etc.).

The prioritization process will be as follows:

1. Identify waterbodies with dry weather geometric mean *E. coli* > 1,000 cfu/100 mL based on most recent data.
2. Identify the outfalls discharging to these waterbodies including outfall size and drainage area, if available. These outfalls will generally be considered priorities.
3. Identify outfalls that discharge within 2,500 feet of public recreation areas (ex: beaches and paddling sites). These outfalls will generally be considered priorities.
4. Review previous outfall screening reports looking for signs of suspicious discharges that were not resolved. These outfalls will generally be considered priorities.
5. Discuss the history of the outfall with local staff.
 - The history will include age of infrastructure, any previous complaints, illicit discharges or sanitary sewer overflows, and whether it was part of a combined sewer system.
6. Prepare a list of priority outfalls that are most likely contributing to the water quality problem with rationale for inclusion.

Screen the priority outfalls for signs of an illicit discharge following the procedures outlined in **Attachment C**. If dry weather flow is present, sample for *E. coli* or other parameters of concern, unless the source of the flow is identified during the inspection. The sampling will likely occur at the time of the inspection, but there may be instances when the inspectors need to come back to the outfall to collect the sample in order to meet sample collection and analysis protocols. In these cases, the outfall will be revisited within 10 days of discovering the dry weather discharge. If the outfall is not discharging upon the subsequent visit, it will be revisited twice more within 30 days. If there is no discharge after three visits, the outfall will not be screened further.

The outfall screening procedure provided above will also be followed when any new outfalls are discovered or constructed.

Based on the screening results, the outfalls will be divided into four categories as follows:

- Category A. - Outfalls with *E. coli* >10,000 cfu/100 mL or unexplained physical characteristics
- Category B. - Outfalls with *E. coli* between 5,001 and 10,000 cfu/100 mL
- Category C. - Outfalls with *E. coli* between 1,001 and 5,000 cfu/100 mL
- Category D. - Outfalls with *E. coli* ≤1,000 cfu/100 mL

Unexplained physical characteristics include:

- Sanitary debris in the flow or near the outfall structure;
- Colored or turbid discharge;

- Discharges with foul odors;
- Unusual stains or deposits on or near the outfall structure;
- Unusual bacterial sheens, algae or slimes; or
- Dead vegetation immediately downstream of the outfall.

Based on the inspection and sample results, the presence of a suspicious discharge will be determined. A suspicious discharge is presumed when an outfall has unexplained elevated *E. coli* counts (>5,000 cfu/100 ml) or unexplained physical characteristics. These characteristics correspond to the Category A and B outfalls which will be subject to advanced investigations as described in IDEP# 3.

Category C outfalls will be resampled up to two more times within 12 months. If any sample is >5,000 cfu/100 mL, it will be elevated to Category B and investigated accordingly. Category D outfalls will not be further investigated without cause.

For Wayne and Oakland counties, this requirement will be dealt with under their individual stormwater management plans.

ARC Member Responsibilities and Schedule:

- ARC staff:
 - Identify priority outfalls by March 30, 2018
- Cities, Villages
 - Perform dry weather screening (inspection and sampling) of priority outfalls by December 30, 2018.
 - Determine outfalls with suspicious discharges within 30 days of completion of screening of all outfalls in a municipality.
- Cities, Villages, Townships, Other
 - Perform dry weather screening of new outfalls within 6 months of construction, taking ownership or discovery.

BMP goals:

- Screen 100% of priority outfalls

Measures of assessment:

- Number priority outfalls identified
- Number of priority outfalls screened and sampled
- Number of suspicious discharges identified (based on outfall screening results)

IDEP #3: Advanced Investigations

Description: The goal of this activity is to locate the source of the suspected illicit discharge(s). The same process will be followed for the initial priority areas specified in Section C and the priority outfalls identified during dry weather screening. Except in the initial priority areas, the tributary MS4 outfalls will first need to be located and screened for suspicious discharges.

The permittees will lead advanced investigations in their respective jurisdictions. Unless an issue is emanating from township property, investigations within townships will be coordinated with the road agency or their designee. When a potential IDEP issue is suspected outside the participating members' jurisdictions, then it will be referred to the appropriate jurisdiction for their follow-up. The referral will occur in writing and include the rationale for the referral.

Once the priority outfall screening data is available, Category A outfalls will be subject to advanced investigations first as their discharges are expected to have the greatest impact on water quality. The investigation of Category B outfalls will begin when at least 50% of the Category A outfalls in the watershed are investigated.

Advanced investigations will include manhole inspection or sampling, dye-testing sewers or structures, smoke testing sewers, or televising sewers to locate the illicit discharge. These investigations will be conducted according to the procedures outlined in **Figure 3** and **Attachment D**.

In order for a priority outfall to be considered investigated, the following efforts must be completed:

- The tributary MS4 has been sampled/inspected at at least ½ mile intervals;
- Advanced investigations have been conducted for drain segments with *E. coli* >10,000 cfu/100 mL or have physical signs of sewage;
- Sources have been identified in drains segments where *E. coli* is >10,000 cfu/100 mL;
- Referrals have been made to upstream MS4s when *E. coli* counts from their systems are >10,000 cfu/100 mL; and
- Referrals to other MS4 owners have been investigated by the MS4 owner with documentation sent back to the downstream MS4.

Advanced investigations will be tracked using maps and narrative descriptions of the field work which will be summarized annually in a report to the ARC Technical Committee.

Schedule: Investigate initial priority areas through December 30, 2018.
Investigate priority outfalls through the end of the permit.

ARC Member Responsibilities and Schedule:

Entity/Task	Schedule
ARC staff	
Review and approve annual budgets and county (or contractor) work plans to ensure resources are directed to the appropriate areas.	By Nov. 1 st each year
WCDPS and OCWRC	
Participate in ARC Technical Committee discussions and provide feedback on the appropriateness of the selected priority areas.	Two times per year

Entity/Task	Schedule
Lead advanced investigations in priority areas to the point where the suspicious discharge is narrowed down to the smallest storm sewer segment as practicable by sampling at manhole and outfall locations. (as contracted by the ARC)	Ongoing
Provide recommended next steps to the MS4 owner for continuing the investigations. This will be done in writing (email is a suitable for this purpose).	Within 2 weeks of completing investigations
Track investigation efforts described above.	Ongoing
WCDPS, OCWRC, Cities, Villages, Townships	
Assist the ARC in conducting advanced investigations by providing maps and staff knowledge of the local system.	As needed
Follow-up on the investigation recommendations of the ARC to identify illicit discharge sources within their jurisdiction. This may include televising, smoke testing, dye testing or other investigation measures as the situation requires.	Begin within 4 weeks of receiving the referral from the ARC/county
Report back to ARC on the status of the investigations.	By Dec 30 th each year
Cities, Villages, Townships	
Notify property owners of the presence of an illicit discharge.	Within 2 weeks of verification
Work with property owners to eliminate identified sources per local ordinances/ codes and track correction measures.	As needed
Lead enforcement measures as appropriate.	As needed
Report back to ARC on the number and type of identified illicit discharges.	By Dec 30 th each year
Schools, Others	
Follow-up on the investigation recommendations of the county/community to identify illicit discharge sources. This may include televising, smoke testing, dye testing or other investigation measures as the situation requires.	Begin within 4 weeks of receiving the referral from the county/community
Eliminate identified sources and track correction measures.	As needed
Report back to referring agency on the status of the investigations and the number and type of identified illicit discharges.	By Dec 30 th each year

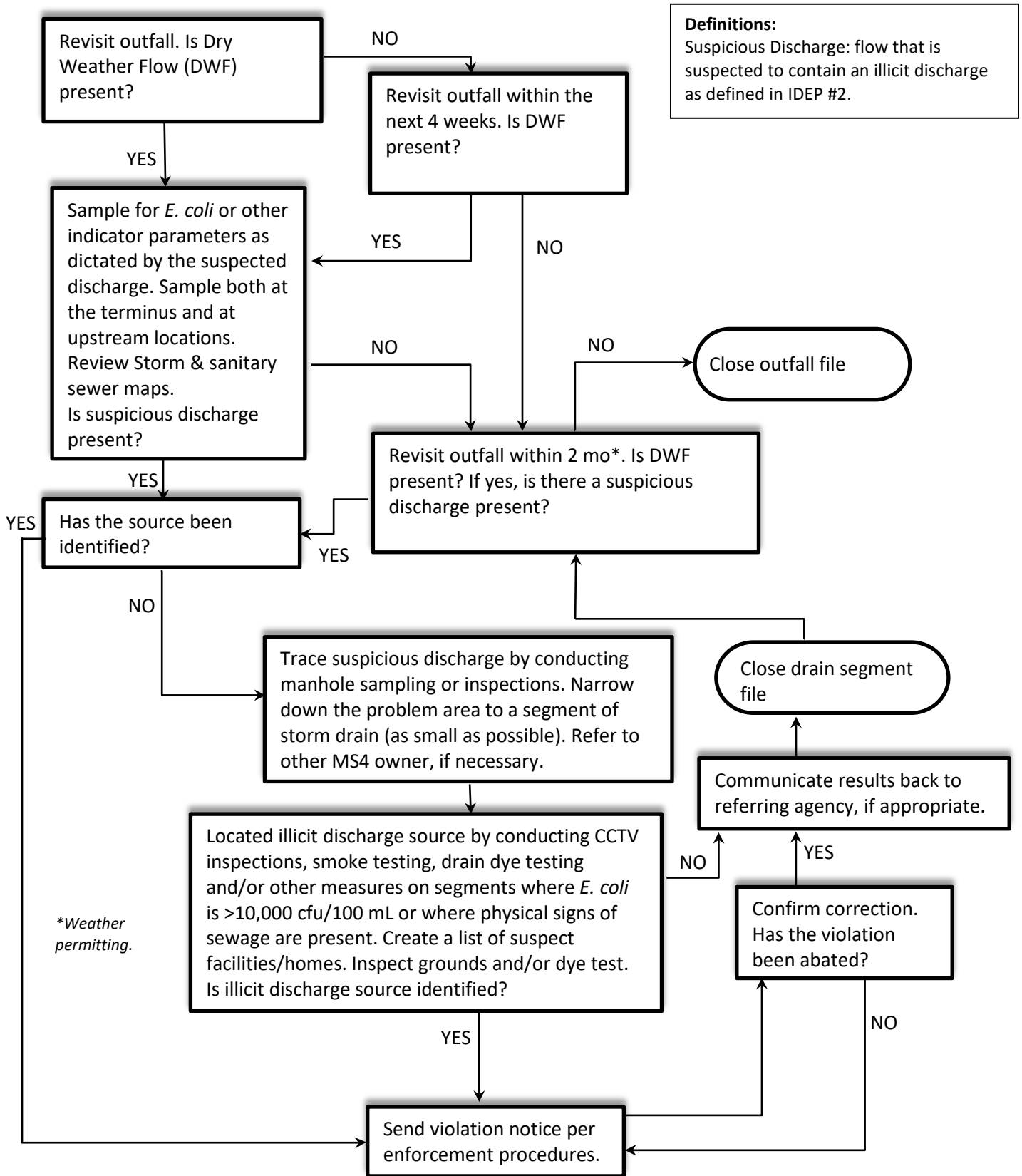
BMP goals:

- Follow the advanced investigation protocol for initial priority areas and priority outfalls.
- 100% of illicit connections/discharges resolved or a plan in place for elimination.

Measures of assessment:

- Portion (square miles/acres) of priority outfall drainage areas in Categories A and B and portion investigated.
- Number and type of illicit connections/discharges identified and resolved.

Figure 3 – Advanced Investigation Protocol



IDEP #4: Staff Training

Description: There are several mechanisms available for IDEP training for various competencies as described below. Each permittee will have at least one person trained at the Investigator Level and 50% of field staff at the Alert Observer Level. Field staff is defined as those working at least 50% of their day out-of-the-office and includes Department of Public Works/Services staff and community building/plumbing inspectors.

Investigator Level

The Wayne County Illicit Discharge Investigator Training (a half day training workshop) where attendees are taught how to identify and investigate the sources of illicit discharges including failing septic systems, seepage from sanitary sewers, illegal dumping, and suspicious discharges from outfalls. A competency exam is also administered at the end of the workshop.

Alert Observer Level

Training at this level can consist of one of the following:

- The Alert Observer IDEP Training (a 30 minute to 1-hour workshop) which provides the goals of the IDEP program, how to recognize illicit discharges and conduct field screenings, and the mechanisms to report suspicious discharges.
- The *Working for Clean Water* municipal staff training (a 15-minute video) where attendees are provided a general overview of the IDEP program, how to recognize illicit discharges, encouraged to report suspicious discharges, and provides pollution prevention and good housekeeping best management practices.

In addition, an IDEP Tip Card for Municipal Staff, which was developed by the Southeast Michigan IDEP Work Group, will be provided to field staff for both training programs. The Tip Card provides photographic examples of illicit discharges and phone numbers to report complaints.

Each community and county already has at least one person who is trained at the Investigator Level. This level of training will be maintained. Wayne County and ARC staff will continue to offer the Investigator Training Workshop to ARC member staff and its regional partners every other year according to the Southeast Michigan Regional IDEP Training Plan (See **Attachment E**). ARC staff will look to extend the training plan another 5 years.

The *Working for Clean Water* video is available on the ARC's website (<http://www.allianceofrougecommunities.com/activitiesevents.html>) or by searching "IDEP Municipal Training" on www.YouTube.com. The Alert Observer Training Workshop will be included in the municipal pollution prevention training every other year according to the IDEP Training Plan (See **Attachment E**). Additional training opportunities can be arranged if demand warrants. The Tip Card will be distributed at the Investigator and Alert Observer trainings and can be obtained on the ARC's website (see previous link) or by emailing ARC staff, if customization is desired.

Schedule: One person trained at the Investigator Level, confirm annually by July 30th.
50% of field staff will be trained at the Alert Observer Level by March 31, 2021.
Remind staff of *E. coli* problems in Priority Areas and encourage reporting, once a year.

ARC Member Responsibilities:

- ARC staff

- Provide trainers for the Investigator and Alert Observer training workshops per the IDEP Training Plan or every year (rotating the workshops every other year)
- Customize the Tip Card, if requested by a permittee.
- Maintain a list of IDEP Investigator contacts.
- Seek to extend the Southeast Michigan Regional Training Plan through 2022. Complete by December 30, 2017.
- Cities, Villages, Townships, Road Agencies, WCDPS, OCWRC, Schools and Others
 - Provide IDEP training to field staff.
 - Provide ARC staff the name of the person trained at the Investigator Level.
 - Provide field staff the IDEP Tip Card for Municipal Staff in conjunction with the training sessions.
 - Document and track staff training needs.
 - For permittees in Priority Areas, remind staff of the *E. coli* problem and encourage the reporting of pollution complaints.

BMP goals:

- 1 person per MS4 trained at Investigator Level.
- 50% of field staff trained at the Alert Observer Level.

Measures of assessment:

- Number of staff trained at various competencies.

IDEP #5: Pollution Complaint Response

Description: Oakland, Wayne, and Washtenaw counties operate environmental hotline numbers and respond to environmental complaints including illegal dumping, spills and suspicious discharges. Local communities also receive pollution complaints directly from residents. As discussed in the ARC Collaborative PEP, local communities (cities, villages, and townships) will promote the use of the hotline numbers to their residents and general public and assist with and/or perform follow up complaint response as appropriate. Community staff may identify a potential pollution issue during their day-to-day activities. These issues will be reported, investigated and tracked just like a pollution complaint from a resident. It should be noted that suspicious discharges within townships, not on township property, will be handled by the county road agency or their designee.

Investigative responses will range from a site visit that fails to confirm a problem to full scale advanced investigation to identify the source of the illicit discharge. When responding to complaints staff will use the Advanced Investigation process outlined in **Figure 3**. For non-emergency spills, the initial complaint response will begin within 48 hours of notification and within regular working hours. Emergency spills will be handled immediately. The spill response protocol for handling complaints, spills and illegal dumping is permittee-specific and, as such, is outlined in each permittee’s Stormwater Management Plan.

Any other nonpriority area investigations will also be handled as described in **Figure 3**.

ARC Member Responsibilities and Schedule:

Entity/Task	Schedule
ARC staff	
Maintain a list of IDEP community contacts and update.	By July 30 th each year
Cities, Villages, Townships, Road Agencies, Schools and Others	
Provide ARC staff with a contact person for addressing pollution complaints.	By July 30 th each year
Track status of complaints using the Spill Notification & Complaint Response form (See Attachment F) or similar form. This will include complaints handled internally or those referred by the county.	As they arise.
Investigate and resolve complaints within their MS4.	As they arise.
WCDPS and OCWRC	
Provide technical guidance as requested by local communities.	As requested
Track the status of any pollution complaints that they investigate.	As they arise.
Investigate and resolve complaints within their MS4.	As they arise.

BMP goals:

100% of complaints addressed

Measures of assessment:

- Number of complaints received and referred or investigated.
- Number of issues identified.
- Number of issues resolved.

IDEP #6: Inspection of ARC Member-Owned Facilities

Description: Dye-testing will be conducted on ARC member-owned or operated facilities (within the watershed) for the purpose of identifying any illicit connections or illicit discharges. Each facility will be tested at least once. Facilities that undergo major renovation or reconstruction will be re-dye tested, as well. Any identified issues will be corrected by owner.

ARC Member Responsibilities and Schedule:

Entity/Task	Schedule
Cities, Villages, Townships, Road Agencies, WCDPS, OCWRC and Schools	
Dye test permittee-owned/operated facilities.	See Table 2
Dye test permittee-owned/operated facilities that undergo major renovation.	Within 6 months of completion of construction
Repair/correct illicit connections/discharges that were revealed during the site inspection. If the discharge is significant, take immediate steps to stop the illicit discharge.	As needed

Table 2 – Schedule for Initial Municipal Facility Dye Testing

Permittee (listed alphabetically)	Timeline
Municipalities	
Beverly Hills	By Dec 30, 2018
Bingham Farms	NA-1
Birmingham (golf courses only)	By Dec 30, 2018
Bloomfield Hills	By Dec 30, 2018
Bloomfield Twp.	Completed
Canton Twp.	Completed
Dearborn Heights	Completed
Farmington	Completed
Farmington Hills	Completed
Franklin	Completed
Garden City	Completed
Inkster	Completed
Lathrup Village	By Dec 30, 2018
Livonia	Completed
Melvindale	Completed
Northville	Completed
Northville Twp.	Completed
Novi	By Dec 30, 2018
Oak Park	NA-2
Plymouth	Completed
Plymouth Twp.	Completed
Redford Twp.	Completed
Southfield	Completed
Troy	NA-2
Walled Lake	By Dec 30, 2018
Wayne	Completed

Permittee (listed alphabetically)	Timeline
West Bloomfield Twp.	December 2021
Westland	Completed
Counties	
Wayne County	Completed
Schools	
Henry Ford College	Completed
Others	
WCAA – Willow Run Airport	December 2021

NA-1=Not applicable because there are no municipal facilities.

NA-2=Not applicable because municipal facilities are not located in the watershed.

BMP goals:

- 100% of ARC Member existing facilities dye tested.
- 100% of issues addressed.

Measures of assessment:

- Number of facilities dye tested.
- Number of issues identified.
- Number of issues resolved.

IDEP #7: IDEP Work Group

Description: A work group will meet twice per year to discuss IDEP-related topics including the annual advanced investigations work plan, progress of advanced investigations, lessons learned, any road blocks encounter with implementing the plan, and recommendations for improving the plan. The group will be comprised of MS4 permittees and be facilitated by ARC staff. Permit participation will be tracked with a sign-in sheet. A summary of the meeting will be prepared and distributed to the group.

Schedule: Two work group meetings per year.

ARC Member Responsibilities:

- ARC staff
 - Schedule and facilitate meetings in cooperation with the Technical Committee Chair
- Cities, Villages, Townships, Road Agencies, WCDPS and OCWRC
 - Participate in meetings.

BMP goals:

- Hold at least 2 work group meetings per year.
- 80% member participation.
- 2 meeting summaries per year.

Measures of assessment:

- Number of meetings per year.
- Number of members in attendance at meetings.
- Number of meeting summaries.

IDEP #8: Legal Authority

Description: The legal authority that allows permittees to prohibit, investigate and/or enforce the correction of illicit discharges varies depending on the nature of the discharge in question and the jurisdiction of the MS4. For discharges to city and village MS4s, the legal authority is granted via the Plumbing Code, Sewer Use Ordinances, Nuisance Ordinances, and Municipal Civil Infracton Ordinances. Schools and county departments will follow their written policies or codes, as appropriate. **Table 3** provides the list of regulatory mechanisms by type of illicit discharge that are available to local, school and county agencies to investigate and eliminate illicit discharges. In some cases, permittees can seek the assistance of state and federal agencies to investigate and eliminate illicit discharges. Examples include sewage discharges from mobile home parks, discharges from non-municipal facilities that have a NPDES permit and agricultural properties as shown in **Table 4**.

Table 3 – IDEP Regulatory Mechanisms available to Permittees

Discharge Type or Source	Lead Enforcement Agency	Regulatory Authority
Discharges to city and village MS4s (except as noted below)	Local DPWs and Building Depts.	Varies by community. See individual stormwater management plans.
Discharges to school or township MS4s	School or Township	See individual stormwater management plans.
Sanitary sewage and waste matter into County Drains	County Drain or Water Resource Commissions	Section 280.423 of the Michigan Drain Code of 1956, as amended. Under the Michigan Drain Code, pollution of a county drain is a criminal misdemeanor and punishable by a fine of \$25,000 or imprisonment. See Items 1-10 of Chapter 18, Section 280.423 of the Michigan Drain Code at: http://legislature.mi.gov/doc.aspx?mcl-280-423 See also Section 280.421: Obstructions; removal; expenses, notice; livestock; criminal complaint of Chapter 18 of the Drain Code at: http://www.legislature.mi.gov/%28S%28fpcdzixcmfe3wvtvqmyto3x%29%29/mileg.aspx?page=getObject&objectName=mcl-280-421 .
Discharges to County Road Drains	Road Agencies	Public Highways and Private Roads Act 283, 1909 Sect. 224.19b
Soil Erosion from Construction Sites	Part 91 Authority	Part 91, Soil Erosion and Sedimentation Control (SESC), of NREPA, Public Act 451 of 1994

Discharge Type or Source	Lead Enforcement Agency	Regulatory Authority
Discharges from Onsite Sewage Disposal Systems (OSDS)	Wayne County Dept. of Health, Veterans & Community Wellness Oakland County Health Division	<p><u>Wayne County:</u> http://www.waynecounty.com/hhs/onsite_sewage.htm <i>Specifications Governing On-Site Disposal of Sanitary Sewage and Human Excreta</i> as follows: -Prohibit discharges: Article III, Sec. 3.1-3.2 -Right to inspect: Article IV, Sec. 4.3 -Corrective action: Article IV, Sec. 4.5-4.7 -Penalties: Article XVI, Sec. 16.1 <i>Wayne County On-Site Sewage Disposal Operation and Maintenance Ordinance</i> as follows: -Right to inspect: Sec. 803 -Corrective action: Sec. 802 -Penalties: Sec. 804-815</p> <p><u>Oakland County:</u> Oakland County Sanitary Code -Article III, Sect 2.1-2.2 Public Health Code, Public Act 306 of 1927, Sect. 327.201</p>

Source: Modified from a table included in the Oakland County's MS4 permit application

Table 4 – IDEP Regulatory Mechanisms available to State and Federal Agencies to assist Permittees

Discharge Type or Source	State or Federal Enforcement Agency	Regulatory Authority
Discharges from Mobile Home Parks	MDLEG	Mobile Home Commission Act Public Act 96 of 1987 http://www.legislature.mi.gov/documents/mcl/pdf/mcl-act-96-of-1987.pdf
Discharges from Part 5 facilities and industrial NPDES regulated facilities	MDEQ-WRD	Part 31, NREPA, PA 451 of 1994
Discharges from agricultural properties and livestock facilities	MDARD	Michigan Right to Farm Act, Public Act 93 of 1981
Releases of Oil and Polluting Materials, Sewage, Flammable and Combustible Liquids, Hazardous Materials, Hazardous Substances, Infectious Substances, Hazardous Wastes, Leaking Above Ground and Underground Storage Tanks, Bulk Commercial Fertilizers and Pesticides, and Liquid Industrial Wastes	MDEQ - WRD & RRD, USEPA, USCG, NRCS, USDOT, MSP, Local Police & Fire Depts., LEPC, LARA, MDARD, Local Health Dept., and CDC	See Attachment G for appropriate regulatory authority

Notes: CDC = Center for Disease Control, LARA= Michigan Dept. of Licensing and Regulatory Affairs, LEPC=Local Emergency Planning Commission, MDA=Michigan Dept. of Agriculture & Rural Development, MDEQ WRD=Michigan Dept. of Environmental Quality Water Resources Division, MDEQ RRD= MDEQ Remediation and Redevelopment Division, MDLEG=Michigan Dept. of Labor and Economic Growth, MSP=Michigan State Police, NRCS=Natural Resources Conservation Service, USCG=US Coast Guard, USDOT=US Dept. of Transportation, USEPA=US Environmental Protection Agency. Source: Oakland County Water Resources Commissioner's Office

E. Corrective Action Notification

The procedure for responding to illicit discharges will vary depending on the nature of the discharge (ex: illicit connection to a storm sewer, failing septic system, illegal dumping, etc.) and jurisdiction of the discharge. Similarly, the timeline for eliminating a discharge will vary depending on the geographic extent of the issue, the complexity of the corrective action, responsible party's financial constraints, etc. Deviations to the procedures below may be made on a case by case basis and will be documented in the IDEP record and in the Permit Progress Report. In all cases, corrective action measures will be implemented to the maximum extent practicable and as soon as practicable. The status of corrective actions will be included in the Permit Progress Report to the MDEQ.

E.1. Discharges from Private Sources to MS4s

If the source of an illicit discharge has been determined to be privately owned, discharging to a MS4 and regulated by the MS4, the MS4 owner (city, village, county) will use the procedure below to notify and correct the illicit discharge.

It should be noted that discharges to drains within townships are typically under the jurisdiction of the county road agency. However, corrective action and enforcement for discharges to their MS4 is handled under the local jurisdiction's codes and ordinances, the county health department's sanitary code or other appropriate regulatory authority. In these situations, corrective action notification and enforcement will be led by the township who will coordinate with the health department or other agencies, as needed.

First Notice: Notification of Problem and Correction Needed

Once the source(s) of an illicit discharge has been identified, the MS4 owner will provide the first written notice to the responsible party of the illicit discharge by registered mail within 7 days. The first written notice will notify the responsible party of the illicit discharge, the MS4 owner's regulatory authority to require correction, and the potential enforcement actions if the discharge is not addressed. The responsible party will be required to contact the MS4 owner regarding plans for correction within 14 days. Tracking of all notifications and documentation of registered mail receipts shall be retained by the MS4 owner.

Final Notice

If 14 days have passed from the date of the 1st written notice and no response has been received from the responsible party, a second written notice will be sent. The second written notice will remind the responsible party of the illicit discharge, the prior notice, the regulatory authority to require correction, and the potential enforcement actions that will occur if the discharge is not addressed. The responsible party will be given an additional 14 days to contact the MS4 owner regarding plans for correction.

Enforcement

If 30 days have passed from the date of the first written notice, a citation will be issued. The MS4 owner will issue civil infractions as described in the Enforcement Response Procedure (ERP) for the violation of the applicable IDEP-related ordinances as listed in individual permittee stormwater management plans. A citation shall include fines and may require a court appearance.

Corrections/Repairs

In the event that the owner does not contact the MS4 owner within 14 days of the Final Notice and/or the discharge is not addressed by the owner 30 days after civil infractions have been issued, the MS4 owner will pursue other enforcement actions such as: discontinue water service to the property and designate the property uninhabitable, place a lien on the property, and initiate efforts to complete the necessary repairs, as authorized by law.

E.2. Discharges from Public Properties to MS4s

If the discharge is emanating from a public property (other than the permittee's property), the MS4 owner will request correction or a written corrective action plan be submitted within 60 days of notification. If the discharge cannot be corrected within 60 days of notification, interim measures shall be implemented, as practical, to reduce the impact of the discharge on the receiving water. The corrective action plan will include a schedule for completion with a goal of completion within 18 months of plan approval. The plan will be reviewed by the MS4 owner within 60 days and approved or denied with explanation. Approval of the plan will not waive any local permitting requirements of the community.

E.3. Discharges from Permittee's Properties

For discharges emanating from the permittee's own property, a corrective action plan will be developed within 60 days of discovery of the discharge. The plan will include a schedule for completion with a goal of completion within 18 months of plan completion. If the discharge cannot be corrected within 60 days of discovery, interim measures shall be implemented, as practical, to reduce the impact of the discharge on the receiving water.

E.4. Discharges from Septic Systems

For illicit discharges from failed septic systems, the corrective action procedures of the respective county health departments will be followed. These procedures are documented in the counties' stormwater management plans.

For all other types of discharges, the notification and corrective action procedures will be handled by the lead state or federal agency as identified in **Table 4**.

F. Evaluating Effectiveness

Records for each of the previous IDEP activities will be kept and a summary report will be prepared by ARC staff documenting the tracking metrics indicated in Section D and summarized in **Table 5**. This information will be included in the permittee’s Progress Report to the MDEQ. The findings contained within the summary report will also be discussed at a IDEP Work Group meeting.

Table 5 – Tracking Metrics for Evaluating Effectiveness

Item	BMP	Goal	Tracking Measure
A.	IDEP #1: Mapping	100% of permittee outfalls in one GIS database	Portion of watershed (area) where known outfalls are mapped in GIS
B.	IDEP #2: Outfall Prioritization and Dry Weather Screening	Screen 100% of priority outfalls.	Number priority outfalls identified. Number of priority outfalls screened and sampled. Number of suspicious discharges identified (based on outfall screening results).
C.	IDEP #3: Advanced Investigations	Follow the advanced investigation protocol for initial priority areas and priority outfalls. 100% of illicit connections/discharges resolved	Portion (square miles/acres) of priority outfall drainage areas in Categories A and B and portion investigated. Number and type of Illicit connections/discharges identified and resolved.
D.	IDEP #4: Staff Training	1 person per MS4 trained at the Investigator level. 50% of field staff trained at the Alert Observer Level.	Number of staff trained at various competencies.
E.	IDEP #5: Pollution Complaints	100% of complaints addressed	Number of complaints received and referred or investigated. Number of issues identified. Number of issues resolved.
F.	IDEP #6: Inspection of Member Facilities	100% of existing facilities dye tested. 100% of issues addressed.	Number of facilities dye tested. Number of issues identified. Number of issues resolved.
G.	IDEP #7: IDEP Work Group	2 meetings per year. 80% member participation. 2 meeting summaries per year.	Number of meetings per year. Number of members in attendance at meetings. Number of meeting summaries.

Schedule: Metric Summary Report: Due biennially by February 28th starting in 2018.
 Watershed-wide Assessment Report: Due every 10 years by June 30th starting in 2018.

ARC Member Responsibilities:

- ARC staff
 - Keep records on Items A, B and G and incorporate into the a biennial IDEP progress report.
 - Collect tracking metrics data from permittees as described below and produce a biennial IDEP progress report.

- Counties (road agencies, WCDPS and OCWRC)
 - Keep records of Items #C, D, E and F as listed in Table 5 and provide the information to ARC staff every two years for the IDEP progress report.
- Cities, Villages, Townships, Schools and Others
 - Keep records of Items #D, E and F as listed in Table 5 and provide the information to ARC staff every two years for the IDEP progress report.

G. References

- Alliance of Rouge Communities (ARC). *Comparison Analysis of Alternatives to finding Illicit Discharges to Storm Water Systems Final Report*. RPO-WMGT-TR66. February 2007.
- Alliance of Rouge Communities (ARC). *ARC-Funded IDEP Activities: Summary of Efforts* (presentation to the Full ARC). May 19, 2014.
- Alliance of Rouge Communities (ARC). Full ARC Meeting Agenda/Handouts and Summary. November 1, 2011.
- Alliance of Rouge Communities (ARC). Full ARC Meeting Agenda/Handouts and Summary. November 7, 2012.
- Alliance of Rouge Communities (ARC). Full ARC Meeting Agenda/Handouts and Summary. November 21, 2013.
- Alliance of Rouge Communities (ARC). Full ARC Meeting Agenda/Handouts and Summary. November 10, 2014b.
- Alliance of Rouge Communities (ARC). Full ARC Meeting Agenda/Handouts and Summary. November 18, 2015.
- Michigan Department of Environmental Quality (MDEQ). *Total Maximum Daily Load for the Rouge River, Wayne and Oakland Counties, Michigan*. August 2007.
- Michigan Department of Environmental Quality (MDEQ) and Michigan Department of Licensing & Regulatory Affairs (LARA). *Michigan Guide to Environmental, Health, and Safety Regulations, 8th Edition*. June 2014.
- Rouge Program Office (RPO). *Alliance of Rouge Communities Bacterial Source Tracking Final Report*. (URBSW7.27). December 2006.
- Rouge Program Office (RPO). *Rouge River Restoration Summary: Wayne County Rouge River National Wet Weather Demonstration Project 1992 - 2014*. Undated.
- Wayne County Department of Public Services. *Compliance Report: January 1, 2014 – December 31, 2015 Wayne County Certificate of Coverage (COC) MIG610040 General Storm Water Discharge Permit MIG619000 - Draft*. February 29, 2016.

Attachment A

Participating ARC Members

Permittees	
Communities	
Beverly Hills, Village of	Northville, City of
Bingham Farms, Village of	Northville Township
Birmingham, City of	Novi, City of
Bloomfield Hills, City of	Oak Park, City of
Bloomfield Township	Plymouth, City of
Canton Township	Plymouth Township
Dearborn Heights, City of	Redford Township
Farmington, City of	Southfield, City of
Farmington Hills, City of	Troy, City of
Franklin, Village of	Walled Lake, City of
Garden City, City of	Wayne, City of
Inkster, City of	Westland, City of
Lathrup Village, City of	West Bloomfield Township
Livonia, City of	
Melvindale, City of	
Counties	
Oakland County*	
Wayne County*	
Schools	
Henry Ford College	
Other	
Wayne County Airport Authority (WCAA) – Willow Run Airport	

**Participating in this Plan, but their commitments are outlined in their individual stormwater management plan which is pending MDEQ approval.*

Attachment B
Rationale for Initial Priority Areas

The Rouge River *E. coli* TMDL was reviewed and water quality data collected by Oakland County Water Resources Commissioners Office (OCWRC) and Wayne County Department of Public Services (WCDPS) were analyzed by ARC staff to determine the initial priority areas for illicit discharge investigations. The process used for each county was the similar; however, OCWRC had a more robust data set than WCDPS. The detailed approaches and results are described below for each county.

Wayne County

In 2015, WCDPS sampled the river for *E. coli*. The sampling locations was based on the data from the Rouge River *E. coli* TMDL which identified three sites in Wayne County with elevated dry weather *E. coli* counts with human DNA biomarkers present. These sites were:

- U15-Bell Branch u/s of 6 Mile Road, within Livonia,
- D62-Tonquish Creek u/s of Joy Road within Plymouth and Plymouth Twp,
- G97-Lower Branch u/s of Henry Ruff Road within Wayne, Westland, Romulus and the Lower 1 communities of Canton Twp, Plymouth Twp and Van Buren Twp.

Approximately 50 samples were collected at and upstream of these locations during dry conditions (see Appendix A). Several sites had *E. coli* counts above 1,000 cfu/100 mL as shown in Table 1. These sites have been grouped into four areas (Tonquish Creek, Bell Branch Tributary, Lower Rouge, and McKinstry and Sines and Arnold Drains) totaling 21,054 acres (33 sq miles).

Table 1. Wayne County Locations with *E. coli* above 1,000 cfu/100 mL (data from 2015)

Site ID	<i>E. coli</i> Count (cfu/100 mL)	Site Description
Tonquish Creek (4,163 acres)		
D62	1,483	Tonquish Creek at Joy Rd
D62A	1,145 3,255	N. Branch Tonquish at Ford St
D62C	3,654 6,867	S. Branch Tonquish at Main St
D62C.1	>24,196 72,700	Outfall N. side of S. Branch at Harvey St.
D62C.2	>24,192	Crestwood Condos E. of Sheldon
D62D	1,210	S. Branch at Ann Rd (west of Sheldon).
Bell Branch Tributary (1,730 acres)		
U15B	2,187	Tributary to the Bell Branch at the north end of Bicentennial Park which north of 7 Mile Road and west of Gill Road in Livonia
Lower Rouge (5,241 acres)		
G200	1,314	Lower Rouge in Canton Township from Proctor and Denton roads west including Superior Township
G200.1	4,106	Lower Rouge west of Ridge Rd. (DeStanCo property)
McKinstry Drain and Sines and Arnold Drain (9,920 acres)		
L51	4,884	McKinstry Drain at Michigan Ave.
L51A	1,336	McKinstry Drain at Sheldon Rd.
G94A	1,046	Sines and Arnold Drain at Beck Rd.

Based on this data, the following priority areas are recommended for illicit discharge investigations in Wayne County (Figure 1):

- A. Tonquish Creek upstream of Joy Road in Plymouth and Plymouth Township. This includes the South Branch from the confluence to Plymouth Park and North Branch from the confluence to Sheldon Road.
- B. Tributary to the Bell Branch at the north end of Bicentennial Park which is north of 7 Mile Road and west of Gill Road in Livonia.
- C. Lower Rouge in Canton Township from Proctor and Denton roads west including Superior Township.
- D. Sines and Arnold Drain in Canton Township at Sheldon Road 0.5 miles north of Michigan Ave and the McKinstry Drain in Canton Township south of Michigan Ave between Lilley and Beck roads including Van Buren and possibly Ypsilanti townships.

Oakland County

OCWRC has been collecting *E. coli* data at select locations since 1999. Samples are collected during dry weather conditions and prioritized (Category A, B, C, or D) for additional sampling according to OCWRC’s Dry Weather Screening and Prioritization Criteria (Appendix B). The resulting dry weather screening data are shown in Appendix C. Waterbodies that fell into Categories C and D are shown in Table 2.

Table 2. Oakland County Locations in OCWRC Prioritization Categories C and D

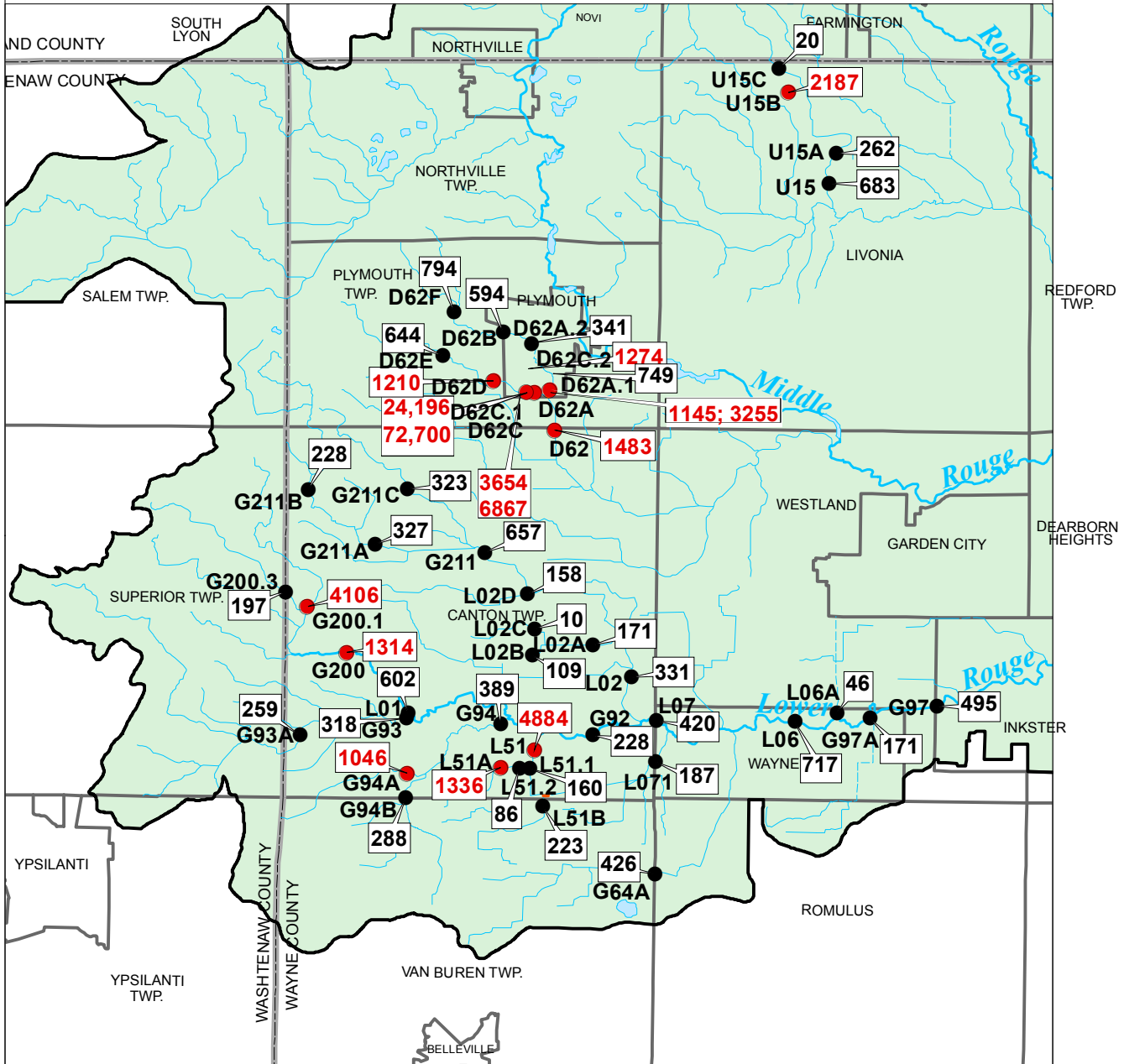
OCWRC Category	Waterbody	Average <i>E. coli</i> (cfu/100 mL)	Notes
CAT D	AUSTIN DRAIN	2,005	
CAT C	BLOOMFIELD HIGHLANDS DRAIN	2,121	
CAT D	CLARENCEVILLE DRAIN	1,666	[1]
CAT C	CLAUDE H. STEVENS NO.1 DRAIN	1,371	
CAT C	CLAUDE H. STEVENS NO.10 DRAIN	1,748	
CAT D	CLAUDE H. STEVENS NO.3 DRAIN	7,194	
CAT C	CLAUDE H. STEVENS NO.4 DRAIN	10,909	
CAT C	DEVONSHIRE DRAIN	1,181	
CAT C	EIGHT MILE DRAIN	1,940	
CAT C	FLANNERY DRAIN	1,765	
CAT C	FRACASSI	14,240	
CAT D	HAZEL DRAIN	309	[1]
CAT D	LAW DRAIN	351 – 20,671	[1]
CAT C	OWENS RELIEF DRAIN (BRANCH B)	7,095	
CAT D	OXFORD AVE. DRAIN	4,432	[1]
CAT D	PEARL STREET DRAIN	87,739	[1]
CAT D	U.S. 16 DRAIN	2,269	

[1] Illicit discharges investigated and removed. No further investigations are warranted at this time.

Except for those waterbodies that have already been investigated, the locations in Table 2 require further investigations to determine the presence and location of any illicit discharges. Therefore, the following areas, totaling 4,645 acres (7.3 sq. miles), are recommended for illicit discharge investigations in Oakland County:

Waterbody	Community	Acres
Austin Drain	Southfield	481
Bloomfield Highlands	Bloomfield Twp	116
Claude H. Stevens No. 1 Drain	Bloomfield Twp	102
Claude H. Stevens No. 10 Drain	Bloomfield Twp	41
Claude H. Stevens No. 3 & 4 Drains	Bloomfield Twp	318
Devonshire Drain	Bloomfield Twp	207
Eight Mile Drain	Southfield	2131
Flannery	Southfield	53
Fracassi Drain	Southfield	124
Owens Relief Drain (3 Branches)	Southfield	872
US-16 Drain	Farmington	200

Appendix A. WAYNE COUNTY ARC IDEP 2015 IDEP Screening *E. coli* Results



LEGEND

1 0 2 Miles

1 0 5 Kilometers

- Rouge watershed boundary
- Rouge River main branch
- Tributary
- Enclosed drain
- Lake
- County boundary
- Community boundary

- 2015 ARC IDEP sampling locations
- E. coli* value
- E. coli* values >1000 in red

Site_Id	General Description	Date	Time	Dissolved Oxygen (mg/L)	Conductivity (mS/cm)	Water Temperature (°C)	E.coli (MPN)	Total Coliforms (MPN)	Watershed	Community	Water Clarity	Water Color	Odor	Visible Debris/Pollution	Weather Conditions	Comments	notes for follow up
G00.2	Dunhill Way and Hauk Park Lower Rouge west of Ridge	09/25/15	13:45	9.37	1.938	20.5	97	11199	Lower	Canton Township	Slightly Turbid	Brown: Light	None/Natural	Natural(leaves, limbs etc		sample taken at Dunhill way and Hauk Park Riversedge sub	conductivity over 1.000
G200	Lower Rouge/Proctor/Denton	07/24/15	11:20	8.32	0.83	22.2	1314	>24196	Lower	Canton Township	Slightly Turbid	Clear	None/Natural	Natural(leaves, limbs etc	Sunny		E.coli over 1000
G200.1	Lower Rouge west of Ridge Rd (DeStaCo property)	09/17/15	12:00	6.53	1.149	16.6	4106	>24196	Lower	Canton Township	Slightly Turbid	Clear	None/Natural	None		sample taken at the bridge at the DeStaCo property	E. coli over 1000 and conductivity over 1000 in followup sample
G200.3	3211 Napier Rd unknown tributary	09/25/15	14:05	7.95	0.826	17.5	197	17329	Lower	Canton Township	Slightly Turbid	Clear	None/Natural	Natural(leaves, limbs etc		sample taken at 3211 Napier Rd; some tires and springs in creek	
G211	Fellows Creek/Ford Rd	08/17/15	12:50	8.72	0.934	24.1	657	>24196	Lower	Canton Township	Clear	Clear	None/Natural	Natural(leaves, limbs etc		some tires at site	
G211A	Fellows Creek at Fairborn Rd Ford Rd east of Ridge Rd	08/17/15	13:05	7.71	0.814	22.7	327	>24196	Lower	Canton Township	Clear	Clear	None/Natural	Natural(leaves, limbs etc			
G211B	Fellows Creek crossing at Poppleton Blvd east of Ridge south of Warren	08/17/15	13:30	8.22	0.795	22.3	228	>24196	Lower	Canton Township	Clear	Clear	None/Natural	Natural(leaves, limbs etc			
G211C	Fellows Creek at Warren Rd/Beck-upstream is LR-9 bug hunt site	08/17/15	13:35	7.87	1.317	23.9	323	>24196	Lower	Canton Township	Clear	Clear	None/Natural	Natural(leaves, limbs etc			conductivity over 1000
G64A	McClagherty Drain/Hannan Rd	08/06/15	13:00	6.53	1.78	24	426	>24196	Lower	Romulus	Moderately Turbid	Clear	None/Natural	Natural(leaves, limbs etc		floating green scum present	conductivity over 1000
G64A	McClagherty Drain/Hannan Rd	08/06/15	13:30	6.05	1.517	20.1	262	>24196	Lower	Romulus	Clear	Clear	None/Natural	Natural(leaves, limbs etc		some fixed trash present	conductivity over 1000
G92	Lower Rouge/Haggerty	07/24/15	10:45	8.47	0.936	20.1	228	17329	Lower	Canton Township	Moderately Turbid	Brown: Light	None/Natural	Natural(leaves, limbs etc	Sunny		
G93	Fowler Creek at Beck Rd	08/17/15	11:00	5.25	0.67	22.7	318	>24196	Lower	Canton Township	Slightly Turbid	Clear	None/Natural	Natural(leaves, limbs etc		riprap present upstream of bridge low flow	
G93A	Fowler Creek at Geddes Rd	08/17/15	9:30	5.98	0.824	22.5	259	>24196	Lower	Canton Township	Clear	Clear	None/Natural	Natural(leaves, limbs etc			
G94	Sines Drain at Sheldon Rd	08/17/15	10:50	5.73	1.064	22	389	>24196	Lower	Canton Township	Clear	Clear	None/Natural	Natural(leaves, limbs etc		tire and riprap also present at site	conductivity over 1.000
G94A	Sines and Arnold Drain/Beck Rd	08/17/15	9:45	0.95	1.27	23.2	1046	17329	Lower	Canton Township	Clear	Clear	None/Natural	Natural(leaves, limbs etc		riprap on upstream side of culvert is causing flow blockage	E. coli over 1000, conductivity over 1.000, DO below 5.0mg/L
G94B	Apple Run Drain at Beck Rd	08/17/15	10:05	3.98	0.999	25.1	288	15531	Lower	Canton Township	Opaque	Gray	None/Natural	Natural(leaves, limbs etc			DO below 5.0mg/L

Site_Id	General Description	Date	Time	Dissolved Oxygen (mg/L)	Conductivity (mS/cm)	Water Temperature (°C)	E.coli (MPN)	Total Coliforms (MPN)	Watershed	Community	Water Clarity	Water Color	Odor	Visible Debris/Pollution	Weather Conditions	Comments	notes for follow up
G97	Lower Rouge/Henry Ruff Rd	07/24/15	10:05	8.08	1.056	20.8	495	>24196	Lower	Westland	Moderately Turbid	Brown: Light	None/Natural	Natural(leaves, limbs etc)	Sunny		conductivity over 1.000
G97A	outfall enclosed tributary east of Venoy Rd north of Michigan Avenue	08/06/15	13:55	10	2.321	17.2	171	>24196	Lower	Westland	Highly Turbid	Brown: Light	Musty-Faint	Natural(leaves, limbs etc)		some floating and fixed trash in trash rack in outfall lots of dry weather flow	conductivity over 1.000
L02	Fellows Creek/Palmer Rd	08/17/15	11:45	4.83	1.11	22.6	331	>24196	Lower	Canton Township	Slightly Turbid	Clear	None/Natural	Trash-Fixed		boards dumped at site	conductivity over 1.00 DO below 5.0mg/L
L02A	Fellows Creek/Haggerty Rd	08/17/15	12:00	5.35	0.874	24.1	171	4611	Lower	Canton Township	Clear	Clear	None/Natural	Trash-Fixed			
L02B	Fellows Creek/Morton Taylor Rd	08/17/15	12:15	1.12	0.883	20.7	109	17329	Lower	Canton Township	Slightly Turbid	Brown: Light	None/Natural	Natural(leaves, limbs etc)		washing machine other trash at site sample taken at enclosed drain outlet	DO below 5.0mg/L
L02C	Fellows Creek/Cherrystone	08/17/15	12:30	4.32	0.941	27.6	10	7270	Lower	Canton Township	Highly Turbid	Brown: Light	None/Natural	None			DO below 5.0mg/L
L02CR	Fellows Creek/Cherrystone	08/17/15	12:30	4.32	0.941	27.6	10	7270	Lower	Canton Township	Highly Turbid	Brown: Light	None/Natural	None		replicate taken at L02C	DO below 5.0mg/L
L02D	Fellows Creek north of Cherry Hill	08/17/15	12:40	0.92	1.442	23	158	8121	Lower	Canton Township	Slightly Turbid	Clear	None/Natural	Natural(leaves, limbs etc)			conductivity over 1.00 DO below 5.0mg/L
L06	Lower Rouge/Wayne Rd	07/24/15	10:20	8.05	1.03	20.3	717	24196	Lower	Wayne	Slightly Turbid	Brown: Light	None/Natural	Natural(leaves, limbs etc)	Sunny		conductivity over 1.000
L06A	Lower Rouge tributary in Glenwood Cemetery	08/17/15	11:30	1.1	2.351	17.1	41	15531	Lower	Wayne	Clear	Clear	None/Natural	Natural(leaves, limbs etc)		very low flow light film and water stagnant	conductivity over 1.00 DO below 5.0mg/L
L07	Lower Rouge/Hannan	07/24/15	10:35	8.16	0.37	19.7	420	>24196	Lower	Canton Township	Slightly Turbid	Brown: Light	None/Natural	Natural(leaves, limbs etc)	Sunny		
L51	McKinstry Drain at Michigan Ave	08/17/15	10:40	3.77	1.17	22.4	4884	>24196	Lower	Canton Township	Slightly Turbid	Brown: Light	None/Natural	None			E.coli over 1,000, DO below 5.0mg/L, and conductivity over 1.000
L51	McKinstry Drain at Michigan Ave	09/17/15	11:00	4.43	1.035	15.8	122	15531	Lower	Canton Township	Highly Turbid	Brown: Medium	None/Natural	None			conductivity over 1.00 DO below 5.0mg/L
L51.1	McKinstry Drain at end of Morton Taylor	09/17/15	11:10	9.42	0.977	16	160	>24196	Lower	Canton Township	Clear	Clear	None/Natural	Natural(leaves, limbs etc)		end of Morton Taylor Rd. There is some flow here. Beware of dog	
L51.2	McKinstry Drain at Washburn Rd	09/17/15	11:30	6.68	1.535	17	86	>24196	Lower	Canton Township	Slightly Turbid	Clear	None/Natural	Natural(leaves, limbs etc)		sample taken at the end of Washburn Rd (past gate)	conductivity over 1.000
L51A	McKinstry Drain at Sheldon Rd	08/17/15	10:30				1336	>24196	Lower	Canton Township	Clear	Clear	None/Natural	Natural(leaves, limbs etc)		extremely low water levels, temperature, DO and conductivity could not be measured	E. coli over 1000
L51B	McKinstry Drain at Van Born Rd	08/17/15	10:20	1.03	0.685	22.7	223	>24196	Lower	Van Buren Township	Opaque	Green	None/Natural	Natural(leaves, limbs etc)		duckweed, algae present	
LO1	Lower Rouge/Beck	07/24/15	11:05	6.5	0.866	21.3	602	24196	Lower	Canton Township	Clear	Clear	None/Natural	Natural(leaves, limbs etc)	Sunny		

Site_Id	General Description	Date	Time	Dissolved Oxygen (mg/L)	Conductivity (mS/cm)	Water Temperature (°C)	E.coli (MPN)	Total Coliforms (MPN)	Watershed	Community	Water Clarity	Water Color	Odor	Visible Debris/Pollution	Weather Conditions	Comments	notes for follow up
LO71	Lower Rouge tributary at Hannan south of Michigan Ave	08/06/15	13:20	7.2	2.168	20.4	187	>24196	Lower	Canton Township	Clear	Clear	None/Natural	Natural(leaves, limbs etc		floating and fixed trash present	conductivity over 1.000
NA		09/25/15	13:50	5.14	4.083	17			Lower	Canton Township	Moderately Turbid	Brown: Light	None/Natural	Natural(leaves, limbs etc		Napier at Cherry Hill. Unmapped drain. This sample was not submitted to the lab	conductivity over 1.000
U15	Six Mile/east of Farmington	07/24/15	14:30	7.19	1.247	19.7	683	>24196	Upper	Livonia	Clear	Clear	Musty-Faint	Natural(leaves, limbs etc		sample taken on downstream side of Six Mile. Water low at site. Iron bacteria present at seeps	conductivity over 1.000
U15A	Curtis, west of Farmington, north of Six Mile	07/24/15	14:20	7.91	0.958	20.8	262	24196	Upper	Livonia	Clear	Clear	None/Natural	Natural(leaves, limbs etc		sample taken upstream of enclosure	
U15B	north end of Bicentennial Park	07/24/15	14:00	3.46	0.754	21.2	2187	19863	Upper	Livonia	Clear	Clear	None/Natural	Natural(leaves, limbs etc			E.coli over 1000, conductivity over 1.000
U15C	Memorial Gardens/Eight Mile	07/24/15	13:50	9.33	0.796	27	20	7701	Upper	Livonia	Clear	Clear	None/Natural	Natural(leaves, limbs etc		sample taken at base of dam in cemetery. Stream rerouted south of 8 Mile in Glen Eden memorial gardens	
D62	Tonquish Creek/Joy Rd	07/24/15	11:50	7.58	1.843	20.4	1483	>24196	Middle	Plymouth Township	Clear	Clear	None/Natural	Natural(leaves, limbs etc		some floating trash	E.coli over 1000, conductivity over 1.000
D62A	North Branch Tonquish Creek at Ford St	07/24/15	12:05	8.07	2.375	20.4	3255	>24196	Middle	Plymouth City	Clear	Clear	None/Natural	Natural(leaves, limbs etc			E.coli over 1000, conductivity over 1.000
D62A	North Branch Tonquish Creek at Ford St	09/17/15	12:30	8.49	2.119	18.2	1145	>24196	Middle	Plymouth City	Clear	Clear	None/Natural	Natural(leaves, limbs etc			E.coli over 1000, conductivity over 1.000
D62A.1	Tonquish Creek at Kellogg Street outlet	09/17/15	12:45	9.13	2.003	17.7	749	>24196	Middle	Plymouth City	Clear	Clear	None/Natural	Natural(leaves, limbs etc		sample taken at the south end of Kellogg St outlet	
D62A.2	Tonquish Creek at Harvey St	09/17/15	13:00	8.8	1.752	17.4	341	>24196	Middle	Plymouth City	Clear	Clear	None/Natural	Natural(leaves, limbs etc		sample taken at the upstream side of enclosure at Harvey/north of Ann Arbor Trail	conductivity over 1.000
D62B	Tonquish Creek/Sheldon Rd south of Penniman Rd	07/24/15	13:15	10.51	1.033	23.9	594	>24196	Middle	Plymouth Township	Clear	Clear	None/Natural	Natural(leaves, limbs etc			conductivity over 1.000
D62B-R	Tonquish Creek/Sheldon Rd south of Penniman Rd	07/24/15	13:15				644	>24196	Middle	Plymouth Township						field replicate taken of D62B	
D62C	South Branch Tonquish at Main St	07/24/15	12:15	8.36	1.074	20.7	3654	>24196	Middle	Plymouth City	Clear	Clear	None/Natural	Natural(leaves, limbs etc		some dripping from outfall right bank	E.coli over 1000, conductivity over 1.000*
D62C	South Branch Tonquish at Main St	09/17/15	13:10	8.15	1.374	18.6	6867	>24196	Middle	Plymouth City	Clear	Clear	None/Natural	Natural(leaves, limbs etc		Main St at Rite Aid. Very steep banks	E.coli over 1000, conductivity over 1.000*
D62C.1	outfall north side of South Branch Tonquish Creek at Harvey St	09/17/15	13:30	7.26	1.206	19.1	>24196	>24196	Middle	Plymouth City	Clear	Clear	None/Natural	Natural(leaves, limbs etc		sample collected at Harvey outfall in culvert from Norh side	E. coli elevated (sewage source), conductivity over 1.000

Site_Id	General Description	Date	Time	Dissolved Oxygen (mg/L)	Conductivity (mS/cm)	Water Temperature (°C)	E.coli (MPN)	Total Coliforms (MPN)	Watershed	Community	Water Clarity	Water Color	Odor	Visible Debris/Pollution	Weather Conditions	Comments	notes for follow up
D62C.1	outfall north side of South Branch Tonquish Creek at Harvey St	09/25/15	14:35		0.982	20.7	72700	141360	Middle	Plymouth City	Clear	Clear	None/Natural	Natural(leaves, limbs etc		Harvey Street outfall lots of small fish. Surfactant: >0.25ppm; Ammonia 0.5 ppm	E. coli elevated (sewage source), conductivity over 1.000
D62C.2	Crestwood Condos east of Sheldon (south branch Tonquish creek)	09/17/15	13:55	8.75	0.904	18.2	1274	>24196	Middle	Plymouth City	Clear	Clear	None/Natural	Natural(leaves, limbs etc		sampled in Crestwood condos, east of Sheldon Rd. lots of small minnows in deep pools	E. coli over 1000
D62C.2R	Crestwood Condos east of Sheldon (south branch Tonquish creek)	09/17/15	13:55	8.75	0.904	18.2	1259	>24196	Middle	Plymouth City	Clear	Clear	None/Natural	Natural(leaves, limbs etc		replicate of site above	
D62D	S. branch Tonquish at Jo Ann Road west of Sheldon Rd	07/24/15	12:30	8.2	0.687	20.7	1210	19863	Middle	Plymouth Township	Clear	Clear	None/Natural	Natural(leaves, limbs etc		minnows at site	E. coli over 1000
D62E	South Branch Tonquish Creek in Plymouth Township Park	07/24/15	12:50	8.2	0.3668	21.4	644	9208	Middle	Plymouth Township	Clear	Clear	None/Natural	Natural(leaves, limbs etc		lots of little fish/minnows	
D62F	North Territorial Road west of Sheldon	07/24/15	13:05	8.04	1.856	21	794	>24196	Middle	Plymouth Township	Slightly Turbid	Clear	None/Natural	Natural(leaves, limbs etc			conductivity over 1.000
City of Plymouth IDEP Harvey Street (with ALS Lab)																	Plymouth investigation samples below
Linden/Harvey	Linden/Harvey	09/29/15	10:15				130		Middle	Plymouth City	Clear	Clear	None/Natural	None		Ammonia >2.0, Surfactant <0.25	
1046 Palmer	1046 Palmer	9/29/2015	11:20				60		Middle	Plymouth City	Clear	Clear	Musty-Faint	None		surfactant 3.0ppm; Ammonia 0.75ppm	
1096 Palmer	1096 Palmer	09/29/15	11:00				TNTC		Middle	Plymouth City	Moderately Turbid	Milky/White	Sewage-Stong	Sewage Solids-Floating		toilet paper in storm; sanitary odor, sewage fungus present' TNTC with 100 dilutions Surfactant: <0.25, Ammonia <0.25	
1097 Hartsough	1097 Hartsough	09/29/15	14:15				NA		Middle	Plymouth City	Highly Turbid	Brown: Light	Musty-Faint	None	Overcast	rain intensifying, first flush starting in manhole; looks like old sanitary; storm sewer in middle of block. Hardly any flow	
1108 Beech	1108 Beech	09/29/15	9:45				80		Middle	Plymouth City	Clear	Clear	None/Natural	None		10 dilution of sample; Ammonia 0.25, Surfactant 1.5	
1124 Carol (West)	1124 Carol (West)	09/29/15	14:35				NA		Middle	Plymouth City	Clear	Clear	None/Natural	None	Raining	raining' sample not analyzed by the lab; water clear, some first flush	
656 Harvey	656 Harvey	09/29/15	10:30				10		Middle	Plymouth City	Clear	Clear	None/Natural	Natural(leaves, limbs etc		Ammonia: 0ppm; Surfactant> 0.25	
918 Hartsough	918 Hartsough	09/29/15	14:06				NA		Middle	Plymouth City	Highly Turbid	Gray	Musty-Strong	Trash-Floating		lab sample at this loction not analyzed; cigarette butts, highly turbid water; Ammonia >2.0, Surfactant 1.0	

2015 ARC *E. coli* Survey Data

Site_Id	General Description	Date	Time	Dissolved Oxygen (mg/L)	Conductivity (mS/cm)	Water Temperature (°C)	E.coli (MPN)	Total Coliforms (MPN)	Watershed	Community	Water Clarity	Water Color	Odor	Visible Debris/Pollution	Weather Conditions	Comments	notes for follow up
Beech/Harvey G62C.2	Beech/Harvey G62C.2	09/29/15	9:30				TNTC		Middle	Plymouth City	Slightly Turbid	Gray	Sewage-Stong	None		sewage fungus present; strong sewage odor; TNTC with 100 dilutions; Ammonia 0.25 ppm; Surfactant 0.25ppm	
1104 Sutherland		09/29/15					NA		Middle	Plymouth City						no sample analyzed at the lab	
																	*triggered follow up investigation

Appendix B. OCWRC Dry Weather Screening and Prioritization Criteria

The following is a portion of Oakland County's Stormwater Permit Application that was submitted in 2016.

Appendix J:

Attachment 2: WRC Alternative IDEP, Sampling Points and DWS Prioritization Criteria

IDEP Sampling Points

WRC has been collecting visual observation and water quality sampling data on County Drains since 1999. Dry weather Screening and water quality sampling procedures have been developed under the Voluntary Storm Water NPDES Permit for the Rouge Watershed in 1999 and the Oakland County General Stormwater NPDES Permit issued in 2003. Procedures are included in WRC Work instruction, EU 1702, " Illicit Discharge Elimination Program". (APPENDIX E)

Sampling points have been selected as to monitor the entire length of all open and enclosed County drains for illicit discharge sources. The following are taken into consideration when selecting sampling site locations; Drainage District and Oakland County boundaries; the length of the drain including significant branch and segment connecting points; points of discharge to surface waters or connected storm drains outside WRC's jurisdiction and; locations with a high potential for illicit discharge. The potential for illicit discharge is based on historical DWS and sampling results, complaints, historical discharges, spills or other water quality concerns. IDEP sampling points have been selected over time and are continually evaluated by the IDEP Coordinator. Sampling locations, DWS and sampling location and frequency can be adapted to meet the illicit discharge Investigation and water quality data needs of WRCs IDEP Program. Sampling point locations are subjective and can include MS4 Outfall and Discharge Point locations but are not mutually inclusive or exclusive of County Drain MS4 designations or MS4 Outfall or Discharge Point Locations. WRC currently performs routine DWS and sampling on 367 open and enclosed County Drains at 879 locations. A map and list of current 2014 sampling site locations are included as attachments.

Criteria for Prioritization and Scheduling of DWS and Illicit Discharge Investigations

Drains are prioritized and a frequency for DWS and scheduling of IDEP investigations on County Drains is established by on an ongoing review of current and historical DWS screening and sampling data, complaint investigation information and other surface water quality concerns received by WRC. A frequency for ongoing Dry Weather Screening and the need for IDEP Investigations are based on physical evidence of pollutants and or concentrations of *E.coli* found in the drain. A Table listing the criteria used for establishing DWS frequency and prioritizing of Illicit Discharge Investigation of the drains appears below. A schedule for going DWS of WRC IDEP Sampling points for the proposed permit period is attached.

Table 1 MS4 Sampling Categories & DWS Frequencies (based on average E. coli sampling values)

DWS Sampling Frequency	(1)Sampling Average	CAT-A	CAT-B	CAT-C	CAT-D	Sampling Criteria
1st Sampling						
5 years	1	X				No flow, E. coli less than 300, no visible pollutants
3 years	1	X				E. coli between 300 and 1,000
6 months	1	X				E. coli between 1,000 and 10,000
(2) Monthly	1	X	X			E. coli greater than 10,000 / other significant pollutant parameters
2nd sampling						
5 years	2	X				No flow, E. coli less than 300, no visible pollutants
1 years	2	X				E. coli between 300 and 1,000
6 months	2	X				E. coli between 1,000 and 10,000
Monthly	2	X	X	X		E. coli greater than 10,000 / other significant pollutant parameters
3rd sampling						
5 years	3	X				No flow, E. coli less than 300, no visible pollutants
1 year	3	X				E. coli between 300 and 1,000
6 months	3	X	X			E. coli between 1,000 and 10,000
Monthly	3	X	X	X	X	E. coli greater than 10,000 / other significant pollutant parameters

- (1) Ongoing DWS of County Drains and scheduling for IDEP Investigation are based on a minimum of 3 consecutive sampling cycles, except in cases where a discharge of pollutants is clearly evident and an immediate response is required (see below). Where consecutive samplings for averages E.coli exceed the minimum thresholds the frequency between DWS increases. Where 3 consecutive sampling indicate an average exceeding the E.coli threshold the Drain is scheduled for IDEP investigation

- (2) The Table does not apply to IDEP Investigations, Complaint Investigations and Emergency Spill Response situations. The presence of sewage or other significant pollutants automatically places the suspect Drain / MS4 in Categories B-D. Drains placed in IDEP Investigation categories are removed from the schedule for DWS until an IDEP Investigation has been completed, and any illicit discharges sources been corrected. Drains that have completed an illicit discharge Investigation are placed on the back on the DWS list on a monthly schedule until 3 consecutive samplings indicate no visible signs of pollutants and average E.coli concentration less than 300 CFU / 100 ml. The last 3 consecutive samplings will be used to evaluate and schedule the drain for DWS going forward.

Drain Categories

- A** – Continued DWS and monitoring, as scheduled.
- B** – Scheduled Segmentation of Drain and upstream sampling to identify MS4s / DPs with suspect discharges. Sampling plan required.
- C** – Scheduled Illicit Discharge Investigations to locate and identify sources of pollutant discharge(s). Plan and approved budget required.
- D** - Ongoing Advanced IDEP investigation, source Identification, and Illicit Discharge Elimination. Plan, schedule, budget and funding source are TBD (To Be Determined).

Appendix C. 1999 - 2015 Oakland County Dry Weather Screening Results (cfu/100 mL)

Asset ID	Drain Name	Date 1	Result 1	Date 2	Result 2	Date 3	Result 3	Date 4	Result 4	Date 5	Result 5	Average E.coli	Category
8614	AMY DRAIN	6/24/2008	36,521	6/26/2009	22,349	6/27/2008	24,081	6/29/2010	141	11/19/2014	50	2681	CAT A
5175	AUSTIN DRAIN	4/19/2008	984	8/16/2012	2,008	7/29/2013	4,079					2005	CAT D
0	Bingham Farms Extension No. 1 Drain	9/26/2000	NA										CAT A
1387	BLOOMFIELD HIGHLANDS DRAIN	11/6/2007	2,121	4/1/2010	NA							2121	CAT C
6094	BLUE HERON	5/1/2008	50	8/17/2015	250							112	CAT A
13319	BORDEN DRAIN	7/30/2003	NA	4/15/2010	50							50	CAT A
5525	BORDEN DRAIN	7/30/2003	NA	5/11/2010	948							948	CAT A
0	BRENON DRAIN	5/7/2008	50									50	CAT A
0	CADDELL DRAIN	12/18/2005	NA	12/21/2007	50							50	CAT A
14048	CADDELL DRAIN	12/18/2005	NA	12/21/2007	50	3/3/2009	1570	4/1/2010	100	7/23/2015	2368	369	CAT B
6070	CASE DRAIN	5/30/2008	472	1/20/2012	265							354	CAT A
0	CHESTER DRAIN (BRANCH A)	3/12/2008	100									100	CAT A
0	CHESTER DRAIN (BRANCH B)	7/6/2006	NA										CAT A
0	CHESTER DRAIN (BRANCH C)	3/12/2008	100									100	CAT A
5686	CLARENCEVILLE DRAIN	7/29/2016	1666									1666	CAT D
5567	CLAUDE H. STEVENS NO.1 DRAIN	6/23/2008	422	7/20/2012	1,078	10/11/2013	1,680	12/1/2014	4,623			1371	CAT C
6523	CLAUDE H. STEVENS NO.10 DRAIN	6/18/2008	50	10/11/2013	61,128							1748	CAT C
9050	CLAUDE H. STEVENS NO.11 DRAIN	6/18/2008	50	10/4/2013	100							71	CAT A
5700	CLAUDE H. STEVENS NO.3 DRAIN	5/1/2008	NA	10/11/2013	7,194							7194	CAT D
6558	CLAUDE H. STEVENS NO.4 DRAIN	5/1/2008	NA	10/11/2013	10,909							10909	CAT C
6099	CLAUDE H. STEVENS NO.5 DRAIN	5/30/2008	176	10/4/2013	50							94	CAT A
6159	CLAUDE H. STEVENS NO.6 DRAIN	5/1/2008	NA	10/11/2013	155							155	CAT A
6102	COY DRAIN	5/1/2008	745	10/15/2012	375	7/22/2015	1124					680	CAT B
5011	DALY DRAIN	6/18/2008	240									240	CAT A
8555	DECONICK DRAIN	1/0/1900	NA	4/1/2010	50	8/19/2015	50					50	CAT A
5417	DEVONSHIRE DRAIN	1/19/2005	4,401	2/6/2009	4,472	6/3/2009	1,974	3/31/2010	50			1181	CAT C
4670	DONAHUE DRAIN	9/11/2015	820									820	CAT A
82835	DONAHUE DRAIN	9/11/2015	394									394	CAT A
581844	DONAHUE DRAIN	9/11/2015	50									50	CAT A
0	DOROTHY WEBB DRAIN	6/19/2002	368	4/27/2010	200	8/19/2015	224					255	CAT A
0	EARLMOOR DRAIN	6/25/2008	219									219	CAT A
3279	EDWARDS RELIEF DRAIN	12/9/2005	640	5/1/2008	540	7/15/2010	1,032	8/4/2012	50			365	CAT A
905280	EIGHT MILE DRAIN	2/18/2005	252	6/2/2008	4,237	3/26/2010	493	7/8/2016	26,922			1940	CAT C
0	EVANS DRAIN	6/3/2008	6,411	7/1/2010	253							1274	CAT B
0	EVERGREEN RD. DRAIN	5/6/2008	50									50	CAT A
232	FLANNERY DRAIN	3/18/2009	352	7/12/2016	8,855							1765	CAT C
6217	FRACASSI DRAIN	4/25/2008	3,485	6/20/2008	3,453	10/20/2008	26,437	12/20/2013	2,427	12/22/2014	35,397	14240	CAT D
16069	FRANCIS DRAIN	7/22/2009	NA	6/15/2010	NA	8/15/2012	50	7/21/2015	612			175	CAT A

Asset ID	Drain Name	Date 1	Result 1	Date 2	Result 2	Date 3	Result 3	Date 4	Result 4	Date 5	Result 5	Average E.coli	Category
0	FRANCIS DRAIN	2/14/2008	NA	7/22/2009	2070	6/15/2010	1003	8/15/2012	466	7/21/2015	100	558	CAT B
	FRANKLIN SUBWATRESHED DRAIN	9/10/2015	375									375	CAT A
	FRANKLIN SUBWATRESHED DRAIN	9/10/2015	278									278	CAT A
6360	GRAVES DRAIN	6/19/2008	NA										CAT A
0	GRONKOWSKI DRAIN	4/28/2008	50									50	CAT A
6131	HAMLIN DRAIN	7/10/2001	2,128	2/2/2005	512	6/25/2008	1,605	3/31/2010	315	7/20/2012	158	614	CAT A
9514	HAZEL DRAIN	3/26/2009	255	7/29/2016	375							309	CAT D
0	HOLLANDAR DRAIN	8/6/2010	1,415									1415	CAT A
3357	JACOBS DRAIN	4/1/2010	500	9/10/2015	823							641	CAT A
3357	JAMIAN DRAIN	4/1/2010	50	9/10/2015	1,054							230	CAT A
0	JILBERT DRAIN	5/7/2008	100									100	CAT A
593737	KEMP DRAIN	4/27/2010	187	8/19/2015	265							223	CAT A
8223	KEMP DRAIN	4/27/2010	100	8/19/2015	250							158	CAT A
7565	KOLLAR DRAIN	5/1/2008	298	8/17/2015	2,652							889	CAT B
6609	LAW DRAIN	6/30/2005	NA	7/19/2010	1,232	11/20/2012	100					351	CAT A
6610	LAW DRAIN	6/30/2005	NA	7/19/2010	NA								CAT A
6612	LAW DRAIN	6/30/2005	NA	7/19/2010	2,047							2047	CAT A
6608	LAW DRAIN	6/30/2005	NA	7/19/2010	NA	11/20/2012	1,151					1151	CAT A
6604	LAW DRAIN	6/30/2005	NA	7/19/2010	NA								CAT A
6606	LAW DRAIN	6/30/2005	NA	7/19/2010	NA								CAT A
6603	LAW DRAIN	6/30/2005	NA	7/19/2010	NA								CAT A
6611	LAW DRAIN	6/30/2005	NA	7/19/2010									CAT A
6605	LAW DRAIN	6/30/2005	NA	7/19/2010	99,854	7/29/2013	682					8252	CAT B
6607	LAW DRAIN	6/30/2005	NA	7/19/2010	99,854	7/29/2013	4,279					20671	CAT D
0	LUEDERS DRAIN	7/30/2003	NA	6/27/2008	1,153	5/11/2010	2,688					1760	CAT B
0	LUZ DRAIN	11/15/2008	100									100	CAT A
5522	LYNN D. ALLEN DRAIN	6/18/2008	2,123	3/31/2010	198	7/29/2013	644					647	CAT A
8331	MAPLEHURST DRAIN	6/1/2005	NA	7/28/2010	755							755	CAT A
5643	MCCLUNG DRAIN	6/1/2008	653	7/1/2010	919	8/2/1012	4,213	7/30/2013	100	11/19/2014	50	417	CAT A
0	MCDONNELL DRAIN	4/25/2008	224									224	CAT A
1777	MCINTOSH DRAIN	4/30/2008	50	8/17/2015	100							71	CAT A
7575	MINNOW POND DRAIN	5/2/2008	873	8/15/2012	667							763	CAT B
6344	MINNOW POND DRAIN	5/2/2008	873	8/12/2012	1196							1022	CAT B
4620	MORGAN DRAIN	7/13/2007	NA	7/12/2016	278							278	CAT A
0	MORGAN DRAIN	7/13/2007	NA										CAT A
0	MORGAN DRAIN	7/13/2007	NA										CAT A
9688	MULLEN DRAIN	4/30/2008	584	9/10/2015	50							171	CAT A
42	MURPHY DRAIN	6/23/2008	100									100	CAT A
6146	NICHOLS DRAIN	1/25/2005	215	4/21/2005	446	5/30/2008	1,263	4/1/2010	1,479	11/19/2014	50	389	CAT A
7771	NORTHWESTERN DRAIN	4/1/2008	NA										CAT A
0	NORTHWESTERN DRAIN	4/1/2008	NA										CAT A
5631	OAK KNOB DRAIN	6/1/2008	50									50	CAT A
9551	OAKLAND HILLS ORCHARDS DRAIN	8/11/2009	NA	6/17/2010	124	8/15/2012	155	7/21/2015	100			124	CAT A
1316	OWENS DRAIN (BRANCH A)	4/4/2008	NA	7/11/2016	571							571	CAT A

Asset ID	Drain Name	Date 1	Result 1	Date 2	Result 2	Date 3	Result 3	Date 4	Result 4	Date 5	Result 5	Average E.coli	Category
1460	OWENS DRAIN (BRANCH B)	4/4/2008	NA	7/11/2016	7,095							7095	CAT C
5993	OWENS DRAIN (BRANCH C)	4/4/2008	NA	7/11/2016	960							960	CAT A
4969	OXFORD AVE. DRAIN	11/10/2009	NA	7/29/2026	4435							4435	CAT D
0	PEARL STREET DRAIN	2/1/2005	1002500	4/7/2008	7,679							87739	CAT D
7766	PEBBLE CREEK	6/30/2005	NA	8/12/2010	295	7/23/2015	155					214	CAT A
2871	PEBBLE CREEK	6/30/2005	NA	8/10/2010	NA	7/23/2015	400					400	CAT A
0	PERINOFF DRAIN	5/6/2008	747									747	CAT A
0	PETERSON DRAIN	5/5/2008	50									50	CAT A
1228	POWERS DRAIN	4/30/2008	690	8/17/2015	224							393	CAT A
7150	RANDOLPH STREET	7/22/2009	879	7/29/2015	4,380							1052	CAT A
400089	ROBERT A. REID DRAIN	6/18/2008	660									660	CAT A
0	ROBERT J. EVANS DRAIN	6/27/2008	367									367	CAT A
0	RUMMEL RELIEF DRAIN	5/7/2008	100									100	CAT A
8963	SHERMAN DRAIN	6/1/2008	50	7/8/2016	50							50	CAT A
0	SNYDER DRAIN	3/12/2009	200									200	CAT A
1361	SOUTHFIELD RD DRAIN	5/7/2008	100									100	CAT A
0	SPRAGUE BRANCH DRAIN	9/14/2004	NA	7/1/2006	NA								CAT A
0	SPRAGUE DRAIN	7/1/2006	NA										CAT A
0	SPRAGUE DRAIN NO. 2	8/23/1999	50	7/6/2010	1,307							256	CAT A
0	STEWART RELIEF DRAIN	5/5/2008	1,772	3/27/2010	50							298	CAT A
403780	SUMP DRAIN	12/1/2003	NA	7/29/2015	2260							2260	CAT B
7100	SUNKEN BRIDGE DRAIN	11/17/2009	NA										CAT A
0	TAYLOR DRAIN	4/1/2000	NA	6/4/2010	315							315	CAT A
0	TAYLOR DRAIN	4/1/2000	NA	6/4/2010	339							339	CAT A
7795	TOWNLINE DRAIN	7/22/2009	1823	6/17/2010	1177	7/23/2015	264					827	CAT B
0	TULANE DRAIN	11/19/2009	NA										CAT A
7801	U.S. 16 DRAIN	5/5/2008	2414	6/17/2010	1028	8/16/2012	5530	7/31/2013	1931			2269	CAT D
6701	VINEWOOD DRAIN	3/29/2005	NA	5/26/2010	100							100	CAT A
5560	WAGNER DRAIN	6/3/2008	992	8/3/2012	11,454	7/30/2013	155	11/18/2014	324			869	CAT A
8334	WARD DRAIN	4/27/2010	100	8/17/2015	NA							100	CAT A
0	WILCOX DRAIN	5/8/2008	71	4/1/2010	NA							71	CAT A

Attachment C

Outfall Screening Procedure for Identifying Potential Illicit Discharges

OUTFALL SCREENING PROCEDURE FOR IDENTIFYING POTENTIAL ILLICIT DISCHARGES

PREPARED FOR:

THE ALLIANCE OF ROUGE COMMUNITIES
46036 MICHIGAN AVE, CANTON, MICHIGAN 48188



SEPTEMBER 26, 2017

SECTION A – PURPOSE

The purpose of this procedure is to describe the protocols to inspect stormwater outfalls for the presence of illicit discharges. The Michigan Department of Environmental Quality (MDEQ) requires this procedure for stormwater discharges from municipal separate storm sewer systems (MS4) as part of an entity's National Pollutant Discharge Elimination System (NPDES) permit application.

SECTION B – PERFORMING FIELD OBSERVATIONS AT OUTFALLS

Outfalls will be assessed during dry weather conditions focusing on the criteria listed below. This assessment will be conducted following at least 48 hours with no precipitation.

1. Presence/absence of flow
2. Deposits/stains on the discharge structure or bank
3. Vegetation condition
4. Structural condition
5. Biology, such as bacterial sheens, algae, and slimes
6. Water clarity
7. Color
8. Odor
9. Floatable materials

A field form (See Figure 1) that documents the condition of the outfall and any discharge will be completed. In addition to the assessment of the field screening criteria, GPS positioning will be obtained for new or previously unscreened outfalls.

SECTION C – PERFORMING FIELD SCREENING

Only individuals that have been trained to do so will perform field screening activities. Acceptable training includes the following elements: goals of the IDEP program, how to recognize illicit discharges and sampling techniques. Four months of IDEP field experience consisting of outfall screening and/or advanced investigations can be substituted for classroom training.

If the visual observations indicate a potential illicit discharge, flow is observed and the source of the flow is not immediately identifiable then sampling will be performed. Based on the suspected discharge or the pollutant of concern, some or all of the following parameters will be assessed:

1. pH will be sampled if an industrial discharge is suspected. A pH measurement will be obtained using calibrated portable field meter such as pH pen or multi-parameter probe.
2. Detergents will be sampled if flow is observed to have foam or suds or if a sanitary discharge is suspected. The sample will be field screened for surfactants using a colorimetric method such as CHEMets kit # K-9400 (www.chemetrics.com). The operating range of the test should be between 0 and 3 mg/L.
3. *E. coli* will be sampled if a sanitary discharge is suspected. These samples will be collected in a sterile 100 mL bottle, stored on ice, and transported to a laboratory for analysis. The analytical range should be between 10 and approximately 24,000 colonies/100 mL. Care should be taken not to disturb any accumulated sediment when collecting the *E. coli* sample.

4. Other parameters – Additional samples may be collected depending on the suspected source.

Disposable gloves will be worn to collect all samples. Gloves will be changed out between sampling sites. *E. coli* samples must be collected directly into the laboratory container, while sample collection cups may be used for pH and surfactants. Decontamination procedures for reusable sample collection containers consists of a triple rinsed with site water prior to taking a measurement.

E. coli samples shall be delivered to the laboratory with sufficient time for the samples to be analyzed within the method specific hold time. Confirmation of method specific hold times shall be obtained from the laboratory at the onset of sampling efforts. For *E. coli* analysis, the goal of the sampling team will be to deliver samples to the laboratory within 6 hours of collection where sample processing will occur within 2 hours for a total hold time of 8 hours. However, as these samples are intended to be used for screening purposes, a total hold time of 24 hours will be acceptable if it is not cost effective to meet the shorter hold time.

If sample result exceeds the threshold(s) provided in Table 1, then additional investigations are recommended to locate the source of the suspicious discharge.

Field screenings will be conducted in conjunction with field observation procedures as described in Section B. Screenings may also be conducted on an as needed basis if suspicious discharges are discovered by field staff during day-to-day operations, or if a pollution complaint or referral is received from the public or other agencies.

Table 1 – Guidance for Screening Results

Parameter	Follow-up Threshold
Typical Parameters	
pH	>9 or <6.5
Surfactants (mg/L)	>0.75
<i>E. coli</i> (cfu/100 mL or MPN/100 mL)	>5,000
Physical signs	unusual odor, color, clarity, floatables, deposits, stains, vegetation change, outfall structural damage
Additional Parameters	
Ammonia (mg/L)	>1
Conductivity (uS/cm)	>1,000
Turbidity (NTU)	>5
TDS (mg/L)	>500
Dissolved oxygen (mg/L)	< 5
Temperature (°F)	+5 warm water stream [1] +2 cold water stream [1]

SECTION D – PROCESS FOR REVISION

Any questions on this procedure should be directed to the entity’s Stormwater Manager. This procedure shall be reviewed once per permit cycle by ARC staff for any updates.

Figure 1 – Outfall Screening Form

(Logo)	<h2 style="margin: 0;">Outfall Inventory Form</h2>
Date: _____ Field Crew: _____ Weather: _____ <input type="checkbox"/> 48 hrs no precip	
1) IDENTIFICATION:	
Outfall ID: _____ Size: _____ Material: _____ Location: _____	
2) OBSERVATIONS:	
Damage (circle all that apply): None Cracking Spalling Corrosion Other Describe: _____	
Vegetation (circle one): None Inhibited Excessive Describe: _____	
Flow: _____ Known industrial or commercial uses in drainage area: Yes or No Other: _____	
(Circle all that apply)	
Odor: None Sewage Detergents Sulfide Oil/Gas Rancid-Sour Other: _____	
Color: None Clear Gray Black Green Brown Other: _____	
Turbidity: None Cloudy Opaque	
Floatables: None Sewage Oil Sheen Algae Other: _____	
Biological: None Bacterial sheen Algae Slime	
Deposits: None Sediment Other: _____	
Sample Obtained: Yes or No	
Additional Observations: _____	
3) ANALYSES:	
Temperature: _____	Equipment used: _____
Conductivity: μ S/cm	Equipment used: _____
pH Value: _____	pH mV: _____
Ammonia: ppm	Equipment used: _____
Detergents: ppm	Equipment used: _____
Follow up: Yes or No	Reason: _____
4) PHOTOGRAPH:	5) COMMENTS:
Photo ID: _____ 	

Attachment D

**Advanced Investigation Procedure for Locating the Source of
Suspicious Discharges**

ADVANCED INVESTIGATION PROCEDURE FOR LOCATING THE SOURCE OF SUSPICIOUS DISCHARGES

PREPARED FOR:

THE ALLIANCE OF ROUGE COMMUNITIES
46036 MICHIGAN AVE, CANTON, MICHIGAN 48188



SEPTEMBER 25, 2017

SECTION A – PURPOSE

The purpose of this procedure is to describe the protocols to conduct advanced investigations in storm sewer systems to identify the source of a suspicious discharge. These investigations would be performed based on the results of field screening procedures or based on a pollution complaint. The Michigan Department of Environmental Quality (MDEQ) requires this procedure for stormwater discharges from municipal separate storm sewer systems (MS4) as part of an entity's National Pollutant Discharge Elimination System (NPDES) permit application.

SECTION B – PERFORMING SOURCE INVESTIGATIONS

Investigations will be carried out by someone who is trained as an IDEP Investigator. The minimum training requirements for an Investigator are 1) four hours of classroom instruction on how to identify and investigate sources of illicit discharges including failing septic systems, seepage from sanitary sewers, illegal dumping, and suspicious discharges from outfalls, and 2) knowledge of stormwater collection systems. Four months of IDEP advanced investigations field experience can be substituted for classroom training.

The investigation parameters will be selected based on the nature of the complaint or initial field screening results according to the parameters and threshold values indicated in the Field Screening Procedure for Identifying Potential Illicit Discharges Standard Operating Procedure. If working within a river/stream/open drain, then samples or observations will be taken at the origin of the suspicious discharge and at upstream locations. This will continue until the source is found or an enclosed storm sewer is located.

B.1 Determining Ownership

For complaint-based investigations, the owner/operator of the enclosed storm sewer will be determined. If it is suspected that a discharge originates from another jurisdiction, the other jurisdiction will be notified in writing of the suspicious discharge and any pertinent information about the discharge. This will occur within 10 working days of the discovery of the discharge from the other jurisdiction.

For investigations based on outfall screening results, the ownership step is not required because it is assumed that outfall screening was completed by the owner/operator.

For investigations based on instream sampling results and the owner/operator is participating in the Rouge River Collaborative IDEP Plan, the owner/operator will be notified of the suspicious discharge and storm and sanitary sewer maps will be obtained. Investigations will continue with the assistance of the owner/operator. If the owner/operator is not participating in the Rouge River Collaborative IDEP Plan, then they will be notified in writing of the suspicious discharge and any pertinent information about the discharge. This will occur within a timeframe ranging from immediately/within 24 hours (for sources posing an imminent threat) or for non-emergency issues up to 5 working days of the discovery of the discharge from the other jurisdiction.

B.2 Source Investigations

Enclosed drain investigations will proceed, following discovery of a suspicious discharge. The site of the discharge will be resampled during dry conditions for the appropriate indicator parameter. The sample parameters will be the same as those used during the initial field screening. If no flow is present, a second site visit will be conducted within 4 weeks of discovery, weather permitting. If no flow is present during

the second site, a third site visit will be conducted within 2 months of the date of the second visit, weather permitting.

Additional sampling/observations will be conducted upstream within the drainage system to narrow down the section of pipe from which the suspicious discharge is emanating. Sampling will be conducted as outlined in the Field Screening Procedure for Identifying Potential Illicit Discharges SOP.

Ideally, the sampling data or observations will allow staff to isolate a section of storm sewer to employ advanced investigation techniques. These techniques include televising the storm sewer, smoke testing, and conducting dye testing of homes, facilities, or sewers to verify a suspected illicit connection or discharge. The lead investigator will determine which of these techniques (or other technique) will be employed.

SECTION C – CLOSED CIRCUIT TELEVISION (CCTV)

CCTV inspections may be performed to determine if illicit connections are present in a storm drain. This allows for inspectors to identify suspicious taps to the drain. This work will be performed by a qualified staff or contractor. If possible, a video recording of the inspection will be performed. If possible, the lead investigator will be present during the CCTV inspection in order to direct additional efforts.

SECTION D – SMOKE TESTING

Smoke testing may be performed to determine if a residence or facility is illicitly connected to the storm drain. This work will be performed by a qualified staff or contractor. This testing requires homeowner notification to ensure all plumbing traps are filled with water and to make them aware of the potential intrusion of smoke into their homes. The local fire department should also be notified prior to testing. Non-toxic smoke is used. The drain may be plugged at various locations to ensure the testing is limited to the area of interest. Smoke found exiting a building plumbing vent indicates that the home is illicitly connected to the storm sewer. Care must be taken to perform this testing during the appropriate weather conditions in order not to mistaken steam from a heating system or fog as smoke. This testing may also identify improper connections between the storm and sanitary system.

SECTION E – DYE TESTING

Dye testing may be performed on plumbing fixtures (i.e. sinks, toilets, floor drains, etc.) within facilities/structures that are suspected of illicitly discharging non-stormwater flows into the MS4 to determine if they are properly connected to the appropriate sewer. Prior to administering a tracer dye, the lead investigator will submit a Notice of Intent to the MDEQ under General Rule 97 Certification of Approval Authorizing Tracer Dyes in Surface Waters. In addition, the following agencies shall be notified 48 hours prior to the application:

- Local Municipality
- Local Health Department
- Downstream Municipalities and Health Departments potentially affected
- Local Fire Department

Once approved, tracer dye will be applied to the appropriate plumbing fixture(s) per the manufacturer's recommendations and in a manner that will minimize potential effects to surface water. The following item will be documented when conducting a dye test:

- Facility or Building Name
- Date
- Location where dye is applied (i.e. second floor men's restroom)
- Time the dye is applied
- Time dye is observed in the field
- Location where dye is observed (i.e. sanitary manhole, northeast of building)
- Time of Travel
- Follow up action, if needed

SECTION F – PROCESS FOR REVISION

Any questions on this procedure should be directed to the entity's Stormwater Manager or ARC staff. This procedure shall be reviewed once per permit cycle by ARC staff for any updates.

Attachment E

Southeast Michigan Regional IDEP Training Plan

**Southeast Michigan Regional
Illicit Discharge Elimination Program Training Plan
February 19, 2013**

Introduction

Southeast Michigan is a seven county region with a population exceeding 4.7 million and comprising 16 watersheds. Five of the counties (Wayne, Washtenaw, St. Clair, Macomb and Oakland), comprising 11 watersheds, have a stormwater discharge permit. The permit requires training in various aspects of illicit discharge elimination. Recent audits of permittees by the Michigan Department of Environmental Quality have requested documentation of such training. This document lays out a plan for training municipal staff that is consistent with the language in the forth coming stormwater permit. The plan provides background information, objectives, details, and a cost-share arrangement to provide stormwater-related training to the permitted communities.

Background

The Alliance of Rouge Communities (ARC) has sponsored the Basic/Advanced IDEP Training for the last few years. This training was made available to ARC members without charge. The participation in the training has decreased over the years. Wayne County has provided training to non-ARC members in southeast Michigan on a cost recovery basis, e.g. contracts with Eastern Michigan University, Washtenaw County.

In 2011, SEMCOG sponsored five municipal training sessions across Southeast Michigan that targeted pollution prevention actions at municipal facilities. These ½ day sessions also included an illicit discharge identification component designed to educate a broad audience on basic recognition and reporting techniques. Staff from Washtenaw, Livingston, St. Clair, Oakland, Macomb and Wayne counties helped to develop the content of the training and co-host the session at one of their facilities. The sessions were also co-hosted by the DEQ, which provided Industrial Operator Training at no cost in the afternoon of each session. Over 350 people attended the five training sessions and 107 people took the DEQ Industrial Operator.

Objective

The goal of this plan is to provide training to the southeast Michigan region focused on illicit discharge elimination and storm water pollution prevention. There are three main objectives of this plan. The first objective is to establish a framework that shares responsibility and costs of training on a regional basis. The second objective is to be efficient by maximizing class size not duplicating efforts and spreading the costs over the region. The third objective is to make it unnecessary to charge a fee for the training.

Plan

The plan calls for an alternating five year schedule of training between Wayne County's IDEP training program and SEMCOG's municipal facility training and illicit discharge recognition training provided by the host county. The training would be provided once a year. The period covered by this plan is January 2013 through December 2017.

Every other year beginning with 2013, Wayne County’s IDEP Training will be provided to the region. Table 1 lists the responsibilities and schedule for each IDEP training session. In 2014 and 2016, SEMCOG’s municipal facility training with illicit discharge recognition training will be provided. Table 2 lists the responsibilities for the SEMCOG municipal facility and illicit discharge recognition training.

Note: This schedule is consistent with the language concerning training in the new State stormwater permit.

Cost Sharing

The goal is to distribute cost among the region by rotating sites for the training, so that the trainings can be offered at no charge. This would reduce the cost to the ARC since the IDEP training registration would be handled by others and since it would be offered every other year. This will also reduce the cost to other permittees, since the IDEP training charge would be offered at no charge (a savings of around \$75 per attendee).

Table 1: Traditional IDEP Training Schedule and Responsibilities

Year	Staff Cost¹	Facility/Refreshments²	Registration³	Print and Mail Certificates
2013	ADW, ARC	Wayne County	Wayne County	Wayne County
2015	ADW, ARC	Washtenaw County	Washtenaw County	Wayne County
2017	ADW, ARC	Macomb County	Macomb County	Wayne County

- 1- Will provide trainers for the event at no charge to the municipalities or other counties.
- 2- Will arrange for a training location and provide refreshments/snack
- 3- Will handle advanced registration and sign-in the day of the event and create an advertisement for distribution to the region. Distribution will occur via email to the county stormwater coordinators.

Table 2: SEMCOG Municipal Facility and Illicit Discharge Training Schedule and Responsibilities

Year	Staff Cost	Facility/Refreshments³	Registration⁴
2014	Host County ¹ , SEMCOG ²	St. Clair County	SEMCOG
2016	Host County ¹ , SEMCOG ²	Oakland County	SEMCOG

- 1- Will provide or arrange for trainers for the event in collaboration with SEMCOG.
- 2- SEMCOG donated time
- 3- Will arrange for a training location and provide refreshments/snack
- 4- Will handle advanced registration and sign-in the day of the event and create an advertisement for distribution to the region. Distribution will occur via email to the county stormwater coordinators.

By signing below, the parties agree to participate in the plan as outlined in Tables 1 and 2. The plan will become effective once all parties have signed it.

Macomb County Representative

W. MISTERDVIK

Signature

W. MISTERDVIK
CHIEF DEPUTY MACOMB
COUNTY PUBLIC WORKS

Name/Title COMMISSIONER

05-17-2013

Date

Oakland County Representative

Signature

Name/Title

Date

St. Clair County Representative

Signature

Name/Title

Date

Washtenaw County Representative

Signature

Name/Title

Date

Wayne County Representative

Signature

Name/Title

Date

SEMCOG Representative

Signature

Name/Title

Date

Alliance of Rouge Communities Representative

Signature

Name/Title

Date

Alliance of Downriver Watersheds Representative

Signature

Name/Title

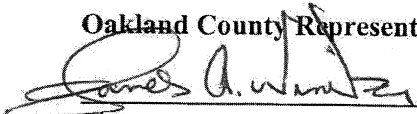
Date

By signing below, the parties agree to participate in the plan as outlined in Tables 1 and 2. The plan will become effective once all parties have signed it.

Macomb County Representative

Signature Name/Title Date

Oakland County Representative


Signature JAMES WINKKA / ASST. CHIEF ENG. 4/17/13
Name/Title Date

St. Clair County Representative

Signature Name/Title Date

Washtenaw County Representative

Signature Name/Title Date

Wayne County Representative

Signature Name/Title Date

SEMCOG Representative

Signature Name/Title Date

Alliance of Rouge Communities Representative

Signature Name/Title Date

Alliance of Downriver Watersheds Representative

Signature Name/Title Date

By signing below, the parties agree to participate in the plan as outlined in Tables 1 and 2. The plan will become effective once all parties have signed it.

Macomb County Representative

Signature Name/Title Date

Oakland County Representative

Signature Name/Title Date

Saint Clair County Representative

Steve Frank _____ 4-29-13
Signature Name/Title DIRECTOR Date

Washtenaw County Representative

Signature Name/Title Date

Wayne County Representative

Signature Name/Title Date

SEMCOG Representative

Signature Name/Title Date

Alliance of Rouge Communities Representative

Signature Name/Title Date

Alliance of Downriver Watersheds Representative

Signature Name/Title Date

By signing below, the parties agree to participate in the plan as outlined in Tables 1 and 2. The plan will become effective once all parties have signed it.

Macomb County Representative

Signature Name/Title Date

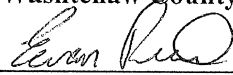
Oakland County Representative

Signature Name/Title Date

St. Clair County Representative

Signature Name/Title Date

Washtenaw County Representative


Signature Evan Pratt
Name/Title Water Resources Commissioner 8/8/12
Date

Wayne County Representative

Signature Name/Title Date

SEMCOG Representative

Signature Name/Title Date

Alliance of Rouge Communities Representative

Signature Name/Title Date

Alliance of Downriver Watersheds Representative

Signature Name/Title Date

By signing below, the parties agree to participate in the plan as outlined in Tables 1 and 2. The plan will become effective once all parties have signed it.

Macomb County Representative

Signature Name/Title Date

Oakland County Representative

Signature Name/Title Date

Saint Clair County Representative

Signature Name/Title Date

Washtenaw County Representative

Signature Name/Title Date

Wayne County Representative

Kelly A Cave Kelly A Cave 11 APRIL 13
Signature Name/Title Date
WAYNE CO SYSTEM WATER COORDINATOR

SEMCOG Representative

Signature Name/Title Date

Alliance of Rouge Communities Representative

Kevin L. Buford Kevin Buford, ARC Chair 3/28/13
Signature Name/Title Date

Alliance of Downriver Watersheds Representative

Signature Name/Title Date

By signing below, the parties agree to participate in the plan as outlined in Tables 1 and 2. The plan will become effective once all parties have signed it.

Macomb County Representative

Signature Name/Title Date

Oakland County Representative

Signature Name/Title Date

St. Clair County Representative

Signature Name/Title Date

Washtenaw County Representative

Signature Name/Title Date

Wayne County Representative

Signature Name/Title Date

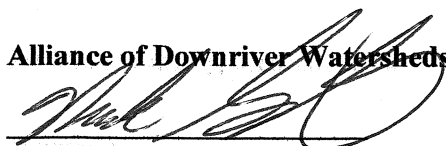
SEMCOG Representative

Signature Name/Title Date

Alliance of Rouge Communities Representative

Signature Name/Title Date

Alliance of Downriver Watersheds Representative


Signature Mark Gahry, Chairman May 7, 2013
Name/Title Date

By signing below, the parties agree to participate in the plan as outlined in Tables 1 and 2. The plan will become effective once all parties have signed it.

Macomb County Representative

Signature Name/Title Date

Oakland County Representative

Signature Name/Title Date

St. Clair County Representative

Signature Name/Title Date

Washtenaw County Representative

Signature Name/Title Date

Wayne County Representative

Signature Name/Title Date

SEMCOG Representative

Kathleen Lomako Kathleen Lomako 8/14/2013

Signature Name/Title Date

Alliance of Rouge Communities Representative

Signature Name/Title Date

Alliance of Downriver Watersheds Representative

Signature Name/Title Date

Attachment F
Pollution Complaint Tracking Form
and
Suspicious Observation Documentation

Community Name

Pollution Complaint Tracking Form

Illicit Discharge Elimination Program

Complaint made by: _____

Phone #: _____

Date: _____ Time: _____

Location of Problem: _____ Offending Party (if known) _____

Nature of Problem (i.e. paper waste, odor, color, etc.): _____

Is this an Emergency? No

Yes (then call 911)

Nature of Emergency: _____

Initial Contact made to:

- 911
- City Dept. _____
- Wayne County (888) 223-2363
- Oakland County (248) 858-0931
- PEAS Hotline (State) 1-800-292-4706
- Other _____

Additional Comments:

Investigation Summary

- Initial Investigation
- Follow-up Investigation

Date of Investigation: _____

Investigating Agency: _____

Location of Discharge: _____

Crew Members: _____

Investigation Location: _____

Observations (odor, color, volume, etc.): _____

Actions Taken (dye testing, notification letter, etc.):

Were photos taken: Yes No

Agency Referred to: _____

Agency Contact: _____

Method of Communication:

- E-mail* Letter/memo* Phone

*Attached copies

Content of Communication:

Date Corrected or Resolved: _____

Recommended Procedure

1. Take down complaint information.
2. Inform the caller that the problem will be further investigated and thank him/her for calling in.
3. If the problem is related to oil or fuel, please phone 911.
4. If the Problem is related to a construction site and there is sediment leaving that site, call Oakland County or Wayne County or the local soil erosion control enforcement agency.
5. All other types of complaints should be referred to the local public works department staff or their designee for investigation.
6. Please file completed form.
7. Every 2 years, provide the ARC with the number of complaints investigated, the type (sewage, oil, etc.) of illicit discharge found, if any, and the location (closest cross streets) of the discharge.

Attachment G

State and Federal Regulatory Mechanisms

Source: MDEQ, 2014

SECTION ONE: Environmental Regulations

Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
<p>SARA Title III Section 304 40 CFR 355.40 (EHS & Hazardous Substances)</p>	<p>Release of a CERCLA hazardous substance (40 CFR 302, Table 302.4) or Extremely Hazardous Substance (EHS) (40 CFR 355, Appendix A) from a facility (all buildings, equipment, etc. located on a single site or adjacent sites owned or operated by the same person) at which a hazardous chemical (as defined under 29 CFR 1910.1200(c)) is used, produced or stored (including motor vehicles, rolling stock, and aircraft) in a quantity equal to or greater than its corresponding reportable quantity in any 24-hr period that migrates beyond the facility boundaries.</p> <p>Includes continuous release reportable under CERCLA Section 103.</p> <p>Excludes release that is federally permitted or that results in exposure to persons solely within the boundaries of the facility. See 67 FR 18899 (4/17/02) for guidance on the CERCLA federally permitted release definition for certain air emissions.</p> <p>Does not apply to the application, handling, and storage by an agricultural producer of a pesticide product registered under FIFRA.</p> <p>Excludes release < 1000 lbs of NOx released to the air from combustion or combustion-related activities.</p>	<p>Immediate (within 15 minutes after discovery): to LEPC(s) of any area(s) potentially affected, and SERC (DEQ PEAS line accepts notification on behalf of SERC) by owner or operator.</p> <p>Continuous releases must be identified as such and are reported initially and when there is a significant change in the release.</p> <p>See 73 FR 76948 (12/18/08): Only CAFOs are required to report continuous releases to the air from animal waste.</p> <p>Transportation related releases can be reported to 911.</p>	<p>As soon as practicable (within 30 days) after release: to LEPC(s) and SERC.</p> <p>Not required for releases that occur during transportation or from storage incident to transportation.</p> <p>For continuous releases: Initial written within 30 days after initial telephone notification: to LEPC(s) and SERC.</p> <p>Michigan SARA Title III Program accepts reports on behalf of the SERC.</p>	<p>PEAS: 800-292-4706</p> <p>Contact your LEPC for a phone number to report releases.</p> <p>Call 911 if your LEPC is not active.</p> <p>For further information & LEPC contact information, contact Michigan SARA Title III Program 517-284-7272</p>
<p>CERCLA Section 103 40 CFR 302 (Hazardous Substances)</p>	<p>Release into the environment of a CERCLA hazardous substance (40 CFR 302, Table 302.4) or hazardous constituent in a mixture or solution (including hazardous waste streams) from a vessel or facility (any building, structure, etc. including motor vehicles, rolling stock, aircraft, pipe, pipeline, well, pond, lagoon, impoundment, ditch, landfill, or site where a hazardous substance has come to be located) in a quantity equal to or greater than its corresponding reportable quantity in any 24-hour period.</p> <p>Excludes petroleum, including oil, or any fraction thereof.</p> <p>See 40 CFR 302.6 for notification requirements for radionuclide releases.</p> <p>Includes continuous release: occurs without interruption or abatement or that is routine, anticipated, and intermittent and incidental to normal operations or treatment processes.</p> <p>See 67 FR 18899 (4/17/02) for guidance on the CERCLA federally permitted release definition for certain air emissions. See 71 FR 58525 (10/4/06) re Exemption for NOx releases to the air of < 1000 lbs from combustion or combustion-related activities.</p> <p>Does not apply to the application, handling, and storage by an agricultural producer of a pesticide product registered under FIFRA.</p>	<p>Immediate (within 15 minutes after discovery): to NRC by person in charge of vessel or offshore or onshore facility.</p> <p>Continuous releases must be identified as such and are reported initially and when there is a significant change in the release.</p> <p>See 73 FR 76948 (12/18/08) re Exemption from reporting continuous releases to the air from animal waste.</p>	<p>For continuous releases only: Initial written within 30 days after initial telephone notification & Follow-up within 30 days of first anniversary of initial written notification: to EPA Region 5.</p>	<p>NRC 800-424-8802 or online at www.nrc.uscg.mil</p> <p>For further information contact Michigan SARA Title III Program 517-284-7272 or EPA's Superfund, TRI, EPCRA, RMP, and Oil Information Center 800-424-9346</p>

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.

*This table covers only those reporting requirements found in rules and regulations that apply in Michigan. **Releases might be reportable under multiple regulations.**

Additional reporting requirements might be found in **permits, licenses, registrations, contingency and pollution prevention plans, and local ordinances.**



Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
<p>NREPA 1994 PA 451 Part 201, Environmental Remediation</p>	<p>(i) Unpermitted release into the environment over a 24-hour period of a hazardous substance (<i>July 1, 2012, edition</i> of the CERCLA list, 40 CFR 302, Table 302.4) in a quantity equal to or greater than its corresponding reportable quantity.</p> <p>Does not include release solely from UST systems regulated under Part 213, and release solely from disposal area licensed under Part 115 and discovered through disposal area's hydrogeological monitoring plan.</p> <p>Release of substance regulated by MI Dept of Agriculture & Rural Development (MDARD) (fertilizer, soil conditioner, or pesticide) excluding normal agricultural practices: <i>also</i> report to MDARD.</p>	<p>Within 24 hours after discovery: to DEQ-RRD district office (PEAS after hours) by owner or operator or person holding easement interest.</p> <p>Report agricultural release to MDARD.</p>	<p>Upon request: Provide a response activity plan to DEQ-RRD district supervisor.</p>	<p>PEAS: 800-292-4706</p> <p>MDARD Agriculture Pollution Emergency Hotline: 800-405-0101</p> <p>For further information contact DEQ-RRD</p>
<p>NREPA 1994 PA 451 Part 201, Environmental Remediation (Continued)</p>	<p>(ii) The owner or operator has reason to believe that one or more hazardous substances are migrating or have migrated from his or her property and are present beyond the property boundary at a concentration in excess of cleanup criteria for unrestricted residential use.</p> <p>(iii) The release is a result of an activity that is subject to permitting under NREPA Part 615 and the owner or operator is not the owner of the surface property and the release results in hazardous substance concentrations in excess of cleanup criteria for unrestricted residential use.</p> <p>Hazardous substance means a hazardous substance defined in CERCLA (40 CFR 302), hazardous waste as defined in NREPA part 111, petroleum as defined in NREPA part 213, or any substance demonstrated to pose an unacceptable risk to public health, safety, welfare, or the environment.</p> <p>Cleanup criteria for unrestricted residential use means criteria that satisfy the requirements in section 20120a(1)(a) or (16); or as defined under NREPA part 213.</p>	<p>Within 30 days after discovery: to DEQ-RRD district office and owners of property to which hazardous substances migrated or owner of surface property by owner or operator of property where release occurred.</p> <p>Specific form required for: "Notice of Migration of Contamination" (Form EQP4482).</p>	<p>Upon request: Provide a response activity plan to DEQ-RRD district supervisor.</p>	<p>For further information contact DEQ-RRD</p>
<p>NREPA 1994 PA 451 Part 83, Pesticide Control Regulation 640, Commercial Pesticide Bulk Storage (Agricultural)</p>	<p>Release to the environment of a commercial pesticide >5 gallons or 100 pounds.</p> <p>Reportable agricultural spills as defined in the provisions of SARA Title III section 304 and CERCLA section 103 shall be immediately reported to PEAS and the NRC.</p> <p>The term "release" excludes normal agricultural practices.</p>	<p>Immediate: to PEAS*</p> <p>Also notify NRC for spills reportable under SARA Title III & CERCLA.</p> <p>*MDARD prefers direct notification to their hotline. PEAS forwards all agriculture calls to MDARD.</p>	<p>Within 90 days: to MDARD Pesticide and Plant Pest Management Div. a revised site plan.</p>	<p>MDARD Agriculture Pollution Emergency Hotline: 800-405-0101</p> <p>PEAS: 800-292-4706</p> <p>NRC 800-424-8802 or online at www.nrc.uscg.mil</p> <p>For further information contact MDARD 517-284-5644</p>

SECTION ONE: Environmental Regulations

Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
<p>NREPA 1994 PA 451 Part 85, Fertilizers Regulation 641 Commercial Fertilizer Bulk Storage Regulation 642, On Farm Fertilizer Bulk Storage (Agricultural)</p>	<p>Release to the environment of a commercial fertilizer >55 gallons liquid or 650 pounds dry, or tank overfills; or an on farm fertilizer > 55 gallons liquid.</p> <p>For storage tank with bladder system instead of diking: also report all overfills and internal spills.</p> <p>The term "release" excludes normal agricultural practices. The term "liquid fertilizer" excludes anhydrous ammonia.</p>	<p>Immediate: to MDARD by commercial bulk storage facility personnel</p> <p>(For farms, the regulation does not specify who makes the report.)</p>	<p>Not required.</p>	<p>MDARD Agriculture Pollution Emergency Hotline: 800-405-0101</p> <p>For further information contact MDARD 517-284-5644</p>
<p>Fire Prevention Code 1941 PA 207 Section 29.5g</p>	<p>A fire, explosion, spill, leak, accident, or related occurrence that involves the transportation, storage, handling, sale, use, or processing of hazardous material by a firm, person, or vehicle.</p> <p>Hazardous material = explosives, pyrotechnics, flammable gas, flammable compressed gas, flammable liquid, nonflammable compressed gas, combustible liquid, oxidizing material, poisonous gas or liquid, LPG, or irritating, etiologic, radioactive, or corrosive material.</p> <p>Act 207 amended 6/19/2006. The State Fire Marshall is in LARA, Bureau of Fire Services.</p>	<p>Immediately following incident, report known details regarding incident: to LARA Bureau of Fire Services <i>and</i> organized local fire department by owner of firm or vehicle or the person <i>and</i> the chief of first police or organized fire dept upon scene of incident.</p>	<p>Not required.</p>	<p>Contact LARA Bureau of Fire Services by calling the MSP HazMat hotline: 800-525-5555</p> <p>For further information: contact local fire department</p>
<p>Fire Prevention Code 1941 PA 207 Part 2 of Storage and Handling of Flammable and Combustible Liquids rules (FL/CL code)</p>	<p>A release from an AST system of > 55 gal of any flammable or combustible liquid (flash point < 200°F) to the ground or within a secondary containment area during any 24 hour period.</p> <p>Note: Many liquid pesticides are combustible (flash point between 100 and 200°F).</p>	<p>As soon as practicable after detection of release: to PEAS by owner or operator.</p>	<p>Within 10 days after release: to LARA Bureau of Fire Services, Storage Tank Division outlining cause, discovery, response to prevent recurrence.</p>	<p>PEAS: 800-292-4706</p> <p>For further information: contact LARA Bureau of Fire Services, Storage Tank Division 517-335-7211</p>

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.

*This table covers only those reporting requirements found in rules and regulations that apply in Michigan. **Releases might be reportable under multiple regulations.**

Additional reporting requirements might be found in **permits, licenses, registrations, contingency and pollution prevention plans, and local ordinances.**



Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
<p>49 CFR 171 (Transportation of Hazardous Materials)</p>	<p>Initial verbal notice: Incident during transportation (including loading, unloading, temporary storage) involving (1) hazardous material and resulting in death, injury requiring hospitalization, public evacuation \geq 1 hour, major transportation artery or facility closure \geq 1 hour, or flight pattern alteration; (2) fire, breakage, spillage, or suspected radioactive contamination occurs involving a radioactive material; (3) fire, breakage, spillage or suspected contamination involving an infectious substance other than a regulated medical waste; (4) marine pollutant release exceeding 450 L (119 gal) liquid or 400 kg (882 lbs) solid; (5) other per judgment of person in possession of the hazardous material (e.g., continuing danger to life exists at scene of incident); (6) during transportation by aircraft, a fire, violent rupture, explosion or dangerous evolution of heat occurs as a direct result of a battery or battery-powered device.</p> <p>Hazardous material = CERCLA hazardous substance (40 CFR 302, Table 302.4), hazardous waste (40 CFR 262), marine pollutant (49 CFR 172.101 Appendix B), elevated temperature material, listed on Hazardous Materials Table (49 CFR 172.101), or meets criteria for hazard class/division in 49 CFR 173.</p> <p>Written follow-up report: Required for all of above, plus any unintentional release of hazardous material from a package (including tank); or any quantity of hazardous waste discharged during transportation; or structural damage to lading retention system, even if no release, on specification cargo tank with \geq 1000 gal capacity containing hazardous material; or undeclared hazardous material discovered.</p>	<p>As soon as practical but no later than 12 hours after occurrence of the incident: to NRC by each person in physical possession of the hazardous material.</p> <p>(A reportable incident <i>must</i> be reported by telephone, not online.)</p> <p>For infectious substances, notice may be given to the Director, Centers for Disease Control and Prevention, U.S. Public Health Service instead of NRC.</p>	<p>Within 30 days after discovery: to US DOT on DOT Form F 5800.1 (01-2004) "Hazardous Materials Incident Report."</p> <p>Report online at https://hazmatonline.phmsa.dot.gov/incident/</p> <p>Report must be updated w/i 1 year of incident if: Death results from injury; hazardous material or package info on prior report misidentified; damage, loss or cost not known on prior report becomes known or changes by \$25,000 or 10%.</p> <p>See regulation for exceptions to written report.</p>	<p>NRC 800-424-8802 or online at www.nrc.uscg.mil</p> <p>U.S. Public Health Service 800-232-0124</p> <p>For further information contact US DOT Hazardous Materials Information Center at 800-467-4922 or online at www.phmsa.dot.gov/hazmat</p>
<p>NREPA 1994 PA 451 Part 31, Water Resources Protection (Release to surface of ground, surface water, groundwater or public sewer system)</p>	<p>Unpermitted release directly or indirectly to public sewer system, surface of ground, surface water or groundwater from an oil storage facility or on-land facility of a "polluting material" (oil, salt, or any material specified in table 1 in R 324.2009) in excess of its threshold reporting quantity during any 24-hour period.</p> <p>See Part 5 rules, effective 8/31/01, for details and exemptions. HB 5586 effective 6/15/04 amended the reporting requirements.</p> <p><i>Rule revisions pending as of April 2014.</i></p>	<p>As soon as practicable after detection: to PEAS <i>and</i> 911 by owner, operator or manager.</p> <p>State agencies call 911 if release reported to them by another state or Canada.</p>	<p>Within 10 days after release: to DEQ-WRD district supervisor <i>and</i> to the local health department where the release occurred, outlining cause, discovery, response & prevention of recurrence.</p>	<p>PEAS: 800-292-4706</p> <p>For further information contact DEQ-WRD</p>

SECTION ONE: Environmental Regulations

Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
<p>CWA Section 311 33 CFR 153 (Navigable waters – Coast Guard/DOT) Control of Pollution by Oil and Hazardous Substances, Discharge Removal</p>	<p>Discharge of a harmful quantity of oil or a hazardous substance from a vessel or onshore or offshore facility into or upon navigable waters of the United States or adjoining shorelines.</p> <p>Harmful quantity = oil discharge that violates applicable water quality standards, or causes a film or sheen upon or discoloration of the surface of the water or adjoining shorelines, or causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines; or a CERCLA hazardous substance (40 CFR 302, Table 302.4) in a quantity equal to or greater than its corresponding reportable quantity.</p> <p>Oil = oil of any kind or in any form including petroleum, crude oil, petroleum refined products, sludge, oil refuse, oil mixed with wastes, etc., as well as vegetable and animal oils.</p>	<p>Immediate: to NRC by person in charge of vessel or facility.</p> <p>If direct reporting to NRC not practicable, may report to district Coast Guard or EPA predesignated OSC.</p>	<p>Not required.</p>	<p>NRC 800-424-8802 or online at www.nrc.uscg.mil</p> <p>District 9 Coast Guard 216-902-6117</p> <p>EPA Region 5 for predesignated OSC 312-353-2318</p> <p>For further information contact EPA Region 5 at 312-353-8200 or District 9 Coast Guard at 216-902-6045</p>
<p>CWA Section 311 40 CFR 110 (Discharge of Oil)</p>	<p>Discharges of oil that violate applicable water quality standards, or cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines, or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.</p> <p>Oil = oil of any kind or in any form including petroleum, crude oil, petroleum refined products, sludge, oil refuse, oil mixed with wastes, etc., as well as vegetable and animal oils.</p>	<p>Immediate: to NRC by person in charge of vessel or facility.</p>	<p>Not required.</p>	<p>NRC 800-424-8802 or online at www.nrc.uscg.mil</p> <p>For further information contact DEQ-WRD</p>
<p>NREPA 1994 PA 451 Part 31, Water Resources Protection (Sewer Systems)</p>	<p>Discharge of untreated sewage or partially treated sewage from a sewer system onto land or into the waters of the state.</p> <p>“Sewer system” means a sewer system designed and used to convey sanitary sewage or storm water, or both.</p>	<p>Immediate (within 24 hours): to DEQ-ODWMA district office (PEAS after hours); Local health depts.; Daily newspaper circulated in source & affected counties; & Affected municipalities.</p>	<p>At end of discharge: to same parties notified initially on Form EQP 5857 (Rev. 12/2011) “Report of Discharges of Untreated or Partially Treated Sewage.” Includes results of E. coli testing.</p>	<p>PEAS: 800-292-4706</p> <p>For further information contact DEQ-ODWMA</p>
<p>NREPA 1994 PA 451 Part 41, Sewerage Systems</p>	<p>Discharges of pollutants from sewerage systems (which can include combined sewers) in excess of those authorized by a discharge permit issued by the DEQ to surface water or groundwater as a result of a facility breakdown or emergency.</p> <p>Sewerage systems handle sanitary sewage or other industrial liquid wastes.</p>	<p>Promptly: to DEQ-ODWMA district office (PEAS after hours) by owner.</p>	<p>Within 72 hours: to DEQ-ODWMA district supervisor, outlining cause, discovery, corrective actions taken to minimize impact, restore operations, and eliminate future unpermitted discharges.</p>	<p>PEAS: 800-292-4706</p> <p>For further information contact DEQ-ODWMA</p>

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.

*This table covers only those reporting requirements found in rules and regulations that apply in Michigan. **Releases might be reportable under multiple regulations.**

Additional reporting requirements might be found in **permits, licenses, registrations, contingency and pollution prevention plans, and local ordinances.**



Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
<p>NREPA 1994 PA 451 Part 211, Underground Storage Tanks Part 213, Leaking Underground Storage Tanks</p>	<p>Releases of a regulated substance of any amount from underground storage tank (UST) systems (includes the emergency shutoff valve on down) subject to registration; overfill from UST fillpipe or vent onto ground; release from aboveground pipe attached to UST system.</p> <p>Regulated substance = petroleum or CERCLA hazardous substance (40 CFR 302, Table 302.4) or substance listed in CAA title 1 part A sect 112. Petroleum includes, but is not limited to, crude oil, motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, and petroleum solvents.</p>	<p>(Part 211) Within 24 hours after discovery: to LARA Bureau of Fire Services, Storage Tank Division by email, or fax on Form EQP 3826 (Rev. 4/12) If free product, Form EQP 3800 (Rev 02/2003) required by UST owner or operator, or employee of owner or operator.</p> <p>Includes releases discovered years after UST system removed</p>	<p>(Part 213) At 180 days Initial Assessment Report on Form EQP3841 (Rev. 02/2003) if not closed; at 365 days Final Assessment Report on Form EQP3842 (Rev. 11/2006) if still not closed; at closure Closure Report on Form EQP3843 (Rev. 02/2003) to DEQ-RRD district project manager.</p>	<p>Email: deq-std-tanks@michigan.gov Fax: 517-335-2245</p> <p>For further information contact DEQ-RRD or phone 800-MICHUST</p>
<p>NREPA 1994 PA 451 Part 111, Hazardous Waste Management (Generators; Treatment, Storage & Disposal Facilities (TSDF); Transporters)</p>	<p>Any amount of characteristic hazardous waste or listed hazardous waste (as defined in R 299.9203 "Hazardous Waste Rule 203") reaches the surface water or groundwater, or A fire, explosion, or other release of hazardous waste or hazardous waste constituent occurs that could threaten human health or the environment. or A release of >1lb (or ≤1lb if not immediately cleaned up) hazardous waste to the environment from a tank system or associated secondary containment system.</p> <p>Additional hazardous waste reporting requirements under NREPA Part 201 and CERCLA.</p> <p>NREPA Part 111 requires transporters to comply with 49 CFR 171 and 33 CFR 153.</p>	<p>Immediate: to PEAS (or for Tank systems/secondary containment, within 24 hours of discovery: to DEQ-OWMRP)</p> <p>and to NRC if threat to human health or environment outside facility by generator, or owner or operator of TSDF, or transporter.</p>	<p>For large quantity generators and TSDF: Within 15 days after incident IF the contingency plan had to be implemented: to DEQ-OWMRP.</p> <p>For tank/secondary containment systems: Within 30 days of discovery: to DEQ-OWMRP.</p> <p>For transporters: to US DOT if required per 49 CFR 171.</p>	<p>PEAS: 800-292-4706</p> <p>NRC 800-424-8802 or online at www.nrc.uscg.mil</p> <p>For further information contact DEQ-OWMRP</p>
<p>NREPA 1994 PA 451 Part 121, Liquid Industrial Waste</p>	<p>The liquid industrial waste spill could threaten public health, safety, welfare, or the environment, or has reached surface water or groundwater.</p> <p>Liquid industrial waste includes nonhazardous brine, by-product, industrial wastewater, leachate, off-spec commercial chemical product, sludge, sanitary or storm sewer clean-out residue, grease trap clean-out residue, spill residue, used oil, or other liquid waste not regulated by other laws.</p>	<p>Immediate: to PEAS and local authorities by generator, transporter, or owner or operator of facility.</p> <p>Refer to MCL 324.12111(1) for required report elements</p>	<p>Prepare within 30 days after incident. Submit upon request: to DEQ-OWMRP district supervisor.</p> <p>Refer to MCL 324.12111(1) for required report elements</p>	<p>PEAS: 800-292-4706</p> <p>For further information contact DEQ-OWMRP</p>
<p>NREPA 1994 PA 451 Part 55, Air Pollution Control</p>	<p>Abnormal condition, start-up, shutdown, or malfunction that results in emissions exceeding permissible (in rule, permit or order) levels of hazardous air pollutants (HAPs) (CAA Sect. 112(b)) or toxic air contaminants (as specified in permit) for > 1 hour, or any air contaminant for > 2 hours.</p> <p>Written follow-up report only required for emission exceedences lasting > 2 hours.</p>	<p>As soon as possible, but not later than 2 business days after discovery: to DEQ-AQD district office (PEAS after hours) by owner or operator.</p>	<p>Within 10 days after start-up, shutdown, or abnormal condition, malfunction corrected. Or within 30 days of abnormal condition, malfunction discovery- whichever first: to DEQ-AQD district supervisor.</p>	<p>PEAS: 800-292-4706</p> <p>For further information contact DEQ-AQD</p>

SECTION ONE: Environmental Regulations

Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
<p>NREPA 1994 PA 451 Part 55, Air Pollution Control (Permit to Install Exemptions)</p>	<p>Emergency venting of natural gas from transmission and distribution systems or field gas from gathering lines in amounts > 1,000,000 standard cubic feet per event.</p> <p>Emergency = unforeseen event that disrupts normal operating conditions and poses a threat to human life, health, property or the environment if not controlled immediately. See R 336.1285(mm), effective 6/20/2008, for details.</p>	<p>Within 24 hours of the event: to PEAS by owner or operator.</p>	<p>Not required.</p>	<p>PEAS: 800-292-4706</p> <p>For further information contact DEQ-AQD</p>
<p>Public Health Code 1978 PA 368 Part 133, Dry Cleaning</p>	<p>Condition or incident presents a threat or hazard to public health or safety.</p>	<p>Immediate: to DEQ-AQD district office (PEAS after hours) by owner or operator.</p>	<p>Within 30 days after incident: To DEQ-AQD district supervisor.</p>	<p>PEAS: 800-292-4706</p> <p>For further information contact DEQ-AQD</p>
<p>NREPA 1994 PA 451 Part 615, Supervisor of Wells (oil and gas production fields)</p>	<p>A loss, spill or release of (1) any amount of brine, crude oil, or oil or gas field waste <i>unless</i> it is less than 42 gallons and occurs while an authorized representative is on site and is completely contained and cleaned up within 1 hour, or (2) any unpermitted amount of natural gas, or (3) chemicals used in association with oil and gas activities.</p>	<p>Within 8 hours after discovery of: 42 gallons or more of brine, crude oil, or oil or gas field waste, or any amount of chemical or natural gas, or; less than 42 gallons if the spill contacts surface water, groundwater, or other environmentally sensitive resources, or is not completely contained and cleaned up within 48 hours: to DEQ-OOGM district office (PEAS after hours) by permittee.</p>	<p>Within 10 days after discovery of loss or spill: to DEQ-OOGM district supervisor on Form EQP-7233 (Rev 1/2012) "Report of Loss or Spill." by permittee</p> <p>Written report only for less than 42 gallons of brine, crude oil, or oil and gas field waste if spill does not contact surface water, groundwater, or other environmentally sensitive resources, and is completely contained and cleaned up within 48 hours.</p>	<p>PEAS: 800-292-4706</p> <p>For further information contact DEQ-OOGM</p>
<p>49 CFR 191 Transportation of Natural and Other Gas by Pipeline</p>	<p>An incident, meaning: (1) Event that involves a release of gas from a pipeline, or of liquefied natural gas, liquefied petroleum gas, refrigerant gas, or gas from an LNG facility that results in: Death or hospitalization; or Property damage ≥ \$50,000; or estimated gas loss of ≥ three million cubic feet. (2) Event that results in emergency shutdown of LNG facility. (3) Significant event per operator.</p> <p>Written Incident reports not required for LNG facilities.</p> <p>Applies to pipeline systems and the transportation of gas through those systems in or affecting interstate or foreign commerce. (See 49 CFR 191.3 for details.)</p>	<p>Earliest practicable moment following discovery: to NRC by operator.</p> <p>Notification must be electronic unless there is a safety-related condition to report.</p>	<p>As soon as practicable, and within 30 days after discovery: to US DOT. on DOT Form PHMSA F 7100.1 "Incident Report – Gas Distribution System." or PHMAS F 7100.2 "Incident Report – Gas Transmission and Gathering Systems" or PHMSA F 7100.3 "Incident Report – Liquefied Natural Gas (LNG) Facilities"</p> <p>Supplemental report filed as necessary as soon as practicable.</p>	<p>NRC 800-424-8802 or online at www.nrc.uscg.mil</p> <p>For further information contact US DOT Pipeline Safety Information Center at 202-366-4595 or online at http://ops.dot.gov</p>

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.

*This table covers only those reporting requirements found in rules and regulations that apply in Michigan. **Releases might be reportable under multiple regulations.**

Additional reporting requirements might be found in **permits, licenses, registrations, contingency and pollution prevention plans, and local ordinances.**



Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
<p>49 CFR 195 Transportation of Hazardous Liquids by Pipeline</p>	<p>Release of hazardous liquid (petroleum, petroleum products, or anhydrous ammonia) or carbon dioxide from a pipeline system that results in any of the following: (a) Explosion or fire; (b) Release of ≥ 5 gallons (except if < 5 barrels released due to maintenance and release not otherwise reportable, confined to property, does not pollute water, and cleaned up promptly); (c) Death of any person; (d) Injury requiring hospitalization; or (e) Property damage $> \\$50,000$. (See 49 CFR 195.50, revised 1/8/02, for details)</p> <p>Applies to pipeline facilities and the transportation of hazardous liquids associated with those facilities in or affecting interstate or foreign commerce. (See 49 CFR 195.1 for details.)</p>	<p>Earliest practicable moment following discovery: to NRC by operator if Release caused: Death or hospitalization; Fire or explosion; Property damage; Water pollution; or was Significant per the operator.</p>	<p>As soon as practicable, and within 30 days after discovery: to US DOT on DOT Form PHMSA F 7000-1 "Accident Report – Hazardous Liquid Pipeline Systems"</p> <p>Supplemental report must be filed within 30 days after operator receives changes or additions to original report.</p>	<p>NRC 800-424-8802 or online at www.nrc.uscg.mil</p> <p>For further information contact US DOT Pipeline Safety Information Center at 202-366-4595 or online at http://ops.dot.gov</p>
<p>1978 PA 368 Part 135, Radiation Control</p>	<p>For any emergency. Or for incident involving naturally occurring or accelerator produced radioactive material- Immediate notice if: Incident may have caused or threatens to cause: dose to body 25 rems, to skin 150 rems, to extremities 375 rems (per rule 247); 24 hour concentration exceeds 5000 times limits specified in table II of rules 261 to 269; contamination causes operation shut down for 1 week, or property damage $> \\$100,000$.</p> <p>Notice within 24 hours if: Incident may have caused or threatens to cause: dose to body 5 rems, to skin 30 rems, to extremities 75 rems (per rule 247); 24 hour concentration exceeds 500 times limits specified in table II of rules 261 to 269; contamination causes operation shut down for 1 day, or property damage $> \\$1000$.</p>	<p>Immediate or within 24 hours (see reporting criteria): to DEQ-OWMRP Radiological Protection Section (PEAS after hours) or MSP Operations Division for all Power Plant related incidents (day or night). by licensee or registrant.</p>	<p>Within 30 days after release: to DEQ-OWMRP Radiological Protection Section by licensee or registrant.</p> <p>Written report also required if level of radiation or concentration of radioactive material in unrestricted area > 10 times any applicable limit.</p> <p>See Rule 250 (R 325.5250) for required report content.</p>	<p>DEQ-OWMRP Radiological Protection Section 517-284-5185</p> <p>MSP Operations Div 517-241-8000</p> <p>PEAS: 800-292-4706</p> <p>For further information contact DEQ-OWMRP Radiological Protection Section</p>
<p>10 CFR 20 (Standards for Protection Against Radiation)</p>	<p>For incident involving source, by-product, or special nuclear radioactive material- Immediate notice if: Event that may have caused or threatens to cause: effective dose equivalent to individual 25 rems, lens dose equivalent 75 rems, shallow-dose equivalent to skin or extremities 250 rads; individual could receive 5 times annual limit on intake in 24 hours. OR Any lost, stolen, or missing licensed material in an aggregate quantity equal to or greater than 1000 times the quantity specified in appendix C to part 20 under such circumstances that it appears to the licensee that an exposure could result to persons in unrestricted areas.</p> <p>Notice within 24 hours if: Event that may have caused or threatens to cause: an individual in 24 hours to receive effective dose equivalent > 5 rems, lens dose equivalent > 15 rems, shallow-dose equivalent to skin or extremities > 50 rems; individual could receive > 1 times annual limit on intake in 24 hours.</p>	<p>Immediate or within 24 hours (see reporting criteria): to USNRC by USNRC Licensee responsible for the incident.</p>	<p>Within 30 days of incident: to USNRC by licensee.</p> <p>Report content specified in 10 CFR 20.2003</p> <p>Written report also required for occurrences as specified in 10 CFR 20 Section 20.2203 and after the occurrence of any lost, stolen, or missing licensed material becomes known to the licensee, and if at the time the report is filed all licensed material in a quantity greater than 10 times the quantity specified in appendix C to part 20 is still missing.</p>	<p>US Nuclear Regulatory Commission (USNRC) 301-816-5100</p> <p>For further information contact DEQ-OWMRP Radiological Protection Section 517-284-5185</p>
<p>MIOSHA 1974 PA 154 Section 61, Records & Reports; Notice of Fatalities or Hospitalization</p>	<p>Any release that results in one death or the hospitalization of 3 or more persons.</p>	<p>Within 8 hours: to MIOSHA Hotline.</p>	<p>Not required.</p>	<p>MIOSHA Fatality or Catastrophe Hotline 800-858-0397</p> <p>For further information contact LARA-MIOSHA 517-322-1831</p>

SECTION ONE: Environmental Regulations

Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
TSCA 40 CFR 761.125 (PCBs)	Spills of PCBs at concentrations of 50 ppm or more and subject to decontamination requirements under TSCA that: contaminate surface water, sewers, drinking water supplies, grazing lands or vegetable gardens, or exceed 10 pounds. (TSCA specifies that these requirements are in addition to any under CWA or CERCLA. e.g. CERCLA requires spills of 1 pound or more to be reported to NRC.)	As soon as possible after discovery, and within 24 hours: to EPA Region 5.	Not required to be submitted. Records of cleanup and certification of decontamination shall be documented.	EPA Region 5 Corrective Action Section 312-886-7890 For further information contact EPA Region 5 Corrective Action Section
SARA Title III Section 313 40 CFR 372 (Toxic chemical release reporting)	Covered facilities as defined in 40 CFR 372 subpart B are subject to toxic chemical release reporting for toxic chemicals and chemical categories listed in 40 CFR 372 subpart D.	Not applicable.	Annually by July 1: to EPA & SERC on EPA's Form R "Toxic Chemical Release Inventory Reporting Form" (EPA Form 9350-1, Rev.10/2011) Report aggregate releases (permitted & unpermitted)	Michigan SARA Title III Program accepts reports on behalf of SERC For further information contact Michigan SARA Title III Program 517-284-7272

Acronyms used in table:

AQD = Air Quality Division

AST = Above Ground Storage Tank

CAA = Clean Air Act

CAFO = Concentrated Animal Feeding Operation

CERCLA = Comprehensive Environmental Response, Compensation

and Liability Act of 1980

CFR = Code of Federal Regulations

CWA = Clean Water Act

DEQ = Michigan Department of Environmental Quality

DOT = Department of Transportation

EHS = Extremely Hazardous Substance

EPA = U. S. Environmental Protection Agency

EPCRA = Emergency Planning & Community Right-to-Know Act

FIFRA = Federal Insecticide, Fungicide, & Rodenticide Act

FL/CL = Flammable and combustible liquids

FR = Federal Register

HAP = Hazardous Air Pollutant

HazMat = Hazardous Materials

HB = House Bill

LARA = Michigan Department of Licensing & Regulatory Affairs

LEPC = Local Emergency Planning Committee

LNG = Liquefied Natural Gas

LPG = Liquefied Petroleum Gas

MCL = Michigan Compiled Laws

MDARD = Michigan Department of Agriculture & Rural Development

MIOSHA = Michigan Occupational Safety and Health Administration

MSP = Michigan Department of State Police

NRC = National Response Center (U.S. Coast Guard)

NREPA = Natural Resources & Environmental Protection Act

ODWMA = Office of Drinking Water & Municipal Assistance

OOGM = Office of Oil, Gas, and Minerals

OPS = Office of Pipeline Safety (US DOT)

OSC = On Scene Coordinator

OWMRP = Office of Waste Management & Radiological Protection

PA = Public Act (Michigan)

PCB = Polychlorinated biphenyl

PEAS = Pollution Emergency Alerting System

PHMSA = Pipeline & Hazardous Materials Safety Administration

RMP = Risk Management Program

RRD = Remediation and Redevelopment Division

SARA = Superfund Amendments and Reauthorization Act of 1986

SERC = State Emergency Response Commission

TRI = Toxic Chemical Release Inventory

TSCA = Toxic Substance Control Act

TSDF = Treatment, Storage & Disposal Facility

US DOT = U.S. Department of Transportation

USNRC = U. S. Nuclear Regulatory Commission

UST = Underground Storage Tank

WRD = Water Resources Division

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.

*This table covers only those reporting requirements found in rules and regulations that apply in Michigan. **Releases might be reportable under multiple regulations.**

Additional reporting requirements might be found in **permits, licenses, registrations, contingency and pollution prevention plans, and local ordinances.**

