STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
GRAND RAPIDS DISTRICT OFFICE

RICK SNYDER
GOVERNOR

C. HEIDI GRETHER
DIRECTOR

October 15, 2018

VIA EMAIL

Mr. Joe Bush, Drain Commissioner
Office of the Water Resources Commissioner – Ottawa County
12220 Fillmore, Room 141
West Olive, Michigan 49460

Dear Mr. Bush:

SUBJECT: Illicit Discharge Elimination Plan (IDEP) Review – Approval
Municipal Separate Storm Sewer System (MS4)
National Pollutant Discharge Elimination System (NPDES)
Certificate of Coverage (COC) No. MIG610117
Designated Name: Ottawa CDC MS4

On August 9, 2018, the Macatawa Area Coordinating Council (MACC) submitted a revised IDEP on your behalf to the Department of Environmental Quality (DEQ), Water Resources Division (WRD). In your cover letter dated February 22, 2017, you requested a review of the revised IDEP for approval in accordance with MS4 General Permit No. MIG619000 and Ottawa County (County) COC MIG610117. General Permit No. MIG619000, authorizes discharges of storm water from MS4s to the surface waters of the state, and thus you are subject to the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq; the "Federal Act"), Michigan Act 451, Public Acts of 1994, as amended (the "Michigan Act"), Parts 31 and 41, and Michigan Executive Orders 1991-31, 1995-4 and 1995-18.

The August 2018 submission was a revision of an IDEP drafts previously submitted on April 1, 2016, February 23, 2017, and April 4, 2018. Revisions were made according to comments provided by DEQ staff on July 8, 2016, May 25, 2017, and April 27, 2018, as well as several discussions with OCRC and MACC staff.

The August 2018 version of the IDEP is approved. Please replace your previous IDEP with the new version and begin implementing it immediately.

Per your request, the IDEP revision has also been reviewed for inclusion with the new permit application dated April 1, 2016. While the IDEP will not be formally approved for this use until the permit is issued, it appears to meet the minimum requirements of the new permit application.

If you have any questions regarding this letter please contact me at 616-356-0215; stamoura@michigan.gov; or at the address below.

Sincerely,

Amanda St. Amour

Amanda St. Amour
Senior Environmental Quality Analyst

cc: Ms. Kelly Goward, MACC (via email)

Illicit Discharge Elimination Program Plan

For

Ottawa County

National Pollutant Discharge Elimination System

Storm Water Discharge Permit

2018

Prepared in Coordination with:

Macatawa Area Coordinating Council

301 Douglas Ave

Holland MI 49424

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I. Introduction

The goal of this Illicit Discharge Elimination Program (IDEP) Plan is to develop and implement a program within Ottawa County that will aid in the improvement of surface water quality. This program will be implemented by the Ottawa County Water Resources Commissioner's (OCWRC's) office, the designated entity responsible for implementing Ottawa County's MS4 permit. This plan was originally developed in 2004 per the 2003 Certificates of Coverage issued to the Macatawa Watershed MS4 permittees, who at that time, applied for coverage under a Watershed General Permit. The plan was revised in April 2005 and approved by the DEQ.

A Macatawa Watershed Storm Water Committee (the Committee) comprised of representatives from each public entity in the watershed met originally to develop this plan. The committee has continued to meet on a quarterly basis to discuss and evaluate the plan as well as other aspects of the MS4 storm water management program.

II. Objectives

A. Prioritize dry weather screenings in urbanized areas in order to target areas with high illicit discharge potential

B. Maintain an accurate map of all known point sources and their respective receiving waters

C. Field locate, prioritize and eliminate illicit discharges and illicit connections found during dry weather

D. Minimize infiltration of seepage from sanitary sewers and on-site sewage disposal systems from separate storm sewer system

E. Maintain a records management system for discharge point and outfall construction plans, maps, inspection reports, complaint response, etc.

F. Conduct periodic evaluations of the effectiveness of this plan and progress toward meeting goals

G. Review existing ordinances and establish necessary enforcement measures

A. Maintain a Map of Discharge Points and Outfalls

The Ottawa County Water Resources Commissioner's Office completed the process of updating their database of known point sources, both discharge points and outfalls, during 2014. The database is maintained in the Ottawa County online GIS system, which provides password protected access to OCWRC users. The database can be accessed on any mobile device with internet capabilities, which allows for quick updates to the inventory and ease of recording dry weather screenings.

Additional discharge points and outfalls will be input into the database once they are identified or constructed. Some discharge points or outfalls may be deleted if it is determined that a discharge point or outfall does not fit the definition of a public discharge point or outfall or it no longer exists. Additions, deletions and other changes will be input into the Ottawa County GIS system within 30 days of discovery. The database includes a code assigned to each discharge point and outfall, the receiving water body, structural information about the pipe, pipe condition, and other information. The database was developed in an online GIS system and therefore serves as a map of discharge points and outfalls as well as other storm sewer system components.

B. Inspect, Investigate and Eliminate Illicit Discharges and Connections

Dry weather inspections of discharge points and outfalls include observing systems when little to no storm water flow is expected. Not all illicit discharges are dependent on a rain event, such as illicit septic connections or dumping, and some legitimate discharges can occur during dry weather, such as runoff from lawn sprinklers or ground water sump pump discharges from home underdrains. Despite the previous examples, dry weather screenings provide the best mechanism for visual and odor detection of illicit discharges. Inspections will be conducted in dry weather. Dry weather conditions exist if there has less than 0.1" of precipitation in the previous 48-72 hours prior to inspection. Where discharge points or outfalls are submerged or partially submerged, the dry weather screening will occur at the first accessible upstream manhole, or where determined appropriate by the inspector. Rules of confined space entry may require an inspector and an attendant.

1. Procedure for Performing Field Observations

All discharge points and outfalls will be inspected once during the permit cycle (once every five years). The dry weather screening procedure will include the completion of the Dry Weather Monitoring Form via the online application (Appendix A). Once the discharge point or outfall is located, it will be checked for flow. If no flow is present, then the observation will be recorded in the online database. The condition of the pipe will also be assessed and the current weather conditions recorded. Existing structural data (size and material) will be verified as well as receiving water. Additional observations will also be recorded if present including odor, deposits, floatables, biology (algae, bacterial sheens and slimes), and vegetation. If any information is missing from the current database record, it will be updated. Inspectors will also be encouraged to make

additional observations related to presence of trash or evidence of erosion or pollution from surface runoff.

2. Procedure for Performing Field Screening when Flow is Present

If flow is present during a dry weather screening, the inspector will at a minimum make these additional observations on site at the time of the screening: odor, color, turbidity (visual assessment), floatables, deposits/stains, and vegetation. Ammonia, pH, temperature, and surfactants will be assessed on site when possible. Ammonia and pH will be assessed using test strips. Surfactants will be assessed by collecting a sample in a small glass bottle, securing the lid, shaking vigorously, and looking for bubbles. Temperature will be measured using a water thermometer. Visual and odor assessments are subjective and will be completed on site by the inspectors and recorded appropriately in the online database. If sewage is suspected then a sample will be collected, if possible, and tested by the Ottawa County Department of Public Health or another Ottawa County approve laboratory for the presence of *E. coli*. If an illicit connection is suspected, the inspectors will proceed with initiating a source investigation, either themselves if they have been properly trained, or by notifying their supervisor by the close of business the same day that a source investigation is necessary. Inspectors will be provided training in how to carry out all onsite observations and measurements including how to properly fill out the online database.

3. Procedure for Performing a Source Investigation

Once a discharge point or outfall has been identified as having a possible illicit connection, investigative activities will commence within two (2) business days starting at the discharge point or outfall and moving upstream within the suspect municipal storm drainage system. The investigation will continue upstream until the potential source is found. The initial investigation of the municipal drain and each service connection may involve several hours of visual and odor-based inspections or other suitable tracking methods. Any facility having suspicious dry weather discharge will be subject to inspection. Upon determining that a private facility needs to be investigated, the assigned employee from the OCWRC's office will contact the facility explaining the suspected problem and establish permission to access the property. If it is determined that the facility has a discharge and is under an industrial or construction site NPDES permit, the DEQ will be contacted immediately to guide the response and enforcement procedure.

The following are standard operating procedures for investigating a suspected illicit discharge:

a. Upon arriving at the site, the property owner and/or facility manager will be advised of the inspector's strategy and interviewed by the inspector about the location of all property lines, storm lines and related catch basins, sanitary lines and service manholes, waste process lines, and hazardous and polluting material storage areas. A copy of the facility site plans and its related utility system will be requested.

b. The inspector will obtain and thoroughly review all maps of sanitary sewer and storm drains to determine critical information regarding all documented underground conveyance systems located on or near the property.

c. The inspector will review the facility plans and inspect the site to determine the location of the best access points to the storm, sanitary and any process waste lines. All key information will be noted on a site plan for field use that will become an attachment to the Dry Weather Monitoring Form. All documentation will be stored in the appropriate drain file in the OCWRC's office.

d. A review of hazardous and polluting materials (if applicable), and related handling procedures may be requested by the inspector of the property owner and/or facility manager.

e. All storm drains leaving the property shall be field located by the inspector to determine manholes or catch basins that can be used as access points to monitor for the presence of an illicit discharge.

f. The inspector may be able to determine the source of an illicit discharge through visual observation and/or odor detection of flow in the storm sewer at selected access points.

g. The inspector may facilitate televised inspection of portions of storm sewers that look suspicious to identify pollutant sources that cannot be located through visual observation, (*i.e.* blind connections between manholes). The inspector may use tracing dye or other suitable tracking methods to isolate the source of an illicit discharge (proper authorization for the use of tracer dyes must be requested from the MDEQ in accordance with Rule 1097.) In addition, water sampling can be performed to verify the presence of an illicit discharge. All of these methods can and will be used at the discretion of the inspecting staff and the owner of the illicit discharge. The inspector should contact the illicit discharge owner immediately to determine the best means for verification.

h. If an intermittent discharge is detected and it is expected that the discharge will disappear before sampling or televising can be performed, the inspector should take as many pictures and notes as possible. A grab sample can be taken if the inspector has the appropriate materials and protective gear. This sample can be used as proof of discharge and further analyzed. Priority should be given to eliminating and finding the source of the illicit discharge or connection. However, in order to determine the source, the above mentioned methods may need to be used.

   At a minimum, sampling parameters should include ammonia and surfactants using the sampling methods as described in the proceeding section, *Procedure for Performing Field Screening when Flow is Present*. All parameters will be measured against the MDEQ and EPA standards for water quality. Onsite conditions, including landuse and activities occurring on or near the facility, will be observed and assessed for potential sources of the illicit discharge.

i. If sewage (bacterial) contamination is suspected either by smell or appearance, the Ottawa County Department of Public Health (OCDPH) will be contacted to conduct further testing. A copy of the dry weather evaluation form will be provided to the OCDPH. The OCDPH will conduct a source investigation according their standard procedures. The OCDPH will follow the local and state regulations for public notification as applicable. If the suspected sewage discharge is from a sanitary sewer, the owner will work with their local Board of Public Works to further investigate and make necessary repairs or corrections.

j. If the inspector suspects that the discharge may cause a public health concern or has the potential to seriously affect water quality, the appropriate agency, such as the Ottawa County Department of Public Health or the Michigan Department of Environmental Quality Pollution Emergency Alert System (1-800-292-4706), will be contacted within 24 hours.

k. Photographs may be taken by the inspector during the facility review and attached to the Dry Weather Monitoring Form and stored in the drain file in the OCWRC's office as documentation of the conditions on site.

Note: A private residence will be inspected using the standard operating procedure outlined above utilizing all available technical information.

4. Elimination of Illicit Discharges

Once a facility based illicit connection/discharge has been identified and verified, the OCWRC's office will notify the property owner/responsible party pursuant to applicable rules and instruct the illicit discharge to be eliminated within five (5) days of receiving the letter, or sooner if possible. The OCWRC's office will work with the landowner/responsible party to determine a reasonable schedule to eliminate the illicit discharge if it cannot be completed within 5 days. However, any illicit connections that jeopardize public health or water quality will be eliminated within 5 days. The notification also requires the owner/responsible party to inform the OCWRC's office when the illicit discharge has been eliminated. If the owner/responsible party does not eliminate the illicit discharge within the 5-day or other agreed upon time period, the OCWRC will take the action allowable pursuant to pertinent rules, such as the Drain Code, to eliminate the illicit discharge. Action typically includes elimination of the illicit discharge by the OCRWC's office, or a hired contractor, with the expenses of the work completed invoiced to the landowner/responsible party. This course of action is specified in the initial notice. If there are problems with compliance up to and including payment of any invoices related to work completed by the OCRWC's office, then the Ottawa County Sheriff's office will be involved to compel compliance.

Any sanitary sewer related complaints or issues will be directed to the appropriate Board of Public Works (BPW) and septic system issues will be directed to the Ottawa County Department of Public Health (OCDPH). Once the situation is taken over by the OCDPH or local BPW, they handle enforcement. Ottawa County Environmental Health Regulations outline a response procedure that includes posting at least five (5) notices in the area of the sewage discharge. If the discharge has

not been eliminated within ten (10) days of posting notices, then the Health Officer has the authority to plug the outlet where the discharge is occurring until the source can be located and eliminated. Once the responsible party is identified, they receive a written notification prescribing corrective measures. If the responsible party fails to comply with the written notice, the Health Officer can issue a violation. If the discharge is not abated in the manner prescribed by the Health Officer, the responsible party may be subject to a misdemeanor appearance ticket and/or monetary civil citation. If the complaint originates from a site permitted under NPDES rules, the Michigan Department of Environmental Quality (MDEQ) will be contacted. If the complaint originates from a construction site permitted under the county's Part 91 program, then the Part 91 staff will be contacted for follow up enforcement. These same procedures also apply to illegal dumping or spills related to sanitary waste, septic systems, NPDES permits, or Part 91 permits.

5. Procedure for Responding to Illegal Dumping/Spills

The Ottawa County Water Resources Commissioner's Office receives complaint calls from citizens and other agencies related to illegal dumping, spills or other discharges of polluting materials to surface waters (waters of the state and county-owned MS4). After receiving a call, OCWRC staff will visit the site within 24 hours or the next business day if the complaint is received during the weekend to make field observations, verify the complaint and determine the next steps if illicit dumping or a spill has occurred (see sample documentation in Appendix B).

If the responsible party can be immediately identified, they will be contacted via mail or in person dependent on the nature and severity of the pollutant. The OCRWC's office will work with the responsible party to eliminate and clean up the dumping/spill within 5 days. If circumstances prevent the cleanup from occurring within 5 days, then the OCWRC's office will work with the responsible party to determine a schedule appropriate for the pollutant. However, dumping or spilling of pollutants that jeopardize public health or water quality will be eliminated and cleaned up within 5 days.. If the responsible party cannot immediately be identified, the OCWRC's office will clean up the dump site or spill within 5 days and invoice the responsible party for the cleanup expenses once they have been identified. If the responsible party is not cooperative in the clean-up efforts, then the Ottawa County Sherriff's Office will be involved to compel compliance.

OCWRC staff shall notify the MDEQ immediately upon becoming aware of any release of polluting materials from the MS4 to ground or surface waters of the state that meet the threshold reporting quantities found in the Part 5 Rules (Appendix C). The MDEQ Grand Rapids District office (616-356-0500) will be contacted during working hours and the report will be submitted to the Pollution Emergency Alerting System (800-292-4706) outside of normal office hours. In the event of a chemical spill, the County Emergency Manager will also be contacted.

6. Training

Training of field inspectors will be arranged by the OCWRC to provide the technical expertise and continuity necessary to inspect, identify, locate, and eliminate illicit discharges. At a minimum,

training will include public relations, safety, inspection and/or investigative procedures, documentation requirements, online database operation, and reporting procedures.

The Wayne County Illicit Detection and Elimination Video is one tool used for training all field inspectors. This video will be viewed by all potential inspectors prior to the inspection season. The Michigan Department of Environmental Quality (MDEQ) *Naturally Occurring Phenomena* brochures will be provided to all inspectors (Appendix D). Knowledge of these brochures will ensure that inspectors are aware of natural water quality issues that are frequently observed at discharge points and outfalls during inspections. These materials are available on the MACC's website and will be incorporated into online training that is being developed in 2016. The previous are examples of materials the training may include. Additional materials may be added as applicable.

Dry weather screening inspectors, likely summer interns, will be trained each year when screenings are scheduled prior to commencing inspections. At a minimum, training will require viewing the Wayne County video, reviewing the brochures and an overview of the online database.

OCWRC staff responsible for overseeing the implementation of the IDEP, completing source investigations, overseeing the elimination of illicit connections, and responding to complaints, will be fully trained once during the permit cycle, within 1 year of the new permit being issued. Any new employees will be trained within 1 year of their hire. At a minimum, training will include techniques for identifying an illicit discharge or connection, including field observation, field screening and source investigation; and procedures for reporting, responding to and eliminating an illicit discharge or connection and the proper enforcement response.

The MACC will ensure that the OCWRC's inspectors receive all IDEP updates and any necessary program requirements or changes. All inspectors should have a copy of the IDEP plan and the *Naturally Occurring Phenomena* brochures, as well as be familiar with the plan and the goals of the program.

Some inspectors are not employees of the OCWRC but are contract inspectors who are trained specifically for inspecting discharge points and outfalls during dry weather. These inspectors will receive the majority of their training through their employers, but also obtain the IDEP goals and objectives specifically for the OCWRC.

C. Minimize Infiltration of Raw Sewage

The potential for seepage from sanitary sewers that are often located in the vicinity or parallel to storm drains will be investigated in the process of IDEP inspections in cooperation with the proper sanitary sewer authority. Sanitary sewer overflows will be addressed with the owner and/or perpetrator in accordance with the requirements of wastewater NPDES permitting. Problems identified with onsite sewage disposal systems will be coordinated with the Ottawa County Department of Public Health.

Part of the IDEP includes reducing chemical and bacterial contamination in our surface waters. A continuing action is to minimize seepage from sanitary sewers and on-site sewage disposal systems (OSDS). Dry weather screening will include identifying any suspected sources of human sewage. Some symptoms of sewage contamination may include growth of algae or other nuisance plants due to increased nutrients, the presence of sewage fungus and unpleasant odors. The use of ammonia test strips is one field screening method for the presence of human sewage waste. The OCWRC will work with the Ottawa County Department of Public Health to address any septic seepage when detected and the local Board of Public Works when leaks from the sanitary system is detected. The OCWRC will also work collaboratively with other local groups, such as the Ottawa Conservation District, that are working to address the *E. coli* total maximum daily load in the Bass River. There have not been any historic or recent problems of sanitary or septic seepage into the OCWRC's MS4.

D. Maintain a Records Management System

The OCWRC, in partnership with the Ottawa County GIS Department, maintains an online database for the purpose of tracking the inventory and inspections of their storm sewer system, including discharge points, outfalls and dry weather screenings (Appendix A). The database contains all physical information about the storm sewer system, discharge points and outfalls and has an application for recording dry weather screenings.

All observations and any measurements can be recorded via a handheld mobile device with an internet connection. A copy of the dry weather monitoring forms will be forwarded to the MACC upon completion for inclusion in the periodic status reports. The OCWRC's office also stores all construction plans and maps in either hard copy or digital formats. A separate database is being developed to track progress of source investigations and removal of illicit connections or discharges as well as documenting responses to illicit dumping and/or spills. Until the new database is developed, all investigative documentation related to illicit connections, dumping or spills will be maintained in the drain files in the OCWRC's office. All monitoring information on file will be considered public information pursuant to the Freedom of Information Act.

E. Plan Evaluation

The primary goal of the IDEP is to eliminate and prevent illicit connections and discharges into Ottawa County's MS4 and ultimately into waters of the state. To evaluate the effectiveness of this plan and the program implementation, the OCWRC will periodically (within 3 months of completing dry weather screenings) evaluate what the program has accomplished or is lacking. Components of the plan that will be evaluated include the effectiveness of the various detection methods, the number of discharges eliminated using various enforcement methods, changes in available water quality monitoring data, and effectiveness of staff training and efficiency of completing the dry weather screening process. This IDEP plan will be continuously implemented

and evaluated. The Macatawa Watershed Storm Water Committee meets quarterly and will discuss IDEP updates and changes at least annually.

OCWRC staff will provide the input necessary to prepare a report summarizing the accomplishments and recommending improvements to the objectives stated in this plan. The report will outline the illicit connections and discharges found and eliminated, if any. If any illicit connections or discharges are found but not eliminated at the time of reporting, the OCWRC will provide updates in periodic progress report until elimination is successful. Also included will be estimated frequency of discharge and volume of discharge. A copy of this report will be on file and available upon request at the office of the Macatawa Area Coordinating Council, 301 Douglas Ave, Holland, Michigan, 49424.

Dry weather inspection of known discharge points and outfalls were performed during the first permit cycle 2003-2008 and again during the 2008-2013 cycle. Discharge points and outfalls with known problems may be inspected more frequently to prevent reoccurring problems, though none were discovered during the first two cycles of screenings. Discharge points or outfalls that have had a confirmed significant illicit discharge will have data gathered for reporting in the annual report. This data will include the pollutant(s) of concern (if sampling was performed), estimated volume and load discharges, the location that this discharge entered the OCWRC's MS4 and the waters of the state (from map evaluation) and the current status of the discharge.

F. Ordinances and Enforcement Procedures

In 2004, the Committee completed a review all of the existing legal authority and enforcement procedures to assure fulfillment of IDEP requirements (see Section V, Summary of Current Ordinances). The Committee will review the work of the IDEP inspectors to determine barriers to ensure inspection quality. If code or enforcement changes are needed, the Committee will prepare a written report of recommended adjustments and forward this report to the OCWRC for consideration. The Drain Commissioner has authority under the Drain Code and as a County Enforcing Agency (Part 91) to prohibit and eliminate illicit connections and discharges to their MS4.

III. Timeline

This new IDEP plan will be implemented immediately upon approval from the MDEQ Storm Water Program. Until this updated plan is approved, the previously approved 2005 plan will continue to be followed. This new IDEP will be effective until such time that a revision is deemed necessary and approved by the MDEQ Storm Water Program.

IV. Definitions

Discharge point: any location where storm water from one owned system empties into another system

Illicit discharge: any discharge to, or seepage into, an MS4 that is not composed entirely of stormwater or uncontaminated groundwater except discharges pursuant to an NPDES permit

Illicit connection: a physical connection to an MS4 that primarily conveys non-storm water discharges other than uncontaminated groundwater; or a physical connection not authorized or permitted by the local authority, where a local authority requires authorization or a permit for physical connections

Outfall: a type of discharge point that empties into a water of the state

Significant illicit discharge: a discharge that shows evidence of impairing water quality in the receiving water

V. Summary of Current Ordinances

This section contains a discussion of current ordinances, codes, policies, and standard operating procedures, (hereafter referred to as rules). Portions of these rules are meant to be a summary only and not intended to be verbatim or to be inclusive of all rules or portions of rules applicable.

New rules and/or improvements to existing rules designed to eliminate illicit discharges in Ottawa County should be considered after a comprehensive review of the tools available in existing ordinances.

A review was conducted of the water quality related rules within the following:

A. The Ottawa County Environmental Health Regulations

B. Ottawa County Soil Erosion Ordinance (Part 91)

C. The Development Standards and Specifications including the Storm Water Management Policy published by the Ottawa County Drain Commissioner

D. Drain Code of 1956 as amended.

E. Environmental Laws of the State of Michigan

F. Building department inspections

A. Ottawa County Environmental Health Regulations

The Ottawa County Environmental Health Regulations are the operating framework of the Ottawa County Department of Public Health (OCDPH). These regulations have an effective date of 11/22/96, as amended August 23, 2005. The regulations draw their authority from The Public Health Code of Michigan, Act 368, P.A. 1978 as amended.

Important illicit discharge components of these regulations include:

Article III, D. Enforcement – The Health Officer is authorized to conduct inspections of all premises, public or private, to assure compliance with the provisions of this regulation.

Article III, E. Right of Entry and Inspection – Health Officer's must be allowed access to inspect at reasonable times and no person may resist or harm the Health Officer in the performance of his job. The Health Office may request the assistance of the Ottawa County Sherriff Department or other police agency where an imminent danger or health hazard is believed to exist that requires immediate inspection and prior consent cannot be obtained.

Article VIII, G. Non-complying Sewage Disposal Systems – It shall be unlawful for any person to create a sewage related nuisance whereby sewage effluent or septage waste is exposed, discharged, deposited, or drains on or to the surface of the ground, or is permitted to drain into any surface water, may contaminate a public or private ground water supply, or creates a hazard to public health and safety, an nuisance or degradation of the natural environment or be in direct violation of any section of this Regulation.

Article VIII, H. Discharge From Public or Private Drain of Unknown Origin – Whenever the Health Officer determines that sewage is flowing from the outlet of any public or private drain of unknown origin, he may issue public notices requiring persons owning premises from which such sewage originates, to connect to a municipal sewage disposal system if available, or otherwise comply with the provisions of this Regulation. After not less than ten days following posting of the notices, the Health Officer may plug the outlet until such time as the sources of the sewage have been located. Owners of properties known to be discharging sewage in a drain shall be given written notice of corrections required within a specified period of time and shall be responsible for bearing the costs of correction and plugging the outlets. Failure to comply shall be considered a violation of this Regulation.

Article XIII – Real Estate Evaluations – This article requires that Real Estate Transfer Evaluations occur prior to the sale or ownership transfer of any dwelling or habitable premise served by on-site water or on-site sewage disposal. Evaluations are conducted following the Ottawa County Department of Public Health's Real Estate Transfer Evaluation Policy. The results of the evaluation are provided to the seller or a designated agent who are then responsible for proving the purchaser the complete evaluation as received by the Department of Public Health.

B. Soil Erosion and Sedimentation Control (Part 91)

Soil Erosion and Sedimentation Control is administered under Part 91 of the Natural Resources and Environmental Protection Act, 1994 MI PA 451 as amended by 2000 PA 504. This statute addresses soil erosion and sediment control at construction projects involving an earth change of 1 acre in size or within 500' of a lake or stream. In Ottawa County, this law is administered by the Ottawa County Water Resources Commissioner's office. This statute provides a mechanism to address sediment, a pollutant type discharge, into the Ottawa County drainage systems. The ordinance requires that a permit be obtained for earth change activities that disturb one or more acres of land, or are location within 500' of Waters of the State or within 500' of a storm drain inlet. The ordinance requires the development and approval of a soil erosion and sedimentation control plan to ensure that sediment is not discharges into an MS4 or Waters of the State. The Ordinance grants authority to a Soil Erosion Control Agent of the Ottawa County Water Resources Commissioner's Office to conduct enforcement activities for violations of the permit conditions.

C. Ottawa County Water Resources Commissioner's Development Standards and Specifications

The Ottawa County Development Standards and Specifications, including the Storm Water Management Policy, was acknowledged by the Ottawa County Board of Commissioners on May 14, 1996. The water resources commissioner's policy also establishes its authority through the Drain Code of 1956, the Land Division Act 591 of 1996, the Clean Water Act of 1974 and the Federal Water Pollution Act, MI Act 451 or 1994. The Drain Commissioners Office is located in the Ottawa County Building, 414 Washington Avenue, Grand Haven. The commissioner's policy is primarily a water quantity control document but does through the use of generally accepted stormwater management techniques provide for significant water quality improvements. For example, shallow water or emergent wetland type basins are 2 standard detention basin designs specified. The drain commissioner's policy is the accepted stormwater management policy in the Ottawa County portion of the Macatawa Watershed.

D. Drain Code of 1956

The Drain Code of 1956 as amended, Public Act 40 of the State of Michigan is primarily a water quantity document which relates to establishing drainage districts and construction and maintenance of drains. However, reference to illicits exists as follows:

Section 280.423 (1) A person shall not continue to discharge or permit to be discharged into any county drain or intercounty drain of the state any sewage or waste matter capable of producing in the drain detrimental deposits, objectionable odor nuisance, injury to drainage conduits or structures, or capable of producing such pollution of the waters of the state receiving the flow from the drains as to injure livestock, destroy fish life, or be injurious to public health. This section does not prohibit the conveyance of sewage or other waste through drains or sewers that will not produce

these injuries and that comply with section 3112 of part 31 (water resources protection) of the natural resources and environmental protection act, Act No. 451 of the Public Acts of 1994, being section 324.3112 of the Michigan Compiled Laws.

(3) If the department of environmental quality determines that sewage or wastes carried by any county or intercounty drain constitutes unlawful discharge as prescribed by section 3109 or 3112 of part 31 of Act No. 451 of the Public Acts of 1994, being sections 324.3109 and 324.3112 of the Michigan Compiled Laws, that 1 or more users of the drain are responsible for the discharge of sewage or other wastes into the drain, and that the cleaning out of the drain or the construction of disposal plants, filtration beds, or other mechanical devices to purify the flow of the drain is necessary, the department of environmental quality may issue to the drain commissioner an order of determination identifying such users and pollutants, under section 3112 of Act No. 451 of the Public Acts of 1994, being section 324.3112 of the Michigan Compiled Laws. The order of determination constitutes a petition calling for the construction of disposal facilities or other appropriate measures by which the unlawful discharge may be abated or purified. The order of determination serving as a petition is in lieu of the determination of necessity by a drainage board pursuant to chapter 20 or 21 or section 122 or 192 or a determination of necessity by a board of determination pursuant to section 72 or 191, whichever is applicable. A copy of the findings of the department shall be attached to the order of determination which shall require no other signature than that of the director of the department of environmental quality. Upon receipt of the order of determination, the drain commissioner or the drainage board shall proceed as provided in this act to locate, establish, and construct a drain. If the responsible users of the drain are determined to be public corporations in the drainage district, the drain commissioner or the drainage board shall proceed as provided in chapters 20 and 21, as may be appropriate, using the order of determination as the final order of determination of the drainage board. If the responsible users are determined to be private persons, the drain commissioner shall proceed as provided in chapters 8 and 9, using the order of determination as the first order of determination.

E. Michigan Department of Environmental Quality Regulations

The Michigan Department of Environmental Quality reacts to hazardous spills per Part 31 of Public Act 451 of the State of Michigan and is notified as part of the local Standard Emergency Operating Procedures, (see preceding paragraph). The MDNRE telephone number for pollution emergencies is 1-800-292-4706. MDNRE also maintains a quick response Environmental Assistance Center, telephone number 1-800-662-9278.

F. Building Department Inspections

Units of Government in the Macatawa Watershed have Building Departments with active inspection programs. New construction is inspected to assure that unlawful sewer connections, for example to a municipal storm drain, do not occur.

G. Rules Summary

An Illicit Discharge Elimination Program Plan should utilize rules already in existence pertinent to detection, and elimination of an illicit discharge. The existing rules of the public entities within Ottawa County provide a framework for both detection and elimination of illicit discharges. This framework will need to be enhanced as part of the Ottawa County Illicit Discharge Elimination Program Plan. The greatest strength of existing rules resides in the elimination of illicit sanitary sewage type discharges, however other types of illicits referred to as waste, wash water, effluent and hazardous liquid material are referenced. Existing rules provide for health officer/inspector access and inspection upon private property and specify a method of terminating as well as addressing cost and liability issues associated with an illicit sanitary sewage type discharge. A weakness is that chance discovery of an illicit is generally relied upon rather than a program of regular inspections. A program of regular public storm drainage discharge point and outfall inspections will be addressed in the Ottawa County Illicit Discharge Elimination Plan. A general weakness of existing rules addressing illicit discharges is that these rules primarily pertain to sanitary sewage type illicit discharges. New rules may be needed to address elimination of certain illicit discharges. Rule existence and consistency throughout the county should be reviewed. Inspection of public storm drainage discharge points and outfalls in the urbanized areas of Ottawa County will focus on all types of illicit discharges. Departments of public entities providing an existing framework for illicit detection and elimination will need to be updated concerning their role, pursuant to their rules, in the implementation of the Illicit Discharge Elimination Program Plan in Ottawa County.

VI. Resources

Ammonia test strips (25 for $23.85, April 2018): http://www.hach.com/ammonia-nitrogen-test-strips-0-6-0-mg-l/product?id=7640211610

pH test strips (50 for $12.55, April 2018): https://www.hach.com/ph-test-strips-4-9-ph-units/product?id=7640211607&callback=qs

Wayne County IDEP Training Video: https://www.youtube.com/watch?v=qRljMX4eaS8

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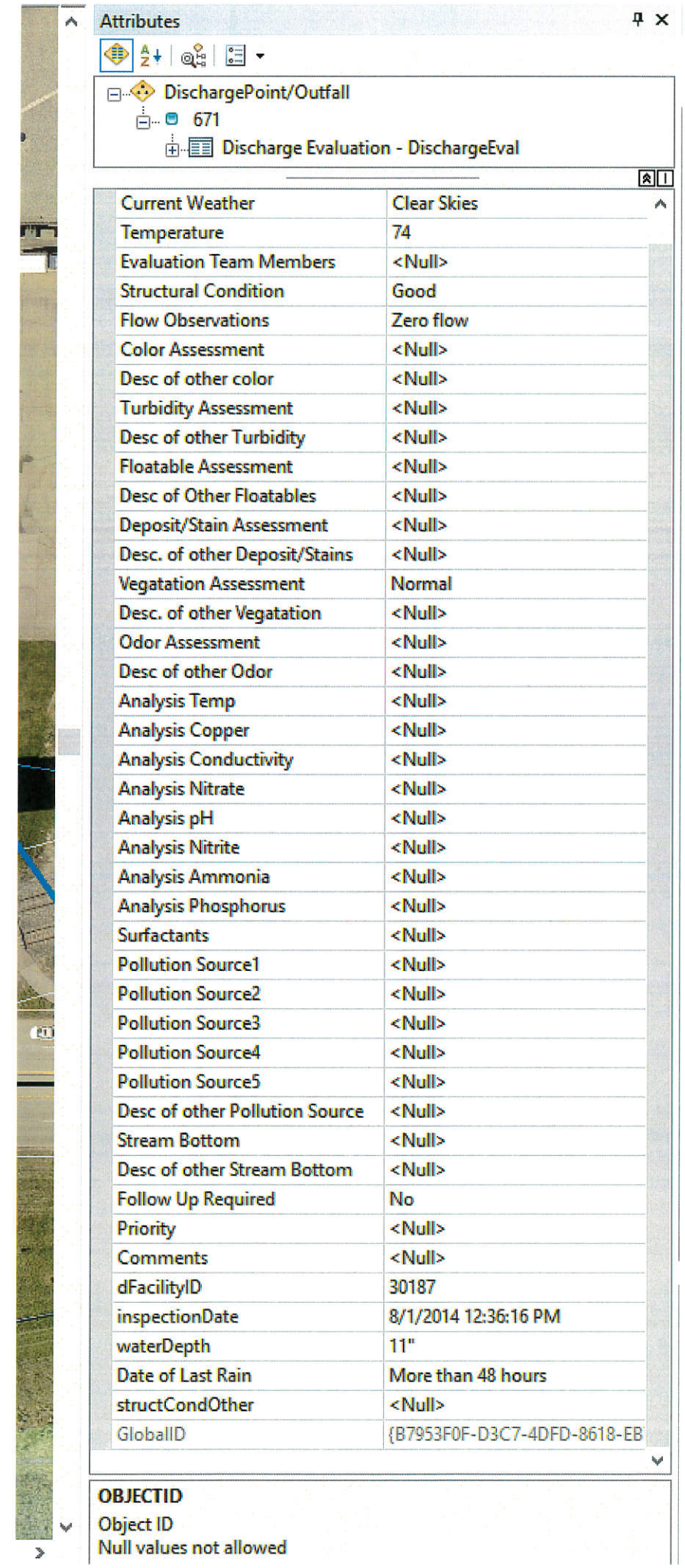
APPENDIX A

DISCHARGE POINT/OUTFALL DATABASE SAMPLE

Sample discharge point/outfall database record



Current Weather	Clear Skies
Temperature	74
Evaluation Team Members	<Null>
Structural Condition	Good
Flow Observations	Zero flow
Color Assessment	<Null>
Desc of other color	<Null>
Turbidity Assessment	<Null>
Desc of other Turbidity	<Null>
Floatable Assessment	<Null>
Desc of Other Floatables	<Null>
Deposit/Stain Assessment	<Null>
Desc. of other Deposit/Stains	<Null>
Vegatation Assessment	Normal
Desc. of other Vegatation	<Null>
Odor Assessment	<Null>
Desc of other Odor	<Null>
Analysis Temp	<Null>
Analysis Copper	<Null>
Analysis Conductivity	<Null>
Analysis Nitrate	<Null>
Analysis pH	<Null>
Analysis Nitrite	<Null>
Analysis Ammonia	<Null>
Analysis Phosphorus	<Null>
Surfactants	<Null>
Pollution Source1	<Null>
Pollution Source2	<Null>
Pollution Source3	<Null>
Pollution Source4	<Null>
Pollution Source5	<Null>
Desc of other Pollution Source	<Null>
Stream Bottom	<Null>
Desc of other Stream Bottom	<Null>
Follow Up Required	No
Priority	<Null>
Comments	<Null>
dFacilityID	30187
inspectionDate	8/1/2014 12:36:16 PM
waterDepth	11"
Date of Last Rain	More than 48 hours
structCondOther	<Null>
GlobalID	{B7953F0F-D3C7-4DFD-8618-EB

OBJECTID
Object ID
Null values not allowed

Sample of database used to record dry weather screening observations

Revised database that includes biology as one of the screening parameters

Table Properties

General | Editor Tracking | Fields | Indexes | Subtypes | Relationships

Field Name	Data Type
pollSourceOther	Text
StreamBottom	Text
streamBottomOther	Text
FollowUp	Text
Priority	Text
Comments	Text
dFacilityID	Text
inspectionDate	Date
waterDepth	Text
lastRain	Text
structCondOther	Text
GlobalID	Global ID
Biology	Text

Click any field to see its properties.

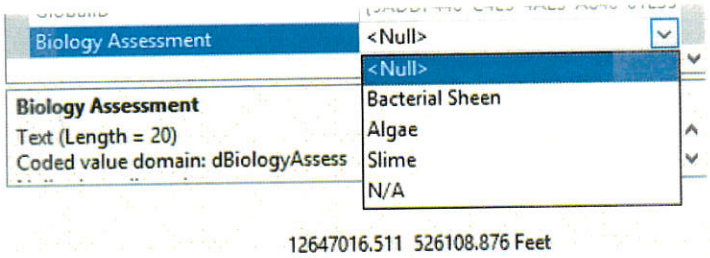
Field Properties

Alias	OBJECTID

Import...

To add a new field, type the name into an empty row in the Field Name column, click in the Data Type column to choose the data type, then edit the Field Properties.

OK | Cancel | Apply



12647016.511 526108.876 Feet

APPENDIX B

SAMPLE ILLICIT DUMPING RESPONSE AND DOCUMENTATION

Ottawa County Drain Commissioner's Office
Inspection Report

IR #: 3658

Date of Call: 6/23/2014

Business Name: OCWRC

Home #:
Work #:
Cell #:

First Name:

Last Name:

Address:

Street Name: Hope St

Subdivision:

Lot:

Township: Georgetown

Section: 28

Drainage Course: Rush Creek

Drain Type: County Drain

Inspection Date: 7/9/2014

Cross Street: Port Sheldon & 28th Ave

Call received by(initial):

Site Condition:

While interns were doing outfall inspection they noticed lots of residents throwing debris into drain.

Recommendations:

Sent out unauthorized dumping letter & reminder to residents brochure. Check back in a couple of weeks to see if dumping has been taken care of. rechecked-mostly cleaned up.

Assigned to:

Date Assigned:

Proposal $: 0.00

Apportionments:

Totals: 0% $0

Notice of Drain Maintenance Sent: ☐

Return call to property owner:

Linear Sediment Removed(ft.):

Catch Basins Cleaned Out:

Completed: ☑

Final Inspection:

Chris Machiela
Drain Inspector

Printed:


Springdale St
Springdale St
Autumn Ct
Autumn Dr
Grand River
Rush Creek
Nellie Ave
Hope St
RUSH CREEK

County of Ottawa
Office of the Water Resources Commissioner

Joe Bush
Water Resources Commissioner

Linda S. Brown
Chief Deputy

12220 Fillmore Room 141 West Olive, MI 49460
waterresourcescommissioner@miottawa.org

Phone (616) 994-4530
Fax (616) 994-4529

July 02, 2014

Re: Unauthorized Dumping

To Whom It May Concern:

This office has encountered unauthorized disposal of yard refuse in the Rush Creek Drainage Easement located near your property. The placement of contaminants in storm drains and easements is in direct violation of Federal, State and Local Law, pursuant to the Phase II Rules of the Clean Water Act of 1972, as amended.

We ask that you clean up any and all yard refuse, grass clippings, leaves, etc. that could be affecting the flow of the drain. Also, please remove anything too close to the drain to prevent it from getting washed downstream.

We will be back to inspect the drain in a couple weeks where at that time it will be determined if further action needs to be taken. In the future, if you see anyone dumping in the drain please notify our office.

If you have any questions or comments, please call my office at 616-994-4530.

Sincerely,

Joe Bush (TO)

Joe Bush
Water Resources Commissioner

jb/to

enc Reminder to Res brochure

mailed 7-3-14

Ruth Creek

PIN	Owner	MailAddress	MailCity	MailState	MailZip
70-14-28-254-011	BORDA DAVID	2636 HOPE ST	HUDSONVILLE	MI	49426
70-14-28-254-010	BOYNTON TIMOTHY - CHERYL	2652 HOPE ST	HUDSONVILLE	MI	49426
70-14-28-254-017	BROENE RICHARD	2708 HOPE ST	HUDSONVILLE	MI	49426
70-14-28-254-020	BRONSON TODD M - MELISSA D	2620 HOPE ST	HUDSONVILLE	MI	49426
70-14-28-254-002	CLINE DONALD - DELANE	2778 HOPE ST	HUDSONVILLE	MI	49426
70-14-28-254-005	DENHOLLANDER JONATHAN-JENNIFER	2732 HOPE ST	HUDSONVILLE	MI	49426
70-14-28-254-008	DYKSTRA DEBORAH	2684 HOPE ST	HUDSONVILLE	MI	49426
70-14-28-254-009	KARSTEN PETER A	2668 HOPE ST	HUDSONVILLE	MI	49426
70-14-28-254-004	KEY KATHY J	2748 HOPE ST	HUDSONVILLE	MI	49426
70-14-28-185-008	KOOISTRA THERESA TRUSTEE	2856 AUTUMN CT	HUDSONVILLE	MI	49426
70-14-28-254-001	SCRIVENER SUZANNE	2796 HOPE ST	HUDSONVILLE	MI	49426
70-14-28-254-003	VAN NORTWICK MONTE	2762 HOPE ST	HUDSONVILLE	MI	49426
70-14-28-185-011	WIGENT ERIKA - ERIC	6153 AUTUMN DR	HUDSONVILLE	MI	49426

(13)

mailed 3/14

Final Thoughts

The Ottawa County Water Resources Commissioner's Office encourages residents to report anyone altering or illegally dumping waste into waterways, easements or drains so appropriate action can be taken.

Please contact the Ottawa County Water Resources Commissioner's Office at (616) 994-4530, if you require further information or would like to lodge a complaint.

Ottawa County Water Resources Commissioner's Office

12220 Fillmore Street, Room 141
West Olive, MI 49460

Phone: 616-994-4530
Fax: 616-994-4529
E-mail:
waterresourcescommissioner@miottawa.org

OTTAWA COUNTY WATER
RESOURCES COMMISSIONER
12220 FILLMORE ROOM 141
WEST OLIVE MI 49460

REMINDER TO RESIDENTS

Keep Drains, Easements, and Waterways Clear

When it rains, it drains.

Illegal dumping costs millions

Ottawa County Water Resources Commissioner's Office would like to remind residents that dumping yard waste and household refuse in local waterways, easements and drains is increasing the risk of flooding to their properties and those of their neighbors.

What is a County Drain?

A county drain may be an open ditch, stream or underground pipe, retention pond or swale that conveys stormwater. These drains become designated as county drains through a legal process where property owners, a local city, village or township petitions the County Water Resources Commissioner to establish a county drain. Not all drains are County Drains. Natural watercourses are under the jurisdiction of the State Inland Lakes and Streams. Most roadside ditches are under the jurisdiction of the Road Commission, but some are County Drains along a road.

Landowner Responsibilities

Drains not properly cared for by property owners increases the cost of maintenance to the County Water Resources Commissioner's Office which is assessed back to the property owners. In an effort to reduce risks of flooding and costs to individual homeowners we ask for your help in keeping Ottawa County flowing.

What You Can Do to Help

- Routine grounds maintenance such as mowing, brushing and trash/debris removal. Owners should ensure that systems and structures are kept free of yard waste (grass clippings, tree trimmings, leaves) or other obstructions that may block the flow of water.
- Reducing tree, shrub and other growth within an easement.
- Driveway crossings and bridges shall be kept free of debris and maintained to prevent banks from sloughing into the watercourse.
- Keep yard drains/catchbasins free of debris before and after storm events.
- Keep drains and drainage easements easily accessible for maintenance and inspections.
- DO NOT place sheds, pools, landscaping features or other permanent structures in the easement or on top of drainage structures.
- DO NOT apply pesticides and fertilizers several days before rain is forecast; if applied right before a rain, most of it will just wash off and end up in storm drain.
- NEVER dump pet waste, used motor oil, paint chemicals or other substances into a storm drain. Information about proper disposal of household hazardous waste is available at *Ottawa County Environmental Health (616) 393-5645.*

Easement Policy

- Drainage easements are obtained for specific uses such as storm water conveyance, storm water detention, ponding, floodplain or as access routes for operating, maintaining or repairing County Drains.
- Drainage Easements are not to be considered public areas and are not open to the public.
- Property owners retain ownership, but are restricted from building permanent structures that may interfere with or reduce drainage and/or temporary storage capacity or may impede drain maintenance of surface or subsurface systems within the easement area. This includes but is not limited to; swimming pools, sheds, garages, patios, decks, fences or other permanent structures or landscaping features.
- Easement widths vary from drain to drain depending on the drain's size and type. Some easements are of an unspecified width.
- Easements obtained prior to 1956 were not required by law to be recorded with the County Register of Deed's Office and are considered properly recorded if they are on file in the County Water Resources Commissioner's Office. Easements obtained after 1956 are required to be recorded at the County Register of Deed's Office and are also on file at the Water Resources Commissioner's Office. It is important to check with both offices to determine if a drainage easement exists on your property.
- No changes to the grade within a drainage easement will be allowed. Easements are for the passage of surface drainage and it is a property owner's responsibility to maintain the surface drainage system across their property. Altering the grade may not only affect their property, but also their neighbors.

APPENDIX C

PART 5 REPORTING REQUIREMENTS

Release Notification Requirements in Michigan

While diligent efforts have been made to assure that the information provided in the following table is accurate and complete as of August 18, 2015, there is no guarantee that it covers all of the regulatory requirements for release notification and reporting in Michigan.

Chemical releases in Michigan are potentially reportable under one *or more* of twenty-seven different **state and federal regulations**. Determining which regulations apply to a specific release can be an overwhelming task. The "Release Notification Requirements in Michigan" table was compiled by the Michigan SARA Title III Program staff in the Department of Environmental Quality (DEQ) to help owners and operators of facilities in Michigan, including vehicles and farms, determine their potential notification and reporting requirements in the event of a chemical release.

Check your permits, licenses, registrations, pollution prevention plans, and local ordinances for *additional* release reporting requirements. In particular, all NPDES permits and most air permits have release reporting requirements in them that are not included on this table.

This table should be used as a tool to identify potential reporting requirements *before* a release occurs, and to identify follow-up reporting requirements based on the release. The table outlines **what** releases must be reported, **when** they must be reported, and **to whom** they must be reported.

What Is a Chemical Release?

The term "release" means spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing. "Chemical" includes substances considered to be toxic or hazardous as well as substances as seemingly harmless as salad oil.

Chemical Lists

The EPA published a consolidated list of chemicals subject to SARA Title III, CERCLA, section 112(r) of the Clean Air Act called the "List of Lists." See the following EPA website for the List of Lists: http://www2.epa.gov/epcra/epcracerclacaa-ss112r-consolidated-list-lists-march-2015-version

The "List of Lists" includes:

- **CERCLA Hazardous substances**, including **RCRA waste streams** and **unlisted hazardous wastes**, with reportable quantities (RQ) for releases (originally published in 40 CFR 302, Table 302.4).
- **SARA Title III Extremely Hazardous Substances** (EHS) with RQs for releases (originally published in 40 CFR 355).
- **SARA Title III Section 313 Toxic chemicals** (originally published in 40 CFR 372 Subpart D).

The Part 5 Rules, Spillage of Oil and Polluting Materials, were promulgated pursuant to Part 31 of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). These rules include a list of "**polluting materials**" with threshold reporting quantities for releases.

NREPA Part 201 has been updated and now refers to the **2015 version of the CERCLA list** of hazardous substances.

NOx Exemption in CERCLA and SARA Title III

On **October 4, 2006**, EPA finalized an exemption for certain releases of emissions of NO and NO_2 (collectively NOx) to air from CERCLA and SARA Title III reporting requirements (71 FR 58525). The exemption was effective November 3, 2006, and applies to releases to the air of less than 1,000 pounds of NOx in 24 hours that are the result of combustion. The exemption also applies to emissions from combustion-related activities such as detonation or processes that include both combustion and non-combustion operations, such as nitric acid production.

Petroleum Exclusion in CERCLA

Petroleum, including crude oil or any fraction thereof is excluded from the definitions of "hazardous substance," and "pollutant or contaminant" under CERCLA. Petroleum releases, accordingly, must generally be addressed under the authority of other law such as the underground storage tank (UST) provisions of RCRA, or the Clean Water Act (CWA). This exception, which has become known as the "***petroleum exclusion***," plays a significant role in CERCLA because many sites contain petroleum contamination. Petroleum frequently contains specific listed hazardous substances, the most common of which are benzene, toluene and xylenes. In general, such substances are not treated as CERCLA hazardous substances as long as they are found in refined petroleum fractions and are not present at levels that exceed those normally found in such fractions. Substances present in petroleum as a result of contamination during use or from mixing or combining are not within the petroleum exclusion and in such cases, the substances are considered CERCLA hazardous substances.

NREPA Part 201, Environmental Remediation, section 20114(1)(b) states that the requirements to report a release under this regulation apply to “reportable quantities of hazardous substances established pursuant to 40 CFR 302.4 and 302.6” This regulation references the listed hazardous substances published in the Code of Federal Regulations. It does not adopt the petroleum exclusion that applies to federal regulation of releases of CERCLA hazardous substances. As a result, petroleum constituents, including component substances such as benzene, toluene, and xylenes, plus any additives (e.g., MTBE, lead) are all reportable under Part 201 based on the reportable quantities in the 2015 version of the CERCLA list of hazardous substances published in 40 CFR 302.4 and 302.6.

Initial Notification: There is NO PENALTY for over-reporting!

When there is a release, determining if, when, and to whom it should be reported can be a daunting task even if you are familiar with the table. It is therefore recommended that **if there is a release, immediately call** the following three numbers even if the content or quantity of the released material has not yet been determined:

Post These Numbers by Every Phone

911 to notify Local authorities
800-292-4706 (PEAS) to notify State authorities
800-424-8802 (NRC) to notify Federal authorities

You can then respond to the release, reassess the situation, and make additional notifications as required (e.g. as specified in the table or in your permits). Your follow-up report will provide details that explain why a release was *or was not* reportable.

SARA Title III section 304 requires that the LEPC be notified immediately of a release. Many LEPCs accept the call to 911 as notification. Others require direct notification. Contact your LEPC in advance to find out their requirements.

Written Follow-up Report

Written follow-up report forms that are specified in the table are required by regulation. The DEQ has developed a generic written report form called "Spill or Release Report" (EQP 3465) that can be used to report releases of:

- Hazardous and extremely hazardous substances under SARA Title III,
- Hazardous waste under NREPA Part 111,
- Liquid industrial waste under NREPA Part 121,
- Hazardous substances under NREPA Part 201, and
- Polluting materials under NREPA Part 31, Part 5 Rules.

Hot Tip!

Use the generic Spill or Release Report form to record *initial* notifications.

Links to the release reporting forms and chemical lists referenced in the table are available on the DEQ SARA Title III Release Reporting website. Visit this site for updated DEQ and LEPC contact information.

NOTE: Executive Order 2012-14 transferred the DEQ storage tank program to the Bureau of Fire Services in LARA effective December 2, 2012. Phone numbers and email addresses associated with the storage tank program and staff have not changed.

For information regarding a specific regulation, contact the agency specified in the "notes" column of the table. If this is a DEQ division, contact the *district* division office.

General questions or comments regarding this table should be directed to the DEQ Environmental Assistance Center at 800-662-9278 or deq-assist@michigan.gov.

DEQ program information is available at www.michigan.gov/deq or you may contact the DEQ Environmental Assistance Center.

DEQ Release Reporting website:
www.michigan.gov/chemrelease

Acronyms are defined at the end of the table.

Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
SARA Title III Section 304 40 CFR 355.40 (**EHS & Hazardous Substances**)	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. Includes continuous release reportable under CERCLA Section 103. 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. Does not apply to the application, handling, and storage by an agricultural producer of a pesticide product registered under FIFRA. Excludes release < 1000 lbs of NOx released to the air from combustion or combustion-related activities.	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. Continuous releases must be identified as such and are reported initially and when there is a significant change in the release. See 73 FR 76948 (12/18/08): Only CAFOs are required to report continuous releases to the air from animal waste. Transportation related releases can be reported to 911.	As soon as practicable (within 30 days) after release: to LEPC(s) and SERC. Not required for releases that occur during transportation or from storage incident to transportation. For continuous releases: Initial written within 30 days after initial telephone notification: to LEPC(s) and SERC. Michigan SARA Title III Program accepts reports on behalf of the SERC.	PEAS: 800-292-4706 Contact your LEPC for a phone number to report releases. Call 911 if your LEPC is not active. For further information & LEPC contact information, contact Michigan SARA Title III Program 517-284-7272
CERCLA Section 103 40 CFR 302 (**Hazardous Substances**)	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. Excludes petroleum, including oil, or any fraction thereof. See 40 CFR 302.6 for notification requirements for radionuclide releases. Includes continuous release: occurs without interruption or abatement or that is routine, anticipated, and intermittent and incidental to normal operations or treatment processes. 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. Does not apply to the application, handling, and storage by an agricultural producer of a pesticide product registered under FIFRA.	Immediate (within 15 minutes after discovery): to NRC by person in charge of vessel or offshore or onshore facility. Continuous releases must be identified as such and are reported initially and when there is a significant change in the release. See 73 FR 76948 (12/18/08) re Exemption from reporting continuous releases to the air from animal waste.	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.	NRC 800-424-8802 or online at www.nrc.uscg.mil 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

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
NREPA 1994 PA 451 Part 201, **Environmental Remediation**	(i) Unpermitted release into the environment over a 24-hour period of a **hazardous** substance (*July 1, 2012, edition* of the CERCLA list, 40 CFR 302, Table 302.4) in a quantity equal to or greater than its corresponding reportable quantity. 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. Release of substance regulated by MI Dept of Agriculture & Rural Development (MDARD) (fertilizer, soil conditioner, or pesticide) excluding normal agricultural practices: *also* report to MDARD.	Within 24 hours after discovery: to DEQ-RRD district office (PEAS after hours) by owner or operator or person holding easement interest. Report agricultural release to MDARD.	Upon request: Provide a response activity plan to DEQ-RRD district supervisor.	PEAS: 800-292-4706 MDARD Agriculture Pollution Emergency Hotline: 800-405-0101 For further information contact DEQ-RRD
NREPA 1994 PA 451 Part 201, **Environmental Remediation** (Continued)	(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. (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. 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. 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.	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. Specific form required for: "Notice of Migration of Contamination" (Form EQP4482).	Upon request: Provide a response activity plan to DEQ-RRD district supervisor.	For further information contact DEQ-RRD

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
NREPA 1994 PA 451 Part 83, Pesticide Control Regulation 640, Commercial Pesticide Bulk Storage (**Agricultural**)	Release to the environment of a commercial **pesticide** >5 gallons or 100 pounds. Reportable agrichemical 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. The term "release" excludes normal agricultural practices.	Immediate: to PEAS* Also notify NRC for spills reportable under SARA Title III & CERCLA. *MDARD prefers direct notification to their hotline. PEAS forwards all agriculture calls to MDARD.	Within 90 days: to MDARD Pesticide and Plant Pest Management Div. a revised site plan.	MDARD Agriculture Pollution Emergency Hotline: 800-405-0101 PEAS: 800-292-4706 NRC 800-424-8802 or online at www.nrc.uscg.mil For further information contact MDARD 517-284-5644
NREPA 1994 PA 451 Part 85, Fertilizers Regulation 641 Commercial Fertilizer Bulk Storage Regulation 642, On Farm Fertilizer Bulk Storage (**Agricultural**)	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. For storage tank with bladder system instead of diking: also report all overfills and internal spills. The term "release" excludes normal agricultural practices. The term "liquid fertilizer" excludes anhydrous ammonia.	Immediate: to MDARD by commercial bulk storage facility personnel (For farms, the regulation does not specify who makes the report.)	Not required.	MDARD Agriculture Pollution Emergency Hotline: 800-405-0101 For further information contact MDARD 517-284-5644
Fire Prevention Code 1941 PA 207 Section 29.5g	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. **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. Act 207 amended 6/19/2006. The State Fire Marshall is in LARA, Bureau of Fire Services.	Immediately following incident, report known details regarding incident: to LARA Bureau of Fire Services *and* organized local fire department by owner of firm or vehicle or the person *and* the chief of first police or organized fire dept upon scene of incident.	Not required.	Contact LARA Bureau of Fire Services by calling the MSP HazMat hotline: 800-525-5555 For further information: contact local fire department

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
49 CFR 171 (**Transportation of Hazardous Materials**)	Initial verbal notice: Incident during transportation (including loading, unloading, temporary storage) involving (1) **hazardous** material and resulting in death, injury requiring hospitalization, public evacuation ≥ 1 hour, major transportation artery or facility closure ≥ 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. 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. 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 ≥ 1000 gal capacity containing hazardous material; or undeclared hazardous material discovered.	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. (A reportable incident *must* be reported by telephone, not online.) For infectious substances, notice may be given to the Director, Centers for Disease Control and Prevention, U.S. Public Health Service instead of NRC.	Within 30 days after discovery: to US DOT on DOT Form F 5800.1 (01-2004) "Hazardous Materials Incident Report." Report online at https://hazmatonline.phmsa.dot.gov/incident/ 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%. See regulation for exceptions to written report.	NRC 800-424-8802 or online at www.nrc.uscg.mil U.S. Public Health Service 800-232-0124 For further information contact US DOT Hazardous Materials Information Center at 800-467-4922 or online at www.phmsa.dot.gov/hazmat
NREPA 1994 PA 451 Part 31, Water Resources Protection (Release to **surface of ground**, **surface water , groundwater** or **public sewer system**)	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. See Part 5 rules, effective 8/31/01, for details and exemptions. HB 5586 effective 6/15/04 amended the reporting requirements. *Rule revisions pending as of November 2014.*	As soon as practicable after detection: to PEAS *and* 911 by owner, operator or manager. State agencies call 911 if release reported to them by another state or Canada.	Within 10 days after release: to DEQ-WRD district supervisor *and* to the local health department where the release occurred, outlining cause, discovery, response & prevention of recurrence.	PEAS: 800-292-4706 For further information contact DEQ-WRD

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
CWA Section 311 33 CFR 153 (**Navigable waters** – Coast Guard/DOT) Control of Pollution by **Oil** and **Hazardous** Substances, Discharge Removal	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**. 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. 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.	Immediate: to NRC by person in charge of vessel or facility. If direct reporting to NRC not practicable, may report to district Coast Guard or EPA predesignated OSC.	Not required.	NRC 800-424-8802 or online at www.nrc.uscg.mil District 9 Coast Guard 216-902-6117 EPA Region 5 for predesignated OSC 312-353-2318 For further information contact EPA Region 5 at 312-353-8200 or District 9 Coast Guard at 216-902-6045
CWA Section 311 40 CFR 110 (**Discharge of Oil**)	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. 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.	Immediate: to NRC by person in charge of vessel or facility.	Not required.	NRC 800-424-8802 or online at www.nrc.uscg.mil For further information contact DEQ-WRD
NREPA 1994 PA 451 Part 31, Water Resources Protection (**Sewer Systems**)	Discharge of untreated sewage or partially treated sewage from a **sewer system** onto land or into the waters of the state. "Sewer system" means a sewer system designed and used to convey sanitary sewage or storm water, or both.	Immediate (within 24 hours): to DEQ-ODWMA district office (PEAS after hours); Local health depts.; Daily newspaper circulated in source & affected counties; & Affected municipalities.	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.	PEAS: 800-292-4706 For further information contact DEQ-ODWMA
NREPA 1994 PA 451 Part 41, **Sewerage Systems**	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. Sewerage systems handle sanitary sewage or other industrial liquid wastes.	Promptly: to DEQ-ODWMA district office (PEAS after hours) by owner.	Within 72 hours: to DEQ-ODWMA district supervisor, outlining cause, discovery, corrective actions taken to minimize impact, restore operations, and eliminate future unpermitted discharges.	PEAS: 800-292-4706 For further information contact DEQ-ODWMA

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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
NREPA 1994 PA 451 Part 211, **Underground Storage Tanks** Part 213, Leaking Underground Storage Tanks	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. 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.	(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. Includes releases discovered years after UST system removed	(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.	Email: deq-std-tanks@michigan.gov Fax:517-335-2245 For further information contact DEQ-RRD or phone 800-MICHUST
NREPA 1994 PA 451 Part 111, **Hazardous Waste** Management (Generators; Treatment, Storage & Disposal Facilities (TSDF); Transporters)	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. Additional hazardous waste reporting requirements under NREPA Part 201 and CERCLA. NREPA Part 111 requires transporters to comply with 49 CFR 171 and 33 CFR 153.	Immediate: to PEAS (or for Tank systems/secondary containment, within 24 hours of discovery: to DEQ-OWMRP) and to NRC if threat to human health or environment outside facility by generator, or owner or operator of TSDF, or transporter.	For large quantity generators and TSDF: Within 15 days after incident IF the contingency plan had to be implemented: to DEQ-OWMRP. For tank/secondary containment systems: Within 30 days of discovery: to DEQ-OWMRP. For transporters: to US DOT if required per 49 CFR 171.	PEAS: 800-292-4706 NRC 800-424-8802 or online at www.nrc.uscg.mil For further information contact DEQ-OWMRP
NREPA 1994 PA 451 Part 121, **Liquid Industrial Waste**	The **liquid industrial waste** spill could threaten public health, safety, welfare, or the environment, or has reached surface water or groundwater. 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.	Immediate: to PEAS and local authorities by generator, transporter, or owner or operator of facility. Refer to MCL 324.12111(1) for required report elements	Prepare within 30 days after incident. Submit upon request: to DEQ-OWMRP district supervisor. Refer to MCL 324.12111(1) for required report elements	PEAS: 800-292-4706 For further information contact DEQ-OWMRP
NREPA 1994 PA 451 Part 55, **Air Pollution** Control	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. Written follow-up report only required for emission exceedences lasting > 2 hours.	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.	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.	PEAS: 800-292-4706 For further information contact DEQ-AQD

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Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
NREPA 1994 PA 451 Part 55, **Air Pollution** Control (Permit to Install Exemptions)	Emergency venting of **natural gas** from transmission and distributions systems or **field gas** from gathering lines in amounts > 1,000,000 standard cubic feet per event. 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.	Within 24 hours of the event: to PEAS by owner or operator.	Not required.	PEAS: 800-292-4706 For further information contact DEQ-AQD
Public Health Code 1978 PA 368 Part 133, **Dry Cleaning**	Condition or incident presents a threat or hazard to **public health** or safety.	Immediate: to DEQ-AQD district office (PEAS after hours) by owner or operator.	Within 30 days after incident: To DEQ-AQD district supervisor.	PEAS: 800-292-4706 For further information contact DEQ-AQD
NREPA 1994 PA 451 Part 615, Supervisor of Wells (**oil and gas production fields**)	A loss, spill or release of (1) any amount of **brine**, **crude oil**, or **oil or gas field waste** *unless* 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.	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.	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 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.	PEAS: 800-292-4706 For further information contact DEQ-OOGM
49 CFR 191 Transportation of Natural and Other **Gas by Pipeline**	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. Written Incident reports not required for LNG facilities. 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.)	Earliest practicable moment following discovery: to NRC by operator. Notification must electronic unless there is a safety-related condition to report.	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" Supplemental report filed as necessary as soon as practicable.	NRC 800-424-8802 or online at www.nrc.uscg.mil For further information contact US DOT Pipeline Safety Information Center at 202-366-4595 or online at http://ops.dot.gov

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Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
49 CFR 195 Transportation of **Hazardous Liquids by Pipeline**	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 $\geq$ 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) 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.)	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.	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" Supplemental report must be filed within 30 days after operator receives changes or additions to original report.	NRC 800-424-8802 or online at www.nrc.uscg.mil For further information contact US DOT Pipeline Safety Information Center at 202-366-4595 or online at http://ops.dot.gov
1978 PA 368 Part 135, **Radiation** Control	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. 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.	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.	Within 30 days after release: to DEQ-OWMRP Radiological Protection Section by licensee or registrant. Written report also required if level of radiation or concentration of radioactive material in unrestricted area >10 times any applicable limit. See Rule 250 (R 325.5250) for required report content.	DEQ-OWMRP Radiological Protection Section 517-284-5185 MSP Operations Div 517-241-8000 PEAS: 800-292-4706 For further information contact DEQ-OWMRP Radiological Protection Section
10 CFR 20 (Standards for Protection Against **Radiation**)	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. 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.	Immediate or within 24 hours (see reporting criteria): to USNRC by USNRC Licensee responsible for the incident.	Within 30 days of incident: to USNRC by licensee. Report content specified in 10 CFR 20.2003 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.	US Nuclear Regulatory Commission (USNRC) 301-816-5100 For further information contact DEQ-OWMRP Radiological Protection Section 517-284-5185

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Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
MIOSHA 1974 PA 154 Section 61, Records & Reports; Notice of **Fatalities or Hospitalization**	A release that results in a **fatality** within 30 days of the incident or in-patient **hospitalization** within 24 hours of the incident. Note: the OSHA amendment to require employers to report all work-related hospitalization s within 24 hours becomes effective Jan 1, 2015. Michigan intends to adopt the new rules by reference within 6 months of the Sept 18, 2014 FR publication.	Within 8 hours: for a fatality or Within 24 hours: for hospitalization to MIOSHA Hotline by Employer.	Not required.	MIOSHA Fatality or Catastrophe Hotline 800-858-0397 For further information contact LARA-MIOSHA 517-322-1831
TSCA 40 CFR 761.125 (**PCBs**)	Spills of **PCB**s 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

Table prepared by the Michigan SARA Title III Program in the DEQ

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

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APPENDIX D

NATURALLY OCCURRING PHENOMENON BROCHURES

Algae:
A Naturally-Occurring Phenomena

The Department of Environmental Quality often receives complaints of the presence of scum on a lake or that someone has dumped red, bright green, black or bluish-green paint, paint oil, or even antifreeze, into a lake, river, or stream. This phenomenon is often due to the presence of algae rather than the discharge of some type of substance.

Algae are simple plants that live in oceans, lakes, rivers, ponds, and moist soil. Algae grow in many forms. Some are microscopic and consist of just one cell and others are made up of many cells that form strands or colonies. Algae are less evolved than aquatic plants as they lack a true root, leaf, and stem system. Some algae species drift or swim, while others are attached to stones or aquatic plants in the water. All algae contain chlorophyll (a green pigment). They help purify the air and water by the process of photosynthesis.

Some algae multiply rapidly in polluted lakes and rivers. Thick layers of algae, called algal blooms, may form when nutrients (mainly phosphorus and nitrogen) are added to the water in amounts in excess of naturally-occurring nutrients. Fertilizers, pet waste, improperly functioning septic tanks, grass clippings, leaves, and other yard wastes are all sources of nutrients. The increased algae population sometimes upset the natural balance of life in water because during algae decomposition, oxygen is removed from the water and this may cause fish to die.

Algae are generally grouped according to color. The color is based upon the chlorophyll and other pigments found in the algae cells. Blooms of algae can give the water an unpleasant taste or odor, reduce clarity, and color the water body a vivid green, brown, yellow, or even red, depending on the species of algae.

Blue-Green Algae

The cells of blue-green algae are different from the other algae. Most blue-green algae can be seen only with a microscope and often smells badly. Besides chlorophyll, they contain blue or red pigments. Although lakes with large numbers of blue-green algae usually appear blue-green in color, the combination of pigments can cause some blooms to appear reddish, brownish, or even black. Unlike other algae which use nitrogen available in the water, many blue-green algae species can use nitrogen from the air as a nutrient source. Due to this ability, blue-green algae blooms most often occur in late summer when the nitrogen in the water is usually lower. A few species of blue-green algae form slippery, dark coatings on rocks along rivers and lakeshores, while other species of blue-green algae are toxic and can poison animals that drink water containing these organisms.

Notice the different color appearances due to pigments.

Green Algae

Green algae occur in fresh water in a free-floating form. Most species are microscopic and live in lakes, ponds, and streams. Large quantities of such algae may color an entire lake and appear like green paint. Green algae blooms are often found during early to mid-summer months. However, some lakes have been known to reflect a green color during a "whiting event" not related to algae bloom. This event does not produce thick surface algae mats.

If you find pollution and believe it is human-induced, please report it to the State of Michigan's Pollution Emergency Alerting System (PEAS) hotline: 1-800-292-4706.

For more information, including tips to help reduce the amount of nutrients that can enter a lake from your home activities, please contact any Surface Water Quality Division district office or call the State of Michigan's Environmental Assistance Center at 1-800-662-9278.

This publication was developed through the cooperative efforts of the Environmental Assistance and Surface Water Quality Divisions, Michigan Department of Environmental Quality, 800-662-9278.

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MDEQ Michigan Department of Environmental Quality

Algae

DEQ

John Engler, Governor ◆ Russell J. Harding, Director

Oil-Like Films and Slimes (Bacteria): A Naturally-Occurring Phenomena

The Department of Environmental Quality often receives complaints claiming that "someone dumped paint or a rust-colored substance" or that there is an unnatural colored oil-like sheen in moist areas or in a water body. Some oil-like films, coatings, and slimes, although they may look bad, are natural phenomena. These phenomena are caused by single-celled organisms called bacteria.

Slimes, films, and rock coatings can be found anywhere that groundwater carry minerals such as iron, manganese, copper, and sulfur. Slimes, oil-like films, and rock coatings are often made by bacteria that are reacting to the presence of minerals in the water. Bacteria live in wet areas, including: on the water surface, in the water column, and in the lake sediment. Some bacteria are getting energy and some are performing other life functions by transforming minerals to different chemical forms. These bacteria are of no threat to human health and have been involved in the iron and manganese cycles for billions of years. Some bacteria are very useful because they remove harmful materials from water.

A bacteria film is on the water: notice the broken appearance.

Bacteria create oil-like films when they attach themselves to the water surface. Sunlight bounces off the films, giving them an oily appearance. To test the difference between a bacterial film and oil floating on the water, break the film. If the film stays broken, it is a natural bacterial film. If it flows back into place, it is petroleum, which indicates pollution.

Notice the purple (sulfur).

Bacteria produce different color films, coatings, and slimes. Bacteria that precipitate (take out of water as a solid) copper minerals may make turquoise blue films. Green and purple bacterial slimes may appear when sulfur is present, while white slimes occur in the presence of aluminum, sulfur, or calcium minerals.

If you find pollution and believe it is human-induced, please report it to the State of Michigan's Pollution Emergency Alerting System (PEAS) hotline at 1-800-292-4706. For more information please contact any Surface Water Quality Division district office or call the State of Michigan's Environmental Assistance Center at 1-800-662-9278.

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Michigan Department of Environmental Quality

Bacteria

John Engler, Governor ◆ Russell J. Harding, Director

DEQ

Bryozoan

John Engler, Governor ◆ Russell J. Harding, Director

Bryozoan Colonies: A Naturally-Occurring Phenomena

The Department of Environmental Quality often receives complaints claiming that there are gelatinous balls, floating blobs and even "water boogers" some as large as basketballs on the lake shore or in a lake or pond. This phenomenon is due to the presence of bryozoans, also called moss animals.

Bryozoans are water animals that live in colonies made up of microscopically-connected individuals called zooids. Bryozoans are invertebrates (animals without backbones) that have a box-like or tube-shaped body, a U-shaped gut, and a cluster of tentacles to trap small particles of food. Worldwide, there are about 5,000 species of bryozoans.

Colonies of freshwater bryozoans form gelatinous ball-like masses and are commonly found in small farm ponds in water less than a meter in depth and in shallow eutrophic (nutrient enriched) lakes and open areas of swamps for brief periods. They have also been reported to wash up on shores of deep inland lakes after storms.

If you find pollution and believe it is human-induced, please report it to the State of Michigan's Pollution Emergency Alerting System (PEAS) hotline: 1-800-292-4706. For more information, please contact any Surface Water Quality Division district office or call the State of Michigan's Environmental Assistance Center at 1-800-662-9278.

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Foam:
A Naturally-Occurring Phenomena

The Department of Environmental Quality often receives complaints claiming that "someone discharged laundry detergents into the lake" or that there are suds on the river or stream. This phenomenon is often the result of natural processes, not environmental pollution. Foam can be formed when the physical characteristics of the water are altered by the presence of organic materials in the water.

The foam that appears along lakeshores is most often the result of the natural die-off of aquatic plants. Plants are made up of organic material, including oils (i.e., corn oil and vegetable oil). When the plants die and decompose, the oils contained in the plant cells are released and float to the surface. Once the oils reach the lake surface, wind and wave action pushes them to the shore. The concentration of the oil changes the physical nature of the water, making foam formation easier. The turbulence and wave action at the beach introduces air into the organically enriched water, which forms the bubbles.

Foam commonly occurs in waters with high organic content such as productive lakes, bog lakes, and in streams that originate from bog lakes, wetlands, or woody areas. Oftentimes, streams that originate from woody areas will have a brown tint in the water. The brown tint is often caused by the presence of tannin, which is a substance that gives wood its brown color. The tannin is released during the decomposition of wood along with other materials that cause foaming when they are introduced in water. It is quite common to find foam in dark-colored streams, especially during late fall and winter, when plant materials are decomposing in the water.

Naturally-occurring foam: on Stoney Creek in Southeast Michigan and on Grand River in the Jackson area.

Some foam in water can indicate pollution. When deciding if the foam is natural or caused by pollution, consider the following:

- ◆Wind direction or turbulence: natural foam occurrences on the beach coincide with the onshore winds. Often, windrows of foam can be found along a shoreline and streaks of foam may form on open waters during windy days. Natural occurrences in rivers can be found downstream of a turbulent site.
- ◆Proximity to a potential pollution source: some entities such as the textile industry, paper production facilities, oil industries, and fire fighting activities work with materials that cause foaming in water. If these materials are released to a water body in large quantities, they can cause foaming. In addition, the presence of silt in water, such as from a construction site can cause foam.
- ◆Presence of decomposing plants or organic material in the water.
- ◆Feeling: natural foam is usually persistent, light, not slimy to the touch.

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Foam

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Pollen:
A Naturally-Occurring Phenomena

Tree pollen on and in water.

Pollen from plants, especially trees like pine and cottonwood, can be found in the late spring and in summer floating on and settling in surface waters. This naturally occurring phenomenon can look like a film on the water or appear as discolored pockets in the water. Pollen has been reported to the Michigan Department of Environmental Quality as yellow paint, white paint, oil, scum, and even sludge. This phenomenon is caused by plant pollen that is distributed onto the water where it sticks and collects.

Pollen consists of tiny grains that are produced in flowering and cone-bearing plants. Pollen grains of different plant species vary in shape, size, and surface features. Most pollen grains are round or oblong and range from 15 micrometers to more than 200 micrometers wide. (Ten thousand micrometers equal one centimeter). Every grain has an outer shell, which may be smooth or wrinkled or covered with spines or knobs. This shell prevents the inner cells from drying out.

The wind has a major role in carrying pollen for plant reproduction as it blows pollen from one flower or cone to another. Plants such as maize and wheat, which are pollinated by wind, produce vast amounts of pollen–a maize plant can produce more than 18 million pollen grains. Wind pollinated plants include many trees, various crops, grasses, and nettles. The wind may carry pollen grains 90 miles or farther from the plant. On some windy days, you can actually watch the pollen being carried from trees, especially evergreens.

Some airborne particles that collect in water can indicate pollution. When deciding if the phenomenon is natural or caused by pollution, consider the following:

Pollen washing ashore.

- Time of year: allergy season (especially spring and summer) usually coincides with this phenomenon.
- Oil sheen: no oil sheen will be visible, only a film may appear.
- Staining: pollen usually will not stain porous material.
- Wind direction: pollen will be found downwind of the plant source. It will accumulate on the ground and on everything around, including cars and in mud puddles.
- Feeling of substance: pollen should feel course, not slimy to the touch.

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Special thanks and credit to Mary Hollinger, photographer, Huntingtown, Maryland.

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Pollen

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Whiting Events
(Calcium Carbonate Precipitate):
A Naturally-Occurring Phenomena

The Department of Environmental Quality often receives complaints claiming that someone dumped a white milky substance into the lake. In some lakes, a naturally-occurring phenomenon makes the color of the water change from clear blue to gray or milky white. This phenomenon is often the result of natural processes, not environmental pollution.

The cause for this whiting phenomenon is the precipitation (coming out of the water as a solid) of calcium carbonate. Calcium carbonate is a white, crystalline mineral that is widely distributed in nature and is the main ingredient in limestone, marble, coral, calcite, and chalk. Whiting events occur in lakes with very high concentrations of calcium carbonate (hard water lakes) during early summer. As the calcium carbonate precipitates, it forms chalky white clouds underwater and rains calcium carbonate on the lake bottom. When the calcium carbonate particles consolidate on the lake bottom, they form a soft rock called marl.

Marl from lake bottom (left) and calcite (large crystalline rock on right).

In the summers of 1998 and 1999, NASA's satellite captured images of a mysterious flush of color that spread across Lake Michigan (please refer to the photo on the cover). The color change was attributed to either a whiting event or an algae bloom.

Some white material in water can indicate pollution. When deciding if the milky appearance is natural or caused by pollution, consider the following:

- Proximity to a potential pollution source. Some industries such as mining, metal cutting, salt processing, and paper manufacturing have materials that can cause water to appear milky when released into the environment. A defined waste stream into the lake could indicate a pollutant source, while a sudden change of color from within the lake may indicate a whiting event.
- The time of year. Whiting events most often occur in early to mid-summer.
- A simple field test. Gather white particles by filtering some of the lake water through a fine filter. Next, place a drop of vinegar on the filtered white particles. Bubbling or fizzing will occur in the presence of calcium carbonate. This is the same reaction that would occur if you put vinegar on baking soda.

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Special thanks and credit to Larry Bean, rock collector, Livonia, Michigan.

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Whiting Events

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