STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
GRAND RAPIDS

GRETCHEN WHITMER
GOVERNOR

LIESL EICHLER CLARK
DIRECTOR

January 29, 2019

Mr. Scott Nienhuis, Streets Supervisor
City of Zeeland
21 South Elm Street
Zeeland, Michigan 49464

Dear Mr. Nienhuis:

SUBJECT: Illicit Discharge Elimination Plan (IDEP) Review
National Pollutant Discharge Elimination System (NPDES)
Certificate of Coverage (COC) No. MIG610214
Municipal Separate Storm Sewer System (MS4)

On June 14, 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 City of Zeeland (City) COC MIG610214. 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 June 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

as/lr

cc: Ms. Kelly Goward, MACC

Illicit Discharge Elimination Program Plan

For

City of Zeeland

National Pollutant Discharge Elimination System
Stormwater Discharge Permit
Original developed November 2004
Revised May 2005

2018

Approved January 29, 2019

Prepared by
Macatawa Area Coordinating Council
301 Douglas Ave
Holland MI 49424

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I. Introduction

The goal of this Illicit Discharge Elimination Plan (IDEP) is to develop and implement a program within the City of Zeeland that will aid in the improvement of surface water quality in the Macatawa Watershed. This program will be implemented by the City of Zeeland on any owned municipal separate storm sewer systems (MS4s) within the City's jurisdiction. This plan was originally developed in 2004 per the 2003 Certificates of Coverage issued to the Macatawa Watershed MS4 permittees (including the City of Zeeland), who at that time, applied for coverage under a Watershed General Permit. The plan was revised in April 2005 and approved by the Michigan Department of Environmental Quality (MDEQ). This revised plan is being submitted with the City of Zeeland's re-application for an MS4 permit from the State of Michigan.

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. The City of Zeeland will continue to meet with the Committee on a quarterly basis (or more often as needed) to meet any needs or further developments needed in the City of Zeeland IDEP plan.

II. Objectives

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

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

C. Minimize infiltration of seepage from sanitary sewers into separate storm sewer system

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

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

F. Review existing ordinances and establish necessary enforcement measures

A. Maintain a Map of Discharge Points and Outfalls

The City of Zeeland initially completed the process of identifying point sources, both discharge points and outfalls, in 2005. All information is stored in a database maintained by the Macatawa Area Coordinating Council. The database includes an identification code assigned to each discharge point and outfall, a description of the location, latitude and longitude, the receiving water body, structural information about the discharge pipe, and other information. New discharge points and outfalls are reported to the MACC for inclusion in the database once they are discovered or constructed. Discharge points and outfalls may also be deleted upon discovery that they do not fit the definition of a discharge point or outfall, they no longer exist or ownership is transferred to another entity. Any changes made to the City of Zeeland system will be reported to the MACC within 30 days of discovery so that the database can be updated. The City of Zeeland also maintains digital and hard copies of all City owned storm sewer infrastructure maps or other records in the Street Maintenance office.

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 during dry weather. Dry weather conditions exist if there has been 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 (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 monitoring form. 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), vegetation, and erosion. 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, water clarity (visual assessment of turbidity), floatables, deposits/stains, vegetation condition, structural conditions, and biology (bacterial sheens, algae or slimes). The following chemical assessments will also be completed on site when possible: pH, ammonia, surfactants, and temperature. Ammonia and pH and will be assessed using test strips and 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 on the monitoring form. If sewage is suspected then a sample will be collected, if possible, and tested at the Clean Water Plant 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 monitoring form.

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 proceed within two 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 City of Zeeland 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 Illicit Discharge Monitoring Form.

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: pH, ammonia, fluoride, and detergents using the sampling methods as described in the proceeding section (*Procedure for Performing a Field Screening when Flow is Present*). All parameters will be measured against the MDEQ and U.S. Environmental Protection Agency 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. The OCDPH will perform any necessary testing to confirm bacterial contamination. The owner will work with the OCDPH as soon as possible to eliminate the bacterial discharge. The Department of Public

Health will follow the local and state regulations for public notification. The owner will work with the City of Zeeland and the Zeeland Clean Water Plant to investigate the seepage of sanitary sewers into the MS4.

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 (OCDPH) or the MDEQ 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 Illicit Discharge Monitoring Form as documentation of the conditions on site.

l. If a suspected facility is inspected and no illicit connection was found at that time, the owner/operator will be notified in writing of such findings.

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 City of Zeeland will notify the property owner pursuant to the City of Zeeland Storm Water Ordinance (Division 8) and instruct the illicit discharge to be eliminated within a reasonable time period based on the nature of the discharge and the threat to public health. A schedule for the elimination of confirmed illicit connections or discharges will be developed between the City of Zeeland and the owner of the illicit connection/discharge. The schedule will be determined based on public health and water quality concerns. Any illicit connections that may jeopardize either will be eliminated within 5 days. If the illicit connection is a sanitary sewer, an immediate cease and desist order is sent to the owner upon discovery. All illicit discharges must be completely eliminated within 30 days. The notification requires the owner to inform the City of Zeeland when the illicit connection/discharge has been eliminated. If the owner does not eliminate the illicit connection/discharge within the specified time period, the City of Zeeland will take the action allowable pursuant to the City of Zeeland Storm Water Ordinance (Division 8) to eliminate the illicit discharge up to having the necessary work done to eliminate the connection/discharge and billing the owner for the expenses. Issues of non-compliance will be forwarded to the City Attorney to compel compliance, enforce violations and pursue legal action if necessary. The City of Zeeland will maintain copies of all documentation regarding illicit discharges including information about enforcement, elimination and cleanup actions taken (see sample documentation form in Appendix B).

If the illicit connection is an illicit sanitary hookup, the Zeeland Clean Water Plant will be notified upon discovery and a cease and desist order is sent immediately to the landowner. Notice is also provided to the Ottawa County Department of Public Health, the MDEQ and others as required by

law. The owner is responsible for correcting the connection and returning to compliance with all applicable City rules and regulations within 30 days of the initial notification. The case may be forwarded to the City Attorney if necessary to compel compliance.

5. Procedure for Responding to Illegal Dumping/Spills

The City of Zeeland receives citizen complaints regarding illicit dumping or spills into an MS4 or Waters of the State at their main office in City Hall. Staff receiving the call record the information and forward to the appropriate staff for follow up. A representative from the City will perform an initial site investigation to verify the nature of the complaint and determine the appropriate response. Observations will be documented, including photographs if possible, and provided to the applicable agency for enforcement. Any sanitary or septic system issues will be forwarded to the Zeeland Clean Water Plant. Landowners with failing septic systems will be referred to the Ottawa County Health Department for assistance and will be required to hook up to the City sanitary sewer system as no new private septic systems are allowed within City limits per City ordinance (Chapter 40, Article 5, Division 7). If the dumping or spill occurred in a designated county drain, the Ottawa County Water Resources Commissioner's (OCWRC's) office will be contacted. If the complaint is regarding a construction site permitted under Part 91, the County Enforcing Agency (OCWRC) will be contacted. All other issues that directly impact the City's MS4 will be addressed by City staff pursuant to the authority outlined in the Storm Water Ordinance. Once the owner of the spill has been identified then the procedure described in Section 4 above will be followed to eliminate and cleanup the dump site or spill. The City of Zeeland will maintain copies of all documentation regarding complaints including information about enforcement and elimination or cleanup actions taken.

The City of Zeeland Stormwater Ordinance requires that dischargers who accidentally discharges substances other than stormwater into their system or Waters of the State notify the City immediately. If the information is provided orally, then a written report must be submitted within five (5) days that details the material discharged and the cause; the date, time and volume of discharge; measures taken to clean up the discharge and prevent recurrence; and the name and contact information of the person making the report and the person that can be contacted for additional information.

In the case of an emergency to protect public safety, health and welfare and prevent loss of life, injury or damage as a result of illegal dumping and spills or illicit connections/discharges, the City is authorized to take necessary measures to remediate the situation. Once the responsible party is identified, they will be required to reimburse the City for the costs incurred.

City of Zeeland 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 B). 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.

6. Training

Training of field inspectors will be arranged by the City of Zeeland 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 C). 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 Macatawa Area Coordinating Council's (MACC's) website and will be incorporated into online training that is being developed by the MACC. The previous are examples of what type of materials the training may include. If other materials become available that are deemed more appropriate, the training will include those materials.

Dry weather screening inspectors 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.

City of Zeeland 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 City of Zeeland'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 City of Zeeland 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 City of Zeeland.

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 Zeeland Clean Water Plant. Sanitary sewer overflows will be addressed with the owner and/or perpetrator in accordance with the requirements of wastewater NPDES permitting.

There are no on-site sanitary disposal systems within the City of Zeeland.

D. Maintain a Records Management System

The MACC, on behalf of the City of Zeeland, maintains a database to tracking the inventory of discharge points and outfalls and the record dry weather inspections. The database contains all physical information about the storm sewer system, discharge points and outfalls. All observations and any measurements are recorded on a datasheet and provided to the MACC for entry in the database. Digital and/or hard copies of the dry weather screening forms are kept on file in the Zeeland Street Department office. The City also stores all storm sewer system construction plans and maps in either hard copy or digital formats at the Street Department office. The MACC's database will also be used to track progress of source investigations and removal of illicit connections or discharges as well as document responses to illicit dumping and/or spills. All documentation developed by the City as a result of investigations or enforcement related to illicit connections or discharge will be kept on file by the City and also forwarded to the MACC for inclusion in the database.

All monitoring information on file will be considered public information pursuant to the Freedom of Information Act.

E. Plan Evaluation

City of Zeeland staff will be asked on an annual basis via a brief survey to review the progress and effectiveness of the various aspects of the IDEP plan. They will specifically evaluate the effectiveness of using different detection methods, the number of discharges eliminated using different enforcement methods, water quality monitoring data to measure changes in the receiving water, and program efficiently and staff training frequency. This IDEP plan will be continuously implemented and developed. The Macatawa Watershed Storm Water Committee has made the commitment to meet quarterly and will discuss IDEP updates and changes as appropriate.

City of Zeeland 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. Any illicits not eliminated at time of reporting will continue to be reported in the 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. No points were identified as problematic during the first two inspection cycles. Discharge points and outfalls that have had a confirmed significant illicit discharge will be reported in the periodic progress report to MDEQ. 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 City's MS4, the receiving water of the state (from map evaluation), and the current status of the discharge.

F. Ordinances and Enforcement Procedures

Initially, 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 has reviewed the work of the IDEP inspectors and no barriers have been identified regarding the ability to inspect, investigate and eliminate illicit discharges. The City Of Zeeland adopted a Storm Water Ordinance in 1981, updated in 2006 and 2010. The ordinance remains in effect today and will be updated in order to maintain compliance with all requirements of the FY2017 MS4 permit.

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 Regulations

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. The City of Zeeland Storm Water Control Ordinance

C. The City of Zeeland Wastewater Control Ordinance

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

E. Drain Code of 1956 as amended

F. Ottawa County Soil Erosion and Sediment Control

G. Environmental Laws of the State of Michigan

H. 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. City of Zeeland Storm Water Control Ordinance

The City of Zeeland Storm Water Management Ordinance No. 826 (2006 – Chapter 18, Article II) establishes authority and control to carry out the efficient management and operation of the Zeeland Storm Water Drainage System. The ordinance allows for any county, state or federal law, rule or regulation imposing a greater restriction to control. Illicit Discharge components of this ordinance include:

1. Prohibited Discharges (Division 4, Sec 18-119). No person shall discharge to a water body, directly or indirectly, any substance other than stormwater or an exempted discharge. Any person discharging stormwater shall effectively prevent pollutants from being discharged with the stormwater, except in accordance with best management practices. The city is authorized to require dischargers to implement pollution prevention measures, utilizing best management practices (BMPs), necessary to prevent or reduce the discharge of pollutants into the city's stormwater drainage system.

2. Discharge prohibitions (Division 4, Sec 18-123)

a. *Prohibition of illicit discharges*. No person shall discharge or cause to be discharged into the municipal storm drain system or watercourses any materials, including but not limited to pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than stormwater. The commencement, conduct, or continuance of any illegal discharge to the storm drain system is prohibited except as described as follows:
    1) Discharges specified in writing by the authorized enforcement agency as being necessary to protect public health and safety.
    2) The prohibition shall not apply to any non-storm water discharge permitted under an NPDES permit, waiver, or water discharge order issued to the discharger and administered under the authority of the federal environmental requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the storm drain system.

b. *Prohibition of illicit connections*.
    1) The construction, use, maintenance or continued existence of illicit connections to the storm drain system is prohibited.
    2) This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.
    3) A person is considered to be in violation of this article if the person connects a line conveying wastewater to the MS4, or allows such a connection to continue.

3. Inspection and Sampling (Division 5, Sec. 18-145). To ensure compliance with the standards in this pervasively regulated area, the city may inspect and/or obtain stormwater samples from stormwater management facilities of any discharger to determine compliance with the requirements of this article. Upon request, the discharger shall allow the city's properly identified representative to enter upon the premises of the discharger at all hours necessary for the purposes of such inspection or sampling. The city shall provide the discharger reasonable advance notice of such inspection and/or sampling. The city or its properly identified representative may place on the discharger's property the equipment or devices used for such sampling or inspection.

4. Accidental Discharges (Division 5, Sec 18-147)
    a. Any discharger who accidentally discharges into a water body any substance other than stormwater or an exempted discharge shall immediately inform the city concerning the discharge. If such information is given orally, a written report concerning the discharge shall be filed with the city within five days. The written report shall specify:
        1) The composition of the discharge and the cause thereof.
        2) The exact date, time, and estimated volume of the discharge.

3) All measures taken to clean up the accidental discharge, and all measures proposed to be taken to reduce and prevent any recurrence.
4) The name and telephone number of the person making the report, and the name of a person who may be contacted for additional information on the matter.

5. Enforcement measures, including sanctions for violations, are outlined in Division 8.

C. City of Zeeland Wastewater Control Ordinance

The focus of the City of Zeeland Wastewater Control Ordinance (No. 819, 2005, Chapter 40, Article V) to prevent pollution of the waters of the State of Michigan and to preserve and maintain the sewage system of the City of Zeeland. Illicit Discharge aspects of this ordinance include:

1. Storm sewer is defined as a sewer line intended to carry only storm waters, surface runoff, street wash waters, and drainage. (Note: All portions of the Macatawa Watershed have separate systems for storm and sanitary usage.)

2. Permits are required for all buildings that desire to connect to the City wastewater system, including all commercial and industrial facilities (Sec. 40-299). All significant industrial users, minor industrial users, and/or other nondomestic users, shall provide and operate, at the user's expense, a monitoring manhole to allow inspection, sampling, and flow measurement of each process discharge to the collection system. The monitoring manhole location shall be located on the user's property and shall be accessible to city employees at any time (Sec. 40-300).

3. Inspections – City applicants for a wastewater connection permit shall notify the manager or city building official when the building sewer connection is ready for inspection. The inspector or authorized person shall then inspect the wastewater connection construction therein. The inspection shall be made within 48 hours after notification, excluding Saturdays, Sundays, and holidays. The inspector or authorized person bearing proper credentials and identification shall be allowed to enter upon all properties for the purpose of inspection, observation, measurement and testing in accordance with the provisions of this article. (Sec. 40-302)

4. The ordinance also establishes fees, penalties, recovery of costs due to violation and potential liability for any costs or damages resulting from the termination of service.

D. Ottawa County Water Resource Commissioner's Development Standards

The Ottawa County Water Resources Commissioner's Developmental Standards and Specifications including the Stormwater 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 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. The drain commissioner's policy is the accepted stormwater management policy in the Ottawa County portion of the Macatawa Watershed.

E. 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** Discharge of certain sewage or waste matter into drains is prohibited – A municipality, industry, public or private corporation, individual. Partnership association, or any other entity 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 drains detrimental deposits, objectionable odor nuisance, injury to drainage conduits or structures, or 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. If the water resources commission (of the State of Michigan) determines that sewage or wastes carried by any existing county or intercounty drain constitutes unlawful discharge as prescribed by section 6 of Act No. 245 of the Public Acts of 1929, as amended, being section 323.6 of the Compiled Laws of 1948, that 1 or more users of the drain are responsible for the discharge of sewage or other wastes into the drain and such users of the drain and the sources of pollution are identified in the order of the water resources commission and that the cleaning out such drain or the construction of disposal plants, filtration beds or other mechanical devices to purify the flow of such drain is necessary, it may issue an order of determination to the drain commissioner, as prescribed by section 7 of Act No. 245 of the Public Acts of 1929, as amended, being section 323.7 of the Compiled Laws of 1948, to that effect. That order serves as a petition under and shall waive the determination of necessity by a drainage board pursuant to chapters 20 and 21 or a board of determination pursuant to section 72 or 102, whichever is applicable.

F. Soil Erosion and Sedimentation Control

Part 91, Soil Erosion and Sedimentation Control, of the Natural Resources and Environmental Protection Act, 1994 MI PA 451 as amended by 2000 PA 504 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 Resource Commissioner's office. This statute provides a mechanism to address sediment, a pollutant type discharge, into the Macatawa drainage systems.

G. Michigan Department of Environmental Quality

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 MDEQ telephone number for pollution emergencies is 1-800-292-4706. MDEQ also maintains a quick response Environmental Assistance Center, telephone number 1-800-662-9278.

H. Building Department Inspections

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.

I. Rules Summary

An Illicit Discharge Elimination Plan should utilize rules already in existence pertinent to detection, and elimination of an illicit discharge. The existing rules of the public entities within the Macatawa Watershed provide a framework for both detection and elimination of illicit discharges. This framework will need to be enhanced as part of the Macatawa Watershed Illicit Discharge Elimination 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 Macatawa Watershed 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 watershed should be reviewed. Inspection of public storm drainage discharge points and outfalls in the Macatawa Watershed 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 Plan for the Macatawa Watershed.

VI. Resources

Ammonia test strips (25 for $23.85, August 2017): http://www.hach.com/ammonia-nitrogen-test-strips-0-6-0-mg-l/product?id=7640211610

pH test strips (100 for $25.39, August 2017): http://www.hach.com/ph-paper-0-14-ph-range-100-pk/product?id=7640233621&callback=qs

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

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APPENDIX A

DRY WEATHER MONITORING FORM

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Reset Form

CITY OF ZEELAND DRY WEATHER MS4 MONITORING FORM

Date: _____ Time: _____ Person Completing Form: _____

Current Weather Conditions: _____ Date of last rain: _____

Outfall #/Name: _____ Latitude/Longitude: _____

Receiving water body: _____

Outfall diameter: _____ Material or type: _____ Condition: _____

Flow observation (check one):

☐ Water flowing – Depth: _____ ☐ Standing water, no flow – Depth: _____

☐ Trace, too little to quantify ☐ Dry, no water present (*skip to Odor Assessment*)

Chemical Assessment – *complete if flowing or standing water is present*

pH: _____ NH_4: _____ Water Temp: _____°F Surfactants? ☐ YES ☐ NO

Color Assessment – *complete if flowing or standing water is present, check one*

☐ Clear ☐ Milky (grey) ☐ Muddy (brown) ☐ Black ☐ Green

Other/Comment: _____

Turbidity Assessment – *complete if flowing or standing water is present, check one*

☐ Clear ☐ Low ☐ Moderate ☐ High

Odor Assessment – *for all flow conditions, check all that apply*

☐ No odor ☐ Musty ☐ Sewage ☐ Rotten egg

☐ Gas/oil ☐ Fishy ☐ Chlorine ☐ Other: _____

Other Observations – *for all flow conditions, check all that apply*

Floatables	☐ None	☐ Trash	☐ Sewage	☐ Foam	☐ Oil	☐ Other _____
Deposits/Stain	☐ None	☐ Mineral	☐ Sediment	☐ Oil/Grease	☐ Other: _____	
Vegetation	☐ None	☐ Normal	☐ Excessive	☐ Other: _____		
Biology	☐ None	☐ Algae	☐ Slime	☐ Bacterial Sheen		
Erosion	☐ None	☐ Low	☐ Moderate	☐ Severe (attach photo)		

Comments:

Copies provided to:

☐ MACC

☐ File

☐ Follow up needed

☐ Map attached (if necessary)

☐ Photos attached (if necessary)

Inspector's signature:

APPENDIX B

STORMWATER ILLICIT DISCHARGE AND INCIDENT REPORT FORM

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Reset Form

CITY OF ZEELAND

STORMWATER ILLICIT DISCHARGE AND INCIDENT REPORT FORM

Date: **Time**:

Type of complaint:

☐ Illicit connection ☐ Illicit dumping ☐ Construction site discharge

Method reported:

☐ Discovered by City Staff ☐ Citizen complaint ☐ County employee ☐ DEQ staff ☐ Other

Location of illicit discharge:

Name of illicit discharger (if known):

Address of illicit discharger:

Action taken to correct illicit discharge (list specific steps taken)

Date illicit discharge eliminated:

Comments:

Call taken/form completed by:

Investigation performed by: **Date**:

Final report completed by: **Date**:

APPENDIX C

PART 5 NOTIFICATION REQUIREMENTS

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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

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 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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***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 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

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

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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
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

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

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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
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

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

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APPENDIX D

NATURALLY OCCURRING PHENOMENA BROCHURES

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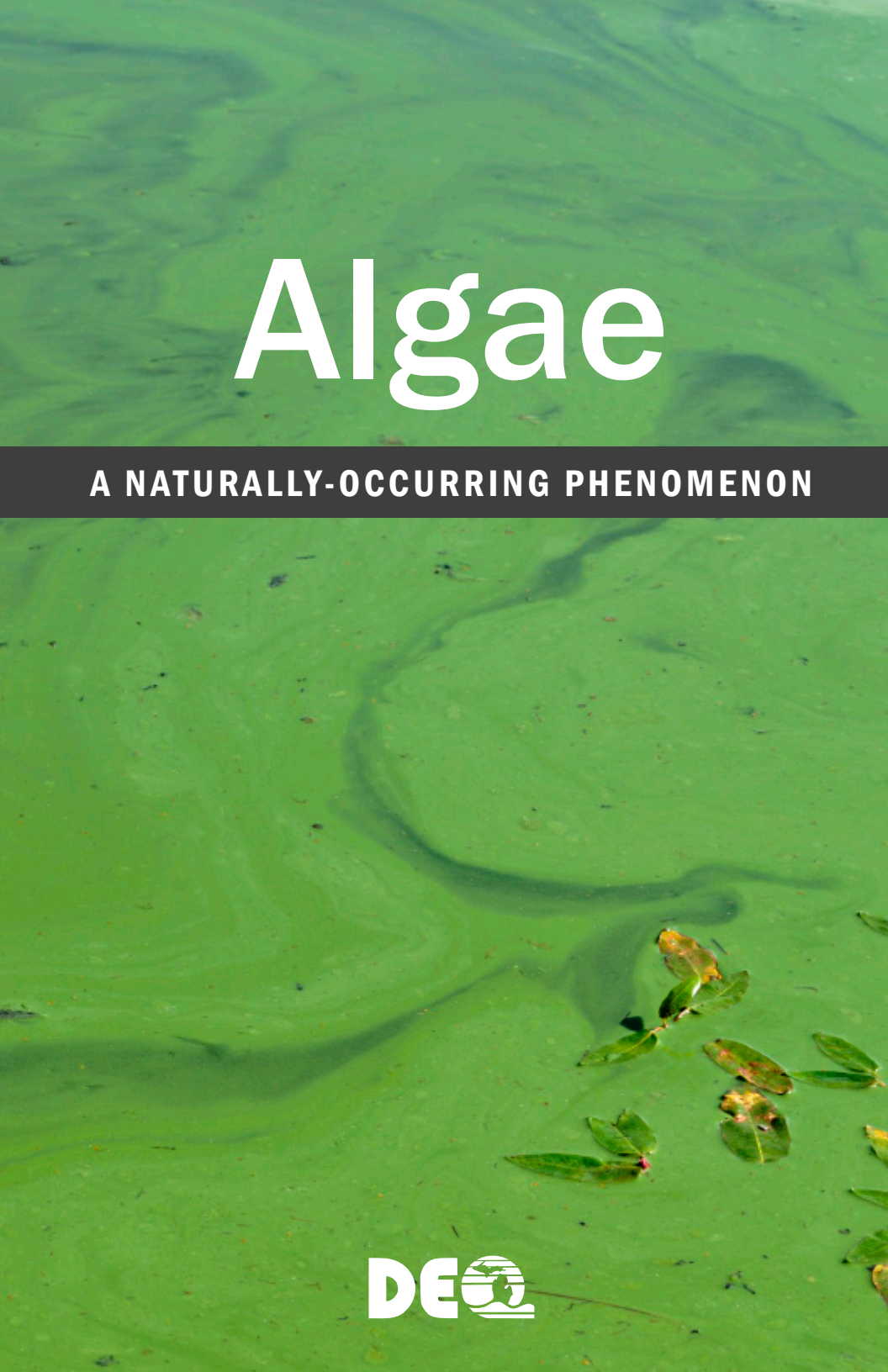
Algae

A NATURALLY-OCCURRING PHENOMENON

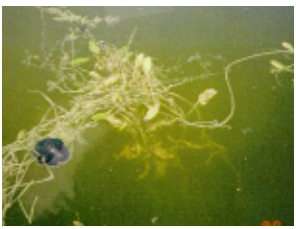


Algae

A NATURALLY-OCCURRING PHENOMENON

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, 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 more simple 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) build up in 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.

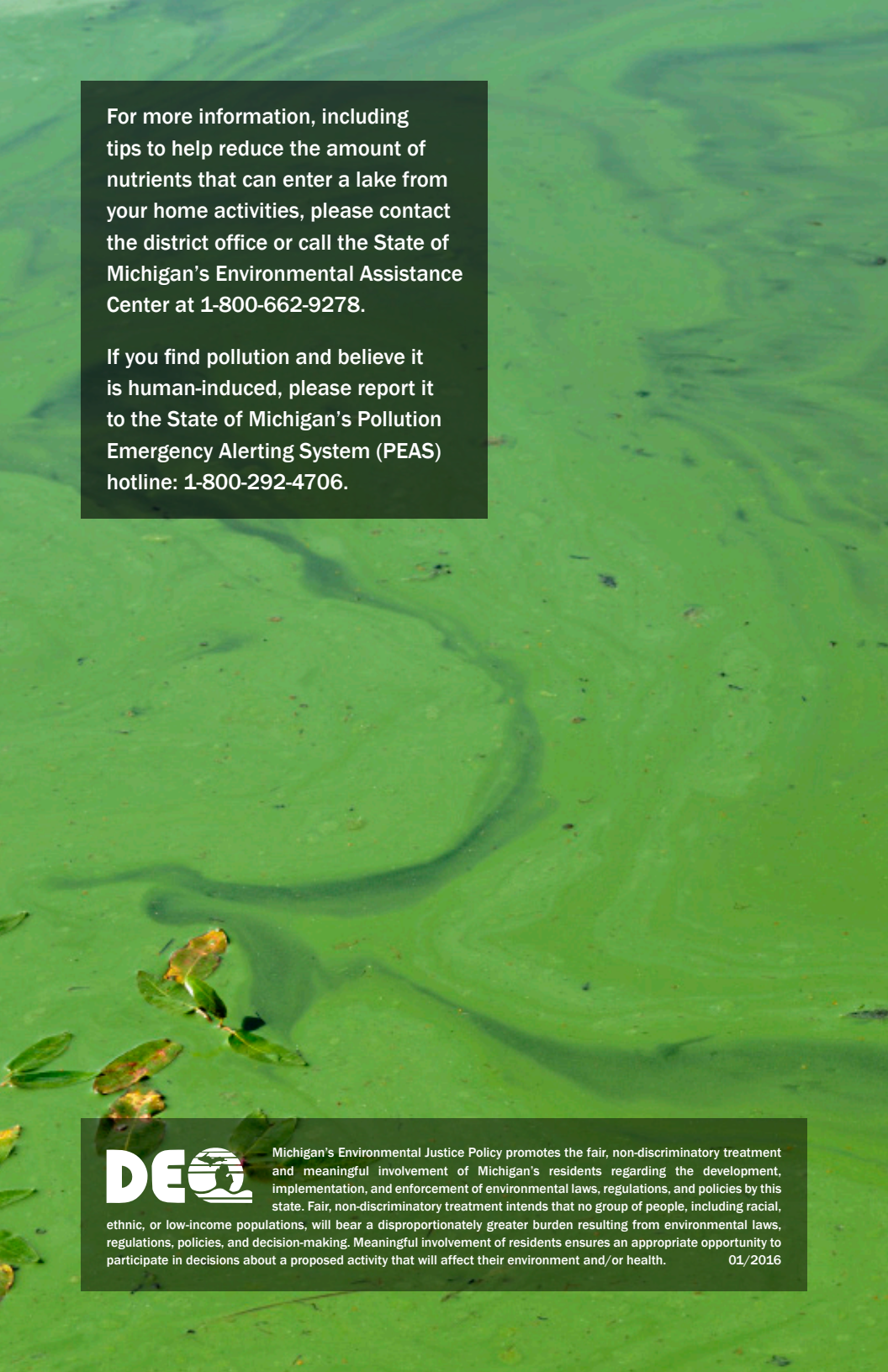
Blue-Green Algae

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 smell 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 often lower. A few species of blue-green algae form slippery, dark coatings on rocks along rivers and lakeshores. Some 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.

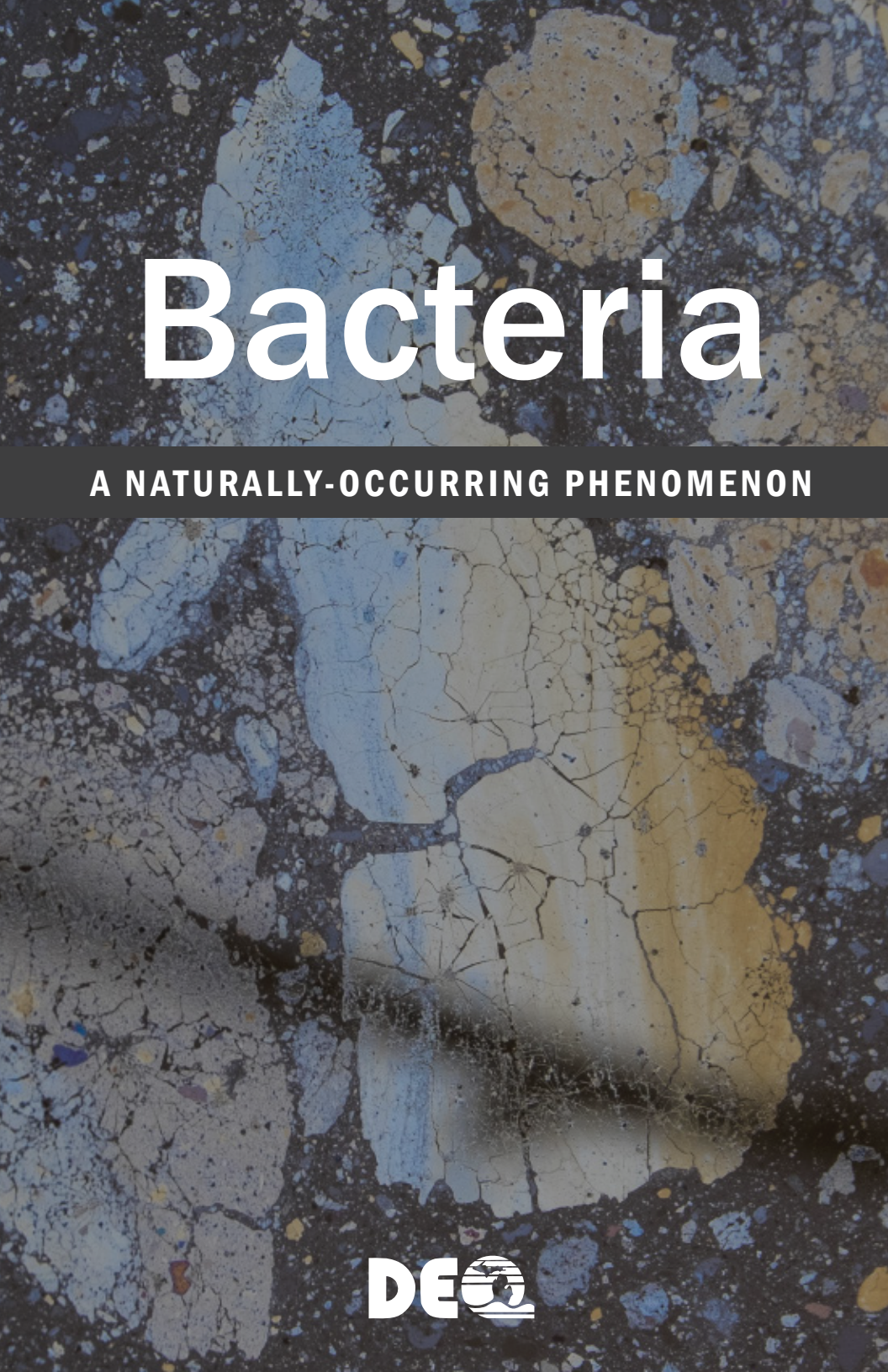


For more information, including tips to help reduce the amount of nutrients that can enter a lake from your home activities, please contact the district office or call the State of Michigan's Environmental Assistance Center at 1-800-662-9278.

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.

DEQ

Michigan's Environmental Justice Policy promotes the fair, non-discriminatory treatment and meaningful involvement of Michigan's residents regarding the development, implementation, and enforcement of environmental laws, regulations, and policies by this state. Fair, non-discriminatory treatment intends that no group of people, including racial, ethnic, or low-income populations, will bear a disproportionately greater burden resulting from environmental laws, regulations, policies, and decision-making. Meaningful involvement of residents ensures an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health. 01/2016


Bacteria
A NATURALLY-OCCURRING PHENOMENON
DEQ

Bacteria

A NATURALLY-OCCURRING PHENOMENON

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.

Notice the purple color (sulfur) and iron (brown)

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.

Bacteria produce different color films, coatings, and slimes. Bacteria that precipitate (settle 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. Iron bacteria produce brown or reddish-brown deposits.

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 district office or call the State of Michigan's Environmental Assistance Center at 1-800-662-9278.

DEQ

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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.

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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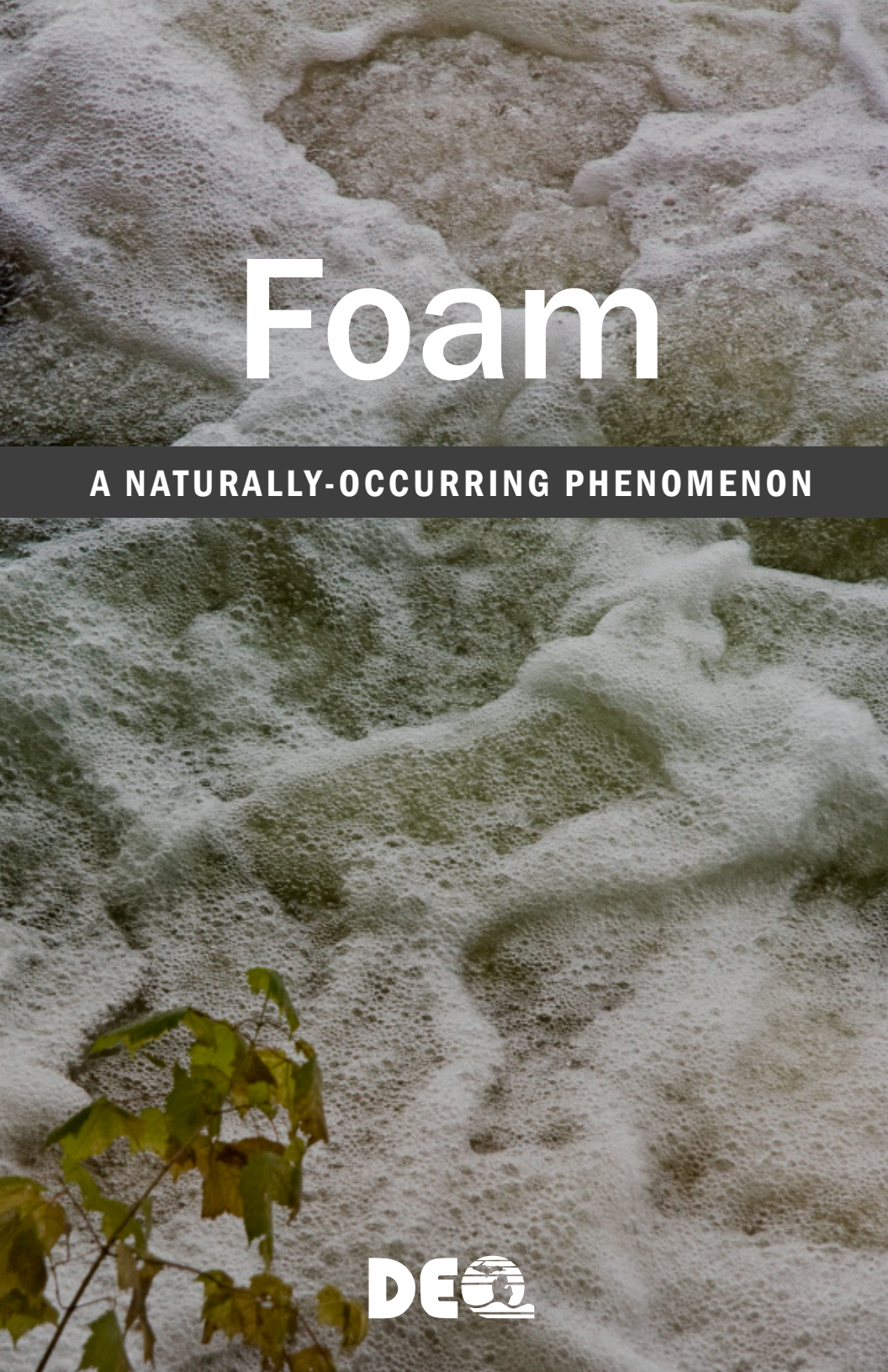

Foam
A NATURALLY-OCCURRING PHENOMENON
DEQ

Foam

A NATURALLY-OCCURRING PHENOMENON

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.

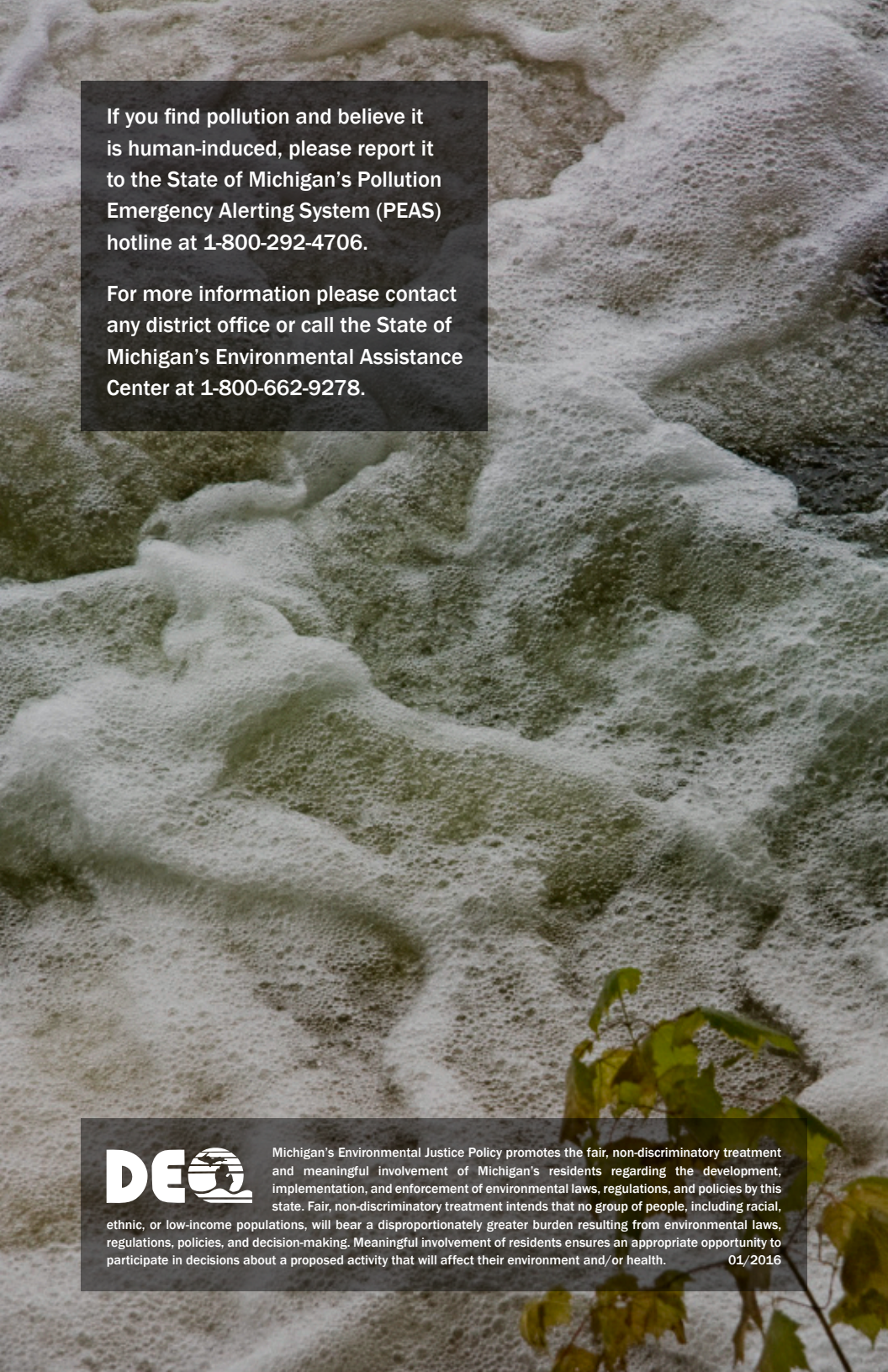
The foam that appears along lakeshores is most often the result of the natural die-off of aquatic plants. Plants are made up of organic material, including oils (e.g., corn oil and vegetable oil). When the plants die and decompose, the oils contained in the plant cells are released and float to the surface. 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 the 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 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.
- **Composition:** Presence of decomposing plants or organic material in the water.
- **Feeling:** Natural foam is usually persistent, light, not slimy to the touch.



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 district office or call the State of Michigan's Environmental Assistance Center at 1-800-662-9278.

DEQ

Michigan's Environmental Justice Policy promotes the fair, non-discriminatory treatment and meaningful involvement of Michigan's residents regarding the development, implementation, and enforcement of environmental laws, regulations, and policies by this state. Fair, non-discriminatory treatment intends that no group of people, including racial, ethnic, or low-income populations, will bear a disproportionately greater burden resulting from environmental laws, regulations, policies, and decision-making. Meaningful involvement of residents ensures an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health. 01/2016

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.

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.

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

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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Michigan Department of Environmental Quality

Pollen

John Engler, Governor ◆ Russell J. Harding, Director

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.

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.

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

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Whiting Events

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