

CHAPTER 5 – ILLICIT DISCHARGE DETECTION & ELIMINATION

Goals & Objectives

Develop an illicit discharge detection and elimination program to remove illicit connections and discharges from the municipal separate storm sewer system (MS4). A thorough awareness of the MS4 system is important to the success of an illicit discharge program. Awareness allows the MS4 operator to locate problem areas, find the source, and eliminate the discharge.

Potential sources of illicit discharge include failing septic systems, illegal business discharges, improper disposal of marina and campground sewage, overflows from sanitary sewer systems, illegal plumbing connections, illegal dumping of waste materials, and spills associated with roadway accidents and industrial activity. Illicit discharges can contribute high levels of pollutants, toxins, oil, grease, solvents, nutrients, viruses, and bacteria to receiving waterbodies. Pollutant levels from illicit discharges are concentrated and may be high enough to significantly degrade receiving water quality and threaten aquatic, wildlife, and human health.

Non-stormwater discharges or flows that are not considered illicit discharges include water line flushing, landscape irrigation, diverted stream flows, uncontaminated groundwater infiltration, uncontaminated pumped groundwater, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, fire fighting, and discharges authorized under a WPDES permit unless identified by the City as a significant source of pollutants to waters of the state.

Program Development

The City developed an illicit discharge detection and elimination ordinance. The purpose of the ordinance is to prevent and eliminate illicit discharges to the municipal separate storm sewer system (MS4). A copy of the illicit discharge ordinance is provided in Appendix E. Generally, the illicit discharge ordinance requires the following:

- No discharging, spilling, or dumping of non-stormwater substances and materials into waters of the state or the MS4 system.
- Identifies non-stormwater discharges or flows that are not considered illicit discharges.
- Establishes inspection, monitoring, sampling and enforcement authority.

The City developed forfeitures and fines for the illicit discharge ordinance. The purpose of the forfeitures and fines is to encourage compliance with the ordinance. A copy of the Fee Schedule for the Illicit Discharge Detection & Elimination Program is provided in Appendix E.

The City has dedicated funding source in a stormwater utility fee to financially support the municipal stormwater program, including Illicit Discharge Detection & Elimination. A copy of the City's stormwater utility ordinance is provided in Appendix J.

The City developed various policies and procedures to assist with implementation of the illicit discharge detection and elimination program. The policies and procedures include the following:

1. On-Going Field Screening & Routine Inspections: Procedures for conducting on-going field screening of outfalls during dry weather periods are provided in Appendix E. The Public Works Department is responsible for coordinating the on-going field screening. In addition to the on-going field screening, the City plans to search for illicit discharges, illegal connections, and sanitary leakage by conducting routine plumbing, sanitary sewer, and storm sewer inspections. The Public Works Department and Building Inspection Department are responsible for coordinating the routine plumbing inspections. The City also contracts with Kaukauna Utilities to perform Cross-Connection Inspections. The Public Works Department is responsible for coordinating the routine sanitary sewer and storm sewer inspections.
2. Responding to Illicit Discharges: Procedures for responding to known or suspected illicit discharges are provided in Appendix E. The Public Works Department, Building Inspection Department, and Fire Department are responsible for responding to illicit discharges and spills. The procedures include investigating the source of an illicit discharge or spill, responding to spills, preventing and containing spills, notifying the DNR of spills that may discharge into waters of the state, eliminating sanitary leakage into the MS4, notifying the DNR of dye testing, and notifying adjacent municipalities of illicit discharges that may enter their MS4 system.
3. Enforcement Actions: When a non-compliance issue is identified, the municipal inspector first attempts to call or speak with the responsible party. For a minor non-compliance issue, the inspector will provide a verbal "Warning Notice" or deadline for correcting the non-compliance. The majority of non-compliance issues will likely be corrected in this manner. If the verbal deadline is not met, the inspector will send a written "Notice of Violation" to the responsible party. The "Notice of Violation" will outline the required actions to be completed by a specific date and time in order to avoid enforcement actions. Enforcement actions will depend on the type and severity of non-compliance. Typically, enforcement actions will include citations and forfeitures. Citations and forfeitures will continue until the municipal inspector determines the site is compliant. Each day of non-compliance will be considered a new violation. For blatant, intentional, repetitive or severe non-compliance issues, the City has authority to immediately initiate enforcement actions, without prior notice. Other potential enforcement actions include "Cease and Desist Orders", suspending storm sewer access, suspending water supply access, suspending sanitary sewer access, and issuing a "Notice of Intent" that the municipality intends to

perform emergency work. Costs associated with emergency work will be billed to the responsible party or charged to the tax roll as a special assessment.

4. Information Submitted by the Public: Information submitted by the public can be recorded on the form provided in Appendix E, also found on the City Stormwater Management Website, and is forwarded to the Public Works Department for documentation and follow-up. Follow-up activities may consist of reviewing the MS4 map, requesting a copy of plumbing plans, conducting site inspections, performing field tests, and/or initiating enforcement actions. All follow-up activities will be documented with written reports.

The City prepared a municipal separate storm sewer system (MS4) map depicting the location of outfalls and receiving waterbodies. The map also depicts how the MS4 system is interconnected. The MS4 system is depicted in Figures 6 through 10. A larger and more detailed map of the MS4 system is provided in Appendix B. Land uses which discharge into the MS4 system are depicted in Figures 11 through 13.

Program Implementation

Each element of the illicit discharge detection and elimination program is described below including Best Management Practices (BMP), measurable goals, and proposed implementation dates. As indicated below, the illicit discharge program is integrated with the other five minimum control measures. The proposed BMPs and measurable goals were selected by the City after considering the needs of both the community and receiving waters. The purpose of the measurable goals is to track program implementation and gauge effectiveness of the overall illicit discharge detection and elimination program.

Illicit Discharge Detection & Elimination	Date
BMP: Review and enforce illicit discharge detection & elimination ordinance or other regulatory mechanism. Measurable Goals: <ul style="list-style-type: none"> ▪ Obtain public input on the ordinance or other regulatory mechanism before adopting. ▪ Adopt or modify the ordinance or other regulatory mechanism. 	Annual As Updated As Updated
BMP: Create dedicated funding sources (storm water utility, forfeitures). Measurable Goals: <ul style="list-style-type: none"> ▪ Obtain public input on the Fee Schedule before adopting or modifying. ▪ Adopt or modify the Fee Schedule. 	2022 2022
BMP: Develop municipal separate storm sewer system (MS4) map. Measurable Goals: <ul style="list-style-type: none"> ▪ Number of inlets, manholes, sewers, culverts, structural BMPs, & outfalls mapped annually. 	Annual
BMP: Conduct initial field screening, on-going field screening, & routine inspections. Measurable Goals: <ul style="list-style-type: none"> ▪ Number of MS4 outfalls searched. ▪ Number of MS4 outfalls characterized to have an illicit discharge. ▪ Number of MS4 outfalls characterized to have a "potential" illicit discharge. 	Annual Annual Annual

Illicit Discharge Detection & Elimination	Date
<ul style="list-style-type: none"> ▪ Number of plumbing systems routinely inspected. ▪ Miles of sanitary sewer & storm sewer routinely inspected. 	<p>Annual Annual</p>
<ul style="list-style-type: none"> ▪ BMP: Respond to known or suspected illicit discharges & spills. ▪ Measurable Goals: Number of storm sewer, drainage area, & on-site investigations. Number of spills & releases of hazardous substances investigated. ▪ Number of spill notifications issued to the DNR in accordance with NR 706. ▪ Number of illicit discharge notifications issued to an adjacent municipality. 	<p>Annual Annual Annual Annual</p>
<ul style="list-style-type: none"> ▪ BMP: Enforce the illicit discharge ordinance & remove illicit discharges from the MS4. ▪ Measurable Goals: Number of verbal "Warning Notices" issued. Number of written "Notice of Violations" issued. ▪ Number of enforcement actions. ▪ Number of illicit discharges, spills, connections, & sanitary leaks removed in 30 days or less. ▪ Number of illicit discharges, spills, connections, & sanitary leaks removed in > 30 days. 	<p>Annual Annual Annual Annual Annual</p>
<ul style="list-style-type: none"> ▪ BMP: Consider information submitted by the public to the municipality. ▪ Measurable Goals: Number of tips received from the public. Number of problems / incidents remedied as a result of tips from the public. 	<p>Annual Annual</p>

APPENDIX E

44
2

ILLICIT DISCHARGE DETECTION & ELIMINATION POLICIES & PROCEDURES CITY OF KAUKAUNA, WISCONSIN

Introduction

The City of Kaukauna has developed an illicit discharge detection and elimination program to remove illicit connections and discharges from the municipal separate storm sewer system (MS4). A thorough awareness of the MS4 system is important to the success of an illicit discharge program. Awareness allows the MS4 operator to locate problem areas, find the source, and eliminate the discharge.

Potential sources of illicit discharge include failing septic systems, illegal business discharges, improper disposal of marina and campground sewage, overflows from sanitary sewer systems, illegal plumbing connections, illegal dumping of waste materials, and spills associated with roadway accidents and industrial activity. Illicit discharges can contribute high levels of pollutants, toxins, oil, grease, solvents, nutrients, viruses, and bacteria to receiving waterbodies. Pollutant levels from illicit discharges are concentrated and may be high enough to significantly degrade receiving water quality and threaten aquatic, wildlife, and human health.

Non-storm water discharges or flows that are NOT considered illicit discharges include water line flushing, landscape irrigation, diverted stream flows, uncontaminated ground water infiltration, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, fire fighting, and discharges authorized under a WPDES permit unless identified by the City of Kaukauna as a significant source of pollutants to waters of the state.

The policies and procedures describe herein have been developed to assist the City of Kaukauna with implementation of the illicit discharge detection and elimination program. The policies and procedures include the following major components:

- Initial Field Screening
- On-Going Field Screening & Routine Inspections
- Responding to Illicit Discharges
- Enforcement Actions
- Information Submitted by the Public

1. Initial Field Screening

This section describes policies and procedures for conducting initial field screening of major outfalls during dry weather periods. Table E-1 provides a basic overview of the initial field screening components. The Director of Public Works is responsible for coordinating the initial field screening.

The initial field screening will only be performed for major outfalls identified on the MS4 map and within the City of Kaukauna's jurisdiction. The best time for conducting field screening of outfalls is during dry seasons, when groundwater levels are low. The screening field crew should wait at least 48-hours following a rainfall event, to minimize the chance of runoff affecting field screening observations. The field crew may need to wait more than 48-hours if a wet detention pond is located upslope of an outfall. Some wet detention ponds will discharge runoff for 72 to 120-hours after a rainfall event. Dense vegetation can make finding outfalls difficult, so it is preferred, though not required, that field screening be done during 'leaf off' conditions. The most likely months that will meet these criteria in Wisconsin are October, November, December, January or February. Dry periods may also occur in July, August or September, but dense vegetation will be present during these months.

Basic equipment and supplies needed for the initial field screening are summarized in Table E-2. Necessary equipment and supplies include a camera, stop watch, tape measure, Outfall Field Screening Worksheets, waders, a copy of the MS4 map, and a GPS unit. Field crews should also be equipped with basic safety equipment, including cellular phones, surgical gloves, and first aid kits. The field crew should include at least two people. A third person may be helpful if a discharge is discovered and must be traced to a source; however, a two-person crew is generally adequate. The field crew should have a basic understanding of illicit discharges and of these policies and procedures.

The field crew should review the MS4 map prior to conducting the initial field screening. A table or spreadsheet listing the major outfalls and WPDES permits should accompany the MS4 map. The WPDES permits will identify sites with dewatering operations or other dry weather discharges. Having an awareness of these dry weather discharges will be helpful during the field screening process. A plan for systematically screening the major outfalls should be developed before beginning the screening process.

Typical outfall types that will be encountered include storm sewers, culverts and drainage ditches located along rivers, streams, lakes, and wetlands. Field screening points shall, where possible, be located downslope of any source of suspected illicit activity. Field screening points shall be located, where practicable, at the farthest manhole or other accessible location downslope in the system. Safety of personnel and accessibility of the location shall be considered in making these determinations.

An Outfall Field Screening Worksheet should be completed for each major outfall. Refer to Figure E-1 for a sample worksheet. Paper copies of the worksheet can be used during field screening. An electronic spreadsheet version of this worksheet can be used for compiling field data, if desired. The worksheet includes the following major sections:

Section 1 - Background Data

The first section of the worksheet is used to record basic data about the field screening, including date, time, field crew members, GPS coordinates, outfall ID, and current and past weather conditions. In addition to recording basic data, the field crew should also photograph and physically mark the outfall with an ID number. The photograph number should be recorded in Section 1 of the worksheet. Spray paint or another temporary marker may be used to mark the outfall, but the crew may want to replace temporary markings with permanent ones, such as stakes. Permanent markings help field crews confirm outfall locations during future field screenings.

Section 2 - Outfall Description

This section is used to document basic characteristics of the outfall, including type, material, dimensions and whether there is flow present. If no flow is observed at the outfall, the crew can skip Sections 3 and 4 of the worksheet. If flow is observed, Sections 3 and 4 of the worksheet are used to characterize the flow.

Section 3 – Quantitative Characteristics for Flowing Outfalls

This section is used to record direct measurements of flowing outfalls. Commercially available probes and test strips can be used for measurement of temperature, pH, ammonia, and other parameters. When probes and test strips are used, measurements should be taken from a sample bottle that contains captured flow from the outfall. For some parameters, it may be necessary to send samples to a laboratory for analysis. All samples should be clearly labeled with the date, outfall ID, sample number, sample location, and City of Kaukauna name. As indicated in Table E-6, the following indicator parameters MUST be documented as part of the field analysis and sampling, in accordance with the City's WPDES permit:

- pH, total chlorine, total copper, total phenol and detergents; or
- detergent, ammonia, potassium and fluoride as the indicator parameters

Flow rate can be measured using one of two suggested methods. The first method records the time it takes to fill a container of known volume (i.e. a 1-liter sample bottle). The second method measures velocity of flow and multiplies it by the estimated cross sectional area of flow. The second method is preferred for large diameter pipes where containers are too small to effectively capture the flow.

To use the second method for measuring flow rate, the field crew measures and marks a fixed flow length, drops a lightweight item (i.e. leaf, ping pong ball, etc.) into the discharge, and records the time it takes the item to travel across the fixed length of flow. The velocity and flow rate are calculated as:

- $\text{Velocity (ft/sec)} = \text{Length of Flow (ft)} / \text{Time of Travel (sec)}$
- $\text{Flow Rate (cf/sec)} = \text{Cross Sectional Area (sf)} \times \text{Velocity (ft/sec)}$

Section 4 – Physical Indicators for Flowing Outfalls

In this section, the field crew records sensory indicators associated with a flowing outfall. Sensory indicators are detected by smell or sight and do not require measurement equipment. The following sensory indicators MUST be documented, in accordance with the City's WPDES permit:

- Odor, color, turbidity, floatables (oil sheen, surface scum, suds), and any other relevant cold-weather indicators regarding the potential presence of illicit discharges or dumping.

The observer uses the worksheet to indicate whether a sensory indicator is present, and if so, ranks the severity on a scale of one to three. Severity rankings for the five sensory indicators are summarized in Table E-3. **Odor** should be monitored directly from the outfall by the entire field crew. The crew should reach a consensus on whether odor is detected and the severity, since smell is a very subjective indicator.

Color and turbidity are best measured by collecting a sample in a clear bottle and holding it up to the light. A visual assessment of the discharge color and its intensity can often help identify industrial discharges. Turbidity, which is a measure of the cloudiness of the water, is also estimated visually. Color and turbidity are not the same indicator. Color is the tint or intensity of the color observed, while turbidity is a measure of how easily light can penetrate through the sample.

The presence of **floatables** (oil sheen, surface scum, suds) is determined visually.

Ice can be used as a **cold-weather indicator** of illicit discharge when it forms in streams, ditches and pipes during the winter months, because most discharges are warm and can cause melting patterns at the outfall. Significant melting at a frozen outfall may indicate warm water from sewage or an industrial discharge. Groundwater may be warm enough to cause melting, so other indicators should be used in concert with ice melting observations. Other indicators to check for are discolored ice at the outfall and the formation of "rime ice", which forms when steam freezes. This crystalline formation is a good indicator of sewage or other hot discharges that would cause steam to form.

Section 5 – Physical Indicators for Both Flowing & Non-Flowing Outfalls

The purpose of this section is to document physical indicators found at both flowing and non-flowing outfalls that may reveal the impact of a past discharge. Physical indicators include outfall damage, outfall deposits or stains, abnormal vegetation growth, poor pool quality, and benthic (aquatic bottom dwelling organism) growth on pipe surfaces. These conditions can indicate that an intermittent or transitory discharge has occurred in the past, even though the pipe is not currently flowing.

Section 6 – Overall Outfall Characterization

This section allows the field crew to designate the illicit discharge severity of the outfall based on the number and severity of discharge indicators identified in the previous sections of the worksheet. The illicit discharge is characterized as unlikely, potential, suspect, or obvious.

Section 7 – Data Collection

In Section 7, the field crew records whether samples were collected for further analysis in a laboratory and whether the sample was taken from a pool downstream from the outfall or directly from the outfall. All samples should be clearly labeled with the date, outfall ID, sample number, sample location, and City of Kaukauna name. Indicate whether an intermittent flow trap was used to pool the discharge for sampling. If samples were collected for further analysis, the field crew should make arrangements for sending or delivering the samples to a laboratory the same day.

Section 8 – Any Non-Illicit Discharge Concerns

The last section of the worksheet is used to document any conditions at or near the outfall which require attention, including pipe failure, bank erosion, dumping or other maintenance or repair needs. Only items that are NOT related to illicit discharge should be recorded in this section.

The next step in the initial field screening of major outfalls is to compile, organize and interpret data. The conditions observed and documented during field screening provide valuable information that can be used to determine the extent of illicit discharge problems in the City of Kaukauna. It is important to compile and organize the data as soon as possible. A well-organized approach begins with effective management of the Outfall Field Screening Worksheets in the field. A clipboard or 3-ring binder should be used by the field crew to manage the worksheets while screening. At the end of each day, worksheets should be reviewed for accuracy and to verify which outfalls were completed. When crews return from the field, data may be entered into a spreadsheet/database, or the paper copies of the worksheets may be filed. Digital photos should be printed, and/or downloaded for electronic filing and future printing.

If necessary, the MS4 map should be updated. This needs to be done only if discrepancies in major outfall locations exist between the MS4 map and actual field conditions.

The major outfalls should have been characterized by the field crew (refer to Section 6 of the Outfall Field Screening Worksheet). The classification of each outfall into one of four outfall designations should be reviewed and verified. The four designations are described in Table E-4.

Major outfall designation data can be used to characterize the extent of illicit discharge problems in subwatersheds and in the community as a whole. This characterization involves evaluation of the total number of outfalls designated as having potential, suspected or obvious illicit discharge potential. Based on this evaluation, the City of Kaukauna can assess that illicit discharge problems are minimal, clustered in a specific area or areas, or severe. Characterizing the extent of illicit discharge problems will allow the City of Kaukauna to focus efforts on eliminating illicit discharges from the MS4.

All outfall screening shall be documented as part of the City's illicit discharge detection and elimination program. The Outfall Field Screening Worksheet can be used to document investigations.

2. On-Going Field Screening & Routine Inspections

This section describes policies and procedures for conducting on-going field screening of outfalls during dry weather periods. The Director of Public Works is responsible for coordinating on-going field screening of outfalls. In addition to the on-going field screening of outfalls, the City of Kaukauna plans to search for illicit discharges, illegal connections, and sanitary leakage by conducting routine plumbing, sanitary sewer, and storm sewer inspections. The Director of Public Works is responsible for coordinating the routine sanitary sewer and storm sewer inspections. The Building Inspector is responsible for coordinating the routine plumbing inspections.

Table E-5 provides a basic overview of the on-going field screening and routine inspections.

On-Going Field Screening:

The City of Kaukauna recognizes the benefit to inspecting all outfalls on a regular basis, not only to detect illicit discharges, but also to perform regular maintenance and upkeep. Therefore, the City plans to conduct on-going field screening once every permit term for all major and minor outfalls. The on-going field screening will only be performed for outfalls identified on the MS4 map and within the City's jurisdiction. The "initial field screening" procedures should also be used for the "on-going field screening" of outfalls.

Routine Plumbing Inspections:

The City of Kaukauna plans to conduct routine plumbing inspections when a building permit is issued, a building changes ownership, or a water meter is changed. At a minimum, the goal is to inspect urban plumbing systems once every ± 10 years when the water meter is changed. The purpose of the routine plumbing inspections is to locate illegal connections. Examples of illegal plumbing connections include a washing machine discharging to the building's sump pump, a garage floor drain directly connected to the building's storm lateral, a building's sanitary lateral cross-connected to the MS4, and a shower discharging to a nearby stream or lake rather than the septic system.

Routine Sanitary Sewer Inspections:

The City of Kaukauna plans to conduct routine inspections of its sanitary sewer system during wet weather. Identifying infiltration and inflow (I & I) problems in the sanitary sewer system helps eliminate potential sanitary sewer leaks and wastewater treatment plant overflows into waters of the state and the MS4. The City plans to visually inspect and/or televise $\pm 5\%$ of its sanitary sewer system each year or 100% every ± 20 years. Conditions that may be discovered include cross connections with storm sewers, collapsed or blocked pipes, offset joints, root intrusion, etc. As I & I problems and sanitary leaks are identified, an implementation plan will be developed to remedy the problems.

Routine Storm Sewer Inspections:

The City of Kaukauna plans to conduct routine storm sewer inspections before an urban street is reconstructed and/or when a storm sewer is cleaned. Typically, large diameter pipes are visually inspected and small diameter pipes are televised. Conditions that may be discovered include illicit discharges, cross connections with sanitary sewers, collapsed or blocked pipes, offset joints, root intrusion, etc. As problems are identified, an implementation plan will be developed to remedy the problems.

3. Responding to Illicit Discharges

This section describes policies and procedures for responding to known or suspected illicit discharges. The Director of Public Works, Building Inspector and Fire Chief are responsible for responding to known or suspected illicit discharges and spills. The procedures include investigating the source of an illicit discharge or spill, responding to spills, preventing and containing spills, notifying the Department of Natural Resources (DNR) of spills that may discharge into waters of the state, eliminating sanitary leakage into the MS4, notifying the DNR of dye testing, and notifying adjacent municipalities of illicit discharges that may enter their MS4 system.

There are two primary ways an illicit discharge or spill can be discovered:

- Illicit discharge discovered during field screening of outfalls and routine inspections; or
- Third party reporting. Third party reporting includes reports to the City of Kaukauna of a known or suspected illicit discharge or spill by the general public. This also includes known or suspected illicit discharges or spills discovered by municipal staff as part of their every day operating procedures (not related to initial or on-going field screening of outfalls).

Regardless of the way a known or suspected illicit discharge or spill is discovered, the City of Kaukauna must respond as soon as possible. Once the source of an illicit discharge or spill is identified, the offending discharger should be contacted and directed to correct the problem. Refer to Section 4, "Enforcement Actions". If an illicit connection cannot be eliminated in 30 days, the City must contact the DNR to discuss appropriate action and timeframe for removal.

Investigating the Source of an Illicit Discharge or Spill:

Once an illicit discharge is found, a combination of methods is used to isolate its specific source. A suggested flow chart for investigating the source of a known or suspected illicit discharge is provided in Figure E-2. This section describes the following investigative methods: Drainage System Investigation, Drainage Area Investigation, On-Site Investigation, and Septic System Investigation.

▪ Drainage System Investigation:

This method involves progressive inspection and sampling along storm sewers and drainage ditches. The purpose of the investigation is to narrow the discharge to an isolated pipe or ditch segment within the drainage system. The simplest method is to start at the outfall and move up the system, inspecting storm sewer manholes and culverts along the way. The field crew should progressively move through the system until indicators reveal that the discharge is no longer present. As shown in Figure E-3, the goal is to isolate the discharge between two storm manholes or two culverts.

Drainage system investigations include both visual observations and indicator sampling. Visual observations made during manhole and culvert inspections include presence of flow, odor, color, turbidity, floatables, and deposits or staining. Deposits or staining may be indicators of an intermittent discharge. If dry weather flow is observed, the field crew should collect a sample, and then analyze the sample in the field using commercially available test strips and kits. Indicator parameters that are required in the City's WPDES permit, and other recommended parameters are summarized in Table E-6.

Field crews must follow established safety and operational procedures when conducting manhole and culvert inspections. Established safety and operational procedures may include, but are not limited to properly diverting traffic, wearing safety vest/apparel, following proper procedures for removing manhole covers, using a gas monitor, and following proper procedures for confined space entry (if necessary).

All drainage system inspections should be documented as part of the City's illicit discharge detection and elimination program. An inspection form can be used to document investigative efforts.

- **Drainage Area Investigation:**

A basic visual survey or analysis of the drainage area for the problem outfall can be useful when investigating the source of an illicit discharge or spill. The field crew can simply walk or drive around the drainage area trying to identify a potential discharger or generating site. The field crew may also refer to the list of industrial and construction site WPDES permits. Drainage area investigations are most useful in tracing discharges from commercial or industrial sources. This method is not particularly useful in tracing sewage discharges. The field crew should use drainage area investigations in concert with visual observations and indicator sampling at manholes. For example, if the crew observes a thick, sudsy, fragrant discharge (consistent with wash water) at the outfall, they should check the drainage area for a laundromat. Other analytical tools include searching portions of the drainage area with high population density, high traffic density, older infrastructure age, and historic problems.

All drainage area investigations should be documented as part of the City's illicit discharge detection and elimination program.

- **On-Site Investigation:**

On-site investigations are used to pinpoint the exact source or connection producing a discharge within the MS4. The basic approaches to on-site investigations are dye testing, smoke testing and televising. Depending on conditions, the field crew may use one or more of these approaches. These approaches are most effective in locating direct discharges to the storm sewer, and are not very effective at locating indirect discharges. The field crew must take appropriate steps related to safety and proper notification prior to conducting dye testing, smoke testing and televising. Table E-7 summarizes the three basic approaches.

All on-site investigations should be documented as part of the City's illicit discharge detection and elimination program.

Responding to Spills:

In the case of a spill being reported to the City of Kaukauna by members of the general public or by its own municipal staff, the person receiving the report should take in as much information as possible from the person reporting the spill. This information will be helpful in establishing the severity of the incident and how to respond. At a minimum, the following information should be requested:

- Date and time of spill
- Location of spill (street address, municipality)
- Property owner's (or responsible party's) name and address
- Type and amount of substance (known or suspected)
- Actions taken to stop or contain spill (if any)

The first priority is to determine if there is any fire, explosion, safety hazard to life and health, or a need to evacuate the building or area. All reports of spills should be referred immediately to the Fire Department, either via the direct line or the 911 Emergency System. For spills involving a petroleum sheen or highly suspicious material, the 911 Emergency System should be contacted immediately. Contact information for all parties that may be involved in responding to and / or cleanup of a reported spill is provided in Table E-8.

Some spills must be immediately reported to the DNR. Attachment E-1 includes a condensed version of Wisconsin's spill reporting requirements. All discharges of hazardous substances that adversely

impact, or threaten to adversely impact public health, welfare or the environment must be immediately reported to the DNR. Attachment E-1 also describes the DNR's response procedures for reported spills. In the case of a reportable spill, the Primary Contact must notify the DNR's 24-hour toll free spill hotline at 1-800-943-0003.

After making any necessary emergency contacts and notifications, the next steps in responding to a spill is containment, tracking the source, cleanup and evidence collection. Depending on the severity of the spill, containment and cleanup efforts will be conducted by one or more of the following: public works department, fire and police department, hazmat team, coast guard, and adjacent municipalities. Evidence collected during cleanup may include eye witness accounts, photographs, samples, and other information specific to the incident. Tracking the source of the spill should be done using the same methods summarized above ("Investigating the Source of an Illicit Discharge or Spill").

The City plans to document spill response efforts, including observations, parties involved in spill response, conversations, witness statements, decisions, actions, sampling activity, and photographs. Each photograph should include written documentation including date and time photo was taken, location, and photographer's name, title, and phone number.

Preventing and Containing Spills:

Public education and outreach is an effective measure for preventing and containing spills. There is a strong likelihood that many spills will not be reported to the City of Kaukauna. As such, outreach to municipal employees, businesses, property owners and the general public regarding ways to prevent and contain spills is an important component of the illicit discharge program. A targeted public education and outreach program is recommended for three sectors of the community:

- **Residential Neighborhoods** – Educate residential homeowners about the local Clean Sweep Program. If automobile fluids and other hazardous materials are properly disposed of during the Clean Sweep Program, the fluids can not be accidentally spilled or intentionally dumped into a storm drain. Storm drain stenciling may also be an effective educational tool.
- **Businesses / Generating Sites** – Educate business owners and generating sites about spill prevention and containment. Table E-9 lists common generating sites and types of activities that may result in illicit discharges and spills. Certain businesses have a higher potential for spills due to the type of materials and activities at the site. Useful outreach materials may include educational brochures, posters, and generic spill response plans which can be used by business owners and operators. The generic spill response plan should contain a list of local phone numbers for reporting spills, a list of best management practices for preventing spills, and a list of procedures for containing spills.
- **Municipal Housekeeping** – Educate municipal employees about spill prevention and containment. Spills may occur during routine municipal operations, such as sanitary sewer maintenance, municipal vehicle maintenance, and household hazardous waste collection. It is important that municipal employees are properly trained in spill response, particularly the fire department and local hazmat team. Also, the City should work with the WDOT and County Highway Department to ensure that there is a spill response plan in place for local highways and streets. Roadways have a higher potential for spills due to accidents.

In addition to the public education and outreach program, the following practices and procedures are recommended to contain spills that occur within the City of Kaukauna:

- If a spill occurs, immediately plug or block surface inlets and ditches to contain the spill.
- If a spill occurs, immediately plug or block pond outlet structures to contain the spill.
- If a spill occurs, immediately plug or block underground storm sewer pipes using caulk dams and expandable plugs to contain the spill prior to discharge into waters of the state.
- Maintain an adequate supply of adsorbent spill cleanup materials at all times.

Notifying the DNR of Spills That May Discharge Into Waters of the State:

In the event that the City of Kaukauna identifies a spill or release of a hazardous substance, which has resulted or may result in the discharge of pollutants into waters of the state, the City must immediately notify the DNR via the 24-hour toll free spill hotline (800-943-0003). The City should cooperate with the DNR in efforts to investigate, eliminate, and prevent the discharge of hazardous substances into waters of the state.

Eliminating Sanitary Leakage into the MS4:

Leakages from sanitary conveyance systems into the MS4 will most likely be discovered during field screening of outfalls, routine septic system inspections, and routine sanitary sewer inspections. The City of Kaukauna should, to the maximum extent practicable, eliminate sanitary leakage into the MS4. Elimination of sanitary leakage will be accomplished by physically removing the connection. Depending on the extent of construction required to eliminate the connection, the City may be able to perform the work themselves. If not, the City should hire a qualified contractor. All repairs undertaken to eliminate sanitary leakage into the MS4 should be documented as part of the City's illicit discharge detection and elimination program.

Notifying the DNR of Dye Testing:

The City of Kaukauna may conduct dye testing as an investigative method for tracking the source of a known or suspected illicit discharge. The City must provide the Department of Natural Resources with advance notice of the time and location of dye testing within a MS4. The DNR requires advance notice because presence of the dye may get reported to the DNR as an illicit discharge or spill. If they have advance notice that the City will be conducting dye testing within the MS4, they will be better prepared to respond to such reports made by the general public. The City should notify the DNR a minimum of 1 business day prior to conducting dye testing within the MS4. Verbal notification can be made either via the DNR's 24-hour spill hotline (1-800-943-0003) or to the DNR's Northeast Region Spills Coordinator, Maizie Reif at 920-360-4291 or maizie.reif@wisconsin.gov.

Notifying Adjacent Municipalities of Illicit Discharges That May Enter Their MS4 System:

In the case of an illicit discharge that originates from the City of Kaukauna's permitted area and that discharges directly into an MS4 or property under the jurisdiction of an adjacent municipality, the City must notify the affected municipality within 1 business day. Contact information for each of the City's neighboring municipalities is provided in Table E-8. The City should document each illicit discharge notification to an adjacent municipality.

4. Enforcement Actions

Once the City of Kaukauna is able to trace an illicit discharge or illegal connection to a source which is identified as a specific residence or commercial / industrial establishment, the property owner is identified as being non-compliant with the City's Illicit Discharge and Connection Ordinance. When a non-compliance issue is identified, the inspector should first attempt to call or speak with the responsible party. For a minor non-compliance issue, the inspector will provide a verbal deadline or "Warning Notice" for correcting the non-compliance. The inspector will also distribute educational materials, if deemed appropriate. The majority of non-compliance issues will likely be corrected in this manner. If the verbal deadline is not met, the inspector will send a written "Notice of Violation" to the responsible party. The "Notice of Violation" will outline the required actions to be completed by a specific date and time in order to avoid enforcement action.

Enforcement actions will depend on the type and severity of non-compliance. Typically, enforcement actions will include citations and forfeitures. Citations and forfeitures will continue until the inspector determines the site is compliant. Each day of non-compliance will be considered a new violation. For blatant, intentional, repetitive or severe non-compliance issues, the inspector will immediately initiate enforcement actions. Other potential enforcement actions include "Cease and Desist Orders", terminating storm sewer access, terminating water supply access, terminating sanitary sewer access, and issuing a "Notice of Intent" that the municipality intends to perform emergency work. Costs associated with emergency work will be billed to the responsible party or charged to the tax roll as a special assessment.

Illicit connections should be removed immediately upon notification of the owner. Some illegal connections may require significant changes to existing facilities or operations and may require planning and construction; an extended schedule of up to 30 days may be approved by Director in writing. If it will take more than 30 days to remove the illicit connection, the City of Kaukauna must contact the DNR to discuss appropriate action and timeframe for removal.

All enforcement actions should be documented as part of the City's illicit discharge detection and elimination program. The City of Kaukauna should also document the number of illicit discharges and connections that are eliminated, and the total number of days that it took to eliminate the discharge/connection.

5. Information Submitted by the Public

Information submitted by the general public or an adjacent municipality will be forwarded to Director of Public Works, Building Inspector and/or Fire Chief for documentation and follow-up. Information might be submitted verbally, by phone, fax, e-mail, letter, or through the City's website.

Follow-up activities may consist of reviewing the MS4 map, requesting a copy of plumbing plans, performing field and lab tests, conducting site inspections, and / or initiating enforcement actions. All information received from the public and associated follow-up activities should be documented as part of the City's illicit discharge detection and elimination program.

Table E-1: Overview of Field Screening Steps

Step	Strategies
Step 1: Acquire necessary mapping, equipment and staff	<ul style="list-style-type: none">▪ Use municipal separate storm sewer system (MS4) map.▪ Minimal field equipment required. Refer to Table E-2, Field Screening Equipment & Supplies List.▪ Two staff per crew with basic field training required; more specialized staff or training is optional.
Step 2: Determine when to conduct field screening	<ul style="list-style-type: none">▪ During dry season and leaf-off conditions, if possible.▪ After a dry period of at least 48 hours.▪ Low groundwater levels.▪ In Wisconsin, this will most likely correspond to the months of October, November, December, January, or February, depending on actual conditions.
Step 3: Identify where to conduct field screening	<ul style="list-style-type: none">▪ Major outfalls, as identified on municipal separate storm sewer system (MS4) map and within MS4 jurisdiction.▪ Screen outfalls systematically.
Step 4: Conduct field screening	<ul style="list-style-type: none">▪ Mark and photograph all major outfalls. Record GPS coordinate.▪ Record outfall characteristics. Use "Outfall Field Screening Worksheet".▪ Simple monitoring at flowing outfalls.▪ Take flow sample at outfalls with likely problems.▪ Deal with major problems immediately.
Step 5: Compile data from field screening	<ul style="list-style-type: none">▪ Compile GPS data and photographs of major outfalls.▪ Enter data into database, or file paper copies of data in one location.▪ Send any samples to laboratory for analysis, if necessary.▪ Update MS4 map if necessary.
Step 6: Develop designation for major outfalls	<ul style="list-style-type: none">▪ Use compiled data to designate major outfalls as having obvious, suspect, potential, or unlikely discharge potential.
Step 7: Characterize the extent of illicit discharge problems	<ul style="list-style-type: none">▪ Use major outfall designation data.▪ Characterize extent of illicit discharge problems as minimal, clustered or severe.
Step 8: Continue with on-going monitoring strategy	<ul style="list-style-type: none">▪ Use on-going field screening of outfalls and routine inspections of plumbing systems, septic systems, sanitary sewers, and storm sewers.

Table E-2: Field Screening Equipment & Supplies List	
Quantity	Item
1	Backpack or Carrying Case
Enough for each item requiring batteries	Batteries (for flashlight, camera, GPS unit, etc)
1	Camera (preferably digital)
1 per person	Cellular Phones or Handheld Radios
1 per person	Clipboard and Pencil
1 per person	Photo ID Badge with (community) logo
1	Disposable Surgical Gloves, box
1	First Aid Kit
1	Flashlight or Head Lamp
1	GPS Unit
1	Labeling Tape, rolls
1	MS4 Map
1	List of MS4 Outfalls and WPDES Permits
1	Measuring Tape
1 per outfall	Outfall Field Screening Worksheets
Varies	Spray Paint, cans
1	Stop Watch or Watch with Second Hand
1	Temperature Probe
1 per person	Waders, pairs
1 per outfall	Wide Mouth Sample Bottles, 1-liter
OPTIONAL ITEMS ²:	
See Footnote Below	Test Strips and Kits ³

1. Quantities are per field crew.
2. If test strips and kits are not available to the field crew for analysis in the field, all samples collected during field screening must be taken to a testing laboratory.
3. Recommended test strips and kits: pH, total chlorine, total copper, alkalinity, ammonia, chloride, total hardness, nitrate-nitrite. Test strips should provide 'concentration range' for parameter being tested.

*Field analysis parameters that are **required** by Permit include pH, total chlorine, total copper, total phenol and detergents OR use of detergent, ammonia, potassium, and fluoride as indicator parameters. Parameters that cannot be field analyzed with test strips should be analyzed in a laboratory.*

Table E-3: Sensory Indicator Severity Ranking

Sensory Indicator	Severity Ranking		
	1	2	3
Odor	Odor is faint or the crew cannot agree on its presence or origin.	Moderate odor within the pipe.	Odor is strong enough that crew can smell it a considerable distance from the outfall.
Color	Faint color detected in sample bottle.	Color is clearly detected in sample bottle.	Color is clearly detected in outfall flow.
Turbidity	A slight cloudiness is detected.	The sample is cloudy.	The sample is opaque, meaning that no light can pass through.
Floatables	Few floatables or slight sheen / suds / scum observed. Origin is not obvious.	Some floatables or moderate sheen / suds / scum observed. Some indication of origin.	Significant amount of floatables / sheen / suds / scum observed. Origin is clearly determined.
Cold Weather Indicators	Slight melting, discoloration or formation of "rime ice".	Moderate melting, discoloration or formation of "rime ice".	Significant melting, discoloration or formation of "rime ice".

Table E-4: Outfall Designation Descriptions

Designation	Description
Unlikely Discharge	Non-flowing outfall with no physical indicator of an illicit discharge.
Potential Discharge	Flowing or non-flowing outfall with presence of two or more physical indicators.
Suspect Discharge	Flowing outfall with high severity on one or more physical indicators.
Obvious Discharge	Outfalls where there is an illicit discharge that doesn't even require sample collection for confirmation.

Table E-5: On-Going Field Screening & Routine Inspections

Task	Description	Frequency
On-Going Field Screening of Outfalls	Includes all outfalls. Use same procedure used for initial field screening of major outfalls.	Major Outfalls: Once Every Permit Term Other Outfalls: Once Every Permit Term
Routine Plumbing Inspections	Visually inspect plumbing systems when a building permit is issued, a building changes ownership, or a water meter is changed.	Once every \pm 10 Years
Routine Sanitary Sewer Inspections	Visually inspect and/or televise sanitary sewers during wet weather to search for infiltration and inflow (I & I) sources and sanitary leakage.	\pm 5% of System Every Year -or- 100% of System Every \pm 20 Years
Routine Storm Sewer Inspections	Visually inspect and/or televise storm sewers during dry weather to search for illicit discharges, cross connections, and structural problems.	Before an Urban Street Is Reconstructed or When a Storm Sewer Is Cleaned

Table E-6: Indicator Parameters Used to Detect Illicit Discharges & Spills

Parameter	Discharge Type Detected				Analytical Method
	Sewage	Washwater	Tap Water	Industrial or Commercial Liquid Wastes	
Ammonia	Good Indicator	Sometimes an Indicator	Poor Indicator	Sometimes an Indicator	Test Strip ²
Boron	Sometimes an Indicator	Sometimes an Indicator	Poor Indicator	Unknown	Lab Analysis (Spectrophotometer)
Chlorine (Total) ¹	Poor Indicator	Poor Indicator	Poor Indicator	Sometimes an Indicator	Test Strip ²
Color	Sometimes an Indicator	Sometimes an Indicator	Poor Indicator	Sometimes an Indicator	Visual
Conductivity	Sometimes an Indicator	Sometimes an Indicator	Poor Indicator	Sometimes an Indicator	Lab Analysis (Probe)
Copper (Total) ¹	Sometimes an Indicator	Sometimes an Indicator	Sometimes an Indicator	Sometimes an Indicator	Test Strip ²
Detergents – Surfactants ¹	Good Indicator	Good Indicator	Poor Indicator	Sometimes an Indicator	Test Kit ²
E.coli / Fecal coliform	Sometimes an Indicator	Poor Indicator	Poor Indicator	Poor Indicator	Laboratory Analysis
Fluoride ¹	Poor Indicator	Poor Indicator	Good Indicator	Sometimes an Indicator	Test Strip ²
Hardness (Total)	Sometimes an Indicator	Sometimes an Indicator	Sometimes an Indicator	Sometimes an Indicator	Test Strip ²
pH ¹	Poor Indicator	Sometimes an Indicator	Poor Indicator	Sometimes an Indicator	Test Strip ²
Phenol (Total) ¹	Poor Indicator	Poor Indicator	Poor Indicator	Good Indicator	Test Kit ²
Potassium ¹	Sometimes an Indicator	Poor Indicator	Poor Indicator	Good Indicator	Laboratory Analysis (Probe)
Turbidity	Sometimes an Indicator	Sometimes an Indicator	Poor Indicator	Sometimes an Indicator	Laboratory Analysis (Turbidity Meter)

- Indicator parameters that are **required** by (community's) WPDES Permit include pH, total chlorine, total copper, total phenol and detergents OR use of detergent, ammonia, potassium, and fluoride as indicator parameters. Parameters that cannot be field analyzed with test strips should be analyzed in a laboratory.
- Recommended test strips and test kits: pH, total chlorine, total copper, alkalinity, ammonia, chloride, detergents – surfactants, total hardness, nitrate-nitrite. Test strips should provide 'concentration range' for parameter being tested. Test strips are commercially available from sources such as NCL Labs and Hach. Other types of test kits include ampoule type kits (i.e. CHEMets, available from www.chemetrics.com).

Table E-7: On-Site Investigative Techniques

Technique	Description	Safety / Notifications
Dye Testing	<ul style="list-style-type: none">▪ Introducing non-toxic dye into toilets, sinks, shop drains and other plumbing fixtures.▪ Discovery of dye in downstream storm sewer determines that illicit connection exists.	<ul style="list-style-type: none">▪ Notify DNR at least 1 business day prior to dye testing.▪ Carry a letter to document legal authority to gain access to the property (reference ordinance).
Smoke Testing	<ul style="list-style-type: none">▪ Introducing non-toxic smoke into the storm sewer system and observe where smoke surfaces.▪ Similar to smoke testing sanitary sewers to detect I & I.▪ Most common situations that indicate illicit discharges include smoke seen rising from internal plumbing fixtures or from sanitary sewers.	<ul style="list-style-type: none">▪ Notify the public prior to beginning smoke testing. A written notice should be sent out to residents.▪ Notify local media if extensive smoke testing is planned.▪ Notify local fire and police departments and local 911 call centers.
Televising	<ul style="list-style-type: none">▪ Guiding a mobile video camera through a storm sewer pipe.▪ Locates flows and leaks within pipe that may indicate illicit discharge.▪ Useful for areas where access is constrained, but will only detect discharges that are flowing at the time of televising.	<ul style="list-style-type: none">▪ Carry a letter to document legal authority to gain access to the property, if necessary.

Table E-8: Local Contacts

Contact	Name	Title	Phone #
Emergency	Kaukauna Fire or Police Department	--	911
MS4 Operator	John Neumeier	Sr. Project Engineer	920-419-5939
Fire Department	Jacob Carrel	Fire Chief	920-766-6320
Police Department	Jamie Graff	Police Chief	920-766-6333
Public Works Department	John Sundelius	Public Works Director	920-766-6305
24-Hour Contact	Kaukauna Fire or Police Department	--	911
City Hall	Anthony J. Penterman	Mayor	920-766-6310
DNR Spill Hotline	--	--	1-800-943-0003
DNR NE Region Spills Coordinator	Maizie Reif	Spills Coordinator	920-360-4291
County Emergency Management Director	Christina Peters	Emergency Management Coordinator	920-832-5000
Area Hazmat Team	Appleton Fire Department	--	920-832-5810
Outagamie County Highway	Al Geurts	Highway Commissioner	920-832-5673
Village of Little Chute	Kent Taylor	Public Works Director	920-423-3867
Village of Combined Locks	Ryan Swick	Public Works Director	920-788-7744
Town of Buchanan	Maggie Mahoney	Administrator	920- 734-8599
Village of Harrison	Vacant	Village Manager	920-989-1062
Town of Vandebroek	Cory Swedberg	Clerk	920-850-1848
Town of Kaukauna	Debbie VanderHeiden	Clerk/Treasurer	920-759-1677

Table E-9: Generating Sites & Common Discharges

Site	Common Discharges
Vehicle Operations (maintenance, repair, fueling, washing, storage)	<ul style="list-style-type: none">▪ Dumping fluids into storm drains▪ Fuel spills, leaks and drips▪ Wash-down of work areas▪ Other spills
Outdoor Storage and Loading/Unloading	<ul style="list-style-type: none">▪ Spills at loading/unloading areas▪ Wash-down of loading/unloading areas▪ Leaks and spills of stored liquids
Waste Management	<ul style="list-style-type: none">▪ Leaks and spills of liquids▪ Dumping fluids or debris into storm drains▪ Leaking dumpsters
Physical Plants (building repair and maintenance, parking lot maintenance)	<ul style="list-style-type: none">▪ Discharge from washing and steam cleaning▪ Runoff from degreasing and re-surfacing
Turf & Landscaping	<ul style="list-style-type: none">▪ Irrigation runoff▪ Improper rinsing of fertilizer/pesticide applicators
Unique "Hotspots" (municipal or country club pools, golf courses, marinas, construction sites, restaurants, hobby farms)	<ul style="list-style-type: none">▪ Discharge of chlorinated pool water▪ Dumping of sewage and grease



Department of Public Works - Engineering
 144 West Second Street, Kaukauna, WI 54130

STORM SEWER OUTFALL INSPECTION CHECKLIST – CITY FACILITIES Inspection of all listed items shall take place annually. This form is to be used when outlets are inspected for IDDE.	SITE:
	INSPECTOR:
	DATE:
	TIME:

Drainage Area:	Industrial / Urban Residential / Suburban Residential / Commercial / Institutional / Other
-----------------------	--

GENERAL INFORMATION

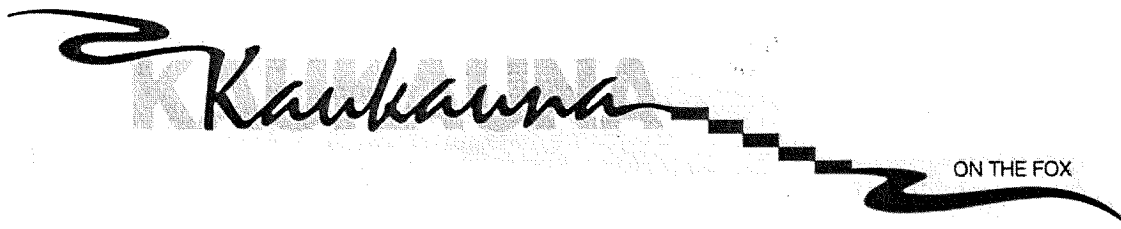
Outfall	MAJOR / MINOR	
End Wall Size		
End Wall Material		
ITEM INSPECTED	ACTION NEEDED	COMMENTS

OUTFALLS

End Wall Condition	Y / N	
Erosion	Y / N	
Poor Condition of Downstream Swales	Y / N	
Trash / Debris	Y / N	
Deposits / Stains	Y / N	
Abnormal Vegetation	Y / N	
Poor Pool Quality	Y / N	
Pipe Benthic Growth	Y / N	
Rip Rap Displacement	Y / N	
Other:	Y / N	

WATER INFORMATION

Temperature	°F	
pH		
Ammonia	mg/L	



Department of Public Works - Engineering
 144 West Second Street, Kaukauna, WI 54130

FLOW		
Flow Present	Y / N	If No, skip to next section
Flow Description	Trickle / Moderate / Substantial	
Turbidity	Y / N	
Odor	Sewage / Rancid / Sour Petroleum / Sulfide / Other	
Color	Clear / Brown / Gray / Yellow Green / Orange / Red / Other	
Floatables (not trash)	Sewage / Suds Petroleum / Other	
OTHER		
Complaints From Residents	Y / N	
Public Hazards	Y / N	
Fence / Sign Condition	Y / N	
Other:	Y / N	

COMMENTS:

Sample collected for the lab?

Y / N

Collected from:

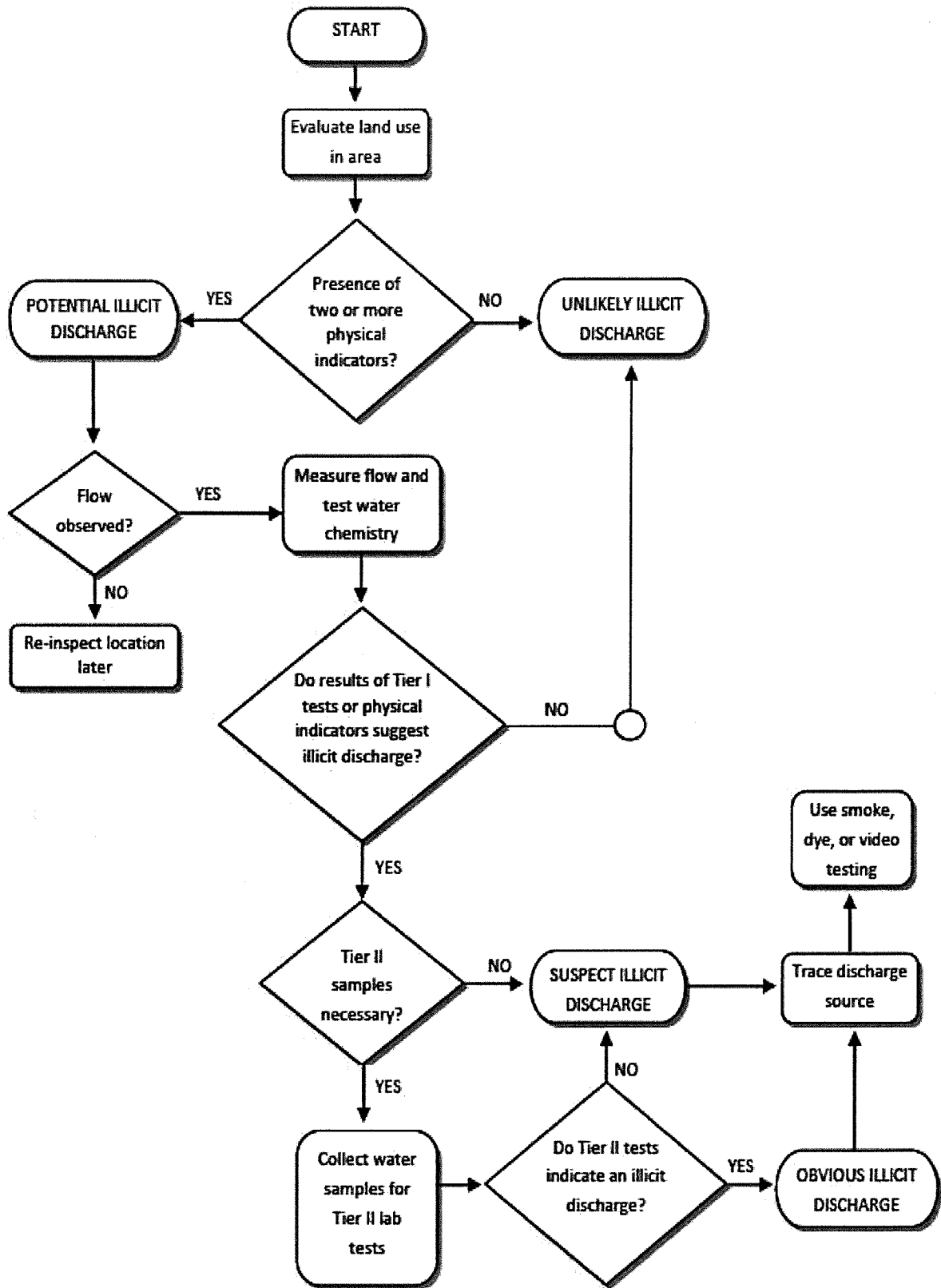
Flow / Pool

Maintenance required?

Y / N

Signature of Inspector: _____

BASIC FLOWCHART FOR DETERMINING ILLICIT DISCHARGE



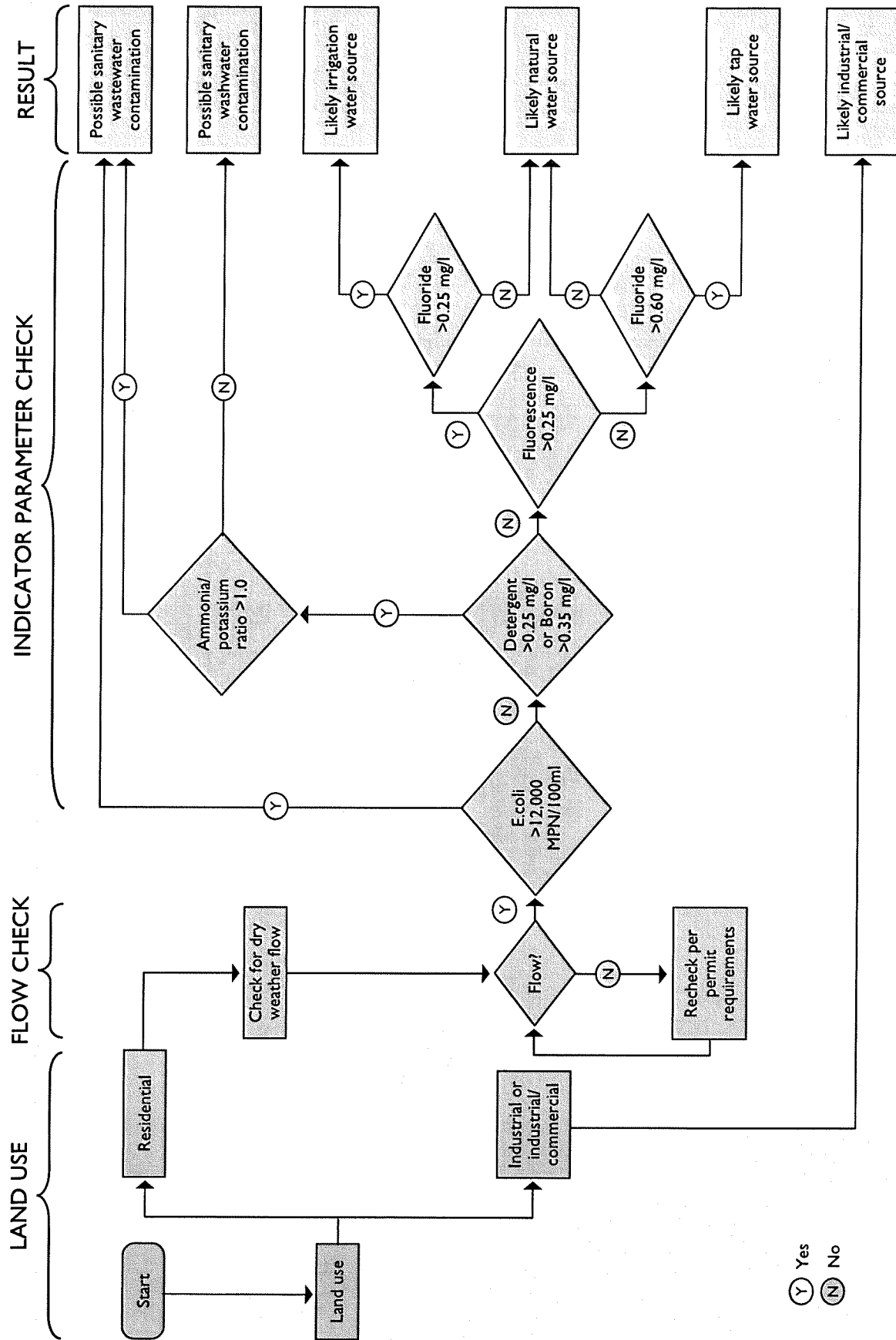


FIGURE E-2
 FLOWCHART FOR INVESTIGATING THE
 SOURCE OF AN ILLICIT DISCHARGE

(Y) Yes
 (N) No

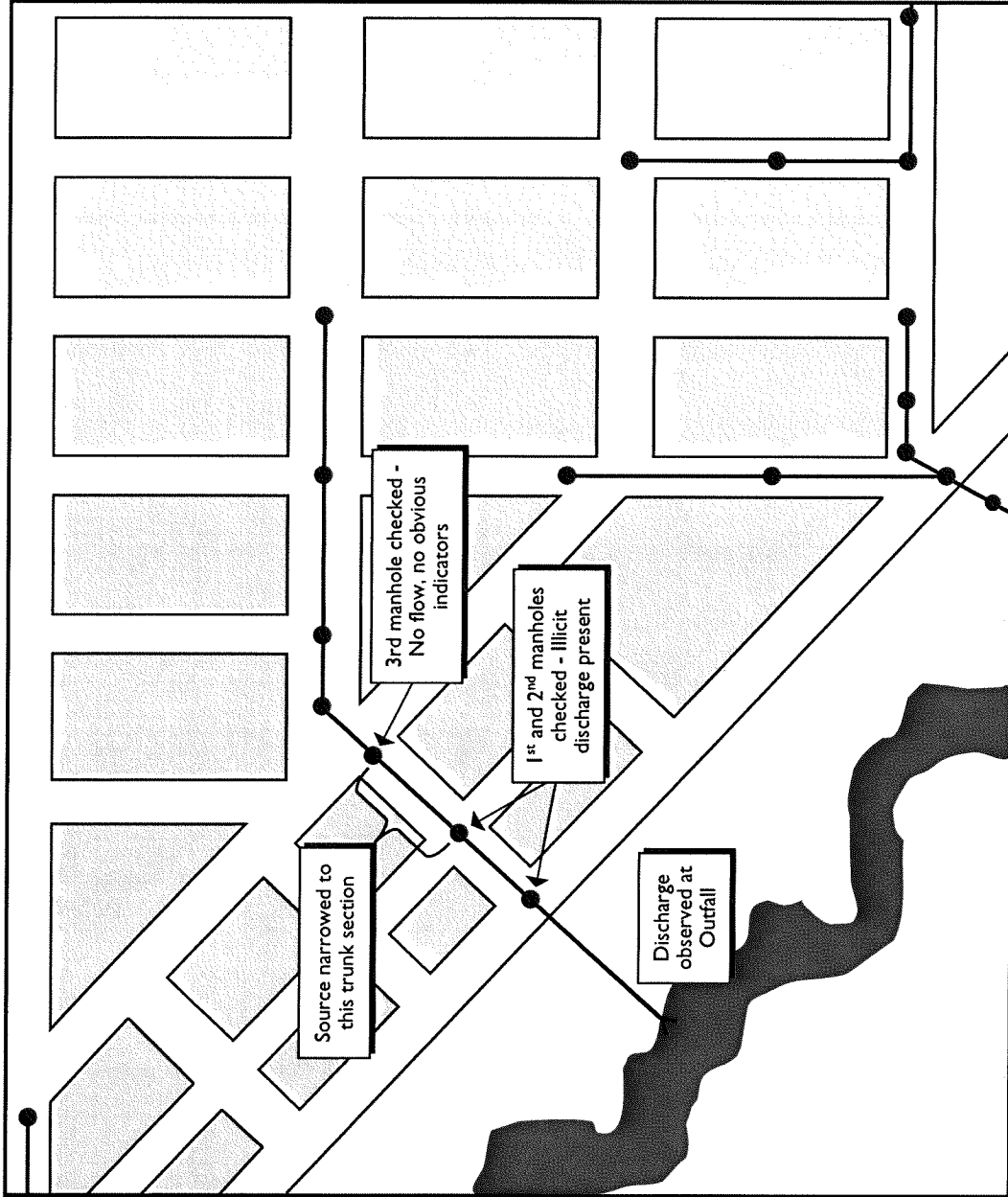


FIGURE E-3
 EXAMPLE INVESTIGATION FOLLOWING THE
 SOURCE UP THE STORM SEWER SYSTEM

Attachment E-1

Wisconsin DNR Spill Reporting Requirements & Response Procedures



Immediate Reporting Required for Hazardous Substance Spills

If you are aware of a hazardous substance spill notify the Department of Natural Resources (DNR). State law requires the IMMEDIATE reporting of hazardous substance spills and other discharges to the environment.

CALL 800-943-0003 TO REPORT SPILLS

Use DNR Form 4400-225 to report other hazardous substance discharges



Other hazardous substance discharges, including historical contamination and contamination caused by an ongoing long-term release, discovered during an environmental assessment or laboratory analysis of soil, sediment, groundwater or vapor samples, should be reported to the DNR by filling out and submitting DNR Form 4400-225, "Notification for Hazardous Substance Discharge (Non-Emergency Only)," which is available at dnr.wi.gov.

- ✓ Report hazardous substance discharges as soon as visual or olfactory evidence confirms a discharge or laboratory data is available to document a discharge. Do not wait to complete a Phase II environmental assessment, or other similar report, to notify the DNR.

Reporting is everyone's responsibility

Individuals and entities that cause a hazardous substance spill or discharge to the environment are required by state law to notify the DNR immediately - as soon as the spill or discharge is identified. Individuals and entities that own or control property where the spill or discharge occurred must report the discharge immediately if it is not reported by the person or entity that caused the discharge.

For public health and safety, the DNR encourages everyone to report known hazardous substance discharges. Reporting a spill or other discharge, in itself, does not make a person or entity liable for the contamination.

Proper spill containment, cleanup, and disposal is always required

Every person/entity (including lenders and local governments) that causes a hazardous substance discharge, or owns or controls property at which a discharge occurred, must comply with the response action requirements in Wis. Admin. Chs. NR 700 to 754. No spill or discharge is exempt from the duty to properly contain, clean up and dispose of the substance and associated contaminated media, such as soil, water and other affected materials.

Spill reporting exemptions

All spills must be cleaned up, but it is generally not necessary to report recent spills that are:

- less than 1 gallon of gasoline
- less than 5 gallons of any petroleum product other than gasoline
- any amount of gasoline or other petroleum product that is completely contained on an impervious surface
- individual discharges authorized by a permit or program approved under Wis. Stats. Chs. 289 - 299
- less than 25 gallons of liquid fertilizer
- less than 250 pounds of dry fertilizer
- pesticides that would cover less than 1 acre of land if applied according to label instructions
 - * NOTE: Reporting is required if the ongoing, long-term release or application of a permitted pesticide, fertilizer or other substance accumulates to levels that exceed current health or safety standards.
- less than the federal reportable quantities listed in 40 C.F.R. §§ 117 or 302
 - * NOTE: U.S. EPA (federal) spill reporting requirements are outlined on the internet at <https://www.epa.gov/emergency-response/when-are-you-required-report-oil-spill-and-hazardous-substance-release>.

Spill reporting exemptions do not apply (and reporting is required) when:

- the spilled substance has not evaporated or been cleaned up in accordance with Wis. Admin. chs. NR 700 - 754
- the spilled substance is a potential fire, explosion or safety hazard
- the spilled substance causes, or threatens to cause, chronic or acute human health concerns
 - * NOTE: If you are unsure about potential human health effects, consult with local or state health officials.
- the spilled substance adversely impacts, or threatens to impact, the air, lands or waters of the state (as either a single discharge or when accumulated with past discharges) - even if the degree of the impact has not yet been thoroughly evaluated
 - * NOTE: If the substance causes sheen on surface water, has entered or is on the verge of entering the waters of the state, DNR will consider the spilled substance a threat to impact, or to have adversely impacted, waters of the state and reporting is required.

Terms, definitions, statutes and rules

Hazardous substance — Any substance that can cause harm to human health and safety, or the environment, because of where it is spilled, the amount spilled, its toxicity or its concentration. Even common products such as milk, butter, pickle juice, corn, beer, etc., may be considered a hazardous substance if discharged to a sensitive area.

Discharge — Spilling, leaking, pumping, pouring, emitting, emptying, dumping, etc., to land, air or water.

Spill — A discharge that is typically a one-time event or occurrence, and usually inadvertent.

Wis. Stat. § 292.11(2) and Wis. Admin. § NR 706.05 — Require individuals and entities that possess or control a hazardous substance, or that cause the discharge of a hazardous substance to the environment, to notify the DNR immediately about the discharge.

Wis. Stat. § 292.99 — Authorizes penalties up to \$5,000 for each violation of the notification requirement.

Consult Wis. Stat. Ch. 292 and Wis. Admin. §§ 700 - 754, and dnr.wi.gov for further information on hazardous substance spill and discharge reporting, investigation and cleanup.

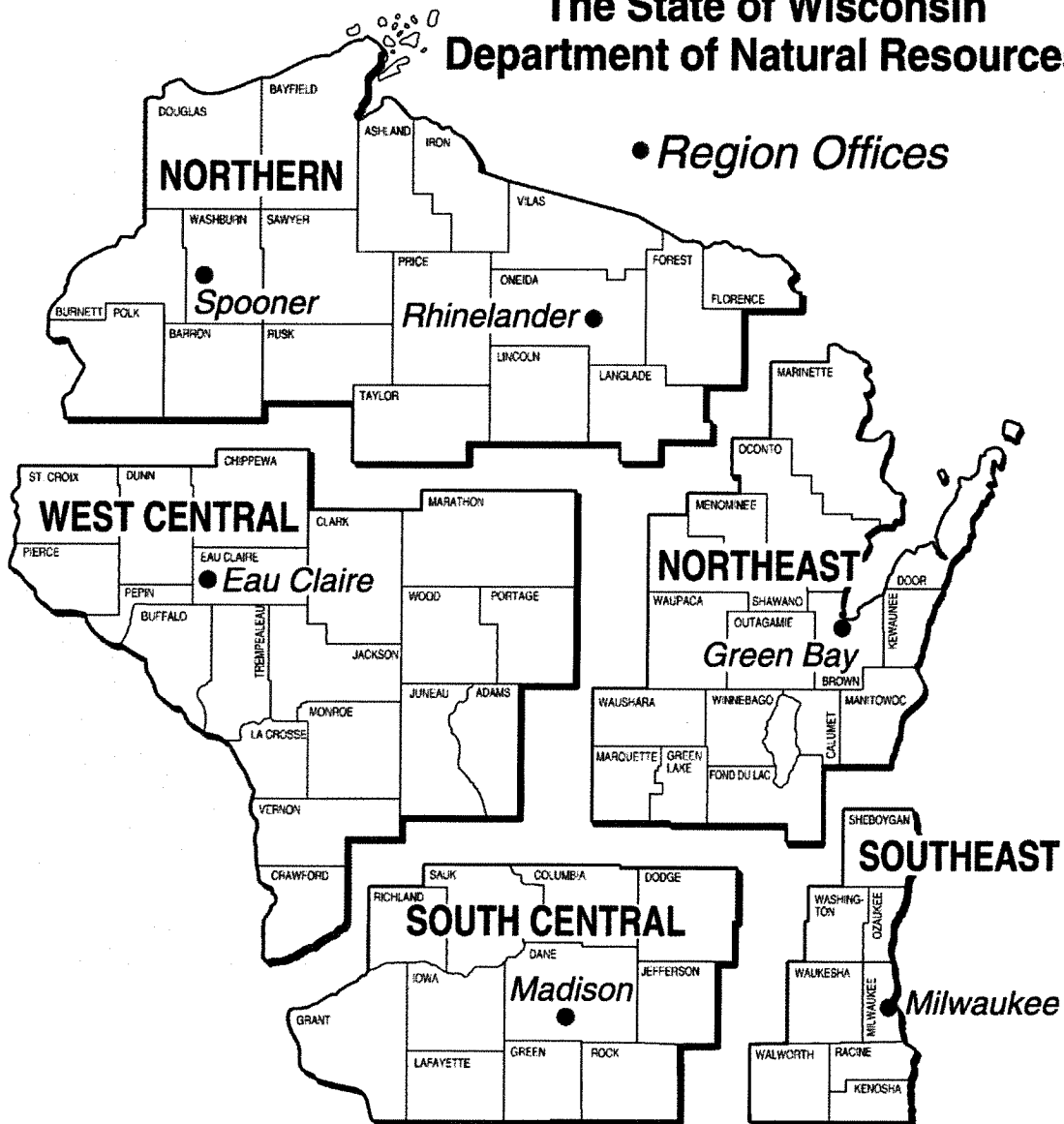
DNR contact information

To report a discharge call 1-800-943-0003. For more information on the spills program, including [contact information](#), visit dnr.wi.gov, search "Spills".

DNR Spill Coordinator Telephone Numbers

Name	Region	Office
24 Hour Hotline	Statewide	800-943-0003
Maizie Reif	Northeast	920-360-4291
Jeff Paddock	Northern	715-828-8544
Trevor Bannister	South Central	608-347-0058
Riley Neumann	Southeast	414-750-7030
Jayson Schrank	West Central	715-410-8841

The State of Wisconsin Department of Natural Resources



Wisconsin Department of Natural Resources
 P.O. Box 7921, Madison, WI 53707
dnr.wi.gov, search "spills"



DNR Staff Provide Spill Response and Support

Rarely does anyone ever plan a spill. Spills are typically caused by accidents of some sort, but when they do occur, the people involved with a spill must comply with state requirements. Wisconsin law mandates that spills of hazardous substances be immediately reported and cleaned up to protect Wisconsin's citizens and natural resources. When a spill occurs, the DNR has staff located in regional offices around the state to help in a variety of ways.

Responding to Spills

During Normal Working Hours

When calls are made to the DNR spill hotline during the day, the information comes directly to the DNR office in Madison and is forwarded to the Regional Spill Coordinator for follow-up.

After Hours

During the evening hours and on weekends, the phone calls are directed to the Wisconsin State Patrol, who will forward the information to a DNR duty officer. That duty officer will then alert the On-Call Spill Coordinator to the situation.

DNR Field Response

DNR Wardens and Regional Spill Coordinators

The first responders to a hazardous substance spill for the DNR may be a field warden or regional spill coordinator. Wardens are more likely to respond in remote areas since they are widely distributed across the state. Each county has at least one warden. Wardens know local responders, such as fire and police personnel, are familiar with the natural resources impacted by a spill and can assist the responsible party in managing the spill.

Spill coordinators (working in the DNR's Remediation and Redevelopment Program) are located in each of the regional DNR offices. These spill coordinators specialize in technical spill response issues and are available before, during, and after spills occur.

When a field warden or regional spill coordinator gets a call about a spill, their follow up may include additional phone calls to get more information about the nature of the spill, going to the site, and/or requesting other DNR assistance (e.g., fish managers, water resources staff and public information specialists).

When an emergency occurs and the responsible party is not available or willing to take action, the DNR will call in a zone contractor to respond to the spill. Zone contractors are emergency response companies that provide statewide emergency response services in such situations.

These companies normally provide a response within two hours of notification, and specialize in emergency response, spill containment and removal. They can assess a situation, take actions to prevent spilled materials from harming the public or the environment, sample substances to determine how to manage them, contain the spilled materials and remove those substances from the spill site to a secure facility until analyses are completed to determine their final placement. After the response, the department will seek cost recovery from the responsible party.

**The DNR encourages
the public to report
hazardous substance
spills using the
24-hour toll-free
hotline:
1-800-943-0003**

Assistance Before a Spill

The spill coordinators are part of local planning and response networks. They work with local emergency planning agencies, talk to the local fire departments about spill response issues, and work with the wardens to ensure a consistent DNR approach to spill response. In addition, the spill coordinators work with local industries who may handle hazardous substances as part of their business to provide them with technical support for spill prevention as well as spill response.

Assistance After a Spill

When a spill occurs, field wardens and spill coordinators can provide assistance in a variety of ways. The DNR has developed spill packets that are provided to persons who are responsible for the release. Included in these packets is information on DNR regulations, additional DNR contacts, as well as listings of local contractors and waste management organizations that can assist the responsible party in management of the residual spilled material. The responsible party often consults with the spill coordinators for technical advice, since they are familiar with DNR regulations relating to spill containment and cleanup. Although smaller cleanups may not receive direct DNR oversight, the coordinators can answer questions and guide responsible parties through the process.

RR Program State Spill Response Team

The DNR manages spills through the RR Program's Spill Response Team. This team is comprised of a state spill coordinator, a state emergency management coordinator, a federal removals coordinator, the five regional spill coordinators and legal counsel. These staff meet regularly to identify and resolve spill response issues and help make spill response efforts in Wisconsin as effective as possible.

For more information, please see visit dnr.wi.gov and search "Spills."

Northeast Region Spill Coordinator

Maizie Reif 920-360-4291 (Green Bay)

Northern Region Spill Coordinator

Jeff Paddock 715-828-8544 (Rhineland)

Southeast Region Spill Coordinator

Riley Neumann 414-750-7030 (Milwaukee)

South Central Region Spill Coordinator

Trevor Bannister 608-347-0058 (Fitchburg)

West Central Region Spill Coordinator

Jayson Schrank 715-410-8841 (Eau Claire)

State Spill & Federal Removals Coordinator

Issac Ross 414-750-7140 (Madison)

State Emergency Response Coordinator

David Woodbury 608-266-2598 (Madison)

Legal Counsel

Bill Nelson 608-267-7456 (Madison)

Emergency Discharges / Spills should be reported via the 24-Hour Hotline: 1-800-943-0003

Notice: Hazardous substance discharges must be reported immediately according to s. 292.11 Wis. Stats. Non-emergency hazardous substance discharges may be reported by telefaxing or e-mailing a completed report to the Department, or calling or visiting a Department office in person. If you choose to notify the Department by telefax or by email, you should use this form to be sure that all necessary information is included. However, use of this form is not mandatory. Under s. 292.99, Wis. Stats., the penalty for violating the reporting requirements of ch. 292 Wis. Stats., shall be no less than \$10 nor more than \$5000 for each violation. Each day of continued violation is a separate offense. It is not the Department's intention to use any personally identifiable information from this form for any purpose other than program administration. However, information submitted on this form may also be made available to requesters under Wisconsin's Open Records Law (ss. 19.31 – 19.39, Wis. Stats.).

Confirmatory laboratory data should be included with this form, to assist the DNR in processing this Hazardous Substance Release Notification.

Complete this form. **TYPE or PRINT LEGIBLY.** NOTIFY appropriate DNR region (see next page) **IMMEDIATELY** upon discovery of a potential release from (check one):

- Underground Petroleum Storage Tank System (additional information may be required for Item 6 below)
- Aboveground Petroleum Storage Tank System
- Dry Cleaner Facility
- Other - Describe: _____

ATTN DNR: **R & R Program Associate** Date DNR Notified: _____

1. Discharge Reported By		
Name	Firm	Phone Number (include area code)
Mailing Address		Email

2. Site Information
Name of site at which discharge occurred. Include local name of site/business, not responsible party name, unless a residence/vacant property.

Location: Include street address, not PO Box. If no street address, describe as precisely as possible, i.e., 1/4 mile NW of CTHs 60 & 123 on E side of CTH 60.

Municipality: (City, Village, Township) Specify municipality in which the site is located, not mailing address/city.

County	Legal Description: <input type="checkbox"/> _____ ¼ of _____ ¼ Section _____, Town _____ N, Range _____ <input type="radio"/> E <input type="radio"/> W	WTM: X _____ Y _____
--------	--	-------------------------

3. Responsible Party (RP) and/or RP Representative

Responsible Party Name: Business or owner name that is responsible for cleanup. If more than one, list all. Attach additional pages as necessary.

A local governmental unit claiming an exemption from state Spill Law and Solid Waste Management responsibilities for the discharge being reported, per Wis. Stat. §§ 292.11(9)(e) and 292.23, should: 1) check this box; 2) review [DNR publication RR-055](#); and 3) provide documentation to DNR that demonstrates compliance with the statutory requirements of the liability exemptions. Local governmental units may also request a fee-based liability clarification letter from DNR by using [DNR Form 4400-237](#).

Contact Person Name (if different)	Phone Number	Email
Mailing Address		City
		State
		ZIP Code

Responsible Party Name: Business or owner name that is responsible for cleanup. If more than one, list all. Attach additional pages as necessary.

Contact Person Name (if different)	Phone Number	Email
Mailing Address		City
		State
		ZIP Code

(continued)

Notification For Hazardous Substance Discharge (Non-Emergency Only)

Form 4400-225 (R 02/20)

Page 2 of 2

4. Hazardous Substance Information

Identify hazardous substance discharged (check all that apply):

- | | | |
|---|--|---|
| <input type="checkbox"/> VOCs
<input type="checkbox"/> PCE
<input type="checkbox"/> TCE
<input type="checkbox"/> Other Chlorinated
<input type="checkbox"/> Diesel
<input type="checkbox"/> Fuel Oil
<input type="checkbox"/> Gasoline
<input type="checkbox"/> Hydraulic Oil
<input type="checkbox"/> Jet Fuel | <i>(VOCs continued)</i>
<input type="checkbox"/> Mineral Oil
<input type="checkbox"/> Waste Oil
<input type="checkbox"/> Petroleum-Unknown Type
<input type="checkbox"/> PAHs
<input type="checkbox"/> PCBs
<input type="checkbox"/> Cyanide
<input type="checkbox"/> Leachate
<input type="checkbox"/> Manure | <input type="checkbox"/> Metals
<input type="checkbox"/> Arsenic
<input type="checkbox"/> Chromium
<input type="checkbox"/> Lead
<input type="checkbox"/> Other: _____
<input type="checkbox"/> Pesticides: _____
<input type="checkbox"/> Fertilizer: _____
<input type="checkbox"/> RCRA Hazardous Waste: _____
<input type="checkbox"/> Other: _____
<input type="checkbox"/> Unknown |
|---|--|---|

5. Impacts to the Environment Information

Enter "K" for known/confirmed or "P" for potential for all that apply.

- | | | |
|--|---|--|
| <input type="checkbox"/> Air Contamination | <input type="checkbox"/> Fire Explosion Threat | <input type="checkbox"/> Soil Contamination |
| <input type="checkbox"/> Co-mingled (Petroleum & Non-Petroleum) | <input type="checkbox"/> Free Product | <input type="checkbox"/> Soil Gas Contamination |
| <input type="checkbox"/> Contamination in Fractured Bedrock | <input type="checkbox"/> Groundwater Contamination | <input type="checkbox"/> Sub-slab Vapor Contamination |
| <input type="checkbox"/> Contamination Within 1 Meter of Bedrock | <input type="checkbox"/> Off-Site Contamination | <input type="checkbox"/> Surface Water Contamination |
| <input type="checkbox"/> Contaminated Private Well | <input type="checkbox"/> Sanitary Sewer Contamination | <input type="checkbox"/> Within 100 ft of Private Well |
| <input type="checkbox"/> Contaminated Public Well | <input type="checkbox"/> Storm Sewer Contamination | <input type="checkbox"/> Within 1000 ft of Public Well |
| <input type="checkbox"/> Contamination in Right of Way | <input type="checkbox"/> Sediment Contamination | |
| Other (specify): _____ | | |

Contamination was discovered as a result of:

- | | | |
|--|---|--|
| <input type="checkbox"/> Tank closure assessment | <input type="checkbox"/> Site assessment | <input type="checkbox"/> Other - Describe: _____ |
| Date <input style="width: 100px;" type="text"/> | Date <input style="width: 100px;" type="text"/> | Date <input style="width: 100px;" type="text"/> |

Lab results: Lab results will be faxed upon receipt Lab results are attached

Additional Comments: Include a brief description of immediate actions taken to halt the release and contain or cleanup hazardous substances that have been discharged.

6. Federal Energy Act Requirements (Section 9002(d) of the Solid Waste Disposal Act (SWDA))

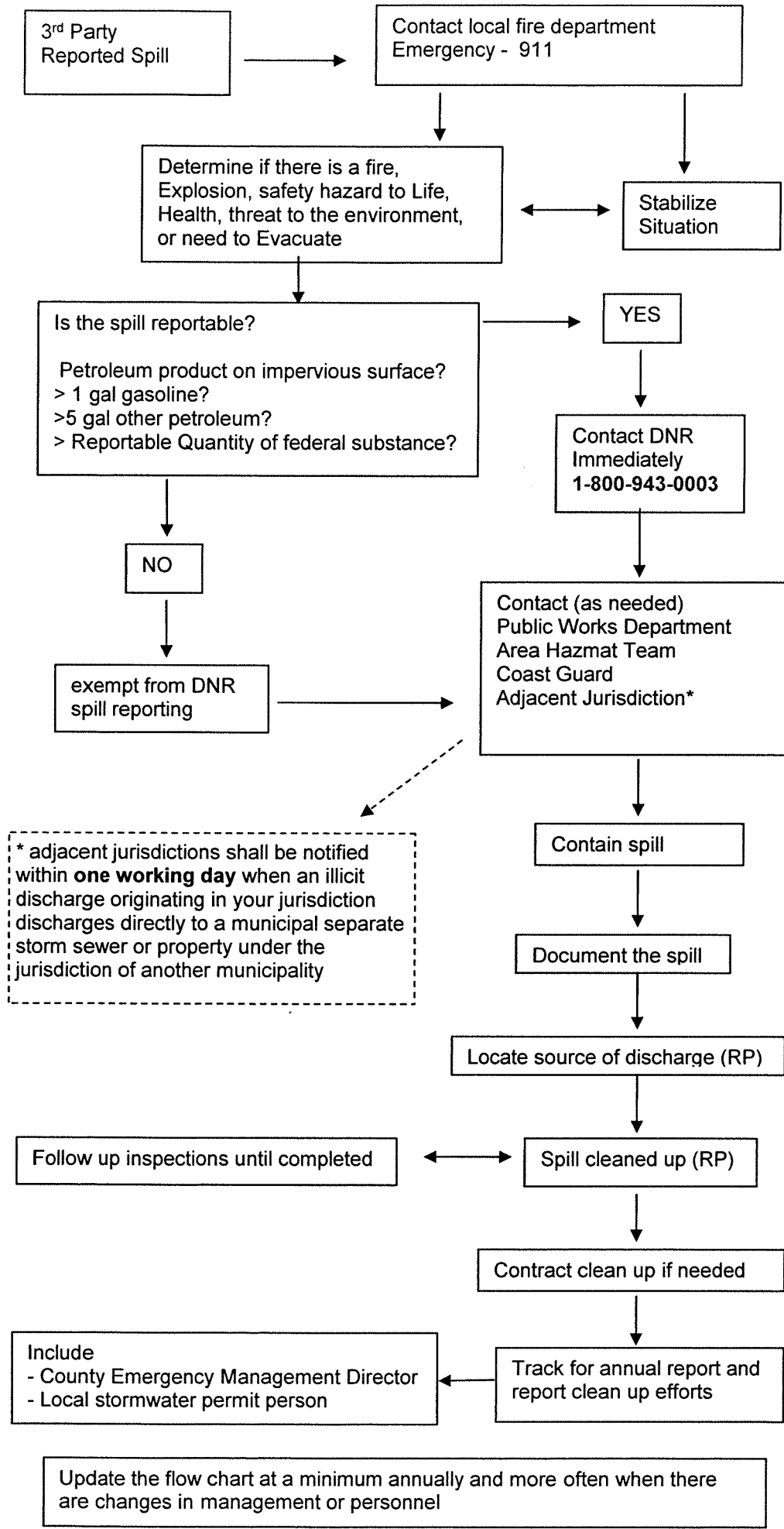
For all confirmed releases from USTs occurring after 9/30/2007 please provide the following information:

- | <u>Source</u> | <u>Cause</u> |
|---|--|
| <input type="checkbox"/> Tank | <input type="checkbox"/> Spill |
| <input type="checkbox"/> Piping | <input type="checkbox"/> Overfill |
| <input type="checkbox"/> Dispenser | <input type="checkbox"/> Corrosion |
| <input type="checkbox"/> Submersible Turbine Pump | <input type="checkbox"/> Physical or Mechanical Damage |
| <input type="checkbox"/> Delivery Problem | <input type="checkbox"/> Installation Problem |
| | <input type="checkbox"/> Other (does not fit any of above) |
| <input type="checkbox"/> Does not apply. | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Other (specify): _____ | |

Submit this completed form along with any associate lab results using the RR Program Submittal Portal, found on the DNR website at <https://dnr.wi.gov/topic/Brownfields/Submittal.html>.

If you have any questions, please contact the appropriate regional Environmental Program Associate (EPA) listed under the "EPAs" tab at <https://dnr.wi.gov/topic/Brownfields/Contact.html>.

SPILLS FLOW CHART



Local Contacts
(Name, Title, Phone #)

Emergency – 911
Fire (non-emergency) – 766-6320
Public Works – 766-6337
24 Hour Contacts:
John Sundelius: 716-4175
John Neumeier: 419-5939
Outagamie EMS: 920-832-5000
USCG(Green Bay)-(414) 435-7042
National Response Center
1-800-424-8802

Northeast Region Spills
Coordinator:

Maizie Reif
920-360-4291
 920-662-5197 (fax)
 PO Box 10448
 Green Bay WI 54307-0448

Spill Hotline - 1-800-943-0003
<https://dnr.wisconsin.gov/topic/Spills>

- Safety First**
- personal protection equipment
 - establish site security
 - identify material spilled
 - contain the spill
 - protect environmentally sensitive areas
 - protect spilled material from weather conditions
 - dispose of material properly

- Documenting your spill response**
- date and time of the discharge
 - location of discharge
 - street address, municipality, quarter section, and legal description
 - property owner name and address
 - type and amount of substance
 - type and amount recovered
 - actions taken to stop discharge
 - sketch of site
 - obtain samples
 - treatment and disposal documentation
 - photo documentation
 - estimate flow volume
 - identify responsible party
 - work toward cost recovery

Illicit Discharge and Connection Ordinance

ORDINANCE NO. 1618

Subchapter III

SECTION 22.03(1) PURPOSE AND INTENT.

The purpose of this ordinance is to provide for the health, safety, environment and general welfare of the citizens of the City of Kaukauna through the regulation of non-storm water discharges into waters of the state or the municipal separate storm sewer system (MS4) to the maximum extent practicable as required by federal and state law. This ordinance establishes methods for controlling the introduction of pollutants into waters of the state or the MS4 in order to comply with requirements of the Wisconsin Pollutant Discharge Elimination System (WPDES) permit process. The objectives of this ordinance are:

- (a) To regulate the contribution of pollutants into waters of the state or the MS4 by storm water discharges by any user.
- (b) To prohibit illicit connections and discharges into waters of the state or the MS4.
- (c) To establish legal authority to carry out all inspection, surveillance, monitoring, and enforcement procedures necessary to ensure compliance with this ordinance.

SECTION 22.03(2) DEFINITIONS.

For the purposes of this ordinance, the following shall mean:

Authorized Enforcement Agency. Employees or designees of the Director of Public Works are designated to administer and enforce this ordinance.

Best Management Practices (BMPs). Structural or non-structural measures, practices, techniques or devices employed to avoid or minimize soil, sediment or pollutants carried in runoff to waters of the state.

Construction Activity. Activities subject to construction permits per the City of Kaukauna's Construction Site Erosion Control Ordinance and Post-Construction Stormwater Management Ordinance or WPDES construction permits per NR 216 and ch. 283, Wis. Stats.

Contaminated storm water. Storm water that comes into contact with material handling equipment or activities, raw materials, intermediate products, final products, waste materials, byproducts or industrial machinery in the source areas listed in NR 216.

Department (DNR). The Wisconsin Department of Natural Resources.

Discharge. As defined in ch. 283, Wis. Stats., when used without qualification includes a discharge of any pollutant.

Discharge of pollutant or discharge of pollutants. As defined in ch. 283, Wis. Stats. means any addition of any pollutant to the waters of this state from any point source.

Hazardous Materials. Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Illicit Discharge. Any discharge into waters of the state or a municipal separate storm sewer system that is not composed entirely of storm water. Non-storm water discharges that are not considered illicit discharges include water line flushing, landscape irrigation, diverted stream flows, uncontaminated groundwater infiltration, uncontaminated pumped groundwater, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, fire fighting, and discharges authorized under a WPDES permit unless identified by the Public Works Department as a significant source of pollutants to waters of the state.

Illicit Connections. An illicit connection is defined as either of the following:

- Any drain or conveyance, whether on the surface or subsurface that allows an illicit discharge to enter waters of the state or the MS4 including but not limited to any conveyances that allow any non-storm water discharge including sewage, process wastewater, and wash water to enter waters of the state or the MS4 and any connections to waters of the state or the MS4 from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by an authorized enforcement agency or,
- Any drain or conveyance connected from a commercial or industrial land use to waters of the state or the MS4 which has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency.

Industrial Activity. Activities subject to WPDES Industrial Permits per NR 216 and ch. 283, Wis. Stats.

Maximum Extent Practicable (MEP). A level of implementing management practices in order to achieve a performance standard or other goal which takes into account the best available technology, cost effectiveness and other competing issues such as human safety and welfare, endangered and threatened resources, historic properties and geographic features.

Municipality. Any city, town, village, county, county utility district, town sanitary district, town utility district, school district or metropolitan sewage district or any other public entity created pursuant to law and having authority to collect, treat or dispose of sewage, industrial wastes, storm water or other wastes.

Municipal Separate Storm Sewer System (MS4). As defined in Wisconsin Administrative Code NR 216, means a conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, constructed channels or storm drains, which meets all the following criteria:

- (a) Owned or operated by a municipality.
- (b) Designed or used for collecting or conveying storm water.
- (c) Which is not a combined sewer conveying both sanitary and storm water.
- (d) Which is not part of a publicly owned wastewater treatment works that provides secondary or more stringent treatment.

Non-Storm Water Discharge. Any discharge to the MS4 that is not composed entirely of storm water.

Owner. Any person holding fee title, an easement or other interest in property.

Outfall. The point at which storm water is discharged to waters of the state or to a storm sewer.

Person. An individual, owner, operator, corporation, partnership, association, municipality, interstate agency, state agency or federal agency.

Pollutant. As defined in ch. 283, Wis. Stats., means any dredged spoil, solid waste, incinerator residue, sewage, garbage, refuse, oil, sewage sludge, munitions, chemical wastes, biological materials, radioactive substance, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal and agricultural waste discharged into water.

Pollution. As defined in ch. 283, Wis. Stats., means any man-made or man-induced alteration of the chemical, physical, biological or radiological integrity of water.

Pollution prevention. Taking measures to eliminate or reduce pollution.

Premises. Any building, lot, parcel of land, or portion of land whether improved or unimproved including adjacent sidewalks and parking strips.

Storm Water. Runoff from precipitation including rain, snow, ice melt or similar water that moves on the land surface via sheet or channelized flow.

Storm Water Management Plan / Storm Water Pollution Prevention Plan: A document which describes the Best Management Practices and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to waters of the state or the MS4 to the Maximum Extent Practicable.

Wastewater. Any water or other liquid, other than uncontaminated storm water, discharged from a facility.

Watercourse. A natural or artificial channel through which water flows. These channels include: all blue and dashed blue lines on the USGS quadrangle maps, all channels shown on the soils maps in the NRCS soils book for Outagamie County, all channels identified on the site, and new channels that are created as part of a development. The term watercourse includes waters of the state as herein defined.

Waters of the state. As defined in ch. 283, Wis. Stats., means those portions of Lake Michigan and Lake Superior within the boundaries of Wisconsin, all lakes, bays, rivers, streams, springs, ponds, wells, impounding reservoirs, marshes, water courses, drainage systems and other surface water or groundwater, natural or artificial, public or private within the state or under its jurisdiction, except those waters which are entirely confined and retained completely upon the property of a person.

Wisconsin Pollutant Discharge Elimination System (WPDES) Storm Water Discharge Permit. A Wisconsin pollutant discharge elimination system permit issued pursuant to Wisconsin Statute 283.

SECTION 22.03(3) APPLICABILITY.

This ordinance shall apply to all water and discharges entering waters of the state or the MS4 generated on any lands unless explicitly exempted by the Public Works Department.

SECTION 22.03(4) RESPONSIBILITY FOR ADMINISTRATION.

The Public Works Department shall administer, implement, and enforce the provisions of this ordinance. Any powers granted or duties imposed upon the Public Works Department may be delegated in writing by the Public Works Director to persons or entities acting in the beneficial interest of or in the employ of the authorized enforcement agency.

SECTION 22.03(5) COMPATIBILITY WITH OTHER REGULATIONS.

This ordinance is not intended to modify or repeal any other ordinance, rule, regulation, or other provision of law. The requirements of this ordinance are in addition to the requirements of any other ordinance, rule, regulation, or other provision of law, and where any provision of this ordinance imposes restrictions different from those imposed by any other ordinance, rule, regulation, or other provision of law, whichever provision is more restrictive or imposes higher protective standards for human health or the environment shall control.

SECTION 22.03(6) SEVERABILITY.

The provisions of this ordinance are hereby declared to be severable. If any provision, clause, sentence, or paragraph of this ordinance or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this ordinance.

SECTION 22.03(7) ULTIMATE RESPONSIBILITY.

The standards set forth herein and promulgated pursuant to this ordinance are minimum standards; therefore this ordinance does not intend or imply that compliance by any person will ensure that there will be no contamination, pollution, or unauthorized discharge of pollutants.

SECTION 22.03(8) DISCHARGE PROHIBITIONS.**(a) Prohibition of Illicit Discharges.**

No person shall throw, dump, spill, drain, or otherwise discharge, cause, or allow others under its control to throw, dump, spill, drain, or otherwise discharge into waters of the state or the MS4 any pollutants or waters containing any pollutants, other than storm water.

(b) Allowed Discharges.

1. Water line flushing, landscape irrigation, diverted stream flows, uncontaminated ground water infiltration, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, and discharges authorized under a WPDES permit unless identified by the Public Works Department as a significant source of pollutants to waters of the state.
2. Discharges or flow from firefighting, and other discharges specified in writing by the Public Works Department as being necessary to protect public health and safety.
3. Discharges associated with dye testing, however this activity requires a verbal notification to the Public Works Department and the Department of Natural Resources a minimum of one business day prior to the time of the test.
4. Any non-storm water discharges permitted under a construction activity permit, industrial activity permit, or WPDES permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the Public Works Department prior to allowing discharges to waters of the state or the MS4.

(c) Prohibition of Illicit Connections.

1. The construction, use, maintenance or continued existence of illicit connections to waters of the state or the MS4 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 ordinance if the person connects a line conveying sewage to waters of the state or the MS4, or allows such a connection to continue.
4. Improper connections in violation of this ordinance must be disconnected and redirected, if necessary, to an approved onsite wastewater management system or the sanitary sewer system upon approval of the Public Works Department.
5. Any drain or conveyance that has not been documented in plans, maps or equivalent, and which may be connected to waters of the state or the MS4, shall be located by the owner or occupant of that property upon receipt of written notice of violation from the Public Works Department requiring that such locating be completed. Such notice will

specify a reasonable time period within which the location of the drain or conveyance is to be determined, that the drain or conveyance be identified as storm sewer, sanitary sewer or other, and that the outfall location or point of connection to the storm sewer system, sanitary sewer system or other discharge point be identified. Results of these investigations are to be documented and provided to the Public Works Department.

SECTION 22.03(9) WATERCOURSE PROTECTION.

Every person owning property through which a watercourse passes, or such person's lessee, shall keep and maintain that part of the watercourse within the property free of soil erosion, trash, debris, and other obstacles that would pollute, contaminate, or significantly retard the flow of water through the watercourse. In addition, the owner or lessee shall maintain existing privately owned structures within or adjacent to a watercourse, so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse.

SECTION 22.03(10) COMPLIANCE MONITORING.

(a) Right of Entry: Inspecting and Sampling.

The Public Works Department shall be permitted to enter and inspect properties and facilities subject to regulation under this ordinance as often as may be necessary to determine compliance with this ordinance.

1. If a property or facility has security measures in force which require proper identification and clearance before entry into its premises, the owner or operator shall make the necessary arrangements to allow access to representatives of the Public Works Department.
2. Facility owners and operators shall allow the Public Works Department ready access to all parts of the premises for the purposes of inspection, sampling, examination and copying of records.
3. The Public Works Department shall have the right to set up on any property or facility such devices as are necessary in the opinion of the Public Works Department to conduct monitoring and/or sampling of the facility's storm water discharge.
4. The Public Works Department has the right to require the owner or operator to install monitoring equipment as necessary, and make the monitoring data available to the Public Works Department. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the discharger at its own expense. All devices used to measure storm water flow and quality shall be calibrated to ensure their accuracy.
5. Any temporary or permanent obstruction to safe and easy access to the property or facility to be inspected and/or sampled shall be promptly removed by the owner or operator at the written or oral request of the Public Works Department and shall not be replaced. The costs of clearing such access shall be borne by the owner or operator.
6. Unreasonable delays in allowing the Public Works Department access to a facility is a violation of this ordinance. A person who is the operator of a facility commits an offense if the person denies the Public Works Department reasonable access to the facility for the purpose of conducting any activity authorized or required by this ordinance.

(b) Special Inspection Warrant.

If the Public Works Department has been refused access to any part of the premises from which storm water is discharged, and the Public Works Department is able to demonstrate probable cause to believe that there may be a violation of this ordinance, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with this ordinance or any order issued hereunder, or to protect the overall public health, safety, environment and welfare of the community, then the Public Works Department may seek issuance of a special inspection warrant per s. 66.0119, Wis. Stats..

SECTION 22.03(11) REQUIREMENT TO PREVENT, CONTROL, AND REDUCE STORM WATER POLLUTANTS BY THE USE OF BEST MANAGEMENT PRACTICES.

The owner or operator of any activity, operation, or facility which may cause or contribute to pollution or contamination of storm water shall provide, at their own expense, reasonable protection from accidental discharge of prohibited materials or other wastes into waters of the state or the MS4 through the use of structural and non-structural BMPs. Further, any person responsible for a property or premise, that is, or may be, the source of an illicit discharge, may be required to implement, at said person's expense, additional structural and non-structural BMPs to prevent the further discharge of pollutants to waters of the state or the MS4. Compliance with all terms and conditions of a valid permit authorizing the discharge of storm water associated with industrial activity or construction activity, to the maximum extent practicable, shall be deemed compliance with the provisions of this section.

SECTION 22.03(12) NOTIFICATION OF SPILLS.

Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials which are resulting or may result in illicit discharges or pollutants discharging into storm water, the MS4, or waters of the state, said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release, so as to minimize the impacts of the discharge.

In the event of such a release of hazardous materials said person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services, and shall also notify the Public Works Department. In the event of a release of non-hazardous materials, said person shall notify the Public Works Department in person or by phone or facsimile no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the Public Works Department within 3 business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least 5 years.

Failure to provide notification of a release as provided above is a violation of this ordinance.

SECTION 22.03(13) VIOLATIONS, ENFORCEMENT, AND PENALTIES.**(a) Violations.**

It shall be unlawful for any person to violate any provision or fail to comply with any of the requirements of this ordinance. Any person who has violated or continues to violate the provisions of this ordinance, may be subject to the enforcement actions outlined in this section or may be restrained by injunction or otherwise abated in a manner provided by law.

In the event the violation constitutes an immediate danger to public health or public safety, the Public Works Department is authorized to enter upon the subject private property, without giving prior notice, to take any and all measures necessary to abate the violation. The Public Works Department is authorized to seek costs of the abatement as outlined in Section 22.03(16).

(b) Warning Notice.

When the Public Works Department finds that any person has violated, or continues to violate, any provision of this ordinance, or any order issued hereunder, the Public Works Department may serve upon that person a verbal or written Warning Notice, specifying the particular violation believed to have occurred and requesting the discharger to immediately investigate the matter and to seek a resolution whereby any offending discharge will cease. Investigation and/or resolution of the matter in response to the Warning Notice in no way relieves the alleged violator of liability for any violations occurring before or after receipt of the Warning Notice. Nothing in the subsection shall limit the authority of the Public Works Department to take action, including emergency action or any other enforcement action without first issuing a Warning Notice.

(c) Notice of Violation.

Whenever the Public Works Department finds that a person has violated a prohibition or failed to meet a requirement of this ordinance, the Public Works Department may order compliance by written notice of violation to the responsible person.

1. The Notice of Violation shall contain:
 - a. The name and address of the alleged violator;
 - b. The address when available or a description of the building, structure or land upon which the violation is occurring, or has occurred;
 - c. A statement specifying the nature of the violation;
 - d. A description of the remedial measures necessary to restore compliance with this ordinance and a time schedule for the completion of such remedial action;
 - e. A statement of the penalty or penalties that shall or may be assessed against the person to whom the notice of violation is directed;
 - f. A statement that the determination of violation may be appealed to the Public Works Department by filing a written notice of appeal within 3 business days of service of notice of violation; and

- g. A statement specifying that, should the violator fail to restore compliance within the established time schedule, representatives of the Public Works Department may issue a notice of intent to the responsible party of its intent to perform work necessary to comply with this ordinance. The Public Works Department may go on the land and commence the work after issuing the notice of intent. The Public Works Department is authorized to seek costs of the abatement as outlined in Section 22.03(16).

2. Such Notice may require without limitation:

- a. The performance of monitoring, analyses, and reporting;
- b. The elimination of illicit connections or discharges;
- c. That violating discharges, practices, or operations shall cease and desist;
- d. The abatement or remediation of storm water pollution or contamination hazards and the restoration of any affected property;
- e. Payment of a fine to cover administrative and remediation costs; and
- f. The implementation of BMPs.

(d) Suspension of MS4 Access.

1. Emergency Cease and Desist Orders

When the Public Works Department finds that any person has violated, or continues to violate, any provision of this ordinance, or any order issued hereunder, or that the person's past violations are likely to recur, and that the person's violation(s) has (have) caused or contributed to an actual or threatened discharge to the MS4 or waters of the state which reasonably appears to present an imminent or substantial endangerment to the health or welfare of persons or to the environment, the Public Works Department may issue an order to the violator directing it immediately to cease and desist all such violations and directing the violator to:

- a. Immediately comply with all ordinance requirements; and
- b. Take such appropriate preventive action as may be needed to properly address a continuing or threatened violation, including immediately halting operations and/or terminating the discharge.

Any person notified of an emergency order directed to it under this Subsection shall immediately comply and stop or eliminate its endangering discharge. In the event of a discharger's failure to immediately comply voluntarily with the emergency order, the Public Works Department may take such steps as deemed necessary to prevent or minimize harm to the MS4 or waters of the state, and/or endangerment to persons or to the environment, including immediate termination of a facility's water supply, sewer connection, or other municipal utility services. The Public Works Department may allow the person to

recommence its discharge when it has demonstrated to the satisfaction of the Public Works Department that the period of endangerment has passed, unless further termination proceedings are initiated against the discharger under this ordinance. A person that is responsible, in whole or in part, for any discharge presenting imminent endangerment shall submit a detailed written statement, describing the causes of the harmful discharge and the measures taken to prevent any future occurrence, to the Public Works Department within 30 days of receipt of the prerequisite for, taking any other action against the violator.

2. Suspension due to Illicit Discharges in Emergency Situations

The Public Works Department may, without prior notice, suspend MS4 discharge access to a person when such suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the MS4 or waters of the state. If the violator fails to comply with a suspension order issued in an emergency, the Public Works Department may take such steps as deemed necessary to prevent or minimize damage to the MS4 or waters of the state, or to minimize danger to persons.

3. Suspension due to the Detection of Illicit Discharge

Any person discharging to the MS4 in violation of this ordinance may have their MS4 access terminated if such termination would abate or reduce an illicit discharge. The Public Works Department will notify a violator of the proposed termination of its MS4 access.

A person commits an offense if the person reinstates MS4 access to premises terminated pursuant to this Section, without the prior approval of the Public Works Department.

(e) Prosecution and Penalties.

Any person violating any provision of this ordinance shall be subject to a forfeiture of not less than \$25 nor more than \$500 and the costs of prosecution for each violation. Each day a violation exists shall constitute a separate offense.

Compliance with the provisions of this ordinance may also be enforced by injunction in any court with jurisdiction. It shall not be necessary to prosecute for forfeiture or a cease and desist order before resorting to injunction proceedings.

SECTION 22.03(14) APPEALS.

(a) Board of Appeals.

The Board of Appeals created pursuant to the City of Kaukauna ordinances and pursuant to s. 62.23(7)(e), Wis. Stats.:

1. Shall hear and decide appeals where it is alleged that there is error in any order, decision or determination made by the Public Works Department in administering this ordinance except for cease and desist orders obtained under Section 22.03(13)(d)1.
2. Upon appeal, may authorize variances from the provisions of this ordinance which are not contrary to the public interest and where owing to special conditions a literal

enforcement of the provisions of the ordinance will result in unnecessary hardship; and

3. Shall use rules, procedures, duties and powers authorized by statute in hearing and deciding appeals and authorizing variances.

(b) Who May Appeal.

Appeals to the Board of Appeals may be taken by any aggrieved person or by any office, department, board, or bureau of the City of Kaukauna affected by any decision of the Public Works Department.

SECTION 22.03(15) ENFORCEMENT MEASURES AFTER APPEAL.

If the violation has not been corrected pursuant to the requirements set forth in the Notice of Violation, or, in the event of an appeal, the appropriate authority upheld the decision of the Public Works Department, then representatives of the Public Works Department may issue a notice of intent to the responsible party of its intent to perform work necessary to comply with this ordinance. The Public Works Department may go on the land and commence the work after issuing the notice of intent. The Public Works Department is authorized to seek costs of abatement as outlined in Section 22.03(16). It shall be unlawful for any person, owner, agent or person in possession of any premises to refuse to allow the government agency or designated contractor to enter upon the premises for the purposes set forth above.

SECTION 22.03(16) COST OF ABATEMENT OF THE VIOLATION.

The costs of the work performed by the Public Works Department pursuant to this ordinance, plus interest at the rate authorized by the Public Works Department shall be billed to the responsible party. In the event a responsible party fails to pay the amount due, the clerk shall enter the amount due on the tax rolls and collect as a special assessment against the property pursuant to subch. VII of ch. 66, Wis. Stats.

SECTION 22.03(17) VIOLATIONS DEEMED A PUBLIC NUISANCE.

Any condition in violation of any of the provisions of this ordinance and declared and deemed a nuisance, may be summarily abated or restored at the violator's expense.

SECTION 22.03(18) REMEDIES NOT EXCLUSIVE.

The remedies listed in this ordinance are not exclusive of any other remedies available under any applicable federal, state or local law and it is within the discretion of the Public Works Department to seek cumulative remedies.

The Public Works Department may recover all attorney's fees court costs and other expenses associated with enforcement of this ordinance, including sampling and monitoring expenses.



STORM WATER COMPLAINT FORM

COMPLAINT FORM SUBMITTED BY

Name:	<input type="checkbox"/> Anonymous
Date:	
Address:	
Telephone:	
Email:	
Should we contact you?	<input type="checkbox"/> Yes <input type="checkbox"/> No

LOCATION OF COMPLAINT

Site Name (Project):	Construction Site ID No:
Address/Location:	
Landowner Name:	

DESCRIPTION OF COMPLAINT (CHECK ALL THAT APPLY)

<input type="checkbox"/> Automobiles (fluid leak, car washing)	<input type="checkbox"/> Storm Water Management (flooding, pond maintenance)
<input type="checkbox"/> Pet Waste	<input type="checkbox"/> Illicit Discharge (spill/ hazardous material)
<input type="checkbox"/> Household Hazardous Waste (dumping)	<input type="checkbox"/> Illicit Discharge (improper waste disposal)
<input type="checkbox"/> Household Practices (garbage, recycling)	<input type="checkbox"/> Illicit Discharge (dry weather flow / discharge)
<input type="checkbox"/> Fertilizers & Pesticides	<input type="checkbox"/> Illicit Discharge (illegal plumbing connection)
<input type="checkbox"/> Leaves & Grass Clippings	<input type="checkbox"/> Illicit Discharge (failing lateral/ septic system)

<input type="checkbox"/> Stream & Shoreline Management (erosion)	<input type="checkbox"/> Street Sweeping / Catch Basin Cleaning
<input type="checkbox"/> Residential (downspouts, sump pump)	<input type="checkbox"/> Municipal Road Salt & Other Deicers
<input type="checkbox"/> Construction Site Erosion Control	<input type="checkbox"/> Other:

Describe complaint:

FOLLOW-UP ACTIONS

Describe follow-up actions: