

## MCM #3 Illicit Discharge and Detection

**MCM Requirement** - Develop, implement, and enforce a program to detect and eliminate illicit discharges into the regulated municipal storm sewer system (MS4). Permittees can meet this requirement through the implementation of the Best Management Practices (BMPs) listed below.

### **BMP #1: Illicit Discharge Detection and Elimination (IDD&E) Plan**

1. Develop, implement, and enforce a program to detect and eliminate illicit discharges into the regulated MS4. At a minimum, the written Illicit discharge detection and elimination (IDD&E) plan must include the following components:
  - Priority Area Identification (Attachment A)
  - Outfall Screening Procedures (Attachment B)
  - Illicit Discharge Source Identification (Attachment C)
  - Illicit Discharge Elimination Procedures (Attachment D)
  - Assessing for potential illicit discharges from sewage disposal systems (Attachment E)
  - Private property access for illicit connections and discharges investigation (Attachment F)
  - IDD&E documentation, evaluation, and assessment (Attachment G)
  - Addressing public information/complaints (Attachment H)
    - Information provided in the Attachments listed above is excerpted from EPA's *Illicit Discharge Detection and Elimination Guidance Manual for Program Development and Technical Assessments*.
2. An illicit discharge is as any discharge to an MS4 that is not composed entirely of stormwater. In addition, the following non-stormwater discharges are authorized by the General Permit 13 (the "MS4 Permit") as long as such discharges do not cause or contribute to pollution as defined in Pennsylvania's Clean Streams Law:
  - Discharges or flows from firefighting activities.
  - Discharges from potable water sources including water line flushing and fire hydrant flushing, if such discharges do not contain detectable concentrations of Total Residual Chlorine (TRC).
  - Non-contaminated irrigation water, water from lawn maintenance, landscape drainage and flows from riparian habitats and wetlands.
  - Diverted stream flows and springs.
  - Non-contaminated pumped ground water and water from foundation and footing drains and crawl space pumps.
  - Non-contaminated HVAC condensation and water from geothermal systems.
  - Residential (i.e. not commercial) vehicle wash water where cleaning agents are not utilized.
  - Non-contaminated hydrostatic test water discharges, if such discharges do not contain detectable concentrations of TRC.
3. IDD&E Program Timeline
  - a. New permittees - the IDD&E program must be developed during the first year of coverage under the General Permit and should be implemented and evaluated each year thereafter.
  - b. Existing permittees - the IDD&E program should continue to be implemented and reevaluated annually.

### **BMP #2: Outfall Mapping**

1. Develop and maintain map(s) that show urbanized area boundaries, the location of all outfalls and, if applicable, observation points, and the locations and names of all surface waters that receive discharges from those outfalls.
2. Outfall Mapping Timeline
  - a. New permittees - the map(s) must be developed and submitted to DEP as an attachment to an Annual MS4 Status Report by September 30, 2022 or the fourth Annual MS4 Status

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Report following approval of coverage under the General Permit whichever is later.

- b. Existing permittees - the existing map(s) should be updated and maintained as necessary during each year of permit coverage.

### **BMP #3: Stormsewer Collection System Mapping**

1. The permittee must develop and maintain map(s) that show the entire storm sewer collection system within the permittee's jurisdiction that are owned or operated by the permittee (including roads, inlets, piping, swales, catch basins, channels, and any other components of the storm sewer collection system), including privately-owned components of the collection system where conveyances or BMPs on private property receive stormwater flows from upstream publicly-owned components.
  - a. New permittees - the map(s) must be developed and submitted to DEP as an attachment to an Annual MS4 Status Report by September 30, 2022 or the fourth Annual MS4 Status Report following approval of coverage under the General Permit, whichever is later.
  - b. Existing permittees - the existing map(s) should be updated and maintained as necessary during each year of permit coverage.

### **BMP #4: Outfall Screening**

1. Permittee must conduct dry weather screenings of all MS4 regulated outfalls to evaluate the presence of illicit discharges.
  - a. If any illicit discharges are present, the permittee must take steps to identify the source(s) of the discharge and take appropriate actions to remove or correct any illicit discharges.
  - b. The permittee must respond to reports received from the public or other agencies of suspected or confirmed illicit discharges associated with the storm sewer system, as well as take enforcement action, as appropriate.
  - c. The permittee should immediately report to DEP any illicit discharges that would endanger users downstream from the discharge or would otherwise result in pollution or create a danger of pollution, or property damage.
2. Outfall Screening Timeline
  - a. New permittees - all identified regulated small MS4 outfalls must be screened during dry weather at least twice within the 5-year period following approval of coverage under the General Permit.
  - b. Existing permittees - each identified regulated small MS4 outfalls must be screened during dry weather at least once during the permit term. For areas where past problems have been reported or known sources of dry weather flows occur on a continual basis, outfalls should be screened annually during each year of permit coverage.
3. Outfall Screening
  - a. If a discharge is observed from any regulated outfall during dry weather screenings, the discharge shall be inspected for color, odor, floating solids, scum, sheen, and substances that result in observed deposits in the surface waters. In addition, the discharge cannot contain substances that result in deposits in the receiving water or produce an observable change in the color, odor, or turbidity of the receiving water.
  - b. If the discharge exhibits any characteristics indicative of an illicit discharge or causes an observed change in the surface waters, the permittee shall sample the discharge(s) for field and/or laboratory analysis for one or more common IDD&E parameters in order to determine if the dry weather flow is illicit.
  - c. Proper quality assurance and quality control procedures must be followed when collecting, transporting, or analyzing water samples. The permittee should retain sample results with the inspection report.

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### 4. Outfall Screening Report

- a. Each time an outfall is screened, the permittee must record outfall observations, regardless of the presence of dry weather flow. All outfall inspections shall be documented on the MS4 Outfall Field Screening Report form (3800-FM-BCW0521), or equivalent. The report must be signed by the inspector and be maintained by the permittee. If an outfall flow is determined by the permittee to be illicit, the actions taken to identify and eliminate the illicit flow shall also be documented.
- b. The permittee shall summarize the results of outfall inspections and actions taken to remove or correct illicit discharges in Annual MS4 Status Reports.
- c. If the permittee determines that an outfall cannot be accessed due to safety or other reasons, the permittee shall establish an "observation point" at an appropriate location prior to the outfall where outfall field screening shall be performed. If observation points are established by the permittee, such points shall be identified on the outfall map.
- d. Permittees must ensure that outfalls are properly maintained.

### **BMP #5: Stormwater Management Ordinance**

1. Enact a Stormwater Management Ordinance or SOP to implement and enforce a stormwater management program that includes prohibition of non-stormwater discharges to the regulated small MS4.
  - a. Municipal permittees shall submit a copy of an ordinance that is consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j) as an attachment to an Annual MS4 Status Report by September 30, 2022 (existing permittees) or the fourth (Annual MS4 Status Report following approval of coverage under the General Permit (new permittees).
  - b. Permittees that lack the authority to enact ordinances (non-municipal permittees and counties) shall develop and adopt an SOP that prohibits non-stormwater discharges consistent with this General Permit, and shall submit a copy of the SOP as an attachment to an Annual MS4 Status Report by September 30, 2022 (existing permittees) or the fourth Annual MS4 Status Report following approval of coverage under this General Permit (new permittees).
  - c. Notice must be provided to DEP of the approval of any waiver or variance by the permittee that allows an exception to non-stormwater discharge provisions of an ordinance or SOP. This notice shall be submitted in the next Annual MS4 Status Report following approval of the waiver or variance.

### **BMP #6: Illicit Discharge Elimination Educational Outreach**

1. Provide educational outreach to public employees, business owners and employees, property owners, the general public and elected officials (i.e., target audiences) about the program to detect and eliminate illicit discharges.
2. During each year of permit coverage, appropriate educational information concerning illicit discharges shall be distributed to the target audiences.
  - a. The permittee shall establish and promote a stormwater pollution reporting mechanism (e.g., a complaint line with message recording) by the end of the first year of General Permit coverage for the public to use to notify the permittee of illicit discharges, illegal dumping or outfall pollution.
  - b. The permittee shall respond to all complaints in a timely and appropriate manner.
  - c. The permittee shall document all responses, including the action taken, the time required to take the action, and whether the complaint was resolved successfully.
3. Educational outreach may include: distribution of brochures and guidance for target audiences including schools; programs to encourage and facilitate public reporting of illicit discharges; organizing volunteers to locate and visually inspect outfalls and to stencil storm drains; and implementing and encouraging recycling programs for common wastes such as motor oil, antifreeze and pesticides.

**Attachment A**

**Priority Area Identification**

1. Priority areas are areas with a higher likelihood of illicit discharges, illicit connections, or illegal dumping. Priority areas may include areas with older infrastructure, a concentration of high-risk activities, or history of water pollution problems.
2. Methods that can be used to identify priority areas include visual screening; sample collection (from stormwater manholes and/or outfalls during dry weather); use of infrared and thermal photography; public complaints; and/or land use evaluation.
  - The EPA *Illicit Discharge Detection and Elimination Guidance Manual for Program Development and Technical Assessments* provides the following table that lists examples of sites that may have a higher likelihood of illicit discharges.

<i>Illicit Discharge Detection and Elimination Guidance Manual for Program Development and Technical Assessments (EPA, 2004)</i>		
<b>Table 2: Land Uses, Generating Sites, and Activities That Produce Indirect Discharges</b>		
<b>Land Use</b>	<b>Generating Site</b>	<b>Activity that Produces Discharge</b>
Residential	<ul style="list-style-type: none"> <li>• Apartments</li> <li>• Multi-family</li> <li>• Single Family Detached</li> </ul>	<ul style="list-style-type: none"> <li>• Car Washing</li> <li>• Driveway Cleaning</li> <li>• Dumping/Spills (e.g., leaf litter and RV/boat holding tank effluent)</li> <li>• Equipment Washdowns</li> <li>• Lawn/Landscape Watering</li> <li>• Septic System Maintenance</li> <li>• Swimming Pool Discharges</li> </ul>
Commercial	<ul style="list-style-type: none"> <li>• Campgrounds/RV parks</li> <li>• Car Dealers/Rental Car Companies</li> <li>• Car Washes</li> <li>• Commercial Laundry/Dry Cleaning</li> <li>• Gas Stations/Auto Repair Shops</li> <li>• Marinas</li> <li>• Nurseries and Garden Centers</li> <li>• Oil Change Shops</li> <li>• Restaurants</li> <li>• Swimming Pools</li> </ul>	<ul style="list-style-type: none"> <li>• Building Maintenance (power washing)</li> <li>• Dumping/Spills</li> <li>• Landscaping/Grounds Care (irrigation)</li> <li>• Outdoor Fluid Storage</li> <li>• Parking Lot Maintenance (power washing)</li> <li>• Vehicle Fueling</li> <li>• Vehicle Maintenance/Repair</li> <li>• Vehicle Washing</li> <li>• Washdown of greasy equipment and grease traps</li> </ul>
Industrial	<ul style="list-style-type: none"> <li>• Auto recyclers</li> <li>• Beverages and brewing</li> <li>• Construction vehicle washouts</li> <li>• Distribution centers</li> <li>• Food processing</li> <li>• Garbage truck washouts</li> <li>• Marinas, boat building and repair</li> <li>• Metal plating operations</li> <li>• Paper and wood products</li> <li>• Petroleum storage and refining</li> <li>• Printing</li> </ul>	<ul style="list-style-type: none"> <li>• All commercial activities</li> <li>• Industrial process water or rinse water</li> <li>• Loading and un-loading area washdowns</li> <li>• Outdoor material storage (fluids)</li> </ul>
Institutional	<ul style="list-style-type: none"> <li>• Cemeteries</li> <li>• Churches</li> <li>• Corporate Campuses</li> <li>• Hospitals</li> <li>• Schools and Universities</li> </ul>	<ul style="list-style-type: none"> <li>• Building Maintenance (e.g., power washing)</li> <li>• Dumping/Spills</li> <li>• Landscaping/Grounds Care (irrigation)</li> <li>• Parking Lot Maintenance (power washing)</li> <li>• Vehicle Washing</li> </ul>
Municipal	<ul style="list-style-type: none"> <li>• Airports</li> <li>• Landfills</li> <li>• Maintenance Depots</li> <li>• Municipal Fleet Storage Areas</li> <li>• Ports</li> <li>• Public Works Yards</li> <li>• Streets and Highways</li> </ul>	<ul style="list-style-type: none"> <li>• Building Maintenance (power washing)</li> <li>• Dumping/Spills</li> <li>• Landscaping/Grounds Care (irrigation)</li> <li>• Outdoor Fluid Storage</li> <li>• Parking Lot Maintenance (power washing)</li> <li>• Road Maintenance</li> <li>• Spill Prevention/Response</li> <li>• Vehicle Fueling</li> <li>• Vehicle Maintenance/Repair</li> <li>• Vehicle Washing</li> </ul>

**Attachment B**

**Outfall Inspection Procedures**

1. Conduct outfall inspections during dry weather. Dry weather is defined as a condition in which there are no precipitation, snowmelt, drainage or other events producing a stormwater discharge for more than 48 consecutive hours.
2. Locate the outfall and inspect for dry weather discharge
  - If an outfall cannot be accessed due to safety or other reasons, establish an “observation point” at an appropriate location prior to the outfall where field screening can be performed. Where municipal stormwater pipes connect to another municipality, establish an observation point at an accessible location prior the municipal boundary where outfall screening can be performed. If observation points are established by the permittee, identify the observation points on the MS4 map.
3. Complete the Background Information, Outfall Description, and Responsible Official Certification portions of the Outfall Field Screening form.
4. If no discharge is observed, no further action is needed. Each time an outfall is screened, record outfall observations on the Outfall Field Screening form, regardless of the presence of dry weather flow.
5. If a discharge is observed, record a description of the discharge on the Outfall Field Screening Form. Include characteristics such as color, odor, floating solids, scum, sheen, and any substances that result in observed deposits in the surface waters.
  - Illicit discharges are defined as a storm drain that has measurable flow during dry weather containing pollutants and/or pathogens. Therefore, there may be instances in which a dry weather flow is not an illicit discharge. Flow from springs, groundwater seepage, or leaks from water distribution pipes that contains no evidence of pollutants, is simply considered a discharge.
6. If the discharge exhibits any of the characteristics listed in Step 5, contains any other pollutants, or causes an observed change in the surface waters, field screen and/or collect a sample for laboratory analysis to determine if the dry weather flow is illicit.
  - Field screening and laboratory analysis parameters should be determined based on the nature of the discharge. Possible Field Screening parameters include, but are not limited to:
    - pH
    - Conductivity
    - Fecal Coliform bacteria
    - Heavy Metals
  - Common Laboratory Screening parameters include, but are not limited to:
    - Chemical Oxygen Demand (COD) ,
    - 5-day Biochemical Oxygen Demand (BOD5)
    - Total Suspended Solids (TSS)
    - Total Dissolved Solids (TDS)
    - Oil and Grease
    - Total Residual Chlorine (TRC)
    - Ammonia-Nitrogen
7. Follow proper quality assurance and quality control procedures when collecting, transporting or analyzing water samples for laboratory analysis. Retain sample results with the inspection report.
8. If an outfall discharge is determined to be illicit, document the actions taken to identify and eliminate the source of the illicit flow on the MS4 Outfall Field Screening form.
9. Report to DEP an illicit discharge that would endanger users downstream from the discharge or would otherwise result in pollution or create a danger of pollution or would damage property.
10. Include a summary of all outfall inspections and any actions taken to remove, or correct illicit discharges in the Annual MS4 Status Report.

## Attachment C

### Illicit Discharge Source Identification

1. If field screening and/or water quality sampling confirm pollutants are present in dry weather flow, the source of the flow must be tracked and eliminated.
2. Dry weather discharges are commonly composed of one or more flow types:
  - **Sewage and septage flows** - from sewer pipes and septic systems.
  - **Washwater flows** - generated from a wide variety of activities and operations, including: discharges of gray water (laundry) from homes, commercial carwash wastewater, fleet washing, commercial laundry wastewater, and floor washing to shop drains.
  - **Liquid wastes** - refers to a wide variety of flows, such as oil, paint, and process water (radiator flushing water, etc.) that can enter the storm drain system.
  - **Tap water flows** - derived from leaks and losses that occur during the distribution of drinking water in the water supply system.
  - **Landscape irrigation flows** - excess potable water used for residential or commercial irrigation ends up in the storm drain system.
  - **Groundwater and spring water flows** - occur when the local water table rises above the bottom elevation of the storm drain and enters the storm drain either through cracks and joints, or where open channels or pipes associated with the MS4 may intercept seeps and springs.
3. Storm drain network investigations can narrow the source of a discharge problem to a single segment of storm sewer.
  - The investigation starts at the outfall and moves progressively through the upstream pipe network to track the discharge.
  - Common methods to track down the source include: visual inspection at manholes, sandbagging or damming the trunk line, dye testing, smoke testing, and video testing.
4. In certain instances, where there is only a limited conveyance system upstream of the discharge point, the source of illicit discharge may be easily identifiable. In other instances, particularly in more urban areas with more complex drainage systems, source identification can be more difficult. The following flow characteristics can be used to aid in source determination:
  - **Discharge Frequency**
    - *Continuous discharges* occur most or all the time, are usually easier to detect and typically produce the greatest pollutant load.
    - *Intermittent discharges* occur over a shorter period (e.g., a few hours per day or a few days per year). Because they are infrequent, intermittent discharges are hard to detect, but can still represent a serious water quality problem, depending on their flow type.
    - *Transitory discharges* occur rarely, usually in response to a singular event such as an industrial spill, ruptured tank, sewer break, transport accident, or illegal dumping. These discharges are extremely hard to detect with routine monitoring, but under the right conditions, can exert severe water quality problems on downstream receiving waters.
  - **Water Quality Testing**
    - Laboratory testing can distinguish illicit flow types (sewage/septic, wash water and liquid wastes) from cleaner discharges (tap water, landscape irrigation and ground water). Each flow type has a distinct chemical fingerprint.

## Attachment D

### Illicit Discharge Elimination Procedures

1. Determining the mode of entry is the first step in fixing the illicit discharge.
  - **Direct entry** discharges are directly connected to the storm drain pipe through a sewage pipe, shop drain, or other kind of pipe. Direct entry usually produces discharges that are continuous or intermittent. The three main situations where this occurs are:
    - *Sewage cross-connections*: Sewer pipes that is improperly connected to the storm drain system will produce a continuous discharge of raw sewage to the pipe. Sewage cross-connections can occur in catchments where combined sewers or septic systems are converted to a separate sewer system, and a few pipes get “crossed.”
    - *Straight pipe*: Small diameter pipes that intentionally bypass the sanitary connection or septic drain fields, can produce a direct discharge into open channels or streams.
    - *Industrial and commercial cross-connections*: Drain pipes that are improperly connected to the storm drain system can produce a discharge of wash water, process water or other inappropriate flows into the storm drain pipe. Older industrial areas tend to have a higher potential for illicit cross-connections.
  - **Indirect entry** means that flows generated outside the storm drain system enter through storm drain inlets or by infiltrating through the joints of the pipe. Generally, indirect modes of entry produce intermittent or transitory discharges, with the exception of groundwater seepage. The five main modes of indirect entry for discharges include:
    - *Groundwater seepage into the storm drain pipe*: Seepage frequently occurs in storm drains after long periods of above average rainfall. Seepage discharges can be either continuous or intermittent, depending on the depth of the water table and the season. Groundwater seepage usually consists of relatively clean water that is not an illicit discharge by itself but can mask other illicit discharges.
    - *Spills that enter the storm drain system at an inlet*: These transitory discharges occur when a spill travels across an impervious surface and enters a storm drain inlet.
    - *Dumping a liquid into a storm drain inlet*: This type of transitory discharge is created when liquid wastes such as oil, grease, paint, solvents, and automotive fluids are dumped into a storm drain.
    - *Outdoor washing activities that create flow to a storm drain inlet*: Outdoor washing may or may not be an illicit discharge, depending on the nature of the generating site. For example, hosing off individual sidewalks and driveways may not generate significant flows or pollutant loads, but activities such as routine power washing of fueling areas, outdoor storage areas, parking lots, and/or construction equipment cleanouts are likely to result in illicit discharges.
    - *Non-target irrigation from landscaping or lawns that reaches the storm drain system*: Irrigation water may or may not be an illicit discharge, depending on the nature of the generating site. Overwatering from residential sprinklers may not generate significant flows or pollutant loads, but larger scale irrigation such as commercial landscaping areas adjacent to parking lots connected to the storm drain system can produce unacceptable loads of nutrients, organic matter or pesticides.
2. Once the source of an illicit discharge is identified, the offending discharger should be notified and directed to correct the problem. Education efforts and working with the discharger can be effective in resolving the problem before taking legal action.

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3. Prohibited discharges are listed in Article VII - Prohibitions, Section 701 of the **2022 Model Stormwater Management Ordinance**.

### **Section 701. Prohibited Discharges and Connections**

- A. Any drain or conveyance, whether on the surface or subsurface, that allows any non-stormwater discharge including sewage, process wastewater, and wash water to enter a regulated small MS4 or to enter the surface waters of this Commonwealth is prohibited.
- B. No person shall allow, or cause to allow, discharges into a regulated small MS4, or discharges into waters of this Commonwealth, which are not composed entirely of stormwater, except (1) as provided in paragraph C below and (2) discharges authorized under a state or federal permit.



**Attachment E**

**Procedures for assessing the potential for illicit discharges caused by the interaction of sewage disposal systems (e.g., on-lot septic systems, sanitary piping) with storm drain systems**

1. The highest priority in most illicit discharge detection and elimination programs is to find any continuous and intermittent sewage discharges to the storm drain system. A range of monitoring techniques can be used to locate and eliminate illegal sewage connections. These techniques trace sewage flows from the stream or outfall and go back up the pipes or conveyances to reach the problem connection.
2. Particular attention should be paid to the following types of sewer areas that often have a high illicit discharge potential:
  - **Sewer Conversion** - areas once served by septic systems but were subsequently connected. These areas can be identified by reviewing past sewer construction projects to determine when and why sewer service was extended.
  - **Historic Combined Sewer Systems** - areas were once served by combined sewer systems but were subsequently separated. These areas can be identified by reviewing past municipal separation projects.
  - **Density of Aging Septic Systems** - areas located outside of the sewer service area are presumably served by septic systems. Sewer envelope boundaries or sewer network maps can be helpful to identify areas that are served by septic systems
    - Aging septic systems - Septic systems more than 30 years old are prone to failure.
    - Septic system density - In general, a high illicit discharge potential is indicated if older septic tank density exceeds 100 per square mile.

**Attachment F**

**Private property access for illicit connections and discharge investigation**

1. Although in most instances, property owners cooperate when asked for access for illicit discharge investigations, this should never be taken for granted.
2. Clear and effective ordinance language should be adopted to ensure that all potential sources of illicit discharges are prohibited, and that the municipality has sufficient legal authority to inspect private properties and enforce corrections.
3. Article VIII, Section 801 of the **2022 Model Stormwater Ordinance** includes the following language regarding the right of access to private property for stormwater inspections:

**Section 801. Right-of-Entry**

Upon presentation of proper credentials, the municipality or its designated agent may enter at reasonable times upon any property within the municipality to inspect the condition of the stormwater structures and facilities in regard to any aspect regulated by this Ordinance.

## Attachment G

### Procedures IDD&E program documentation, evaluation and assessment

Records shall be kept of all outfall inspections, flows observed, results of field screening and testing, and other follow-up investigation and corrective action work performed under this program.

1. Tracking System
  - Effective IDD&E programs develop a tracking system to locate each outfall, and store information on its address, characteristics, photos, complaints and monitoring data. The tracking system enables managers to measure program indicators and gives field crews a home to store the data they collect.
  - The tracking system should be developed early in the permit cycle so that program managers can utilize it as an evaluation and reporting tool.
  - The fundamental units to track are individual outfalls, along with any supporting information about their contributing drainage area. Some of the key information that may be included when tracking outfalls includes:
    - GPS coordinates of each outfall location
    - The subwatershed and watershed address
    - Any supporting information about the contributing land use
    - Diameter and physical characteristics of the outfall
    - Outfall Reconnaissance Inventory data, as it is collected
    - Any accompanying photos
    - Any follow-up monitoring at the outfall or further up the pipe
    - Any hotline complaints logged for the outfall, along with the local response
    - Status and disposition of any enforcement actions
    - Maintenance and inspection data
2. Program Evaluation and Assessment
  - Effective IDDE programs are dynamic and flexible to respond to an ever-changing set of discharge problems, program obstacles, and emerging technologies. At a minimum, program managers should maintain and evaluate their IDD&E tracking system annually and modify program components as needed.
  - Regular analysis of the tracking system sheds light on program strengths and deficiencies and improves targeting of limited program resources.
  - The tracking system may contain the following:
    - Updated mapping to reflect outfalls located during the Outfall Reconnaissance Inventory,
    - Surveyed stream reaches with locations of obvious, suspect, and potential discharges, and locations of dumping sites
    - Indicator sampling results for specific streams, outfalls and storm drains
    - Frequency of hotline use and confirmed illicit discharges
    - Number of discharges corrected
    - Status and disposition of enforcement actions

**Attachment H**

**Addressing public information/complaints**

1. When citizens play a stronger role in reporting illicit discharge problems, municipal staff can focus their efforts on tracing the problem to its source and fixing it.
2. The permittee should evaluate if a citizen hotline, a dedicated phone number (or website), or direct contact with the permittees municipal office is the most appropriate method for the permittee to handle information from the public.
  - Reporting to general municipal phone number/email address
    - If illicit discharges are reported through the general municipal contact number or email, the staff in charge of answering these calls/emails should be properly trained on how to document and direct information received from the public.
  - Reporting to citizen hotlines (dedicated phone number or website)
    - Citizen hotlines are a low-cost strategy to engage the public in illicit discharge surveillance and are probably the only effective way to pick up intermittent and transitory discharges that escape outfall screening.
    - When advertised properly, hotlines are also an effective tool to increase awareness of illicit discharges and dumping.
3. Addressing public information
  - Effective programs typically respond to citizen reports within 24 hours, acknowledge their help, and send them stormwater education materials.
4. The EPA *Illicit Discharge Detection and Elimination Guidance Manual for Program Development and Technical Assessments* provides the following table that lists the steps to creating and maintaining successful IDD&E hotline. These steps are explained in detail in Technical Appendix C of the EPA IDDE Guidance Manual.

<i>Illicit Discharge Detection and Elimination Guidance Manual for Program Development and Technical Assessments (EPA, 2004)</i>	
<b>Table 24: Steps to Creating and Maintaining Successful IDDE Hotline</b>	
Steps	Key Elements
1. Define the scope	<ul style="list-style-type: none"> <li>• Determine if a hotline is needed</li> <li>• Define the intent of the hotline</li> <li>• Define the extent of the hotline</li> </ul>
2. Create a tracking and reporting system	<ul style="list-style-type: none"> <li>• Design reporting method</li> <li>• Design response method</li> </ul>
3. Train personnel	<ul style="list-style-type: none"> <li>• The basics and importance of IDDE</li> <li>• The complaint hotline reporting, investigation and tracking process How to provide good customer service</li> <li>• Expected responsibilities of each department/agency</li> </ul>
4. Advertise	<ul style="list-style-type: none"> <li>• Advertise hotline frequently through flyers, magnets, newspapers, displays, etc.</li> <li>• Publicize success stories</li> </ul>
5. Respond to complaints	<ul style="list-style-type: none"> <li>• Provide friendly, knowledgeable customer service</li> <li>• Send an investigator to respond to complaints in a timely manner Submit incident reports to the hotline database system</li> </ul>
6. Track incidents	<ul style="list-style-type: none"> <li>• Identify recurring problems and suspected offenders</li> <li>• Measure program success</li> <li>• Comply with annual report requirements</li> </ul>