

City of Battle Ground

Illicit Discharge Program



October 2022

Introduction

The City of Battle Ground Illicit Discharge Detection and Elimination (IDDE) program is a portion of the City's overall Stormwater Management Program. The purpose of the IDDE program is to locate and remove non-stormwater discharges to the City's storm sewer system. The IDDE program's legal authority is contained in Battle Ground Municipal Code Chapter 13.126 and is enforced through Battle Ground Municipal Code Title 20.

The City of Battle Ground IDDE program includes the following elements:

- Storm Sewer System Mapping
- Illicit Discharge Screening
- Illicit Discharge Public Education
- Program Tracking
- Municipal Field Staff Training

Storm Sewer System Mapping

The City's storm sewer system as of August 2011 has been mapped and all structures have been marked using GPS. The map includes all known structures and outfalls and storm system material and size where known. This map will continue to be updated as annexation and development adds additional areas to the storm sewer system.

Illicit Discharge Screening

Illicit discharge screening has been completed for the City. Screening took place during dry weather by observing outfalls or manholes directly upstream of outfalls for flow and evidence of non-stormwater discharges from the outfalls. No illicit discharges were discovered. The City will continue to screen outfalls for Illicit discharges.

Illicit discharge screening also takes place during normal storm sewer maintenance. Several cases of dumping and spills have been found and reported for containment by City field staff. Procedures for locating priority areas to screen for illicit discharges, characterizing the nature of illicit discharges, tracing the source of illicit discharges and removing the source of the illicit discharge can be found in Appendix A of this document.

Illicit Discharge Public Education

The City has established an illicit discharge reporting hotline that connects to the City Engineering Department. This hotline is advertised several places on the City website. The hotline is also advertised occasionally in City utility bills and on magnets that are distributed at City events. The City has also distributed educational posters that describe operational BMPs in layman terms to all auto repair shops in the City, and has distributed fact sheets on auto maintenance, auto washing, pool maintenance and other topics to the public through local businesses, the City's website and local events.

Program tracking

The City tracks all calls reporting Illicit discharges, as well as all illicit discharge investigation activities. Each year this data is reported in the City's annual NPDES report. Copies of the call tracking and investigation tracking logs can be found in Appendix B of this document.

Municipal Field Staff Training

All City field staff were trained on illicit discharges and how to identify possible illicit discharges in 2009. Education has continued to be provided as needed to address changes in procedures, techniques or requirements.

Appendix A:
Standard Operating Procedures



Locating Priority Areas for IDDE Screening

Purpose

The purpose of this standard operating procedure is to locate areas likely to have illicit discharges based on land use, development age, business/industrial activities present, past complaints, and areas with stored materials that could result in spills.

Methods

- Delineate sub-watersheds
- Compile available data for each sub-watershed
 - Land use
 - Development age
 - Business/industrial activities present in sub-watershed
 - Past complaints
 - Business/industrial activities with potential for spills

Equipment

- Storm sewer system map
- Computer with GIS access
 - Zoning map
 - Aerial Photographs
 - Topography
 - Street maps
 - Streams and wetlands

Prioritizing MS4 Drainage Basins

Complete the attached table using the following scoring guidelines:

Past discharge complaints / reports: <5 = 1; 5 – 10 = 2; >10 = 3

Industrial / Commercial land use percentage: <25% = 1; 25 – 50% = 2; >50% = 3

Age of development: <10 = 1; 10-15 = 2; >15 = 3

Business activities with potential for spills: <5 = 1; 5 – 10 = 2; >10 = 3

Normalize the raw IDP score by dividing the raw score by the number of screening factors assessed. This will produce scores that fall into the standard scale of 1 to 3 for low to high illicit discharge potential.

Reference: [Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments](#) By the Center for Watershed Protection and Robert Pitt, University of Alabama



Characterizing Illicit Discharges

Purpose

The purpose of this standard operating procedure is to assist managers and field crews with the characterization of illicit discharges, and determine if immediate containment is required.

Methods

- Conduct investigation with at least two staff per crew.
- Never put yourself in danger.
- Determine what the discharged material is or may be utilizing observation and the figure below.
- Based on the available information determine whether an illicit discharge is unlikely, potential (presence of two or more indicators), suspect (one or more indicators with a severity of 3) or obvious.
- Report all spills of petroleum products or sewage to the Department of Ecology (360) 407-6300 within 24 hours.
- Report all discharges of sewage to the Department of Ecology (360) 407-6300 immediately.
- Investigate illicit discharges that have a “suspect” or “obvious” ranking within 5 days of determination. Complete tracking and investigation forms.
- Investigate discharges that have a “potential” ranking within 7 days of determination. Complete tracking and investigation forms.
- Complete tracking form for discharges with an “unlikely” ranking for records.









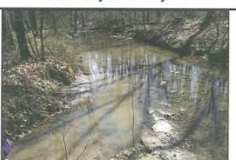




Containment

- Evaluate whether the illicit discharge is having a significant impact on the receiving water.
- Evaluate options for containment and/or collection of the illicit discharge.
- If the illicit discharge is obvious and is having a significant impact on the receiving water, and there are options for containment or collection, then proceed with containment/collection prior to investigation.




Equipment

- System map
- City identification
- Safety vest
- Tracking and investigation logs
- Disposable gloves
- Sample bottles and collection pole
- Containment Supplies
 - Absorbent pads and booms

Color and Turbidity

 <p>Color: Brown; Severity: 2 Turbidity Severity: 2</p>	 <p>Color: Blue-green; Severity: 3 Turbidity Severity: 2</p>	 <p>Highly Turbid Discharge Color: Brown; Severity: 3 Turbidity Severity: 3</p>
 <p>Sewage Discharge Color: 3 Turbidity: 3</p>	 <p>Paint Color: White; Severity: 3 Turbidity: 3</p>	 <p>Industrial Discharge Color: Green; Severity: 3 Turbidity Severity: 3</p>
 <p>Blood Color: Red; Severity: 3 Turbidity Severity: None</p>	 <p>Failing Septic System: Turbidity Severity: 3</p>	 <p>Turbidity in Downstream Plume Turbidity Severity: 2 (also confirm with sample bottle)</p>
 <p>High Turbidity in Pool Turbidity Severity: 2 (Confirm with sample bottle)</p>	 <p>Iron Floc Color: Reddish Orange; Severity: 3 (Often associated with a natural source)</p>	 <p>Slight Turbidity Turbidity: 1 (Difficult to interpret this observation; May be natural or an illicit discharge)</p>
<p>Construction Site Discharge Turbidity Severity: 3</p>		<p>Discharge of Rinse from Floor Sanding (Found during wet weather) Turbidity Severity: 3</p>

SUDS

 <p>Natural Foam Note: Suds only associated with high flows at the "drop off" Do not record.</p>	 <p>Low Severity Suds Rating: 1 Note: Suds do not appear to travel; very thin foam layer</p>	 <p>High severity suds Rating: 3 Sewage</p>
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OIL SHEENS

 <p>Low Severity Oil Sheen Rating: 1</p>	 <p>Moderate Severity Oil Sheen Rating: 2</p>	 <p>High Severity Oil Film Rating: 3</p>
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Reference: Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments By the Center for Watershed Protection and Robert Pitt, University of Alabama



Tracing Illicit Discharges

Purpose

The purpose of this standard operating procedure is to assist field crews with the tracing of the source of illicit discharges.

Methods

- Conduct investigation with at least two staff per crew.
- Manholes may only be entered by properly trained and equipped personnel.
- Never put yourself in danger.
- Revisit outfall to verify reported discharge is still present.
- Survey the general area / surrounding properties to identify potential sources.
- Investigate illicit discharges using visual inspections of upstream points.
- Utilize additional City resources as required (traffic control, video truck, additional staff, code enforcement).
- Document investigation results for future reference.
- Do not enter private property without permission (Stormwater Easement and Maintenance Agreements provide authorization for access and inspection).
- Use liquid dye to identify suspected cross connections.
- If source cannot be found, add the location to a future inspection program.

Equipment

- System map
- City identification
- Safety vest
- Digital camera
- Cell phone
- Clip board and pencils
- Flashlight
- Disposable gloves
- Liquid dye
- Hand sanitizer
- Manhole puller
- Traffic cones
- Sample bottles and collection pole



Removing Illicit Discharges

Purpose

The purpose of this standard operating procedure is to assist inspection and enforcement staff with illicit discharge source removal utilizing escalating compliance actions.

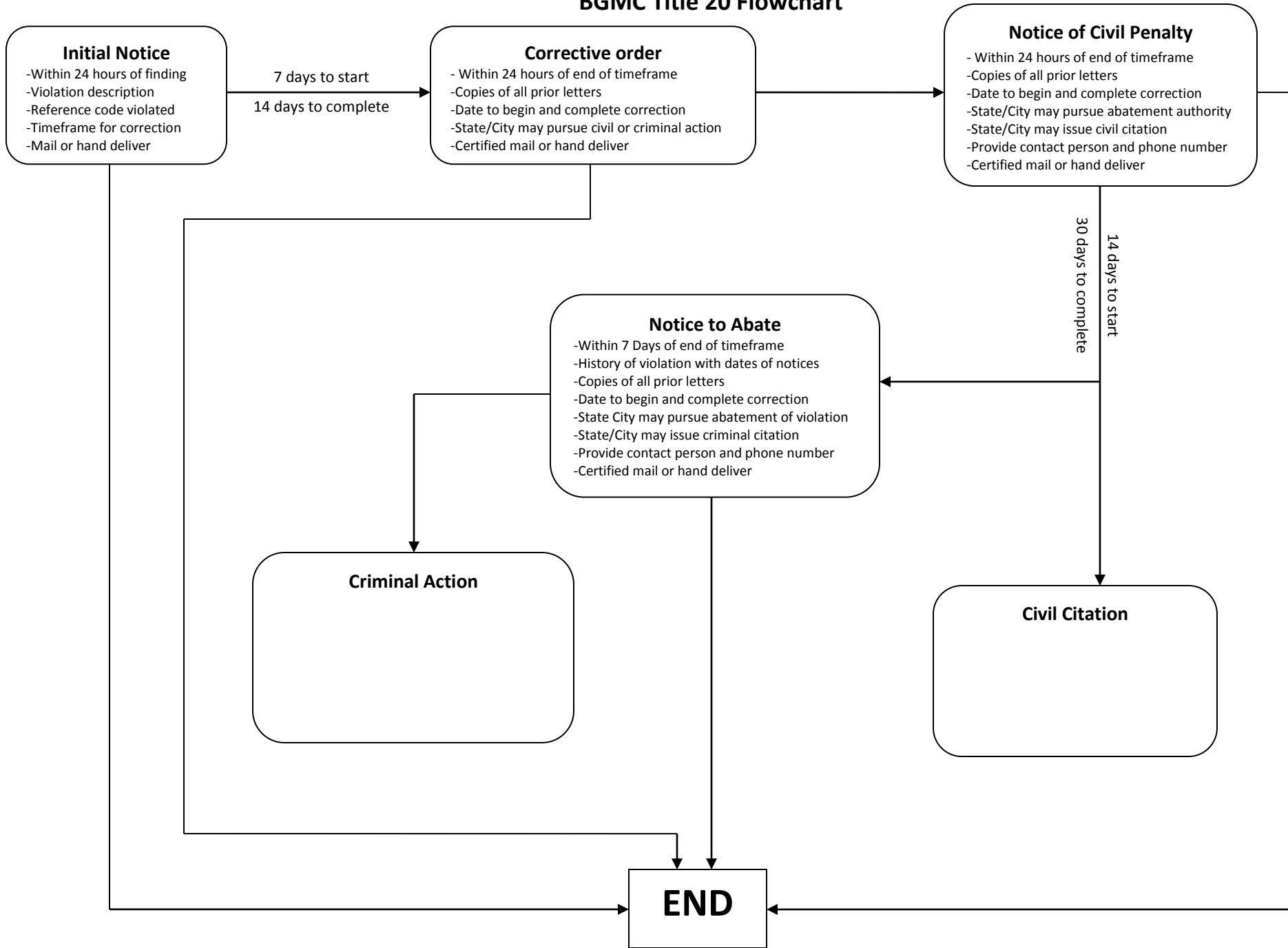
Methods

- Conduct investigation with at least two staff per crew.
- Contact Police Department for assistance with enforcement if necessary.
- Contact property owner where the illicit discharge originates from and inform them of their obligation to immediately stop the illicit discharge and begin corrective measures.
- City employees will provide technical assistance for eliminating the discharge and ensuring appropriate disposal of waste materials.
- Follow-up inspections will be performed by City staff to verify that the illicit discharge is eliminated and any corrective measures have been taken, if necessary.
- If discharge is not eliminated proceed with enforcement through BGMC Title 20. Follow attached flowchart.
- If City provides any remediation work, track and document staff time. Responsible party will be required to reimburse the City for these costs.

Equipment

- City identification
- Safety vest
- Digital camera
- Cell Phone
- Clip board and pencils
- Manhole puller

BGMC Title 20 Flowchart



Appendix B:
Tracking and Investigation Logs

Illicit Discharge Incident Tracking Sheet

Incident ID:			
Responder Information			
Call taken by:		Call date:	
Call time:		Precipitation (inches) in past 24-48 hrs:	
Reporter Information			
Incident time:		Incident date:	
Caller contact information (<i>optional</i>):			
Incident Location (<i>complete one or more below</i>)			
Closest street address:			
Stream name or outfall #:			
Latitude and longitude:			
Nearby landmark:			
Primary Location Description:	<input type="checkbox"/> Outfall	<input type="checkbox"/> In-stream flow	<input type="checkbox"/> Along banks
<input type="checkbox"/> Upland area (<i>Land not adjacent to stream</i>)	<input checked="" type="checkbox"/> Near storm drain	<input type="checkbox"/> Near other water source (storm water pond, wetland, etc.):	
Description of location: Residential Lot within the City.			
Problem Indicator Description			
<input type="checkbox"/> Dumping	<input type="checkbox"/> Oil/solvents/chemicals	<input type="checkbox"/> Sewage	
<input type="checkbox"/> Wash water, suds, etc.	<input type="checkbox"/> Other: _____		
Notes			
Suspected Violator (name, personal or vehicle description, license plate #, etc.):			

Illicit Discharge Investigation Notes

Incident ID:

Call Date:

Initial investigation date:

Investigators:

No investigation made

Reason:

Referred to different department/agency:

Department/Agency:

Investigated: No action necessary

Investigated: Requires action

Description of actions:

Odor

None

Sewage

Rancid/Sour

Petroleum (gas)

Sulfide (rotten eggs);
natural gas

Other: Describe in "Notes" section

Appearance

"Normal"

Oil sheen

Cloudy

Suds

Other: Describe in "Notes" section

Floatables

None:

Sewage (toilet paper, etc)

Algae

Dead fish

Other: Describe in "Notes" section

Notes:

Hours between call and investigation:

Days to close incident:

Date case closed: