

CDOT Illicit Discharge Program Manual

Version 1

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Introduction

CDOT's Illicit Discharge Program Overview

The main objective of the Colorado Department of Transportation's (CDOT) Municipal Separate Storm Sewer System (MS4) Illicit Discharge Program is reducing illicit discharges, illicit connections, and illicit dumping (collectively "illicit discharges" [IDs]) to CDOT's MS4. The MS4 ID Program uses training/education, identification, reporting, investigation, tracking, and removal to curtail IDs. The CDOT MS4 Permit (COS000005) covers all areas of the Colorado state highway system and associated rights-of-way (ROWs), as well as any properties owned and operated by CDOT within other jurisdiction's MS4 Phase I or Phase II permit areas. CDOT's MS4 area may expand or contract as municipal boundaries or infrastructure of the cities and counties in Phase I and II areas change. A map of the up-to-date boundaries of CDOT's MS4 area can be accessed via the "Water Quality Mapping (CPLAN)" button on the [IDDE Webpage](#). While CDOT is only required by permit to respond to IDs within the Permit Area, CDOT aims to be good stewards of the environment and water quality. As such, CDOT works cooperatively with local municipalities and entities to investigate and remove any IDs reported to the Department whenever possible.

ID Manual Purpose and Intent

The purpose of the CDOT Illicit Discharge Program Manual is to establish written procedures for reporting, tracing, enforcement, and recordkeeping of IDs and to meet the requirements of CDOT's MS4 permit (COS000005). The manual is designed to document current procedures for ID response. Because IDs can vary significantly based on the location of the discharge, the type of material(s) involved, the size and extent of the discharge, and other factors, the procedures outlined in this manual should be considered as a guide. Individualized responses may be required based on varying ID conditions, and it is the role of the ID Manager and Water Quality staff to collaborate to determine the appropriate response.

Distinction Between Spills and Illicit Discharges

It is important to note that only illicit discharges are handled by CDOT Water Quality staff, while spills are handled by Colorado State Patrol (CSP) and CDPHE. An illicit discharge is generated outside of the ROW and has the potential to negatively affect CDOT's MS4 area. A spill is generated inside a state ROW and has the potential to leave CDOT's operational control. These definitions and the division of responsibilities is clarified by the CDOT/CDPHE/CSP Memorandum of Understanding (MOU). The MOU can be located on the [CDOT webpage](#).

The Property Management group coordinates response to all spills including cleanup and remediation. When spills are reported to the CDOT ID Program, the ID Manager or designated Water Quality staff will refer the incident to CDOT Property Management.

Training Requirements

All CDOT staff involved with ID response receive 40-Hour HAZWOPER Training and Certification. HAZWOPER training prepares CDOT staff responding to ID reports to be able to respond to IDs of a hazardous or unknown nature effectively and safely. Training prepares the ID Manager and other Water Quality staff to assess a variety of ID situations and coordinate appropriate responses.

CDOT staff that frequently work in the field, such as CDOT Maintenance (MTCE) staff, receive training on identifying and reporting potential IDs in the field. Training is provided to MTCE staff by the ID Manager or through CDOT's online training platform.

ID SOP 1 -- Reporting an Illicit Discharge

Overview

Reporting Illicit Discharges is the responsibility of all CDOT personnel, not just individuals in the Water Quality Section. IDs may be identified during permanent water quality (PWQ) or stormwater outfall inspections, but they can also be found during the course of regular work in the ROW or when travelling throughout the state. Individuals that frequently work in the field, particularly those in Maintenance (MTCE), have the opportunity to help protect water quality by being the eyes and ears of CDOT. Any observed discharges that might negatively impact water quality should be reported. While reporting potential illicit discharges is encouraged, **individuals should not approach, touch, or attempt to remove potential illicit discharges if the substance is unknown. Illicit discharges can be dangerous, and removal may require specialized training and protective equipment.** For helpful tips about identifying illicit discharges, see the [CDOT IDDE Program Webpage](#).

This SOP will guide users through the illicit discharge reporting process including who to report incidents to, what kind of information to include when reporting, and how to report.

MS4 Permit Requirements

- a. CDOT MS4 Permit (COS000005), Part I.E.3.a.iv Tracing an Illicit Discharge

Procedures

Potential IDs are reported by MTCE staff working within CDOT ROW, MS4 personnel, or the general public. The following process should be followed for reporting potential IDs.

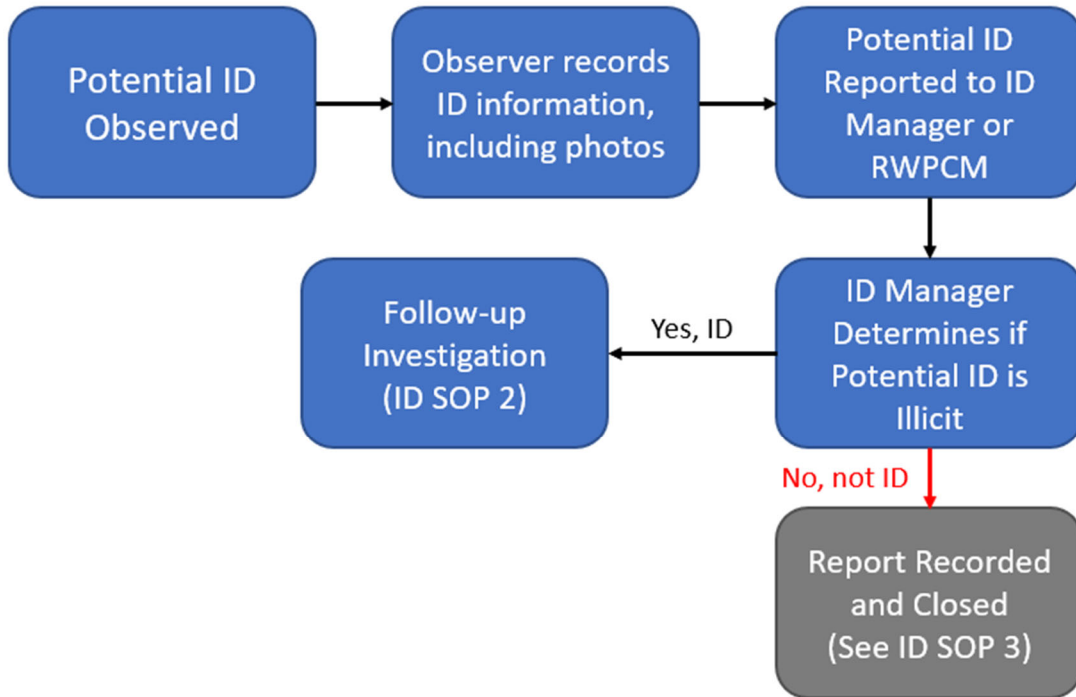
1. When a potential ID is observed, the following information should be recorded:
 - a. Location
 - b. Date and Time of the Observation
 - c. Weather conditions, including whether it is currently raining or snowing or has recently rained or snowed
 - d. Description of the potential ID
 - i. Color of the discharge
 - ii. Clarity of the discharge
 - iii. Odor
 - iv. Other evidence related to the discharge, such as stains, empty containers, etc.
 - e. If someone is actively dumping or discharging into the ROW, try to record:
 - i. License plates or other identifying information
 - ii. For safety, do not approach or confront someone about illegal dumping or discharges. If active illegal dumping is in progress, call CSP dispatch (303) 239-4501.
 - f. Any photos or videos of the discharge and the surrounding area
2. Once a potential ID has been identified, it should be reported to the ID Manager or the Region Water Pollution Control Manager (RWPCM). All reports can be made anonymously, or the reporter can request to be included in follow-up once the potential ID is investigated.

3. Reports can be made by:
 - a. Verbally, by email, or by phone to the ID Manager or Regional Water Quality Pollution Control Manager (RWPCM)
 - b. Contacting the Illicit Discharge Hotline (303-512-4H2O(4426))
 - c. MTCE staff may report illicit discharges using the QuickCapture app.
4. Once reported, the ID Manager determines whether the ID request is an illicit discharge. If so, the ID Manager directs follow-up investigations.
 - a. If the reported ID poses an immediate threat to human health and safety, or involves a known hazardous substance, CSP dispatch will be contacted at 303-239-4501.
 - b. The ID Manager or other designated Water Quality Staff will respond to all ID requests within two (2) business days. This initial response includes following up with reporting parties and initiating investigation.
 - c. If the ID is determined to be a spill, the incident is referred to CSP and CDOT Property Management for follow-up.
 - d. If the ID is determined to be outside of CDOT's MS4 area, in the jurisdiction of another MS4, covered under another CDOT MS4 program, or covered under another water quality permit, the ID Manager or designated Water Quality staff will refer the report to the appropriate organization for investigation.
5. If the ID manager determines that the ID request is not an illicit discharge, the report is closed, and no further documentation is needed.

Attachments/Flowcharts

ID Response Contact List	
CDOT Illicit Discharge Hotline	(303)-512-4H2O (4426)
CSP Dispatch	(303) 239-4501
CDPHE Emergency and Incident Reporting Line	1-877-518-5608
National Response Center	1-800-424-8802

ID SOP 1– Reporting an Illicit Discharge



ID SOP 2 – Tracing and Investigating an Illicit Discharge

Overview

When an illicit discharge is reported, CDOT must try to identify the source of the discharge. There are many resources available that teach tracking and tracing procedures and that detail how different types of discharges should be dealt with. One of these resources is the Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) certification. All CDOT personnel that will be performing tracking and tracing of illicit discharges must be 40-Hour HAZWOPER certified. As such, this SOP will not be duplicative of the information covered in HAZWOPER certification, but rather focus on the CDOT-specific procedures associated with ID tracing and investigation.

MS4 Permit Requirements

- a. CDOT MS4 Permit (COS000005), Part I.E.3.a.iv Tracing an Illicit Discharge

Procedures

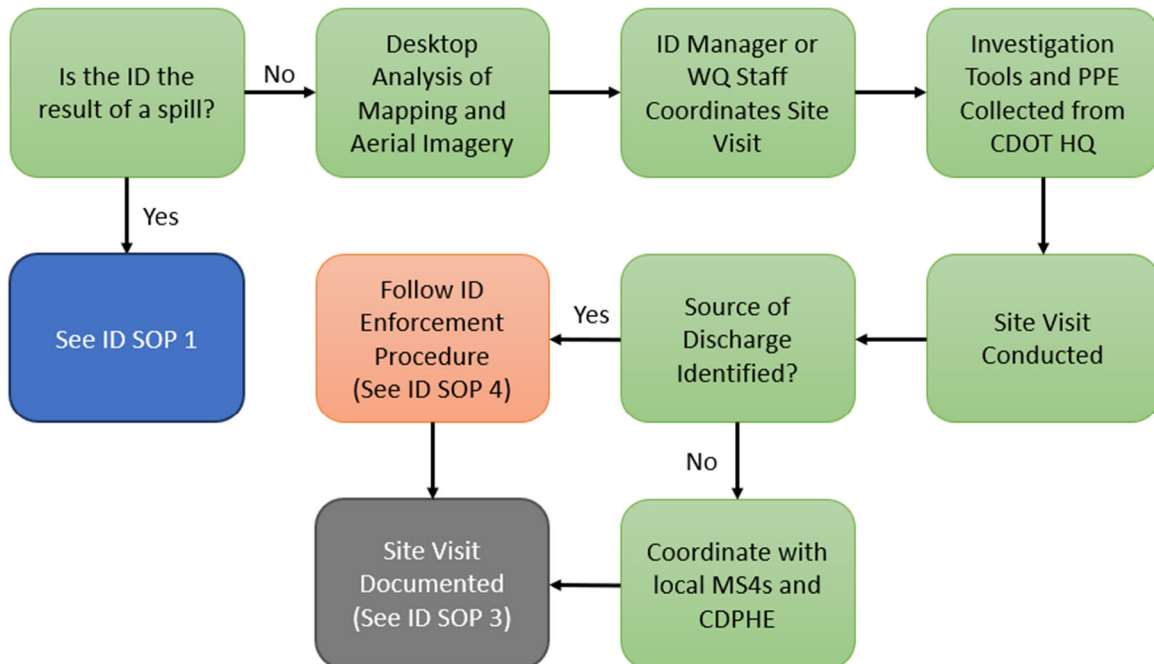
All reported IDs that are determined to be illicit will be investigated. The ID Manager will initiate and coordinate all ID investigations. Exact investigation processes will vary depending upon the nature of the ID; however, the following steps are generally a part of the investigation process.

1. The first step in investigation is desktop analysis of mapping or aerial imagery. CDOT's Storm Sewer System Mapping can be accessed via the "Water Quality Mapping (CPLAN)" button on the [IDDE Webpage](#). Gather available information using stormwater system maps, including:
 - a. Possible locations where the discharge originated
 - b. Adjacent state waters
 - c. Adjacent MS4 areas
 - d. CDOT property boundaries
 - e. Other general information about the surrounding area
2. If necessary, the ID Manager will coordinate with Water Quality Staff or MTCE where the discharge occurred to arrange a visit to the ID site to gather more information on the discharge. Depending on the case, investigation may require coordination with local municipalities.
3. Before the site visit, any necessary tools for response will be gathered from CDOT Headquarters. Available tools for tracking and tracing include:
 - a. PPE such as safety vests, safety helmets, etc.
 - b. Crowbars and Manhole Hooks
 - c. Quickview Cameras
 - d. Water quality rapid test kits for pH and nutrients
 - e. Coordinate with CDOT Property Management if further water sampling and lab testing may be needed.
 - f. If the ID is in a remote area, investigators should print, screenshot, or download the storm sewer system map before going out in the field to ensure access without cell service.

4. Follow all proper safety protocols for fieldwork within CDOT’s ROW when responding to a discharge.
 - a. Wear proper PPE including a safety helmet, safety vest, closed toe shoes, and earplugs where applicable.
 - b. Utilize CDOT vehicles equipped with safety lights for all field investigations.
 - c. Follow HAZWOPER safety protocols if dealing with any unknown or potentially hazardous substances.
5. Once at the ID location, use the information gathered from the desktop analysis to try to follow the discharge up-system or upstream to determine the source of the discharge.
 - a. If using water quality rapid test kits or taking samples of the discharge, follow all test kit and lab instructions. Wear proper PPE including gloves to prevent contact with the discharge.
 - b. If CDOT staff feel their safety or the safety of others is at risk at any point during an investigation, CDOT may hire hazardous materials experts to investigate further.**
6. Take thorough notes, photos, and videos during field investigations for ID records (see ID SOP 3— Recordkeeping).
7. If the source of the discharge cannot be determined, CDOT may need to coordinate with local MS4s for further investigation.
8. If a responsible party still cannot be identified, CDOT will contact CDPHE for further assistance.

[Attachments/Flowcharts](#)

ID SOP 2– Tracing and Investigating an Illicit Discharge



ID SOP 3 – Illicit Discharge Reporting and Documentation

Overview

--CURRENT PRACTICES--

The ID Manager and WQ Staff currently utilize two systems for recordkeeping of all ID reports: the Survey123 platform and a series of folders stored on CDOT's server. The Survey123 database houses information from the initial ID investigations. A server folder is created each year, with subfolders for each ID incident. Any additional attachments, records of follow up, and additional pertinent files that are not included in the Survey123 database are stored in these server folders. All information required by Permit Part I.E.3.b.vi. is currently kept in these systems.

--IN DEVELOPMENT--

The ID Program is currently in the process of revising reporting and documentation procedures with a switch to the 2nd Nature system. Once this system is fully developed, this SOP will be updated to reflect these new procedures.

MS4 Permit Requirements

- a. COS000005 Part I.E.3.b.vi. Removing an Illicit Discharge

Procedures

Attachments/Flowcharts

ID SOP 4 – Illicit Discharge Enforcement and Cleanup

Overview

When the source of an ID is confirmed, CDOT must require that the discharge be ceased or removed and have set procedures for enforcement against responsible parties. CDOT’s MS4 permit requires that CDOT have escalating enforcement options to discourage continued, repeated, or egregious violations (COS000005 Permit Part i.E.3.a.vii Enforcement Response).

When a responsible party is identified that party is generally responsible for both the costs associated with ceasing the discharge and with any needed cleanup and reclamation of the area where the discharge occurred.

MS4 Permit Requirements

- a. COS000005 Part I.E.3.a.vi. Removing an Illicit Discharge
- b. COS000005 Part I.E.3.a.vii. Enforcement Response
- c. COS000005 Part I.E.3.c.viii. Enforcement Response

Enforcement Procedures

The following procedures outline the potential enforcement actions available to CDOT for ID violations. Final decisions on appropriate enforcement actions are up to the discretion of the ID Manager and WQ Section Manager.

1. For first-time, minor violations compliance assistance or education is the preferred method of handling ID cases. In lieu of formal action, CDOT often aims to work with violators to find an effective solution to ceasing the discharge. Compliance assistance or education is completed either:
 - a. In-person at the time of the ID site visit; or
 - b. Via phone or email following the site visit
2. For more severe illicit discharges that are the result of willful or negligent action on the part of the responsible party, CDOT will issue a letter informing the responsible party of the ID and requiring that it be permitted, if applicable, or removed. A letter of violation will be issued to the responsible party within the time period established by the ID Manager and WQ Section Manager.
 - a. A timeline to remove and correct the ID will be established within the letter of violation. Correction timelines may vary depending on the ID and are up to the discretion of the ID Manager and designated CDOT Water Quality staff.
 - b. Example letters of violation can be found in the stored documentation from past ID investigations.
3. A follow-up site visit will be conducted by the ID Manager or designated CDOT Water Quality personnel at the end of the established correction timeline.
4. In the event that the responsible party has made no corrective actions during the correction period established in the first letter, CDOT will issue a second letter directing compliance.
5. If there is no response to the second letter within the time period established by the ID Manager and WQ Section Manager, or in response to an initial ID that is particularly egregious, CDOT will refer the incident to CDPHE for further enforcement or the District Attorney’s Office if pursuing prosecution.

Cleanup and Reclamation Procedures

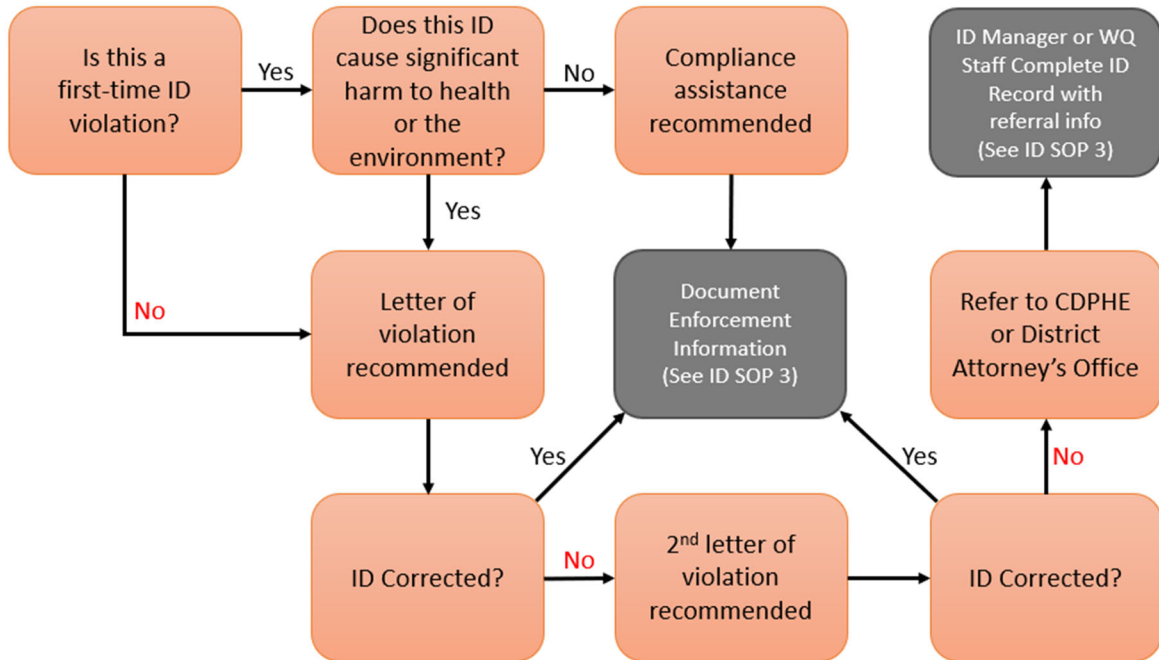
Cleanup and reclamation of an ID often occurs following enforcement. Cleanup procedures will vary based on the nature of the ID, the substance(s) involved, and the extent of the contamination. However, many ID cleanup and reclamation projects will follow a similar process. For IDs where a responsible party has been identified:

1. The party responsible for the ID will coordinate with the CDOT Region Permits staff to determine if a Special Use Permit for work in the CDOT ROW will be required to conduct cleanup. If so, responsible parties should apply for this permit as soon as possible.
2. Soil stabilization, erosion control, and revegetation standards may apply to work being completed as part of ID cleanup or reclamation. The responsible party will work with the CDOT Region Permits staff and CDOT MS4 Construction Sites Program to determine if these requirements may apply.
3. The responsible party or their contractor completes cleanup and reclamation work.
4. After cleanup or reclamation work has been completed, soil or water sampling may be required to verify removal of pollutants. The ID Manager will determine sampling requirements and coordinate post-cleanup sampling. If samples indicate contamination is still present, the responsible party may be required to complete further cleanup.

If no responsible party can be identified, CDOT will complete cleanup and reclamation of the ID. The ID Manager and/or WQ Section Manager will determine which CDOT groups will be involved and coordinate ID cleanup and reclamation.

ID SOP 4– Illicit Discharge Enforcement and Cleanup

Part 1– Enforcement



ID SOP 4– Illicit Discharge Enforcement and Cleanup

Part 2– Cleanup and Reclamation

