

3.7 Illicit Discharge Detection and Elimination (IDDE) Program

The following summarizes the Department’s IDDE Program, which addresses elements deemed by the EPA and NDEP as necessary to comprise a successful IDDE program.

3.7.1 Permit Requirements

The following summarizes MS4 Permit requirements applicable to the Department’s IDDE Program:

III.J Illicit Discharge Detection and Elimination Program

III.J.1. The revised SWMP shall include a description of NDOT’s Illicit Discharge Detection and Elimination (“IDDE”) Program, including a schedule, to detect and remove illicit discharges and improper disposal into the MS4. The proposed program shall include:

- III.J.1.a A description of a program, including inspections, to implement and enforce statutes, regulations, ordinances, orders or similar means to prevent illicit discharges to the MS4. This program description shall address all types of illicit discharges; however, non-stormwater discharges or flows listed in Part I.B.2 of this permit shall only be addressed where such discharges are identified by NDOT as sources of pollutants to Waters of the United States;
- III.J.1.b A description of procedures to conduct on-going field screening activities during the life of the permit, including areas or locations that will be evaluated by such field screens;
- III.J.1.c A description of procedures to be followed to investigate portions of the MS4 that, based on the results of the field screen, or other appropriate information, indicate a reasonable potential of containing illicit discharges or other sources of non-stormwater;
- III.J.1.d A description of procedures to prevent, contain, and respond to spills that may discharge into the MS4;
- III.J.1.e A description of a program to facilitate public reporting of the presence of illicit discharges or water quality impacts associated with discharges from MS4s;
- III.J.1.f A description of educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials; and
- III.J.1.g An assessment of whether the procedures otherwise implemented in response to this paragraph are sufficient to identify instances of exfiltration from the sanitary sewer to the storm sewers, and if not a description of additional activities to be undertaken to control exfiltration.

3.7.2 Definition of Illicit and Authorized Discharges

Per 40 CFR 122.26(b)(2), “illicit discharge” is defined as follows: *Any discharge to a municipal separate storm sewer that is not composed entirely of stormwater, except discharges pursuant to a National Pollutant Discharge Elimination System (NPDES) permit (other than the NPDES permit for discharges from the MS4) and discharges resulting from fire fighting activities.*

Per 40 CFR 122.26(b)(13), “stormwater” is defined as *stormwater runoff, snowmelt runoff, and surface runoff and drainage.*

The following would be considered some examples of illicit discharges into the storm drain system:

- Sanitary sewer line connections and exfiltration
- Automobile and household chemicals (pesticides, paint, oil, antifreeze, etc.)
- Discharges from dry cleaners, laundromats, and municipal car washes
- Discharges from equipment wash pads
- Sanitary wastewater
- Septic tank waste
- Industrial wastewaters

The following are some acceptable examples of non-stormwater discharges within the Department’s MS4:

- Potable water line flushing during testing or fire hydrant testing
- Diverted stream flows not requiring a separate permit
- Springs or rising ground waters
- Uncontaminated groundwater infiltration (infiltration is defined as water other than wastewater that enters a storm sewer system, including sewer service connections and foundation drains, from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow¹.)
- Discharges from potable water sources not requiring a separate permit
- Residential foundation and/or footing drains
- Air conditioning condensate
- Irrigation water from lawns and landscaping
- Water from residential crawl space pumps
- Flows from natural riparian habitats and wetlands not requiring a separate permit
- De-chlorinated swimming pool discharges
- Individual residential car washing

¹ The result of groundwater flowing freely into the storm sewer system from porous material, e.g. perforated pipe, dewatering trenches, etc.

- Water incidental to street sweeping (including associated sidewalks and medians) and that is not associated with construction activities
- Discharges or flows from fire fighting activities
- Dewatering activities not requiring a separate permit

If illicit discharges are suspected, procedures are in place to notify the Department's Water Quality Section to determine if further action is required (refer to the Department's Field Guide for the Detection and Elimination of Illicit Discharges).

Any observed or reported discharge within the Department's MS4 that is not an authorized discharge will be considered an illicit discharge.

3.7.3 Maintenance Facility Pollution Prevention Plans

Goals: To raise awareness of Department employees with regards to BMPs that can reduce or eliminate illicit discharges from Department Maintenance facilities.

Objectives: Implement the BMPs specified in Facility Pollution Prevention Plans; follow procedure and protocol pertaining to reporting, investigating, and eliminating illicit discharges coming onto and leaving the Department's Maintenance facilities.

The Department has developed Facility Pollution Prevention Plans (FPPPs) for its designated Major and Minor Maintenance facilities. Each FPPP has a designated Administrator who oversees plan compliance and BMP implementation. The FPPPs direct the Administrators to contact the Department's Water Quality Section should an illicit discharge be observed within a Department owned and operated Maintenance facility, or discharging onto the Maintenance facility from a source outside of the facility. If the illicit discharge in question meets or exceeds the reportable quantity thresholds for a petroleum product or hazardous waste, or is a spill of any quantity that affects a water way within the State of Nevada, the appropriate FPPP Administrator will report the incident to NDEP via the Spill Reporting Hotline (1-888-331-6337 (in-state) or 1-775-687-9485 (out of state)). All incidents will be documented in the Department's IDDE Database (refer to Section 3.7.12).

Maintenance FPPPs will be reviewed on an annual basis to ensure language, policy, and protocols are current; subsequent revisions to the FPPPs will occur as appropriate.

3.7.4 Maintenance Facility Best Management Practices (BMPs) Manual

Goals: To raise awareness of Department employees with regards to BMPs that can reduce or eliminate illicit discharges from Department Maintenance facilities.

Objectives: Develop the Maintenance Facility Best Management Practices (BMPs) Manual by May of 2015; incorporate the manual as a component of the Maintenance facility FPPPs.

The Department is currently developing a BMPs manual specifically for its Maintenance facilities. This manual will provide guidance to the Department's Maintenance, Equipment, and District personnel with regard to BMP practices that will prevent, or reduce to the maximum extent practical, stormwater pollutant discharges from the Department's Maintenance facilities into receiving waterways. Included in this document will be information pertaining to illicit discharges, specifically what to look for as well as documentation, and reporting protocol and procedures.

3.7.5 Field Guide for Illicit Discharge Detection and Elimination

Goals: To develop guidance, procedure, and protocol with regards to detecting and eliminating illicit discharges within the Department's right-of-way.

Objectives: Develop the Field Guide for Illicit Discharge Detection and Elimination by January 31, 2015.

The development of the Department's Field Guide for Illicit Discharge Detection and Elimination (IDDE Field Guide) is currently underway. This field guide will educate and inform Department employees as to what an illicit discharge is and what to do if one is observed. The field guide will address field indicators of suspected illicit discharges, illegal connections to the storm sewer system, as well as reporting, response, and documentation requirements. In addition, the field guide will specify procedures and protocols to be followed in the event a confirmed or suspected illicit discharge is detected in the field, direction for eliminating the illicit discharge, follow-up and additional surveillance measures, and information pertaining to spill response.

3.7.6 Major Outfall Inventory

Goals: To inventory and map all major outfalls within the Department's right-of-way, which will assist the Department with implementing its IDDE Program.

Objectives: To have all major outfalls within the Department's right-of-way inventoried and mapped by June 30, 2017.

Per 40 CFR 122.26, "major outfall" is defined as:

An MS4 outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe, which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive stormwater from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more).

Outfalls do not include cross-drain structures or culverts installed under a road that function only to maintain the natural flow of surface waters and drainage. However, a structure that collects or diverts drainage that has contacted the road surfaces for discharge into a water body is considered an outfall under this permit (see 40 CFR 122.26).

Efforts to inventory hydraulic facilities statewide are underway with a primary focus on areas that discharge (or potentially discharge) into a state listed 303(d) listed impaired waterway or TMDL listed waterway. However, all major outfalls statewide will be inventoried and mapped under the remaining implementation schedule as follows:

- FY 2015: Carson River Basin and Walker River Basin hydrographic regions
- FY 2016: Snake River Basin and Humboldt River Basin hydrographic regions
- FY 2017: Blackrock Desert Region and Colorado River basin hydrographic regions

3.7.7 Storm Sewer System Map

Goals: To raise awareness of Department employees and the general public of critical components of the MS4 system; to assist with implementing the Department's IDDE Program.

Objectives: To continue developing and updating maps depicting the Department's major outfalls.

Maps depicting major outfalls and other hydraulic facilities (e.g. stormwater detention basins, stormwater treatment devices, etc.) are currently being generated with several already

developed and available for viewing on the Department's Stormwater Management Program website.

These maps will be used to help assess possible impacts to receiving waters from roadway runoff and illicit discharges, and to provide visual connectivity between sub watersheds.

Maps depicting the Department's major outfalls will serve as the basis for conducting routine illicit discharge inspections and reported illicit discharge investigations in all three Department districts.

Updated maps will be included in the Annual Report.

3.7.8 Routine Outfall Screening

Goals: To monitor major outfalls for illicit discharges and unauthorized cross connections.

Objectives: To continue performing initial IDDE inspections as part of the Department's initial hydraulic facility inventory efforts; to begin performing routine IDDE inspections of the Department's major outfalls beginning in July of 2017.

As part of the initial inventory effort, documented IDDE inspections are being performed. Once all the major outfalls are identified and incorporated into the Department's existing GIS platform, each major outfall that discharges into a waters of the U.S. and resides outside of an urbanized area (as designated by the U.S. Census Bureau) will be inspected on a 3-year cycle beginning in July of 2017. Inspections of major outfalls within the Department's right-of-way located within urbanized areas (as designated by the U.S. Census Bureau) that discharge into a waters of the U.S. will occur on a 2-year cycle. Any major outfall that receives stormwater discharge from an industrial facility will be inspected on an annual basis.

All inspections will be performed by (or under the direction of) the Department's Water Quality Section.

IDDE inspection information collected during the field inspection will include the following:

- Person conducting the inspection
- Date and time of the inspection
- Weather conditions
- Department hydraulic facility ID number (if known)
- Location (District, route, county, milepost, city/town, etc.)

- Waterway name (if known)
- Outfall flow condition (dry, flowing, estimated discharge)
- Sign of a potential/confirmed illicit discharge

Should an illicit discharge be suspected or confirmed, an illicit discharge investigation will be initiated by the appropriate District Water Quality Specialist.

As part of the routine outfall screening process, dry weather flows will be documented and investigated per the Department's IDDE Field Guide. Should a dry weather flow be a result of a natural occurring condition, i.e. springflow, snowmelt, etc., an illicit discharge investigation will not occur and will be noted in the IDDE inspection documentation. Inspections will occur under dry weather conditions when possible.

3.7.9 Training

Goals: To raise awareness of Department employees and its contractors regarding IDDE.

Objectives: Continue to provide IDDE related training as part of the Department's Certified Stormwater Inspector training; incorporate information from the IDDE Field guide into the stormwater training curriculum.

Stormwater training efforts are ongoing and occur several times annually within the Department's three districts. Subject matter includes identifying common signs of potential illicit discharges (off-colors, strong odors, staining, floatables, etc.), unauthorized pipe-to-pipe connections to the storm sewer system, environmental concerns regarding illicit discharges, proper management and disposal of used oil and toxic materials, and the appropriate contact information. Staff receiving this training includes those who are involved with construction field inspections, roadway and maintenance operations, and project designers.

The Department is currently developing a contractor stormwater training program. IDDE related subject matter will be incorporated into the training curriculum.

3.7.10 Sanitary Sewer Exfiltration

Goals: To protect receiving water quality from sanitary sewage discharges.

Objectives: Eliminate instances of sanitary sewer exfiltration into the Department's storm sewer system.

Department employees, notably field personnel, e.g. Maintenance, Construction, Right-of-Way, etc., are provided training (e.g. the Department's Certified Stormwater Inspector training course) and resources (e.g. the Department's IDDE Field Guide) to identify and help eliminate sanitary sewer discharges as part of their day-to-day activities.

For capacity projects or projects that may impact underground utilities, the Department's Right-of-Way and Design Divisions coordinate efforts to identify utilities, including sanitary sewer lines, within the project limits and display them on design plan sheets. This assists both NDOT's contractor and construction crew personnel with understanding where sewer lines reside within the right-of-way should an instance of sanitary sewer exfiltration be observed during construction.

Routine outfall screening performed by the Department's Water Quality Section, provides an opportunity to identify and eliminate instances of sanitary sewer discharges into the storm drain system.

Should an instance of sanitary sewer exfiltration be identified, the procedures for reporting, investigating, and eliminating the discharge will be applied as described in the Department's IDDE Field Guide. All instances will be documented in the Department's IDDE Database (refer to Section 3.7.12).

3.7.11 Internal and External (Public) Reporting of Illicit Discharges

Goals: To provide a mechanism that will facilitate the reporting of illicit discharges for Department personnel and the general public.

Objectives: Maintain and update as necessary the "Illicit Discharge/Drainage Reporting" webpage on the Department's Stormwater Management Program website; respond to all potential or confirmed illicit discharges reported.

The Department has developed an Illicit Discharge/ Drainage Reporting webpage within its Stormwater Management Program website to facilitate the reporting of illicit discharges within the MS4 Permit area (http://www.nevadadot.com/StormWater/Illicit_Discharge_Reporting.aspx). The illicit discharge webpage provides information describing what an illicit discharge is and how to report one. The webpage instructs the individual reporting the illicit discharge to contact the Department's Water Quality Section so an illicit discharge investigation can be initiated. The following questions will be asked of the individual reporting the illicit discharge:

1. What is the location (the more detail the better, i.e. road number, milepost, intersection, etc.)
2. What is the description of the discharge? (dry weather, odor or discoloration, visible contaminants, etc.)
3. What is the discharge frequency (continuous-almost all the time, intermittent-occasional, transitory-rarely occurring)
4. What is the source of the discharge (Do you have an idea of where the illicit discharge may be coming from?)
5. Is the illicit substance discharging into a waterway or a storm sewer system?

Information regarding NDEP's Spill Reporting Hotline is also included in the Illicit Discharge/Drainage Reporting webpage. Should the public encounter a spill that meets or exceeds the reportable quantity thresholds for a petroleum product or hazardous waste, or a spill of any quantity that affects a water way within the State of Nevada, they are directed to report the incident to NDEP via the Spill Reporting Hotline (1-888-331-6337 (in-state) or 1-775-687-9485 (out of state)) as well as the Department's Water Quality Section.

For reportable spills observed by Department staff, Water Quality Section personnel are contacted, who then coordinate with the Department's Hazardous Materials Section to contact the NDEP Spill Reporting Hotline. Department Water Quality Section staff will respond within 24 hours to all illicit discharge incidents reported. Through inter-agency cooperation, the NDEP-Bureau of Corrective Actions (BCA) provides the Department's Water Quality and Hazardous Materials Sections with copies of all spill reports documenting reportable discharge incidences that occurred within the Department's right-of-way. Should an incident be known and a copy of the spill report was not received by the Department, NDEP (BCA) will be contacted to verify that a spill report was submitted.

A flow chart providing an overview of the initial IDDE reporting to closure process is presented in the Appendix.

In response to illicit discharges reported by both Department personnel and the general public, investigations will be conducted per the procedures outlined in the Department's IDDE Field Guide.

All illicit discharge incidents reported will be documented in the Department's IDDE Database as described in the following section.

3.7.12 IDDE Database

Goals: Provide a means to document and track all illicit discharge incidents reported to the Department's Water Quality Section from both public and internal reporting.

Objectives: Document all reported illicit discharges occurring within the Department's right-of-way and their associated investigations.

The Department's IDDE Database is administered and maintained by the Water Quality Section. Information that is documented in this database includes the following:

- Date the incident was reported to the Department's Water Quality Section
- Location where the incident occurred (District, city, town, region, county, route, milepost)
- Spill Report Number (as appropriate)
- Description of the discharge in question
- Date and time the incident was observed
- Description of the incident
- Responsible party (if determined)
- Corrective action/resolution
- Incident case closure date

The information in the IDDE Database is used to help track appropriate investigative and response measures, and to ensure all incidents have been appropriately mitigated.

A summary of illicit discharge incidents will be provided in the Annual Report.

3.7.13 Compilation and Assessment

Goals: Determine if any IDDE trends are evident, and to determine if appropriate Department response, corrective measures (as appropriate), and follow-up actions are implemented.

Objectives: Review the IDDE Database on a regular basis

All information documented in the IDDE Database is reviewed throughout the year to determine if any trends in the information are observed, and to determine if appropriate response, corrective action, and follow-up measures were implemented. The District Water Quality Section will review the information at the end of the fiscal year and determine if a particular area or specific location is subject to illicit discharges on a repeat basis. Should an area or specific

location be identified as an illicit discharge “hotspot”, the Water Quality Program Manager will coordinate with the appropriate District Water Quality Specialist regarding a plan for increased monitoring/surveillance of the area in question, with the goal of deterring future illicit discharge activities. The Department’s IDDE Field Guide provides guidance pertaining to additional monitoring and surveillance should an illicit discharge “hotspot” be identified.

Appendix

Nevada Department of Transportation Illicit Discharge and Detection Program

