

OBJECTIVES

- Reduce or prevent specific pollutants contributed to receiving waters from non-stormwater discharges through observations and properly maintained BMPs
 - Nutrients (inc. nitrogen and phosphorus)
 - Oil and grease
 - Trash
 - Sediment
 - Organic and inorganic chemicals (inc. pesticides)
 - Bacteria
 - Metals
 - Oxygen demanding substances
- Identify and correct potential/observed non-stormwater discharges
 - Training
 - Spill Response and Prevention
 - Inspections

DESCRIPTION

Non-stormwater discharges generally have no or minimal stormwater run-off included. A non-stormwater discharge can originate from illegal dumping activities, accidental spills, poor BMPs at or adjacent to storm drains and waterways, wash water, and improperly connected drainage systems. Non-stormwater discharges can also pollute aquifer recharge areas and wetlands through these activities. A combination of source control and treatment BMPs may be necessary to prevent pollutants associated with non-stormwater discharges.

CONSIDERATIONS

Potential pollutants from non-stormwater activities can be caused by standard municipal activities including street sweeping, landscape maintenance, and sidewalk repairs. The EPA developed a list of potential pollutants associated with municipal activities and can be found within the appendix of the LIMC Good Housekeeping BMP Manual.

Routine inspections and knowledge of potential sources are essential for the success of managing non-stormwater discharges.

Confined space entry training should be considered due to inspections or necessary corrective measures that may be required.

A non-stormwater discharge is different than a spill. A spill is "contained" within an area and has not discharged into a drain or receiving waterway. A non-stormwater discharge is a pollutant discharged to a drain or waterway without necessarily the help of the stormwater.

Illegal dumping activities that can result in non-stormwater discharges are generally due to the absence of a proper disposal location. Assure proper disposal locations exist and are known.

Most BMPs within the manual reference non-stormwater discharges and associated pollutants (i.e. organic/inorganic chemicals, oil and grease, and so on). Most of these types of pollutants can be discharged directly or discharged with stormwater.

Non-stormwater discharges primarily originate from fixed facilities operated and maintained by a municipality such as wash bays, storage areas, and fueling stations. However, discharges can result from activities such as pesticide applications and sawcutting concrete.

RECOMMENDATIONS AND PROTOCOLS

It is recommended to sub-divide non-stormwater management programs into fixed facility and field operations. Fixed facilities will have a concentration of actual BMPs, whereas field operations are more dependent on training initiatives.

For the objectives listed, the following represent further recommendations and protocols for non-stormwater discharges:

Reduce or prevent specific pollutants

General

- Ensure proper BMPs are implemented and maintained for facilities and operational activities (i.e. Vehicle and Equipment Cleaning, Landscape Maintenance, and so on)
- Continually train personnel on potential pollutants with specific activities or at fixed facilities
- Identify and catalog specific pollutants associated with fixed facilities or operational activities
- Post "No Dumping" signs at potential discharge locations along with contact information to report observed discharges

Illicit Connections

- Complete or confirm "as-builts" of drains and piping within fixed facilities to help identify discharge destinations (i.e. storm drain, sanitary sewer, or other)
- If the origin of a recurring non-stormwater discharge is unknown, complete dye or TV testing to identify the source and correct
- Enforce correction measures for improper connections to the MS4 including, but not limited to, toilets and car wash drains
- Consider smoke testing to confirm improperly connected wastewater and stormwater piping connections

Illegal Dumping

- Regularly inspect "hot spots" where dumping activities have occurred
- Ensure enforcement action protocols for illegal dumping activities is set in place including BMP information, fines (as applicable), and offender training
- Build and maintain a field investigation kit for observed or reported dumping activities. Pre-developed stormwater pollutant kits are available. Kits should contain protective gloves, sample jars, field testing materials (pH meter/paper, etc.), and sample acquisition tools.
- Never hose down with water spills, leaks, or other observed potential non-stormwater discharges. Implement proper spill prevention and control techniques (see BMP Fact Sheet GH-10 Spill Prevention and Control)
- Post "No Dumping, Drains to Waterways" or similar stamp/sign at storm drains and "hot spot" locations
- NOTE: illegally dumped pollutants include all specific listed pollutants in the objective section of this fact sheet (i.e. allowing sediment in an uncontrolled fashion into drains)

and waterways is an illegal dumping activity)

Identify and correct potential/observed non-stormwater discharges

General

- Implement a notification protocol for encountered non-stormwater discharges (i.e. who to report to, who documents the report, and so on)

Training

- Educate employees on recognizing dry weather flows and non-stormwater discharges
- Continually provide training for spill response and control
- Employees should be trained on use of field investigation kits
- Training should include identifying proper clean-up materials if hazardous materials are a part of a non-stormwater discharge (see BMP Fact Sheet GH-8 Hazardous Materials) (i.e. understanding of incompatible materials)
- Instruct in the proper ways to document non-stormwater discharges, including citations (if applicable)

Spill Response and Prevention

- Well-trained employees understand the tools and necessary response procedures for spills that may result in non-stormwater discharges
- See BMP Fact Sheet GH-10 Spill Prevention and Control

Inspections

- All fixed facilities and operational activities are inspected. Observation of a non-stormwater discharge is a standard inspection activity
- Inspect "hot spots" for illegal dumping activities and signs of potential non-stormwater discharges on a regular basis
- Complete annual inspections with the goal of identifying illicit connections to the storm drain system

DOCUMENTATION

Proper documentation practices are essential for any municipal SWMP to show compliance with the Clean Water Act, NPDES, and generally the requirements of the permit issued to allow discharges through the defined MS4. As with all sections of an MS4 permit, all documentation should be centralized.

For non-stormwater discharges, the following templates are provided within the BMP manual to assist the municipality with documentation compliance:

- **Training Record:** This document is used to provide record of a training event or session relative to non-stormwater discharges.
- **Training and Education Log:** Enter a completed training record for non-stormwater discharges into the log.
- **Event Record:** If a non-stormwater discharge is observed, an event record should be executed that also outlines the nature of the discharge, location, offender (if known), and response and remediation procedures.

- **Activity Record:** Complete an activity record for activities completed that would eliminate a non-stormwater discharge, corrects an issue that caused a non-stormwater discharge, or was specifically acted to identify a potential source of non-stormwater discharges (i.e. dye testing, TV testing, and so on)
- **Inspection, Event, and Activity Log:** Enter an activity or event record for non-stormwater discharges into the log.

Additional Documentation Considerations

Inspection record templates are set up that consideration is provided toward non-stormwater discharges during an inspection of fixed facilities and operational activities.

The pollutant (i.e. pesticides, sediment, oil, and so on) should be entered into the event record along with the nature of the determination.

If a non-stormwater discharge is observed or reported, create an event record. The event record should include planned remediation and enforcement activities (if applicable).

Consider organizing an enforcement protocol that includes citations and reporting requirements.

INSPECTIONS AND MEASUREMENTS

All BMPs inspected are provided consideration for observation of non-stormwater discharges. A check box for non-stormwater discharges is provided on the inspection record template. If checked and a non-stormwater discharge is observed during a scheduled inspection, an event record should be generated.

If a discharge is reported, investigate the reported location as a fixed facility (if applicable). If a non-stormwater discharge can be identified during the follow-up, generate an event record.

Effectiveness is measured in the following primary way:

- *Ratio of total number of inspections versus non-stormwater discharges observed:* If 100 inspections are completed over the course of a year, and no discharges are observed, then the BMP for non-stormwater discharges can be considered very efficient. If 100 inspections are completed, and 90 discharges are observed, then the municipality's practices for non-stormwater discharges is highly inefficient.

However, effectiveness can also be demonstrated by documenting implementation and maintenance of practices and protocols associated with this BMP.

SOURCES

U.S. Environmental Protection Agency Pollution Prevention/Good Housekeeping for Municipal Operations information at http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=min_measure&min_measure_id=6

California Stormwater Quality Association, Municipal Stormwater Best Management Practice Handbook (2004 edition) at <http://www.cabmphandbooks.com/Municipal.asp>

Spirit of St. Louis Airport Tenant Pollution Prevention Plan at <http://spiritairport.com/spiritairport/files/TenantPPP.pdf>

BMP Fact Sheet: GH-5 Non-Stormwater Discharges

CALTRANS BMP Field Manual, January 2003 edition at

http://www.dot.ca.gov/hq/construc/stormwater/BMP_Field_Manual_Master_5x8_revision5.pdf