

Illicit Discharge Detection and Elimination – MCM #3

Part II.C.b.3.

Responsible Person

Identify the responsible person(s) for implementing this MCM. If there is more than one person or department responsible for implementation of this MCM, please discuss.

- 17.a. Name: Karen E. Kirtley [Brian Carrico]
 17.b. Title: Assistant Vice President for Administration (Director of Health & Safety)
 17.c. Department: Administration
 17.d. Address: One John Marshall Drive, Huntington, West Virginia 25755-5320
 17.e. Phone number: (304) 696-3328 [(304) 696-3432]
 17.f. Email address: kirtley@marshall.edu [carrico8@marshall.edu]
 17.g. Is another entity sharing responsibility for the MCM? If so, who? No

Control Objective & BMPs

- 17.h. State your overall objective for this MCM.
 Marshall University will develop, implement and enforce a program to detect and eliminate illicit discharges.
- 17.i. State and describe your BMPs. Indicate if any BMPs are part of your existing program.
- a. Marshall University currently has a very preliminary storm sewer and utility map. This map is not complete in that it does not include locations of storm sewers for all parts of the University property. Marshall University will work toward updating and maintaining a map showing the storm sewer system. This map will be used for illicit discharge detection and elimination. The campus will be divided up in sectors. Once a sector has been mapped another sector will be started. Mapping will start within six months after final approval of the permit.
 - b. Conduct observations of storm water system/outfalls for evidence of illicit discharges.
 - c. Select and sample one representative discharge point as described in Part 1 of this application.

MCM Components

Part II.C.b.3.a.

- 17.j. Do you have a current map of your municipal storm sewer system?
 No. The current map is limited in the areas covered and detail of the stormwater system.

Do your map components include/do you plan to include:

Part II.C.b.3.ai

- 17.k. All known storm sewer outfalls?
 As described in MCM #2, Marshall plans to work on completing the stormwater map and inventory over time. This will include outfalls and connections to the City of Huntington system.
- 17.l. Receiving waters? See 17.k. above.
- 17.m. Structural BMP's owned, operated or maintained by the permittee? See 17.k. above.
- 17.n. The location and type of all other stormwater conveyances located within the boundaries of the permittees MS4 watershed? See 17.k. above.
- 17.o. Updating the known connections to the municipal separate storm sewer authorized after July 22, 2009? Yes, future connections or additions will be added to the MS4 mapping.

Marshall University

- 17.p. Geographic areas that discharge stormwater into the permittees MS4, which may not be located within the municipal boundary? We believe these areas are minimal, if present at all.

Tip: Your map should show new outfalls, structural stormwater BMPs owned by the MS4, other stormwater conveyances, and other pertinent information. You must update your map on an annual basis.

Part II.C.b.3.b.

- 17.q. Do you have an IDDE Ordinance? No.

Part II.C.b.3.b.

- 17.r. Describe your Ordinance review and update procedure, including milestones of IDDE Ordinance review. Marshall will establish an IDDE Plan of Action that will effectively prohibit non-stormwater, illegal discharges and/or dumping into the storm system. These policies will be placed in the student handbook, new hire handbook, distributed to existing faculty, distributed to contractors/vendors and posted on the website. Marshall will complete the IDDE Plan of Action within one year after final approval of the permit. Marshall will consider input from the staff, students and contractors/vendors annually to ensure it is effective in finding, remediating and preventing illicit discharges.

Does your IDDE Ordinance prohibit the following:

Part II.C.b.3.ii

- 17.s. Discharges from hyperchlorinated water line flushing? Yes or No. If not, how are these discharges handled when they occur?

According to EPA's—Stormwater Phase II Final Rule, Fact Sheet 2.5 – Illicit Discharge

Detection and Elimination Minimum Control Measure January 2000 [Revised December 2005], the MS4 program does not need to address hyperchlorinated water line flushing. Marshall does not consider this discharge as a significant contributor of pollutants in the MS4.

- 17.t. Lawn watering and other irrigation runoff? Yes or No. If not, have you addressed lawn watering in your public education and outreach activities?

According to EPA's—Stormwater Phase II Final Rule, Fact Sheet 2.5 – Illicit Discharge Detection and Elimination Minimum Control Measure January 2000 [Revised December 2005] the MS4 program does not need to address lawn watering or other irrigation runoff. Marshall does not consider this discharge as a significant contributor of pollutants in the MS4.

- 17.u. Street, parking lot, and sidewalk wash water, and external building wash down? Yes or No. If not, have you addressed these types of runoff in your public education and outreach activities?

According to EPA's—Stormwater Phase II Final Rule, Fact Sheet 2.5 – Illicit Discharge Detection and Elimination Minimum Control Measure January 2000 [Revised December 2005], the MS4 program does not need to address street, parking lot, and sidewalk wash water. Marshall does not consider this discharge as a significant contributor of pollutants in the MS4.

The frequency of the above discharges is not anticipated to be high.

Part II.C.b.3.b.v.

- 17.v. Does your IDDE Ordinance include escalating enforcement procedures and actions? N/A

Part II.C.b.3.b.v.

- 17.w. Briefly describe your enforcement strategy. No enforcement since this is a university campus.

Tip: The IDDE Ordinance shall be reviewed on an annual basis. The Ordinance shall be reviewed to ensure that it contains the necessary required information that the 2009 small MS4 general permit requires.

Your Ordinance is required to prohibit and eliminate non stormwater discharges, illegal discharges, and/or dumping into the storm sewer system, and any necessary procedures for evaluation, assessment, investigation and enforcement to prevent polluted stormwater discharges from entering local streams, lakes or rivers. Except for newly permitted entities, MS4's should already have this Ordinance in place.

Part II.C.b.3.c.

- 17.x. Describe your field assessment activities, including how many assessments you plan to conduct each year.

- a. Marshall University will develop a prioritized list of locations across the campus where a greater potential may exist for illicit discharges to the stormwater system. These locations will be monitored on a quarterly basis. Starting in the spring of 2012 Marshall will research the infrastructure as it becomes available through the mapping system.
- b. Checklists, inspection forms and written protocol used for the IDDE program will be developed within this first year, so that it is ready for the first reconnaissance mission in spring of 2012. The source for our checklists and forms will be the IDDE Manual published by the Center for Watershed Protection.

- c. Marshall University will conduct outfall/manhole reconnaissance twice per month. We will have a two member team walk drainage areas in the selected sub-watershed. All sub-watersheds on Marshall 's campus will receive reconnaissance once per year. Our priority areas will be inspected once per quarter.
- d. Outfalls, pipes, and catch basins will be screened for any dry weather flow. The flow will be checked for discoloration, odors, including sewage and chlorine in accordance to our inspection protocol and recorded on the inspection form. When non-flowing outfalls and pipes are observed, Marshall will utilize the protocol outlined in the IDDE Guidance Manual recommended by WVDEP, including off hours monitoring, caulk dams, and optical brighteners.
- e. When intermittent or non-intermittent flows are discovered. Marshall will initiate procedures to determine whether or not the flow is ground or spring water or if it is indeed an illicit discharge.

Part II.C.b.3.c.i.

- 17.y. Describe how you will locate "priority areas".
 - a. Priority areas will be based on the probability for contaminants to be introduced into the stormwater system.
 - b. Marshall will research the infrastructure as it becomes available through the mapping system. Priority areas will be prioritized based on age of the system.

Part II.C.b.3.c.iii

- 17.z. Describe your procedures for characterization of illicit discharges.
Conduct visual observations and screenings. Follow-up monitoring on suspicious discharges (i.e., dye-tests, smoke tests), and removal of illicit discharges that are found due to screening and monitoring of priority areas once per quarter. Non-priority areas will be monitored once a year.

Part II.C.b.3.c.iv

- 17.aa. Describe your procedures for tracing the source of the discharge.
 - a. Promptly investigate suspected illicit discharges using the storm sewer map to help identify the location and source of the discharge. Evaluate options, select the preferred option, and eliminate the source of the illicit discharge.

Part II.C.b.3.c.v

- 17.bb. Describe your procedures for removing the source of the discharge.
In the event that the discharge is caused by something that cannot be stopped immediately, Marshall will immediately start the process (work orders, etc.), to remove the cause of the discharge. For instance, if a sewer line is broken and raw sewage is flowing into the storm system, an emergency work order will be initiated. In the event that the discharge is coming from a site off campus, the City of Huntington public works department will be notified immediately: the notification will be properly documented and maintained on campus at the physical plant. All of Marshall 's activities to inspect and remove illicit discharges will be documented on a spreadsheet and updated on a quarterly basis. Marshall will rely heavily on the procedures defined in the Center for Watershed Protection publication, Illicit Discharge Detection and Elimination (2004), to develop its procedures for characterization, tracing and removing the sources of illicit discharges.

Tip: Each permittee shall continue to assess, update and implement an ongoing program to detect and address non-stormwater discharges, spills, illicit connections and illegal dumping into the MS4.

C.b.3.d.

17.cc. Describe how you will inform public employees, businesses and the general public of hazards associated with illegal discharges and improper disposal of waste. Training of employees.

Part II.C.b.3.f.

17.dd. Describe your plan to training your staff on the identification and reporting of illicit discharges. Include the number of training sessions planned for each year.

Marshall will train all staff responsible for field assessments on the identification and reporting of illicit discharges. Marshall will also train administrative staff who support field staff on how to administer the IDDE program. Marshall will also train other field staff who may come into contact with illicit discharge through their field work. Training will occur annually.

Schedule

Part II.C.a.1

17.ee. Describe how and when you will implement each component of program, including dates for interim and full implementation.

Monitoring of priority areas will be implemented during Spring of 2012. Development of the stormwater system map will begin within six months after final approval of the permit and continue until completed. Storm system mapping will be updated on an ongoing basis to document revisions or upgrades to the system.

Measurable Goals

Part II.B.4

17.ff. List and fully describe your Measurable goal(s) for this MCM:

- a. Evaluate stormwater map and inventory annually to determine areas where additional information is needed. Work with students, faculty, and staff to collect information and update map.
- b. Marshall University staff will conduct dry weather observations in the stormwater system using visual observation, odor, and other indicators to identify possible illicit discharges.
- c. The prioritized list of locations will be developed by the end of 2011. Illicit discharge monitoring visits will be documented through the Physical Plant's Maximo work order system.
- d. Track the number of illicit discharges investigated and eliminated through the Physical Plant's Maximo work order system.

Tracking:

Part II.C.b.3.d.ii & Part II.C.b.3.e.

- 17.gg. Describe your procedures for tracking activities related to each component of this MCM.
- a. Continue progress on updating map to keep it current and up-to-date.
 - b. Marshall University will maintain records of when and where observations were made and the number of illicit discharges detected or suspected through the Physical Plant's Maximo work order system. Observations will be made at least quarterly.
 - c. Develop prioritized list by the end of 2011. Conduct quarterly observations of each location.
 - d. Timely eliminations of illicit discharges once identified.

Evaluation

Part II. B.7

- 17.hh. Fully explain how you plan to gauge the effectiveness of your IDDE program.
- Physical Plant Maximo work order system will be used to track and maintain records. The database will be utilized for information such as tracking the number and type of spills, illicit discharges discovered and identified, inspections conducted, illicit connections removed, and any feedback received from public education efforts. Over the period of the permit the information will be used to determine trends and whether or not the IDDE program is effective.

Tip: The IDDE program evaluation can consist of a data base that contains the information including tracking the number and type of spills, illicit discharges identified, inspections conducted, illicit connections removed, and any feedback received from public education efforts. If you have a hotline, you may also be able to determine trends of awareness to your IDDE program.