

# IDENTIFICATION OF MS4 HIGH-PRIORITY FACILITIES

Central State Hospital



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## 1.0 INTRODUCTION

The VAR04 General Virginia Pollutant Discharge Elimination System (VPDES) Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4s) requires the Central State Hospital (CSH) to include BMPs to address the requirements of six minimum control measures (MCMs) described in Section II of the General Permit. The MCMs are summarized as:

- MCM 1: Public Education and Outreach on Stormwater Impacts
- MCM 2: Public Involvement and Participation
- MCM 3: Illicit Discharge Detection and Elimination
- MCM 4: Construction Site Stormwater Runoff Control
- MCM 5: Post-construction Stormwater Management
- MCM 6: Pollution Prevention/Good Housekeeping for Operations

The permit also includes special conditions for TMDLs. The purpose of the efforts described in this report is to address Sections II.B.6.b.1 and b.2 of the VAR04 that require identification of CSH's high priority facilities that have high potential of discharging pollutants. This requirement is part of MCM 6 and ultimately is intended to determine where a Stormwater Pollution Prevention Plan (SWPPP) will be required for minimizing the discharge of pollutants from stormwater runoff. Tables 3 and 4 in this report, along with the methods and actions described herein, satisfy compliance to Section II.B.6.b.1 and b.2 of the VAR04.

## 2.0 OBJECTIVE

The overall objective of the efforts described in this report is to address Sections II.B.6.b.1 and b.2 of the VAR04, which requires CSH to achieve the following:

- ✓ Identify all high-priority facilities. These high-priority facilities shall include: (i) composting facilities, (ii) equipment storage and maintenance facilities, (iii) materials storage yards, (iv) pesticide storage facilities, (v) public works yards, (vi) recycling facilities, (vii) salt storage facilities, (viii) solid waste handling and transfer facilities, and (ix) vehicle storage and maintenance yards.

- ✓ Identify which of the municipal high-priority facilities have a high potential of discharging pollutants.
- ✓ Develop a list of high priority sites that will require a SWPPP per Section II.B.6.b.3 of the VAR04 General Permit.

### 3.0 METHODS

The CSH is a non-traditional MS4 that owns and operates a single discrete property. In order to address Sections II.B.6.b.1 and b.2 of the VAR04, CSH has evaluated and identified all CSH owned areas with activities or operations that could potentially be considered high priority per the VAR04 by utilizing the identification process depicted in Figure 1 below. The following subsections describe the methodology and efforts applied throughout the identification process.

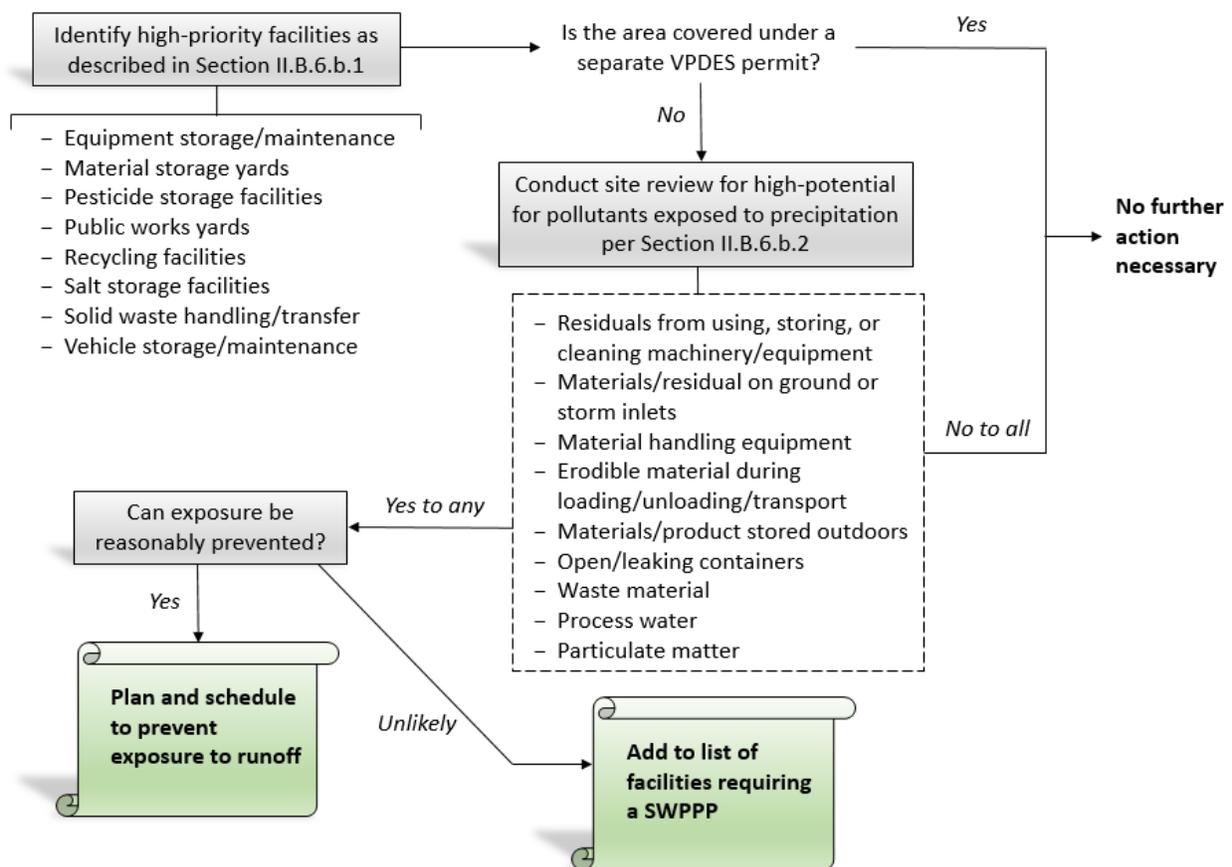


Figure 1: Process diagram to address Section 1.B.6.b.1 and b.2 of the VAR04.

### **3.1 Identification of High Priority Facilities**

Initial efforts included review a field reconnaissance and interview with staff to identify locations within the CSH boundary where any of the activities identified in Section II.B.6.b.1 of the VAR04 could potentially occur. Evaluated locations are depicted on the mapping in Appendix A. A determination of high-priority locations is depicted in Appendix B. Due to the scale of the non-traditional MS4 facility, it is recommended that a facility-wide SWPPP be developed.

### **3.2 Site Review and Characterization to Evaluate High Pollution Potential**

None of the locations are covered under a separate VPDES permit, and therefore site inspections were conducted for each of the high priority locations identified in Appendix A. The purpose of the site inspections was to address Section II.B.6.b.2 of the VAR04 that requires the permittee to identify which of the high-priority locations has a high potential of discharging pollutants. Per Section II.B.6.b.2, an area would be considered to have a high potential of discharging pollutants if the following materials or activities occur and are expected to have exposure to stormwater resulting from rain, snow, snowmelt or runoff:

- a. Areas where residuals from using, storing or cleaning machinery or equipment remain and are exposed to stormwater;
- b. Materials or residuals on the ground or in stormwater inlets from spills or leaks;
- c. Material handling equipment (except adequately maintained vehicles);
- d. Materials or products that would be expected to be mobilized in stormwater runoff during loading/unloading or transporting activities (e.g., rock, salt, fill dirt);
- e. Materials or products stored outdoors (except final products intended for outside use where exposure to stormwater does not result in the discharge of pollutants);
- f. Materials or products that would be expected to be mobilized in stormwater runoff contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers;
- g. Waste material except waste in covered, non-leaking containers (e.g., dumpsters);
- h. Application or disposal of process wastewater (unless otherwise permitted); or

- i. Particulate matter or visible deposits of residuals from roof stacks, vents or both not otherwise regulated (i.e., under an air quality control permit) and evident in the stormwater runoff. Collect samples from a representative outfall for each identified property.

Characterization of each high priority area was developed based on the field inspections in reference to the materials and activities listed above. Each area is first assigned a high priority area classification, or multiple classifications, consistent with Section II.B.6.b.1 of the VAR04 using identification number(s) as shown in Table 1.

*Table 1: Classification of high priority locations consistent with Section II.B.6.b.1.*

<b>I.D.</b>	<b>High Priority Area Classification</b>
1	Equipment Storage/Maintenance
2	Material Storage
3	Pesticide Storage Facility
4	Public Works Yard
5	Recycling Facility
6	Salt Storage Facility
7	Solid Waste Handling/Transfer
8	Vehicle Storage/Maintenance

Each area was then further characterized to determine if the area had a high potential for discharging pollutants consistent with Section II.B.6.b.2 of the VAR04. High potential classifications were assigned letter identification(s) as shown in Table 2.

*Table 2: Characterization of high priority locations consistent with Section II.B.6.b.2.*

<b>I.D.</b>	<b>High Potential Classification</b>
a	Residuals from using, storing, or cleaning machinery/equipment
b	Materials/residual on ground or storm inlets
c	Material handling equipment
d	Erodible material during loading/unloading/transport
e	Materials/product stored outdoors
f	Open/leaking containers
g	Waste material
h	Process water

A summary of the field inspection characterization of each high priority area is provided in Appendix B. The characterization for each location includes:

- A Map ID that corresponds with the mapping in Appendix A;
- Facility Description;
- Observations from the field investigation that assisted with both the high potential and high priority classifications (reference Tables 1 and 2); and
- A determination if pollutants have reasonable potential for exposure to precipitation.

#### **4.0 DETERMINATION OF HIGH PRIORITY/HIGH POTENTIAL LOCATIONS**

As a result of field investigation, all locations identified in Appendix A were characterized with a “high potential” characterization consistent with the categories in Table 2, therefore requiring a site-specific SWPPP per Section II.B.6.b.3 of the VAR04. Each location listed in Appendix B will be incorporated into a CSH SWPPP.

#### **5.0 SCHEDULE TO MINIMIZE DISCHARGE**

Section II.B.6.b.3 of the VAR04 requires SWPPPs be developed and implemented for the locations identified in Table 3 by July 1, 2017. SWPPPs shall be developed to include the specific components described in Section II.B.6.b.4 of the VAR04 and include:

- A site description that includes a site map identifying all outfalls, direction of flows, existing source controls, and receiving water bodies.
- A discussion and checklist of potential pollutants and pollutant sources.
- A discussion of all potential non-stormwater discharges.
- Written procedures designed to reduce and prevent pollutant discharge.
- A description of the applicable training per Section II.B.6.d of the VAR04.
- Procedures to conduct an annual comprehensive site compliance evaluation.
- An inspection and maintenance schedule for site specific source controls. The date of each inspection and associated findings and follow-up shall be logged in each SWPPP.

A site-wide SWPPP will be developed for CSH that incorporates each high potential location and include all of the SWPPP components described above. SWPPP development will aim to facilitate effective implementation of inspections with site-specific mapping and inspection forms that identify potential pollutant sources. Upon SWPPP development, the Physical Plant Services Director, or appointee, will be responsible for inspecting each of the locations in Appendix B annually and the inspection documentation maintained for a minimum of 3 years. The SWPPP will be incorporated into Good Housekeeping/Pollution Prevention training required per the CSH MS4 Program Plan.

**APPENDIX A**

**SUPPLEMENTAL MAPPING**



 CSH Property Boundary

**Areas Evaluated for HPF Status**

- |   |  |
|---|--|
| <b>1</b> General Grounds                                | <b>5</b> Vehicle Storage Lot                     |
| <b>2</b> Police and Fire Station                        | <b>6</b> Waste Material and Vehicle Storage Area |
| <b>3</b> Masonry/Pipe Building                          | <b>7</b> Materials Storage Yard                  |
| <b>4</b> Vehicle/Equipment Storage and Maintenance Yard |  |

**FIGURE 2**  
**HIGH PRIORITY FACILITY EVALUATION AREAS**  
 Central Virginia State Hospital



**APPENDIX B**

**HIGH PRIORITY LOCATION CHARACTERIZATION SUMMARY**

**Table B-1. High priority location characterization summary.**

Map ID	Facility Identification	Site inspection observations	High Priority Classification (Table 1)	High Potential Classification (Table 2)	Feasible to prevent exposure? (yes/no)
1	General CSH Grounds	Dumpsters	7	f	Yes
2	Police and Fire Station	Dumpsters, vehicle storage, vehicle wash station	7,8	a	No
3	Masonry/Pipe Building	sand residue	1	b, c	Yes
4	Vehicle/Equipment Storage and Maintenance Yard	Equipment Storage, vehicle storage, fueling station, sand residue	1,4,8	a, b, c	No
5	Vehicle Storage Parking Lot	Vehicle storage	8	a	No
6	Waste Material and Vehicle Storage Area	Vehicle storage, equipment storage	1,8	a, g	No
7	Materials Storage Yard	Sand, crush and run, asphalt millings, rip rap, waste building material	2	e, g	No