

Eastern State Hospital
Public Education and Outreach Plan
(Effective September, 2015)

Eastern State Hospital (ESH) operates a Stormwater Management Program in compliance with the Virginia General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4 General Permit). In accordance with Section II.B.1 of the permit, ESH implements a Public Education and Outreach Program (PEOP) on stormwater impacts.

Consistent with the MS4 General Permit, the PEOP considers the following goals:

- Increase the knowledge of ESH's employee's about the steps that can be taken to reduce stormwater pollution, placing priority on reducing impacts to impaired waters and other local water pollution concerns;
- Increase ESH's employee knowledge of hazards associated with illegal discharges and improper disposal of waste, including pertinent legal implications; and
- Implement a diverse program with strategies that are targeted towards audiences most likely to have significant stormwater impacts.

These goals are intended to be met as part of an iterative program that will assess effectiveness of the Program by assessing the level of knowledge over time of ESH's public, defined as their employees. The Program is designed consistent with the MS4 General Permit to:

- Identify 3 high-priority water quality issues and provide rationale for the selection of each issue;
- Identify and estimate the population size of the target audience who is most likely to have significant impacts on each water quality issue;
- Identify the relevant message and associated educational and outreach materials for distribution to the target audiences.

Public participation during the development of this Program included the distribution of a survey through email that incorporated questions regarding stormwater runoff and surface water quality (Attachment A). The survey was intended to gauge ESH employees on their knowledge of stormwater impacts. Response to the survey included 153 employees. Insightful results towards the development of the Program include:

- 90% do not know where storm inlets on the ESH property drain or think they drain to a treatment plant.
- 55% of respondents are not aware ESH has a stormwater program in place
- 50% felt they had somewhat, very little, or no knowledge of steps to take to reduce stormwater pollution
- 85% are interested in improving surface water quality
- 85% are not aware of any ESH projects to improve surface water quality
- 81% selected that email was the best method reach him/her

Selection of high-priority water quality issues were selected based on results disseminated from the survey, applicable Total Maximum Daily Loads (TMDLs) for the Chesapeake Bay and general knowledge of hospital grounds operations. ESH's high-priority water quality issues for the PEOP are provided below. Based on measures of effectiveness for each, any may be replaced or refined with approval of the Department of Environmental Quality (DEQ) as part of an iterative stormwater program.

Water Quality Issue No. 1: Public education on stormwater impacts

Rationale: This issue was selected based on the results of the public survey that indicate a strong need for improved public education. This rationale is supported with the survey results in Attachment A.

Target Audience: Survey results indicate that the majority of ESH's public audience needs general stormwater education since 90% do not know that stormwater is discharged to surface waters and all could have an impact in the improvement of stormwater runoff with knowledge of steps to reduce stormwater pollution. This audience includes:

- ±860 employees

Relevant Message: To address goals of the Program and concerns stemming from the survey results, the relevant message will include:

- General information about stormwater runoff (where it drains, why it's important, etc.)
- Knowledge of what is considered to be a stormwater concern and how to report them (what are pollutants of significance, who to contact if one is observed, how to reduce community impact)
- Steps that can be taken to reduce stormwater pollution
- Knowledge of hazards associated with illegal discharges and improper disposal of waste, including pertinent legal implications
- Information regarding ESH's Stormwater Program
- Information regarding pollutants of concern related to TMDLs, specifically bacteria, sediment, and nutrients.
- Methods to eliminate and reduce discharges of E.Coli into the MS4.

Outreach Materials to Convey the Relevant Message: An email sent to the entire target audience that includes a brochure with the relevant message and a link to the ESH stormwater webpage. The Email was selected as the appropriate mechanism based on survey respondents identifying it as the most effective way to reach them with educational material (81%).

Schedule: Outreach material will be distributed a minimum of once a year to at least 20% of the target audience.

Method to Determine Effectiveness: As deemed appropriate for ESH, the public survey described above will be distributed biennially. Results will be disseminated to determine if the public's knowledge of stormwater runoff and its impacts have increased.

Water Quality Issue No. 2: Education on special water quality concerns (Chesapeake Bay TMDL)

Rationale: ESH is in the Chesapeake Bay TMDL watershed where the pollutants of concern are nitrogen, phosphorous and sediment.

Target Audience: Grounds Staff responsible for day to day operations, including grounds and equipment maintenance and areas of land disturbance. This audience includes:

- ±3 staff

Relevant Message: Information regarding the proper application of nutrients and stabilization, prevention, and perimeter controls for sediment in the case of disturbed areas and stockpiling.

Outreach Materials to Convey the Relevant Message: The message will be conveyed using the ESH Nutrient Management Plan, Good Housekeeping/Pollution Prevention Manual as part of annual training of the target audience.

Schedule: Training will be provided to the target audience annually.

Method to Determine Effectiveness: A knowledge quiz will be given at the conclusion of each training session. Results from questions included in the quiz, with questions specific to special water quality concerns, will be disseminated to determine if the targeted staff's knowledge of methods for reducing the discharge of nutrients and sediment is satisfactory and/or increases over time.

Water Quality Issue No. 3: Good Housekeeping and Pollution Prevention Practices on the ESH property

Rationale: A review of the ESH regulated MS4 area finds the potential for pollutants to be exposed to precipitation as most likely to occur from day-to-day operational activities, such as grounds and equipment maintenance activities.

Target Audience: Grounds Staff performing day-to-day activities that could possibly come in contact with materials that could cause pollution if improperly managed, handled, or stored. This audience includes:

- +/-3 staff

Relevant Message: Daily implementation of proper management, handling, and storage of potential pollutants and best management practices for activities incorporated into ESH's Good Housekeeping/Pollution Prevention Program Manual.

Outreach Materials to Convey the Relevant Message: The message will be conveyed using the ESH Good Housekeeping/Pollution Prevention Manual during annual training of the target audience.

Schedule: Training will be provided to the target audience annually.

Method to Determine Effectiveness: ESH will measure effectiveness based on the number of recurring Good Housekeeping issues. Effectiveness will also be based on the illicit discharges reported or observed that are related to day-to-day staff activities (see BMP 3.2 and 3.3 of the ESH Program Plan.)