Southside Virginia Training Center (SVTC)
MS4 Program Plan
From Small Municipal Separate Storm Sewer Systems

The Virginia Department of Conservation and Recreation (DCR), under the authority of the Virginia Stormwater Management Program), has granted coverage under the new General Permit (VAR040006) for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4). The new permit's effective date was July 9, 2008 with an expiration date of July 8, 2013. Operations of small MS4s are required to prepare and submit a MS4 Program Plan as a requirement under the new permit. The MS4 Program Plan presents the information required by the Small MS4 General Permit obtained by Southside Virginia Training Center (SVTC), which is part of the Virginia Department of Behavioral Health and Developmental Services (DBHDS).

SVTC consists of a 667-acre site with approximately 89 buildings ranging in size from small-pump houses to multi-story training and residential building up to about 100,000 square feet. Central State Hospital and Hiram W. Davis Medical Center are also on the grounds. There is a central kitchen, a laundry facility, maintenance facilities and a central powerhouse that supplies steam to a majority of the buildings on-site. There are approximately 2,500 employees and 775 client-patients present daily on the site.

The facility is located within Dinwiddie County, just west of the city limits of Petersburg, Virginia. It is accessed form the intersection of Interstate 85 and U.S. Route 1 by traveling north on U.S. Route 1 approximately 0.3 miles and turning right into the campus on Albemarle street.

Best Management Practices Proposed for Implementation

The Small MS4 General Permit issued by DCR requires a description of the actions and activities proposed for use at the facility for each of the following storm control measures.

MCM 1 - Public Education and Outreach

SVTC, along with Hiram Davis Medical Center and Central State Hospital, is on a 667-acre site with about 89 medical, residential and support buildings. No other business discharge into the storm water collection system on campus. It is adjacent to the City of Petersburg and completely within Dinwiddie County.

While the campus is open to the public, typically there is limited public thoroughfare. In terms of public outreach, SVTC identifies the "public" as the employees and maintenance staff. Therefore, public education and outreach goals will be accomplished via a combination of normal operating practices and the raising the awareness of pollution sources through campus wide postings and in the campus newsletter, the *Grapevine*. Storm water related items will be included in the *Grapevine* on a semi-annual basis.

Employees, such as campus maintenance and custodial crews, who are involved in the activities that have potential impacts, currently receive annual training on storm water pollution prevention, hurricane preparedness, and spill prevention, control, and countermeasures. To meet the requirements of the new general permit, training will include topics that specifically address illegal dumping and discharges. Employee training records and documentation are kept in the Physical Plant Services (PPS) office.

Currently, the SVTC discharges to Cattail and Rohoic Creeks. Both of the creeks support the stream's respective designated uses. Therefore, SVTC has elected to not develop additional education material that addresses impaired waters; however, discussion of Appomattox's impaired waters will be included in other training sessions such as Spill Prevention, Control, and Countermeasure (SPCC).

MCM 2 - Public Involvement and Participation

Since the campus of SVTC is open to the public, but typically does not have large groups or erratic scheduling, public involvement and participation is unlikely to be effective in reducing storm after pollution. SVTC intends to emphasize programmatic and structural measures (mainly ensuring that potential pollution sources have minimal storm water exposure) in its approach to reduced loading of storm water discharges.

Employees, such as campus maintenance and custodial crews, who are involved in the activities that have potential impacts currently receive annual training on storm water pollution prevention, hurricane preparedness, and spill prevention, control, and countermeasures. In an attempt, to increase public involvement, SVTC will encourage the public to participate in existing clean-up projects and outreach projects in the area. SVTC will accomplish this by publishing appropriate activities in the *Grapevine* on a semi-annual basis as well as continually posting the information on SVTC's intranet "Sharepoint" website (http://svtcportal.aspx). The information will include the dates and locations of such events.

To meet the requirements of the new MS4 General Permit, SVTC will publish information regarding its MS4 Program Plan and Annual Report availability in the *Grapevine* on a semi-annual basis as well as continually posting the information on SVTC's intranet "Sharepoint" website (http://svtcportal.aspx). These publications will inform the public how to obtain a copy of the plan and reports via all freedom of information regulations.

MCM 3 - Illicit Discharge Detection and Elimination

SVTC is a self contained, State owned and operated facility with no storm water service provided to other public, private, or commercial entities as would be the typical municipal system. Typically, there is little public access and/or thoroughfare. The "public" is defined to be the employees and maintenance staff that are responsible for the operation of the various facilities comprising the stormwater service at SVTC.

SVTC has implemented and continues to develop a program for detection and elimination of illicit discharges. The program includes:

- Creation of a policy for prompt detection and elimination of illicit discharges and cross-connections;
- An educational program for affected employees including annual storm water pollution prevention and SPCC training;
- Structured visual inspection screening for illicit discharges by examination of piping (including as-built drawings) as well as documented inspections of manholes and outfalls during dry weather conditions (both warm and cold). Unauthorized discharges will be reported and recorded in the Integrated Contingency Plan;
- A Storm Water Management Plan (SWMP) was developed in August 2003;
- A campus wide storm sewer condition inspection was conducted in 2005. All damaged pipe that was identified was repaired or replaced. Concrete head wall repairs were made as needed at all applicable outfalls and riprap placed as outfall protection to control downstream erosion.
- A visual survey of the facility's storm water drainage patterns including all receptors and outfalls was performed in October 2005 and September 2009. Consequently, the facility has updated the Facility Site Plan, which shows the storm sewer system, onsite storm water detention pond, clearly labeled and indentified outfalls, and the name and location of receiving streams;
- A smoke/dye test of the sanitary sewer system was performed and found no cross connections from the sanitary sewer to the MS4; and
- A comprehensive inflow and infiltration (I & I) study of the sanitary sewer was completed in May 2009. Results of that study indicated that the entire pipe system should be replaced. Work on the sanitary sewer system is slated to begin early to mid 2010.

MCM 4 - Construction Site Stormwater Runoff Control

SVTC has developed, implemented, and is currently enforcing a program to reduce pollutants in any stormwater runoff to MS4 from construction activities (land disturbance more than one acre or accumulative more than one acre).

In-House Projects

Construction projects that are performed by SVTC employees and involve soil-disturbing activities are typically small maintenance projects such as repair of drainage piping, streets or sidewalks. The construction activities use accepted erosion and sediment (E&S) control measures. Appropriate best management practices (BMPs) are selected from the Virginia Department of Conservation and Recreation's Sediment and Erosion Control Handbook (latest edition). Construction practices follow the local Chesapeake Bay protection ordinance. These include but are not limited to the following:

- Requirements for construction site operators to implement appropriate E&S control BMPs;

- Requirements for construction site operators to control waste that may cause impacts to water quality;
- Procedures for site plan review which incorporate potential of water quality impacts;
- Procedures for receipt and consideration of information submitted to public; and
- Procedures for site inspection and enforcement of control measures after rain events. Inspections are performed by a certified Responsible Land Disturber.

SVTC will track all regulated land-disturbing activities and submit the necessary information during each reporting period.

Capital Outlay or Maintenance Reserve Projects

Since the facility is not a municipality or political subdivision, SVTC cannot implement an ordinance or other regulatory mechanism, therefore, will utilize the building permit process as its mechanism for to require E&S controls.

Contracts for construction projects performed by outside contractors are awarded using the state procurement system. A building permit must be obtained for any of these projects. The permit process requires multiple reviews including the architectural design staff, DBHDS engineering staff, and the Bureau of Capital Outlay Management. This ensures that appropriate sediment and erosion control measures and approvals are included.

MCM 5 - Post-Construction Stormwater Management in New Development and Redevelopment

Due to the nature of the facility, the activities that typically occur at the site do not involve a high potential for storm water pollution. Some buildings are not in use, but their exteriors are in good repair. No large-scale new or re-development is planned. There is no adequate facility staff to sustain the campus's neat physical appearance and well-maintained grounds. There is minimal exposure of materials that could contribute to storm water pollution.

Currently, SVTC operates and maintains one structural stormwater management facility (detention pond). SVTC maintains and inspects the facility consistent with the Virginia Stormwater Management Act. However, because the facility is not a municipality or political subdivision, SVTC cannot implement an ordinance to require such actions upon it. Therefore, inclusion in this plan, which makes it a mandatory requirement under the General Permit will be the mechanism utilized.

MCM 6 - Pollution Prevention/Good Housekeeping

SVTC normal operating practices encourage good housekeeping and pollution prevention. Individual practices include: preventive maintenance, constant housekeeping, spill prevention and response, regular documented inspections, secondary containment of

oil storage facilities, overseeing transfer operations, along with sediment and erosion control. These practices ensure minimal potential for storm water pollution.

During cold and icy conditions, road chemicals supplied by the Virginia Department of Transportation are used on the roadways and sidewalks within the campus. Application rates are closely controlled to maintain the required road conditions without over application and reduce the potential for storm water pollution.

SVTC is increasing employee awareness of the standard practices and their impacts on stormwater through campus wide postings, new letters, and training to its staff. The SVTC Department of Environment of Care maintains staff in the following departments: Physical Plant Services (which includes plumbing, grounds, Carpentry, Electrical, Painting, and HVAC), Central Power Plant, Central Laundry, Food Services, Housekeeping, Transportation and Public Safety. Appropriate personnel in each department will be trained in effective storm water pollution prevention as well as spill prevention, control, and countermeasures.

Recent non-structural BMPs implemented by SVTC regarding pollution prevention and good housekeeping include the following:

- Conduct annual SPCC training for maintenance staff personnel that handle oil products;
- Eliminate illicit discharges from storage yards, fleet or maintenance shops, outdoor storage areas;
- Materials that are soluble or erodible shall be protected from exposure to precipitation;
- Conduct annual Watershed Connections training for maintenance and custodial staff personnel;
- Conduct annual Pesticide Applicator training and certification for landscaping personnel;
- Conduct quarterly preventative maintenance inspections of the sanitary sewer. Findings are documented. Repairs made as necessary;
- New grease traps were installed in the kitchen. These have eliminated grease buildup in the manholes;
- Plugged floor drains in the Power Plant building that formerly went to the MS4;
- Made improvements to car wash area to prevent wash water from reaching MS4;
- Developed a Nutrient Management Plan;
- Installed spill containment drum pallets for laundry detergent, water treatment chemicals, and motor oils/lubes in the case of drum rupture/leaks;
- Closed coal storage area and associated runoff facility was cleaned/abandoned (filled with crushed stone) and inspected by DEQ in June 2005; and
- Fertilizer is no longer stored on site and is purchased and applied as needed.

PPS staff personnel are responsible for maintenance and upkeep of the BMPs.

Measurable Goals for Each BMP

MCM 1 - Public Education and Outreach

Public education and outreach goals will be accomplished via a combination of normal operating practices and the raising the awareness of pollution sources through campus wide postings and in the campus newsletter, the *Grapevine*. Storm water related items will be included in the *Grapevine* on a semi-annual basis. Employees involved in the maintenance of the facility and grounds, and who perform the activities that have potential storm water impacts, will receive training on methods and practices for reducing storm water pollutant loadings as well as spill prevention, control, and countermeasures.

MCM 2 - Public Participation and Involvement

Public participation and involvement goals will accomplish this by publishing appropriate activities in the *Grapevine* on a semi-annual basis as well as continually posting the information on SVTC's intranet "Sharepoint" website (http://svtcportal.aspx). SVTC also intends to emphasize programmatic and structural measures in its approach to reduced loading of storm water discharges.

MCM 3 - Illicit Discharge Detection and Elimination

Measurable goals for detection and elimination of illicit connections include continuing documented dry weather inspections of man-holes and outfalls with further actions performed at locations determined to require further investigation or repair. Outfalls are visually inspected for non-storm water (illicit) discharge on a semi-annual basis through a work order issued by an automated maintenance system.

MCM 4 - Construction Site Runoff Control

SVTC must follow the State review process of plans and drawings, which includes submissions to the Bureau of Capital Outlay Management (to ensure compliance with Construction & Professional Services Manual), the Department of Environmental Quality (DEQ), and DCR. This review process ensures that projects are initially designed using state technical criteria and that the required approvals and permits are obtained prior to construction and in accordance with the Virginia Storm Water Management Act (VSMA). Any construction that occurs on the campus is managed and operated by the SVTC and its representatives. Subsequently, SVTC and DBHDS have inherent control over the construction activities that occur on its campus through the use of the General Conditions of the Construction Contract document developed by the DGS.

Therefore, as a measurable goal, SVTC will design and utilize effective E&S control measures for each construction project. These measures will be inspected at regular intervals during the construction project and after storm events.

MCM 5 - Post-Construction Storm Water Management

SVTC intends to manage storm water in a responsible manner. Measurable goals include maintaining the storm water drainage system, and training affected personnel in effective storm water pollution prevention annually. Attendance at the training sessions will be documented. The training sessions will include, at a minimum, spill prevention and response, good housekeeping, and preventive maintenance.

MCM 6 - Pollution Prevention/Good Housekeeping

The measurable goal for this practice will be to continue implementing and enforcing the SWMP and Integrated Contingency Plan. These plans include storm water pollution prevention and BMPs identified by SVTC personnel as most appropriate for implementation. A storm sewer system map has been developed, showing the location of all major outfalls and identifying the receiving waters. Inspections to detect and eliminate illicit discharges are currently implemented. Recordkeeping and enforcement strategies have also been implemented. Requirements for an employee-training program are identified and implemented. Preventive maintenance strategies for storm water collection and drainage, mobile equipment, and other facilities continue to be developed and implemented. The reduction or elimination of outside storage of equipment or materials (coal, motor oils/lubes, and fertilizers) that could contribute to storm water pollutant loading have been implemented.