



**Standard Operating Procedure:
Water Disposal from Dewatering Activities**

Date: 12/20/2018* Version: 2 Review Frequency: Annual

Reasons for Procedure

The University of Virginia (UVA) has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Virginia Department of Environmental Quality (DEQ). This permit authorizes UVA to discharge stormwater pursuant to the Virginia Stormwater Management Program and the Virginia Stormwater Management Act. Since storm drain systems are not connected to a sanitary sewer treatment plant, water traveling through the storm drain system flows directly to local streams, rivers and lakes untreated.

1.0 Purpose

The removal of water from maintenance and operational activities must be accomplished following best management practices to prevent pollution of state waterways. Best management practices prevent contaminants from reaching receiving waters. Depending on the source of the pumped water it may contain pollutants such as greases, oils, sediments, nutrients, pesticides, cleaning agents, bacteria, metals, and other chemicals.

2.0 Scope

The scope of this procedure is to address the disposal of water pumped during maintenance or construction operations where that water could be discarded outdoors or directly to stormwater conveyances. This includes but is not limited to the dewatering of utility vaults, tunnels, basements, crawl spaces and excavations.

3.0 Responsibility

3.1 Facilities Management Environmental Resources

Environmental Resources (ER) is responsible for working with staff to keep this policy up to date and revised as needed.

3.2 Managers and Supervisors

Managers and Supervisors are responsible for ensuring that employees are properly informed of and trained on how to follow the procedures. Managers and supervisors are responsible for ensuring training is conducted with the most recent version of the SOP.

3.3 Personnel Performing the Job

Personnel must follow the correct procedures in accordance with this SOP.

4.0 Procedures

4.1 Tunnels, Vaults, Electrical Manholes, and other Structures

- 4.1.1** Visually inspect the water to be removed. Determine if there are visible pollutants in the water to be pumped and the potential sources of those pollutants on site.
- 4.1.2** Water collected in vaults or tunnels often results from rainwater or groundwater infiltration. If there is no reason to suspect the water has become contaminated as determined by the visual inspection and lack of potential pollutant sources, clear water can be pumped into a nearby vegetated area and allowed to infiltrate. Staff should observe the de-watering procedure to ensure that pumped water does not travel from the vegetated area or cause localized erosion. If a suitable vegetated area is not available, the pumped water is to be discharged to the sanitary sewer or hauled off from site for disposal at an appropriate treatment facility. ER staff will assist with this determination.
- 4.1.3** Water that is suspected of having chemical or biological contamination or to contain anything other than pure rain or groundwater should be evaluated for proper disposal options by Environmental Health and Safety (EHS) or ER Staff. Proper disposal options could include discharging the water to the sanitary sewer, hauling it to an off-site permitted disposal facility, or if it is deemed appropriate based on the EHS or ER assessment, to the surface as described in 4.1.2.

4.2 Excavations

- 4.2.1** It is the responsibility of UVA staff and/or the contractor to take appropriate measures to restrict the flow of water from the surface into an excavation.
- 4.2.2** Visually inspect the water to be removed. Water in excavations usually results from groundwater infiltration or rainfall. Determine if the water is laden with sediment or shows visible signs of any other contaminants.
- 4.2.3** Sediment laden water may be allowed to settle to remove suspended solids prior to dewatering. Once the water is clear, the water can be pumped into a nearby vegetated area to promote infiltration and filtration.
- 4.2.4** Sediment laden water that needs to be removed immediately must be pumped through an appropriately sized sediment bag following manufacturer's specifications for discharge volumes. Discharge water from the sediment bag should be directed into a vegetated area, wherever possible, but is allowed to discharge into stormwater conveyances after passing through the sediment bag. The sediment bag must be routinely inspected during the pumping operation to make sure that it is functioning properly and has not become clogged. If muddy

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water is being released from the sediment bag, additional measures may be needed to minimize impacts from the discharge. This could include surrounding the bag with silt fence and straw bales or placing the bag on a gravel pad.

5.0 Review of Procedure/Training

Managers and supervisors are responsible for reviewing this procedure at least once every 24 months with all employees who have these job duties.

6.0 Regulatory impacts

Any unlawful discharge into UVA's storm system may impact storm systems of the City of Charlottesville and ultimately the waterways of the state. As required by the University's MS4 permit, any operations involving the pumping of water from utility, construction, and maintenance activities must implement best management practices.

State permit noncompliance is grounds for enforcement action, for state permit termination, revocation, modification, or denial of a state permit renewal application.

*Printed versions of SOPs with previous review dates are considered current as long as the version number is the same as the current version. Current versions of all SOPs are maintained on the UVA Environmental Resources website.