

Procedure for Handling Material Collected During Street Sweeping, Catch Basin and Stormwater Pipe Cleaning, and Stormwater Pond Maintenance

City of South Burlington Department of Public Works

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Introduction

The City of South Burlington Department of Public Works (DPW) regularly uses a vacuum assisted street sweeper to remove sediment and debris from all curbed streets in the City. The DPW also uses a vacuum truck to clean stormwater drainage pipes and remove accumulated sediment from catch basin (a.k.a. storm drain) sumps. In addition, DPW staff is responsible for maintaining stormwater detention ponds on City property. Pond maintenance includes the removal of accumulated sediment from these ponds and their associated forebays.

Regular completion of these activities is a requirement of the City's Municipal Separate Storm Sewer System (MS4) permit, which is administered by the State of Vermont Agency of Natural Resources (ANR) Department of Environmental Conservation (DEC). Once collected, materials removed from streets and catch basin sumps are regulated under the Solid Waste Management Rules promulgated by the Vermont ANR DEC. Materials removed from stormwater treatment ponds are not regulated by the Vermont ANR DEC. This procedure provides South Burlington DPW employees with guidelines for the storage, handling, testing, and disposal of these materials.

Storage

All materials collected during street sweeping, stormwater pipe cleaning, catch basin cleaning, and pond maintenance activities will be stored at the DPW facility at 104 Landfill Road. Materials collected during street sweeping will be stored in a separate pile from materials collected during stormwater pipe and catch basin cleaning activities. Materials collected during pond maintenance will be combined with the materials collected during catch basin cleaning. Any collected material that shows obvious signs of pollution will be stored in a separate pile so that it does not contaminate the presumably "clean" piles collected during normal maintenance activities. These materials will also be tested separately from the presumably "clean" materials.

The material storage area will be maintained to ensure that collected materials do not become a source of pollution. Piles will be confined using concrete barriers, silt fence, and hay bails to ensure that sediment laden runoff does not leave the storage area.

Testing

Materials collected as part of street sweeping activities do not require testing before they can be used as indicated below. Prior to use, these materials must be screened to remove any trash collected as part of street sweeping. The screen used must be 2" or smaller. After screening, these materials will be moved to a fill pile maintained by the DPW at a separate location. During transport, DPW staff will measure the amount of material collected for reporting in the City's MS4 annual report submitted to Vermont ANR DEC.

Materials collected as part of stormwater drainage pipe and catch basin cleaning must be tested for Volatile Organic Compounds (VOCs) using either EPA method 8021B or 8260B prior to being used as indicated below. A composite sample will be collected from the pile of collected

materials and sent to a lab for analysis. Results will be compared to the Primary Groundwater Quality Standards (enforcement standards) located in Appendix A of the Vermont ANR DEC Groundwater Protection Rule and Strategy. Using the EPA methods described above, the lower detection limits for some of these compounds in soil samples does not reach the levels specified in the Groundwater Rule (e.g. the lower detection limit for benzene in a soil sample is 13 ug/Kg and the Groundwater Standard is 5 ppb). A sample whose result is at the lower detection limit of the methods specified will be considered a “non-detect” (e.g. if the results of lab analysis indicate that the amount of benzene in the soil sample is <13ug/Kg, which is below the analysis’ lower detection limit in soil, then it will be assumed that the sample meets the standard of 5 ppb)

Materials removed from stormwater ponds as part of normal maintenance activities are not regulated by the Vermont ANR DEC. Between 2011 and 2016 the City tested these materials separately and found no reason to believe that this material contained higher levels of pollution than the materials that accumulate in catch basin sumps. However, since these materials will be mixed with the materials collected from catch basins they will be tested as part of that process.

Materials that are below the thresholds identified in the Groundwater Protection Rule will then be screened to remove trash using a 2” or smaller screen. After screening, these materials will be moved to a fill pile maintained by the DPW at a separate location. During transport, DPW staff will estimate the amount of material collected for reporting in the City’s MS4 annual report submitted to Vermont ANR DEC.

Materials will be screened, tested, and moved to a separate fill pile as necessary to ensure that the material storage area has enough space for new materials. The storage area is currently able to store about one year’s worth of collected materials.

Procedure for Material Containing VOCs

Materials tested using EPA method 8021B or 8260B that show VOC levels exceeding the Groundwater Quality Standards in the Vermont Groundwater Protection Rule will be moved to a separate location for storage. Compost, manure or another material high in organic matter will be blended into collected materials and they will sit for a minimum of 6 months before being re-tested. These piles will be “turned” regularly during this time. If these materials fail a second test they will be turned and blended again. A third test will take place at least a year from the second failed test. If the third fails, these materials will be landfilled.

Use of Collected Material

Once screened and tested, all materials can be used as common fill by the DPW or others who receive permission from the DPW. Alternatively, these materials can be blended with other materials (e.g. compost, manure) to create top soil or tree planting material for use by the DPW or others who receive permission from the DPW.

Policy Review and Schedule for Update

This plan will be updated as necessary to comply with State regulation, or to fit changing circumstances at the DPW facility. At a minimum, this policy will be reviewed once every 5 years when the City’s Stormwater Management Plan is revised as part of the MS4 permit application.