

City of Virginia Beach  
Development Services Center  
**DSC INFORMATION NOTICE #57**  
**May 15, 1997**

**TOPIC: OVER-EXCAVATION OF A STORMWATER MANAGEMENT FACILITY**

**BACKGROUND:**

*The **over-excavation** of stormwater management facilities (SWMF) and the removal of excavated material (usually sand) from development sites is prohibited without an excavation permit and conditional use permit (borrow pit). This activity is generally considered to be a mining operation and should be regulated accordingly.*

*Recently, several concerns were raised regarding the policy of not allowing SWMF to be over-excavated. After reviewing these questions and concerns, several positive aspects were identified with allowing the use of the over-excavated material on the project site.*

**New Policy:**

*As a result of this review, adjustments have been made to the policies governing the over-excavation of SWMF. Requests to over-excavate SWMF will be reviewed on a case-by-case basis and approvals will be granted based upon the merits of the request. One of the most important issues associated with a request of this nature is the use of the excavated material. The intent of this policy is to allow limited and reasonable over-excavation of SWMFs to provide suitable material for use on the project construction site. **Therefore, the over-excavated material must remain on-site.** The attached "Guide to Submitting a Request to Over-Excavate a Stormwater Management Facility" was prepared to assist the consultant in preparing the request and staff in their review.*

**ITEM #1: POSITIVE RESULTS FROM OVER-EXCAVATION**

- A. *Fewer trucks are required to enter or leave the development project site if the needed material is found and used on the site. This should result in a reduction in the wear and tear normally experienced on the roadways during the construction of development projects. The fewer trucks entering and leaving the site will reduce the number of opportunities for traffic accidents and disruption.*
- B. *Less material being brought into or leaving the site should reduce the amount of material finding its way onto the roadway surface. This should also reduce the need for cleanup activities and decrease sediment from becoming trapped in the stormwater system.*
- C. *The cost of development may be reduced by eliminating some of the material transportation costs.*
- D. *A deeper SWMF should increase the life of the facility and postponing maintenance*

by providing additional dead storage for trapped sediment and other suspended materials. The additional depth of the facility may also be used for some suitable or select fill material unsuitable for construction activities. This will also reduce the number of trucks leaving the site to dispose of this unwanted material.

E. This approach makes better use of the natural resources available on the site.

**ITEM #2: POSSIBLE CONCERN**

The current depth of a SWMF using a wet retention basin design is 7 to 15 feet, measured from the bottom to the normal water level (NWL). Increasing this depth has no real affect on safety. The side slopes of the banks will remain at the current maximum of 3:1. The first 24 feet (excluding a bench, if used) away from the edge of water or edge of the bench will maintain at the 4:1 slope or less to a depth of 6 feet below NWL. The remaining slope from the 6 foot depth to the bottom will be no greater than 2:1.

**ITEM #3: ELIGIBLE STORMWATER MANAGEMENT FACILITIES**

Due to the side slope requirements, the facility must be a minimum of 84 feet measured from the edge of water at NWL to edge of water at NWL when not using bench and 92 feet when using a 5 foot bench on each shore.

**ITEM #4: USE OF FILL IN STORMWATER MANAGEMENT FACILITY**

Suitable, but unwanted material from the site may be used to replace some of the over-excavated material. Fill may **not** be used to establish the facility side slopes or create a bench. The area to be over excavated is to be confined to depth or the bottom of the facility while maintaining the side slope requirements found in Item #2 above and the Public Works Specifications and Standards (Standards B-32 and B-33).

**EFFECTIVE DATE: IMMEDIATELY**

**CONTACTS:**

The consultant should contact the review engineer to discuss the proposal before submitting the written request and package of information. This step may save the consultant valuable design time. The decision to investigate the over-excavation of a SWMF should be made as early in the process as possible.

**REVIEW ENGINEERS:**

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