



TOWN OF
VIENNA
Public Works

TO: Vienna Construction Industry
FROM: Alan Chen, Engineer
DATE: November 29, 2023
SUBJECT: LTI 23-002 Soil Compost Amendments for Stormwater Management

Soil compost amendments were included as an approved runoff reduction method by the Virginia Department of Environmental Quality (DEQ) Stormwater Design Specifications in 2011. Soil amendments improve existing compacted soils, increasing soil porosity to increase infiltration capacity and reduce the volume of stormwater runoff.

As of **January 1, 2024**, the Town of Vienna no longer accepts soil compost amendments as an approved best management practice (BMP) for stormwater management for new residential developments. The elimination of soil compost amendments for runoff reduction was decided due to several problems, including the following:

- Resident homeowners with soil compost amendments are often uninformed or unaware of their BMP facility and have compacted the amended soil area with routine landscaping. The soil restoration process may need to be repeated due to compaction and settling resulting in additional maintenance cost burdens for the resident.
- Improper installation and routine maintenance are difficult to assess with soil compost amendments. Per the *Virginia DEQ Stormwater Management Handbook Chapter 9-C.5.0*, amended soils should be watered every 3 days for the first month and weekly during the first growing season after installation, and the area should be de-thatched every few years to increase permeability. The Town of Vienna does not believe that these maintenance measures are consistently being completed by residents and does not have confidence in the effectiveness of these soil compost amendments over the extended lifespan of the facility without these maintenance efforts, especially compared to other BMP facilities such as bioretentions or infiltration trenches.
- Assessing the quality and efficacy of the amended soils is difficult for the inspection contractor. Existing maintenance checklists provided by DEQ only evaluate surface-level factors such as trash, erosion, surface ponding, and encroachment by buildings and structures. The Town of Vienna believes soil testing should be conducted to determine if the soil has adequate bulk density levels, nutrients, and pH.

Due to these factors, Vienna no longer accepts soil compost amendments for any residential developments. This restriction does not apply to existing stormwater management agreements with the Town of Vienna or any submitted plan before January 1, 2024.

Alan Chen
Water Resources Engineer
Alan.Chen@viennava.gov
703-319-8610