

**Description:**

The purpose of the section is to highlight the current applicable UMD Design Standards for basic design and installation of Environmental Site Design (ESD) elements as part of an overall effort to manage and treat stormwater on campus.

**Related Sections:**

- 01.81.13 Sustainable Design Requirements
- 01.93.00 Maintenance Operations Requirements
- 07.33.63 Vegetated Roof Coverings
- 31.25.00 Stormwater Management and Sediment and Erosion Control
- 32.01.90 Tree and Shrub Preservation Protection
- 32.39.00 Site Standards
- 32.70.00 Wetlands and Floodplain
- 32.80.00 Irrigation Systems

**Effective Date:**

January 1, 2020

**Applicable Standards:**

- MDE – Maryland Department of the Environment
- 2011-2030 UMD Facilities Master Plan

**General Requirements:**

- All projects shall follow MDE Stormwater Management Best Practices.
- Stormwater management shall be reviewed from a campus perspective. Identify and coordinate with nearby ESD facilities, if any, and seek opportunities to manage stormwater arriving on site from “upstream” of the project site, especially problem areas such as parking lots, in order to positively affect the campus MS4 permit. Designers are to seek opportunities to enhance and expand stormwater “treatment trains” where appropriate.
- Decrease impervious surfaces wherever possible and avoid installing large expanses of impervious hardscape.
- Seek to install ESDs that provide multiple co-benefits for the campus community (i.e. SWM plus enhanced site aesthetics/connection to nature, increased tree canopy, providing gathering space, providing research opportunities, rainwater harvesting, etc.)
- As programmed, install signage at ESD features to educate campus users about ESD and the importance of stormwater management. Signage shall be consistent with signage for other ESD facilities on campus.
- As Built operation and maintenance documentation shall include all maintenance schedules, recommended nutrient management, etc. in order to maintain ESDs in optimal condition.
- Temporary irrigation shall be indicated as required to enable the establishment of new plant material. Permanent irrigation should be included as indicated by program. Where applicable designers should seek to provide quality nonpotable water as the primary source for irrigation with connection to potable water as a secondary source.
- Once installed and complete, ESD structures must demonstrate full functionality, as the approved design indicates.