



Subsurface Detention

Description

Subsurface detention SMPs are underground structures that are used to temporarily detain and release stormwater. They can include vaults, stone storage, pipe storage, and plastic grid storage.

Key Advantages

- Manages stormwater runoff without occupying surface or rooftop space
- Can be sited, through flexible design options, beneath lawns, recreational areas, parking lots, buildings, or other impervious areas when space constraints exist
- Allows for easily adaptable footprints that can fit into almost any size space and be integrated into many different site layouts

Key Limitations

- May need to be combined with other SMPs to meet the Water Quality requirement
- Can be more costly and difficult to install and maintain than surface practices like bioretention SMPs
- Require strict adherence to regularly scheduled inspections because the maintenance needs are not easily visible
- Require additional maintenance costs due to access limitations and Occupational Safety and Health Administration (OSHA) requirements
- Does not improve aesthetics or provide the ancillary environmental benefits associated with vegetated SMPs, such as habitat creation and improved air quality

DEVELOPMENT ATTRIBUTES

Construction Costs



LOW

Operations & Maintenance Costs



MODERATE

Likelihood of Failure



HIGH

Ground-Level Encroachment



LOW

Building Footprint Encroachment



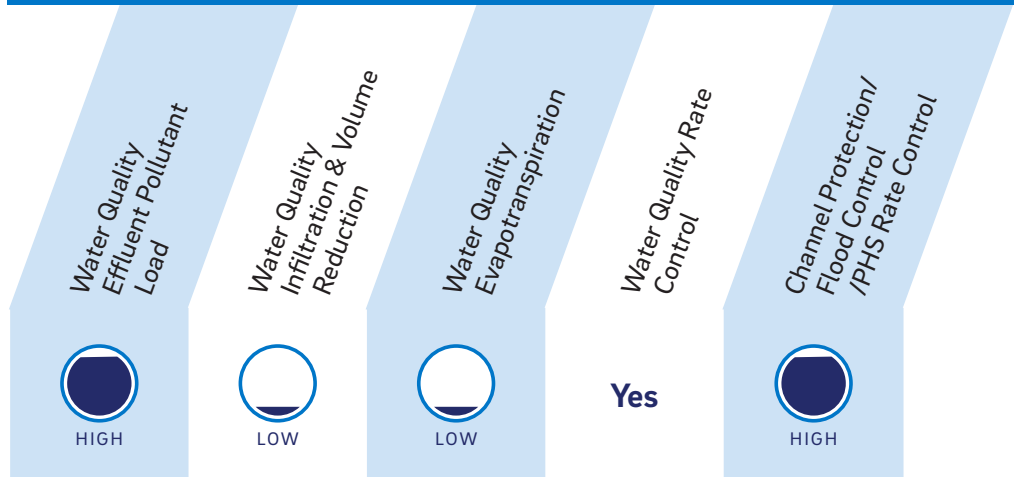
LOW

Triple Bottom Line Benefits



LOW

COMPLIANCE ATTRIBUTES



A description of each evaluated attribute can be found in the SMP Hierarchy Ranking Criteria in [Section 3.2.4](#).