

Blue Roofs

Description

Blue roofs, also known as controlled flow roof drain systems, are detention SMPs that provide temporary storage and slow release of rainwater on a rooftop. Blue roof systems are an effective practice for controlling runoff from buildings with flat or mildly sloped roof surfaces. On blue roofs, water is temporarily detained on the roof surface using rooftop check dams or roof drain restrictors. In all cases, outflow is controlled using orifices prior to discharge, which is typically directed to the building's storm drains, scuppers, or downspouts.

Key Advantages

- Manage stormwater runoff without occupying surface-level space
- Well-suited for sites at which roofs make up a large fraction of the total impervious area and for sites with ground-level space constraints
- Easy to install if structural and waterproofing requirements are met
- Can cost less than other SMPs

Key Limitations

- Require regular inspection and maintenance of roof surface and roof drains
- Require strict adherence to regularly scheduled inspections because the maintenance needs are not easily visible
- May have limited storage capacity with slopes greater than 2%
- Offer limited benefit on sites where roof area makes up only a small fraction of the total impervious area
- Do 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



Operations & Maintenance Costs



Likelihood of Failure



Ground-Level Encroachment



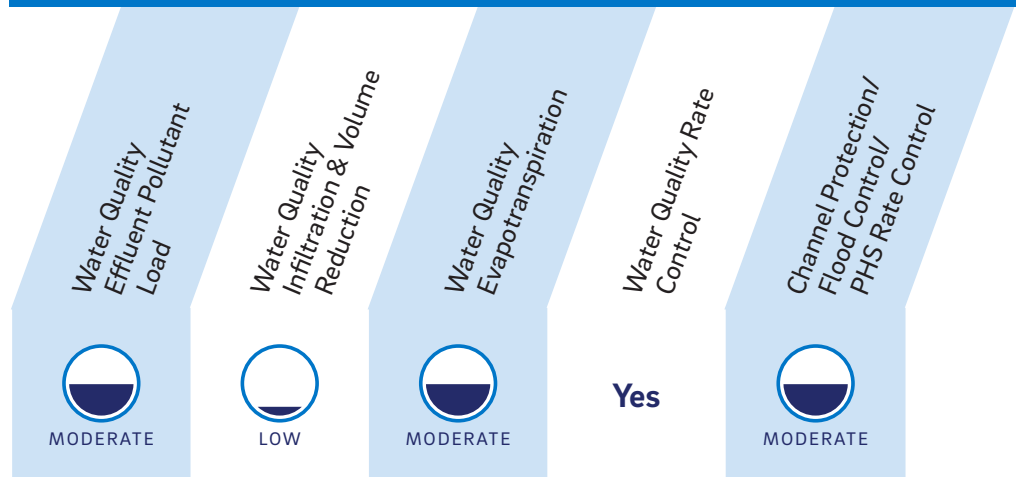
Building Footprint Encroachment



Triple Bottom Line Benefits



COMPLIANCE ATTRIBUTES



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