



Green Roofs

Description

Green roofs, also referred to as vegetated roofs, eco roofs, and roof gardens, consist of a layer of vegetation that covers an otherwise conventional flat or moderately pitched roof. A green roof is composed of multiple layers which may include a waterproofing roof protection layer, moisture interception layer, drainage layer, leak detection layer, an engineered planting medium, and specialized plants. Through the appropriate selection of materials, green roofs can provide runoff volume reduction and runoff peak rate attenuation.

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
- Enhance building aesthetics and market value
- Help regulate building temperature in both the summer and winter, thus reducing cooling and heating costs
- Reduce urban heat island effect by providing evaporative cooling
- Can improve air quality by filtering particulate matter
- Extend the service life of the roof
- Eligible for inclusion in an Expedited PCSMP Review project

Key Limitations

- May need to be combined with other SMPs to meet the Flood Control requirement
- More expensive to install than most conventional roofs
- May have limited retrofit feasibility for existing buildings and structures due to structural capacity issues

DEVELOPMENT ATTRIBUTES

Construction Costs



HIGH

Operations & Maintenance Costs



HIGH

Likelihood of Failure



LOW

Ground-Level Encroachment



LOW

Building Footprint Encroachment



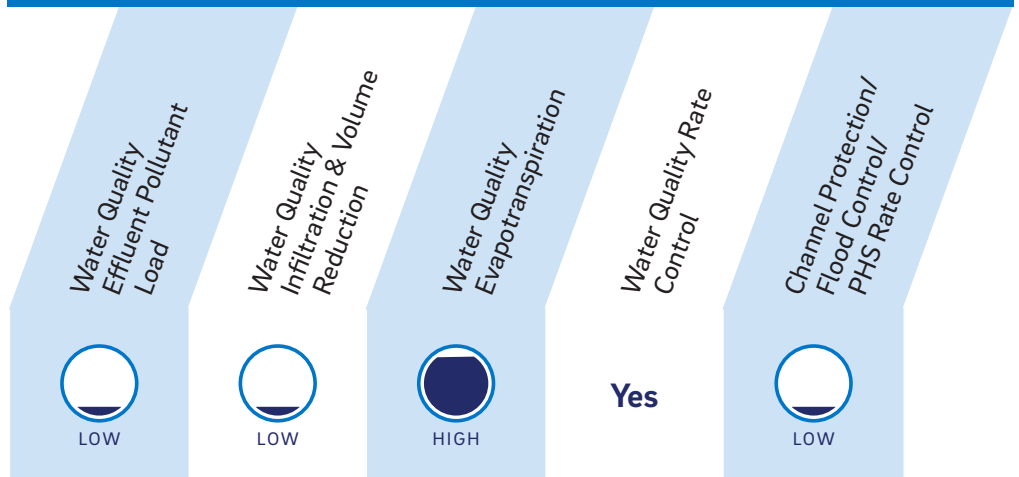
LOW

Triple Bottom Line Benefits



HIGH

COMPLIANCE ATTRIBUTES



A description of each evaluated attribute can be found in the SMP Hierarchy Ranking Criteria in Section 3.2.2.