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Benefits:

- Removes pollutants from runoff
- Decreases stormwater runoff volume, flow rate and temperature
- Reduces directly connected impervious areas
- Provides shade

Target Pollutants:

- Bacteria
- Heavy metals
- Nitrogen
- Phosphorus
- Oil and grease

Uses:

- Constrained sites
- Retrofits
- Highly urban areas

Limitations:

- Not recommended for soils that do not drain well
- Cannot treat a large drainage area
- Steep slopes

Resources:

- EPA Stormwater Management Best Practices
- Charles River Watershed Association

STORMWATER PLANTERS

DESCRIPTION

Stormwater planters are structural containers with open bottoms that allow stormwater runoff to filter through the reservoir and infiltrate slowly into the ground below. Planter boxes contain layers of gravel, soil, plants, and mulch that capture and filter pollutants. Stormwater planter boxes can either be infiltration planters (designed to infiltrate through native soils) or flow-through planters (designed with an impervious liner and overflow pipe). Stormwater planters are attractive alternatives for stormwater management facilities and work well in areas with limited spaces. Often called ‘rain gardens in a box’, stormwater planters can be used to treat runoff from rooftops, parking lots, streets, and sidewalks.

DESIGN AND INSTALLATION

- Contributing roof area and desired drain time determines size and specifications.
- Crushed rock or a geotextile fabric is recommended between the soil and gravel layers to prevent soil from mixing with the drain rock.
- Planters should be placed at or above grade and 10’ away from building foundations.
- Use of impermeable liner is recommended when adjacent to structures, near property lines, on erodible slopes, and areas with high water tables.

MAINTENANCE

- Regular inspection of structural components, especially after large rain events.
- Periodic cleaning of inflow and outflow points.
- Removal of sediment and debris to ensure proper drainage.
- Routine maintenance of soil media.
- Removal of invasive species or noxious weeds by hand, or other mechanical methods, before they flower.
- Replacement of dead or diseased plants as needed.
- Water in times of drought.

