Green Infrastructure Practices

The following descriptions are adapted from the Virginia Conservation Assistance Program Implementation and Design Manual, 8th Edition, and are intended only to provide guidance and clarity concerning the types of practices in the Green Infrastructure Project Category that are eligible for funding through the Coastal Resilience & Tree Fund. More extensive descriptions, technical details, and photos can be found in the VCAP manual.

Conservation Landscaping
Replacing managed turf, lawn, or bare soils with plantings of native perennials, trees, and shrubs. This may include establishing meadows or mulched beds planted with a mix of herbaceous and woody species. The surface of the conservation landscape should be slightly concave or lower than the adjacent landscape such that stormwater runoff flows into and through the planted areas. May also be called bayscaping, rainscaping or filter strips.

Rain Gardens
Shallow vegetated depressions that capture and treat stormwater runoff from small areas (rooftops, driveways, yards, etc.). The practice includes a vegetated layer of native plants, a mulch layer, a soil media layer, an overflow, and sometimes an underdrain. Within a rain garden, stormwater runoff collects and temporarily ponds (up to 48 hours) to a depth of about 6 inches to 1 foot depth, then filters through the vegetation and soil media layers and infiltrates into the underlying native soil or an underdrain.

Bioretention
A shallow, landscaped depression that captures and treats stormwater runoff, temporarily ponding and infiltrating holding stormwater into and allowing it to filter through an engineered soil media and gravel layer before discharging to an underdrain or infiltrating into underlying soils. Similar to a rain garden, but designed to treat larger areas such as parking lots or commercial rooftops, bioretention practices must include an engineered soil media as the filtering layer and may include an underdrain.

Dry Well
Below-ground infiltration practice that temporarily collects and holds stormwater runoff from roofs and allows the water to slowly infiltrate into surrounding and underlying soils. Dry wells are typically gravel-filled pits that may include underground vessels.

Infiltration
Provides temporary surface or subsurface storage of stormwater runoff using gravel trenches, subsurface gravel beds or basins and may include underground storage vessels set within the gravel. Similar to a dry well, but designed to treat larger areas such as parking lots or commercial rooftops; typically limited to areas with highly permeable underlying subsoils, but may include an underdrain.

Vegetated Stormwater Conveyance
Shallow, vegetated channels such as dry, wet, and step pool conveyance swales convey, slow down and treat stormwater runoff through temporary or permanent ponding and infiltration, settling of sediment, and/or biological activity depending on the type of swale used.
Rainwater Harvesting
Systems that intercept, store and release rainfall for future reuse using above- or below-ground storage tanks like rain barrels and cisterns. Stored water can later be slowly released for non-potable uses or directed to on-site stormwater practices for infiltration.

Additional Technical Resources:

[Virginia Stormwater Best Management Practices Clearinghouse](http://www.vastormwater.org/Clearinghouse)