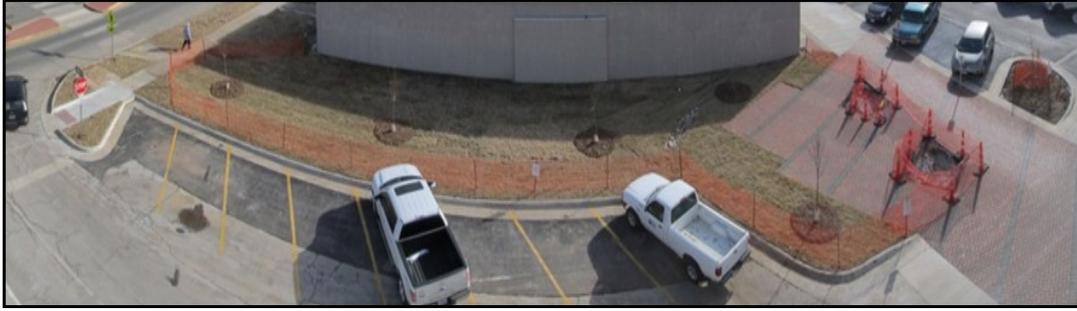


Building with Post-Construction in Mind



Post-construction Best Management Practices (BMPs) are designed to facilitate treatment of stormwater runoff on-site. They slow, spread, and soak runoff, allowing the natural processes of filtration, infiltration and biochemical reactions to improve stormwater quality. Pervious pavement, infiltration basins, trenches, and grassed swales rely on infiltration of stormwater into surrounding soils, retaining runoff on-site. Bioretention basins, catch basin inserts, and filters composed of sand and/or other media promote filtration of stormwater runoff and removal of pollutants. Retention ponds and constructed wetlands hold runoff for extended periods of time, allowing for settling of pollutants. As these BMPs are all types of filters, they will gradually become filled with sediment and debris, and functionality can be restored by regular maintenance. However, if these BMPs are improperly installed, they may never work as designed. It is therefore vital to protect these structures during construction.

In the design phase, identify areas where erosion and sediment control (ESC) BMPs overlap with post-construction BMPs



Common areas of overlap are locations where water diversions will be converted to grassed swales and where sediment basins will be converted to water quality basins. Properly compact slopes and berms of temporary structures in order to avoid sloughing and to ensure that these areas will be ready for conversion into permanent BMPs. Rather than using a water quality basin as sediment basin during construction, install a sediment trap or forebay upstream to capture sediment-laden water. Make sure that design documents include a sequence of construction and a clear plan for conversion of temporary ESC BMPs into permanent post-construction BMPs.

Prevent soil compaction in areas designed for infiltration



Communicate this to construction staff and/or fence these areas off. Locate staging areas and stockpiled material away from these areas. Compacted soils can be remediated by aeration and compost amendments if necessary. If preservation of trees and/or other vegetation will be utilized as a post-construction BMP, make sure these areas receive adequate protection from construction activities as well.

Manage sediment accumulation in areas where post-construction BMPs are to be installed



If feasible, stabilize graded areas upstream prior to installing post-construction BMPs. This will prevent muddy runoff from clogging newly installed structures. If this cannot be accomplished, be sure to clean trenches, swales and basins of any accumulated sediment prior to converting them into permanent structures. A floating skimmer can be attached to the outfall device of water quality basins for dewatering during construction. Skimmers remove the cleanest water, near the surface of the basin, allowing sediment to accumulate on the bottom of the basin for removal.

Determine locations where ESC BMPs may be needed to protect newly installed post-construction BMPs



Compost filter sock and gravel bags can be placed at curb cuts and along the perimeter of larger structures to hold back sediment from unstabilized areas. Leave plastic sheeting on pervious pavement as a sediment control BMP. After pouring pervious concrete, plastic sheeting is placed on the pavement until it has cured, usually about 1 week, but it can be left on until the site has been stabilized to prevent siltation. Note that sediment accumulation in pervious paving requires cleaning by sweeper/vacuum truck. Never use a broom to sweep dirt off pervious pavement.