


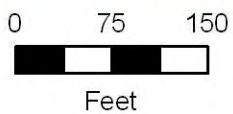
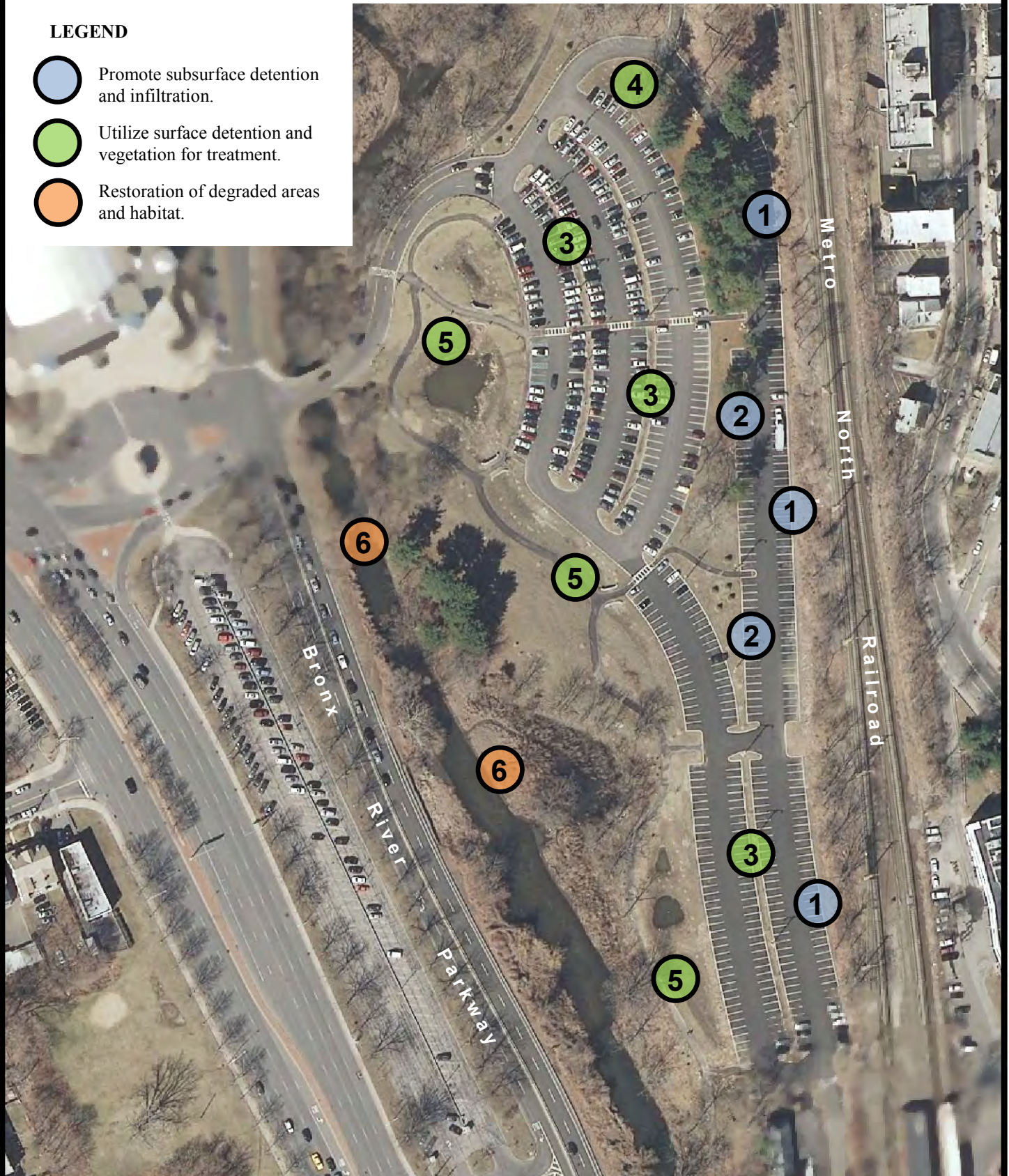


Stormwater Best Management Practices at Westchester County Center Parking Lot

LEGEND

-  Promote subsurface detention and infiltration.
-  Utilize surface detention and vegetation for treatment.
-  Restoration of degraded areas and habitat.



Westchester County installed a variety of stormwater Best Management Practices (BMPs) in conjunction with the reconstruction of the parking lot at the Westchester County Center in White Plains. The variety of practices reduce the volume and improve the quality of stormwater runoff in different ways and are also used for demonstration and education. Visit the County website at www.westchestergov.com/stormwater and www.westchestergov.com/restoration for more information on stormwater pollution and ways to reduce it.



1 **POROUS PAVEMENT** was used for a row of parking spaces (note the traditional bituminous used in the drive aisle versus the porous pavement used in the parking spaces) to let water drain through the surface to a layer of crushed stone beneath. Portions of this row have begun to silt in, reducing the effectiveness of the system, and the County is researching maintenance activity such as vacuuming or power washing to evaluate how well such activities may restore the performance of the system.



2 A series of large perforated pipes were installed to provide **UNDERGROUND DETENTION/INFILTRATION**. The pipes capture excess runoff from a portion of the parking area. Catch basins with sumps are used to remove suspended pollutants and floatable trash. The stormwater is then diverted to the underground system, which holds the water and releases it slowly over time into the underlying soils.



3 **BIOSWALES/ISLANDS** were used throughout the interior of the parking lot. Scuppers were installed in the curbing of the parking bays upslope of the islands to allow stormwater runoff to enter the vegetated islands, which hold approximately six inches of water. Overflows were installed to manage stormwater runoff from large storms. Since most rain over the course of a year is from smaller storms, the bioswales work well to capture and treat most of the stormwater runoff that falls on the parking lot annually.

4

RAIN GARDENS (not pictured) were installed to treat small amounts of runoff before it discharges from the site.



5 Stormwater runoff is also diverted to **STORMWATER WETLANDS AND SWALES**, which use a series of swales and cells of varying depths to treat stormwater runoff. The vegetated practices primarily detain excess runoff at the surface, where it is treated by the plants. Stored runoff also infiltrates into the soil. In addition to treating the stormwater, the plants also provide important habitat for birds, amphibians and other animals.



6 **STREAM BANK RESTORATION** restores degraded areas, reducing the potential for erosion and stream bank degradation, and improving degraded wetland habitat. These areas are important ecologically for providing wildlife habitat and supporting vegetation that improves water quality. However, they can also be sources of pollution in the form of sediment and excess nutrients from eroded banks, so restoration is a valuable way to improve water quality and stream health.