

# STORMWATER BMP SITES IN PAXTON CREEK WATERSHED

## BMP Type: State Hospital Riparian Buffer



Slope Above State Hospital Riparian Buffer

**Name and Location:** PA State Hospital entrance at 2301 N. Cameron Street, a former mental health facility and grounds are in Harrisburg and Susquehanna Township.

**Project Site Number and BMP Type Code:** 6C

**GPS Coordinates:** Lat N40.28430degrees, Long W76.86794degrees

**Site Features:** Riparian buffers are vegetation (trees, shrubs, herbs) alongside Paxton Creek. Waterway buffers provide many benefits: partial protection from overland stormwater runoff (containing pollutants) that can enter the creek; shade for the creek that helps cool stream waters, and enhance dissolved oxygen levels in waters; habitat (living places) for water and land-based creatures; other benefits. Buffers are the single, most important type of best management practice for runoff, particularly for headwaters and slightly degraded streams. Buffers are often designed for 3 vegetative zones, extending from tops of creek banks for 35 or more feet, and consist mainly of grasses, forbs, trees, and shrubs. Volunteers from the Capital Area Greenbelt, PCWEA, Harrisburg Area Community College, and others planted the trees and shrubs on the hospital grounds. Tree covers (plastic tubes) were used for protection against deer predation for some, but not all vegetation. Expected pollutant removals in fully functioning riparian buffers are approximately: total suspended solids (mainly dirt), 65%; total phosphorus, 50%; nitrate, 50%. The pollutant removal efficiencies vary by season (greater removal in spring and summer), and by buffer drainage area or condition change (drainage surfaces areas, vegetation that grows denser or declines). This buffer does not achieve full buffer benefits because it is young, lacks wide vegetation zones, and is located near many human activities (including nearby pedestrian and vehicle transport on a connector trail upslope and parallel to the creek). From the trail pedestrians can see buffer vegetation on the narrow floodplain and northern bank slopes, particularly in the winter, when leaves are off deciduous vegetation. Limited parking is near the powerhouse, located on the south and east loop road (Sycamore Drive). More parking spaces are about 0.2 mi east following a sharp curve

**Site Directions:** The buffer is located along the creek between the hospital powerhouse, and upstream to near the State Farm Road at the boundary of State Hospital

grounds. The buffer is accessible at two places: Off Elmerton Avenue at Sycamore Drive, also by the shuttle parking area for the PA Farm Show, for 0.5 mi is a parking lot. A short walk down slope leads to the Capital Area Greenbelt. Eastward approximately 50 m at a break in the trees a long slope leads down to the buffer and Asylum Run. Elmerton Avenue runs E-W between N. Cameron Street in Harrisburg, and Colonial Road in Lower Paxton Township. Another route to the buffer is from a traffic light at 2300 N. Cameron Street between the PA Farm Show and PA Department of Agriculture property. Upslope and right around the base of the State Hospital hill for 1.1 mi leads to the power house. Another 0.2 mi eastward on the trail overlooks the buffer alongside the creek tributary below.