

8. Bronx River Watershed Soil Survey

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USDA-NRCS NYC Soil Survey

Abstract:

The USDA-Natural Resources Conservation Service recently completed a 1:6,000 scale soil survey of the Bronx River Watershed, the first urban watershed mapping project conducted by the agency. The Soil Survey area covers 6900 acres along the last 8 miles of the river that pass through the residential, parkland, and industrial landscapes of Bronx County, and includes Woodlawn Cemetery, the New York Botanical Garden, the Bronx Zoo, and Soundview Park. Some of the oldest woodlands in the City can be found in the Native Forest of the Botanical Garden and the Bronx River Floodplain Forest to the north.

The Survey will be used for open space inventory, identifying hydric soils and potential plant and wildlife habitat; as an important component in restoration and revegetation efforts; and a critical element in park and watershed management. An infiltration study was conducted in conjunction with the Survey to examine land use effects on Hydrologic Soil Group ratings, and to identify storm water capture potential. As a result, map unit design was based on land use, and soil components were characterized by use dependent soil properties. The 89 soil map units were classified into five “disturbance classes,” based on the nature of the parent material and the amount of impervious cover, to assess the extent of human disturbance in the survey area.

Keywords: urban soil survey, urban watershed, urban hydrogeology, soil infiltration

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