

Water Resource Monitoring of the Central Pine Barrens region of Long Island, NY

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The Central Pine Barrens (CPB) region encompasses Long Island's largest remaining undeveloped wilderness. The CPB contains significant parts of two major Long Island watersheds, the Carmans and Peconic. Additionally, Long Island's primary aquifer systems (upper glacial, Magothy, and Lloyd) and source of drinking water, underly the CPB. Land development in the CPB presents a risk to the quantity and quality of ground and surface waters across the region. In particular, an increase in impervious surfaces in the CPB could reduce groundwater recharge, increase stormwater runoff, and increase the potential of anthropogenic contamination.

The U. S. Geological Survey, in cooperation with the Central Pine Barrens Commission, Town of Brookhaven, Suffolk County Water Authority, Suffolk County Department of Health Services, and the New York State Department of Environmental Conservation, has developed a long-term water-quantity and water-quality monitoring program for the CPB. The program includes measurements of annual, monthly, and daily groundwater levels, streamflow in the Carmans and Peconic Rivers, and ground- and surface water-quality sampling and analysis at key locations across the CPB. This program provides the data and analysis necessary to determine baseline water-resource conditions and to understand the hydrologic conditions to support development of effective management plans that preserve and protect water resources across the CPB.