

## Unconsolidated deposits

Glacial deposits consisting primarily of till or post glacial boulder colluvium cover much of the study area. The boulder colluvium consists of subangular to subrounded sandstone and conglomerate boulders ranging from 0.5 feet to 5 feet or more in diameter. It forms a thick talus slope along the base of the Shawangunk formation

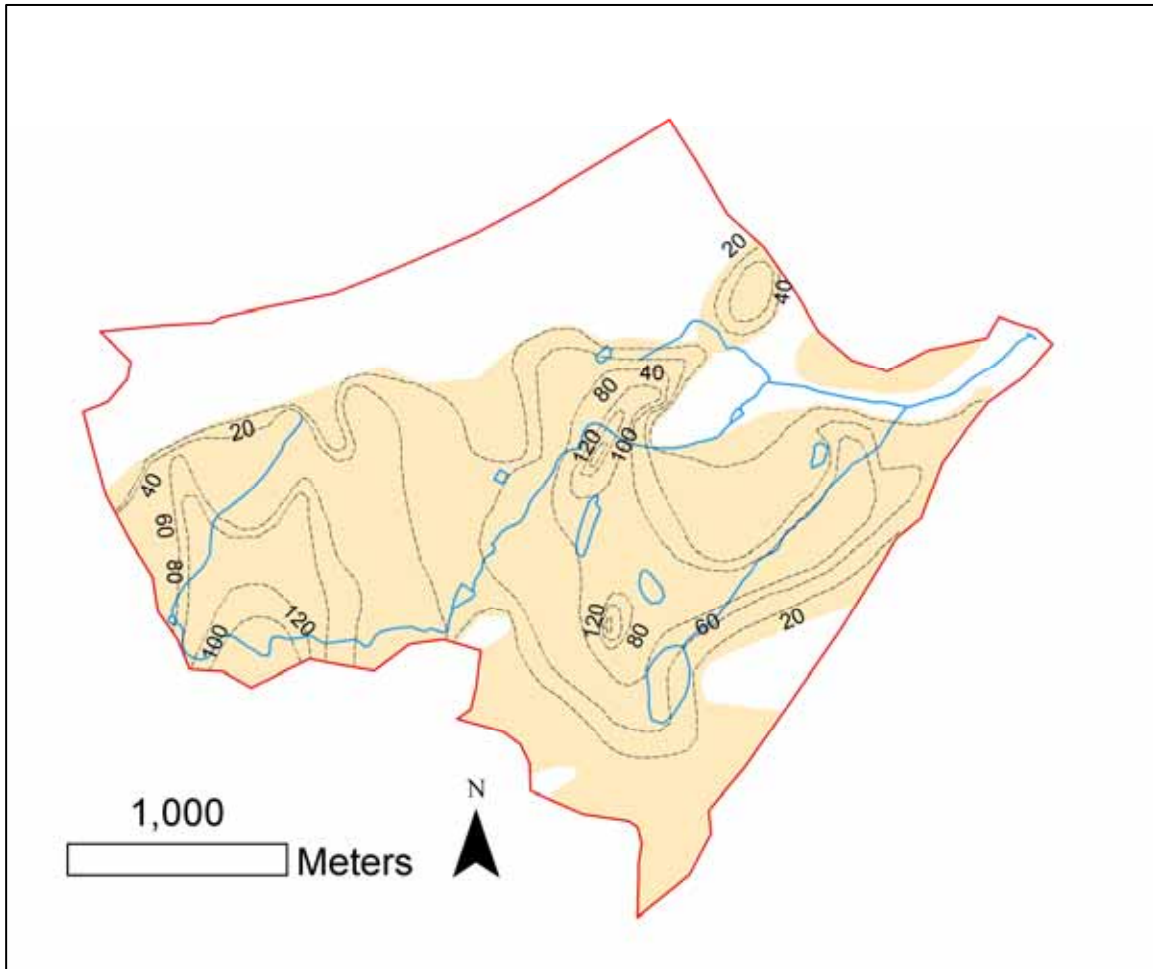


from which it was derived (Figure 10).

**Figure 10** – Talus slope (right side of photograph) at the base on a cliff formed from quartz sandstone and conglomerate of the Shawangunk Formation. The outcrop is on the east side of the Delaware River water gap and east of the study area. The talus slope extends westward across the study area.

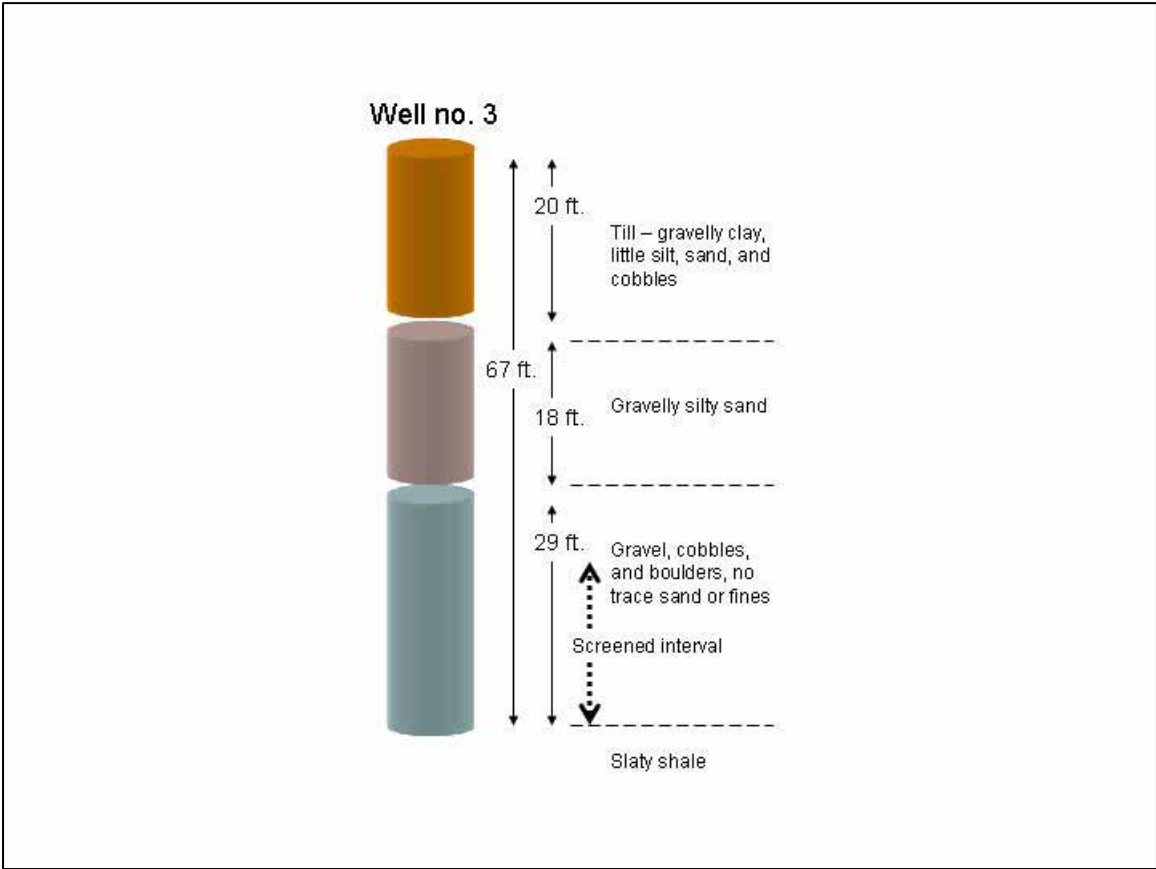
Figure 11 shows the distribution of till within the study area (Epstein, 1969, Epstein and Epstein, 1973, this study). The till represents end moraine and ground moraine deposits (Epstein, 1969). Figure 12 shows the particle size distribution measured in a till sample from the southeastern part of the study area. Borehole logs for Portland Borough Authority well #3 (Figure 4) and from an abandoned well located approximately 1350 feet northeast of well #3 indicate that the glacial deposits are heterogeneous. At Portland Borough Authority well #3 gravelly clay with little sand, silt and cobbles was encountered from the surface to a depth of 20 feet, gravelly silty sand was encountered from 20 feet to 38 feet, and gravel, cobbles and boulders were

encountered from 38 feet to bedrock at 67 feet (Figure 13). Gravelly silty sand was encountered from the surface to bedrock (54 feet) at the abandoned well. The coarse-grained unit at the base of well #3 may represent lag gravels deposited along the axis of a buried valley.



**Figure 11** – Map of the Slateford Creek watershed showing the distribution of unconsolidated deposits (Tan area). Dashed lines show sediment isochores. Contour interval is 20 feet.





**Figure 13** – Borehole log for Portland Borough Authority well #3