## 6: NRCS SSURGO SOILS

Soil materials consist of a variable and complex mixture of organic matter, sand, silt, and clay particles. Strata of similar physical and chemical composition form soil horizons. Soil formation occurs under the influence of climate, parent materials including bedrock, flora and fauna, topography and time. Collectively, these are known as the soil forming factors.

Soil units are the base classification code of soil nomenclature. The characterization process is directed by nationwide uniform procedures that account for particulate composition and size, stratification, and topography. These soil units are also extensively characterized by a number of performance characteristics reflective of the structure of that soil. These soil properties would include capability grouping for crop suitability, compaction, strength, shrink-swell potential, available water capacity, and permeability.

Soil plays a vital role in both ecosystem function and cultural development. Soil serves as the structural interface for vegetation and the source of vital nutrient generation; it filters and purifies stormwater, preventing groundwater contamination; it serves as the matrix for groundwater storage; and it stores large amounts of organic carbon. Cultural interaction with soils includes agricultural tillage, development, and engineering projects. Knowledge of soil properties is applied to farm and woodland management; in the selection of sites for roads, buildings, and other structures; and in determinations of suitability for agriculture, industry, recreation, and preservation.

The corresponding soils figure depicts the SSURGO soil units data for the Township of Franklin (Figure 6). SSURGO is the Soil Survey Geographic Database maintained by the Natural Resources Conservation Service (NRCS), which is a detailed geographical characterization of soils at a unit level. The associated soil types are generally described as dominantly deep, loamy; well-drained; generally stony, rocky, and gravelly soils; mainly on the Highlands and the adjacent Piedmont Plateau. The following soils types account for the majority of area in Franklin Township: Washington series (4,084.97 acres), Annandale series (2,342.26 acres) and Bartley series (1,580.68 acres).

