

SOILS IN BRIELLE

PART 1:

Definition of Terms

- A. **DRAINAGE** refers to the ability of the soil to absorb and/or carry away surface water. Drainage can be typically subdivided into three major categories, as follows:
1. **EXCESSIVE:** Surface water absorbed too rapidly, subjecting regions where septic systems are used to ground water pollution.
 2. **MODERATE:** Soils typically retain sufficient water to permit good growing conditions for grass, crops, etc. between rainfalls.
 3. **POOR:** Water held at, or near, the surface causing retention of septic effluent which would normally be leached.
- B. **SOIL TYPE** refers to the particle composition of the soil itself, and has a pronounced impact upon drainage characteristics. Prevalent soil types can be generally divided into the following three categories:
1. **SANDY:** Characterized by loose particles, poor fertility, and results in **EXCESSIVE** drainage. (see A-1)
 2. **LOAM:** This type is particularly well-suited for growing plant life, has good fertility, and results in **MODERATE** drainage. (see A-2)
 3. **CLAYEY:** Characterized by poor permeability, clayey soil is thick and results in **POOR** drainage. (see A-3)
- C. **DEPTH TO SEASONAL HIGH WATER** is a function of drainage characteristics. (Water-table)
- D. **NATURAL FERTILITY AND AVAILABLE WATER CAPACITY** will generally depend upon soil type. Sandy soils are low, loams are medium.

PART 2: Soil Series of Brielle

The descriptions herein contained include those applicable to Brielle.

TYPE A. JOHNSON (floodplain) (see fig. A)

COMPOSITION: sand, silt, and clay, usually black at the surface.

DRAINAGE: very poor

DEPTH TO SEASONAL HIGH WATER: the water is at surface most of the year.

COMMENTS: Lands containing this soil should either be left alone or developed with extreme caution. The soil is subject to flooding and can result in severe downstream flooding. Shrinkage occurs when soil is finally drained, which may result in the cracking of structures present. Filling does not noticeably improve the soil's characteristics, with the net result remaining poor drainage, water at or near the surface for days after a heavy rain, and the possibility of downstream flooding.

TYPE B. ALLOWAY (see figure B)

COMPOSITION: silt, loam, sandy loam (very dark) fine gray subsoil

DRAINAGE: poor with slow permeability

NATURAL FERTILITY: medium

DEPTH TO SEASONAL HIGH WATER: very high water table, resulting in difficult drainage.

COMMENTS: development should be severely restricted, for reasons similar to those of type A.

TYPE C KLEJ (see figure C)

COMPOSITION: sandy and sandy loam, with a clayey substratum.

DRAINAGE: moderate except in the substratum, which is somewhat poorly drained.

NATURAL FERTILITY: low

DEPTH TO SEASONAL HIGH WATER: generally varies between 1.5 and 4.0 feet.

TYPE D. SASSAFRAS (see figure D)

COMPOSITION: loam, sandy loam

DRAINAGE: good (with some danger of ground water pollution) moderate permeability

NATURAL FERTILITY: moderate

DEPTH TO SEASONAL HIGH WATER:
Generally varies from 3 to 5 feet

TYPE E. EVESBORO (see figure E)

COMPOSITION: deep, sandy soil, with a clayey substratum in some areas at depths of 40 inches or more

DRAINAGE: excessive (with danger of ground water pollution) permeability is rapid, except where there is clayey substrata

NATURAL FERTILITY: low

DEPTH TO SEASONAL HIGH WATER:
five feet or more

COMMENTS: can be an erosion hazard on moderate slopes

TYPE F. LAKEWOOD (see figure F.)

COMPOSITION: deep and sandy, with characteristics similar to that of Evesboro

COMMENTS: only found in a few acres of the northwest corner of the Borough

TIDAL MARSH (see figure G.) is not a soil series, but a land condition

COMMENTS: found in coastal wetlands, it is similar to the Johnson or Alloway soil series (usually) and therefore should not be developed



SOILS MAP KEY

NOTE: Lines drawn close together indicate wet, poorly drained soils, conversely, lines farther apart indicate dry, well drained soils.

FIGURE A: JOHNSON

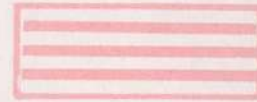


FIGURE E: EVESBORO

FIGURE B: ALLOWAY

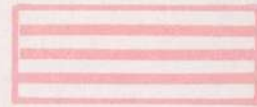


FIGURE F: LAKEWOOD
(same as figure E, see comments)

FIGURE C: KLEJ



FIGURE G: TIDAL MARSH

FIGURE D: SASSAFRAS



