APPENDIX K

USDA Custom Soil Resource Report
Custom Soil Resource Report for
Mercer County, New Jersey

March 25, 2017
Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil
scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and
identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.
The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Mercer County, New Jersey
Survey Area Data: Version 12, Sep 28, 2016

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 26, 2011—Jul 5, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.
<table>
<thead>
<tr>
<th>Map Unit Symbol</th>
<th>Map Unit Name</th>
<th>Acres in AOI</th>
<th>Percent of AOI</th>
</tr>
</thead>
<tbody>
<tr>
<td>BhmC2</td>
<td>Birdsboro loam, 6 to 12 percent slopes, eroded</td>
<td>3.6</td>
<td>0.2%</td>
</tr>
<tr>
<td>BHRSB</td>
<td>Birdsboro sandy subsoil variant soils, 2 to 6 percent slopes</td>
<td>24.2</td>
<td>1.2%</td>
</tr>
<tr>
<td>BHRSC</td>
<td>Birdsboro sandy subsoil variant soils, 6 to 12 percent slopes</td>
<td>8.5</td>
<td>0.4%</td>
</tr>
<tr>
<td>BoyAt</td>
<td>Bowmansville silt loam, 0 to 2 percent slopes, frequently flooded</td>
<td>46.3</td>
<td>2.2%</td>
</tr>
<tr>
<td>BucB</td>
<td>Bucks silt loam, 2 to 6 percent slopes</td>
<td>184.2</td>
<td>8.8%</td>
</tr>
<tr>
<td>BucB2</td>
<td>Bucks silt loam, 2 to 6 percent slopes, eroded</td>
<td>108.4</td>
<td>5.2%</td>
</tr>
<tr>
<td>BucC</td>
<td>Bucks silt loam, 6 to 12 percent slopes</td>
<td>7.6</td>
<td>0.4%</td>
</tr>
<tr>
<td>BucC2</td>
<td>Bucks silt loam, 6 to 12 percent slopes, eroded</td>
<td>38.8</td>
<td>1.9%</td>
</tr>
<tr>
<td>ChcA</td>
<td>Chalfont silt loam, 0 to 2 percent slopes</td>
<td>5.8</td>
<td>0.3%</td>
</tr>
<tr>
<td>ChcB</td>
<td>Chalfont silt loam, 2 to 6 percent slopes</td>
<td>54.8</td>
<td>2.6%</td>
</tr>
<tr>
<td>DOZa</td>
<td>Doylestown and Reaville variant silt loams, 0 to 2 percent slopes</td>
<td>64.4</td>
<td>3.1%</td>
</tr>
<tr>
<td>EkbA</td>
<td>Elkton silt loam, 0 to 2 percent slopes</td>
<td>0.6</td>
<td>0.0%</td>
</tr>
<tr>
<td>KkoE</td>
<td>Klinesville channery loam, 18 to 35 percent slopes</td>
<td>1.8</td>
<td>0.1%</td>
</tr>
<tr>
<td>MbpB</td>
<td>Matapeake loam, 2 to 5 percent slopes</td>
<td>45.2</td>
<td>2.2%</td>
</tr>
<tr>
<td>MBYB</td>
<td>Mattapex and Bertie loams, 0 to 5 percent slopes</td>
<td>0.3</td>
<td>0.0%</td>
</tr>
<tr>
<td>PeoB</td>
<td>Penn channery silt loam, 2 to 6 percent slopes</td>
<td>8.2</td>
<td>0.4%</td>
</tr>
<tr>
<td>PeoC</td>
<td>Penn channery silt loam, 6 to 12 percent slopes</td>
<td>19.0</td>
<td>0.9%</td>
</tr>
<tr>
<td>PeoD</td>
<td>Penn channery silt loam, 12 to 18 percent slopes</td>
<td>0.3</td>
<td>0.0%</td>
</tr>
<tr>
<td>QukB</td>
<td>Quakertown silt loam, 2 to 6 percent slopes</td>
<td>421.6</td>
<td>20.2%</td>
</tr>
<tr>
<td>QukB2</td>
<td>Quakertown silt loam, 2 to 6 percent slopes, eroded</td>
<td>124.3</td>
<td>6.0%</td>
</tr>
<tr>
<td>QukC</td>
<td>Quakertown silt loam, 6 to 12 percent slopes</td>
<td>69.6</td>
<td>3.3%</td>
</tr>
</tbody>
</table>
### Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class.
Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a soil series. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into soil phases. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A complex consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An association is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The
pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An undifferentiated group is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include miscellaneous areas. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.
Mercer County, New Jersey

BhmC2—Birdsboro loam, 6 to 12 percent slopes, eroded

Map Unit Setting
National map unit symbol: 1lrcc
Elevation: 200 to 1,200 feet
Mean annual precipitation: 28 to 59 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 161 to 231 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Birdsboro, eroded, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Birdsboro, Eroded

Setting
Landform: Stream terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Old alluvium derived from sandstone and siltstone and/or shale

Typical profile
Ap - 0 to 8 inches: loam
E - 8 to 15 inches: silt loam
Bt - 15 to 22 inches: silt loam
BC - 22 to 32 inches: silt loam
2C - 32 to 48 inches: sandy loam
2R - 48 to 80 inches: weathered bedrock

Properties and qualities
Slope: 6 to 12 percent
Depth to restrictive feature: 48 to 60 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 6.7 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No
Minor Components

Rowland, frequently flooded
Percent of map unit: 5 percent
Landform: Flood plains
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Bucks, eroded
Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Penn
Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

BHRSB—Birdsboro sandy subsoil variant soils, 2 to 6 percent slopes

Map Unit Setting
National map unit symbol: 4jlt
Elevation: 250 to 950 feet
Mean annual precipitation: 28 to 59 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 161 to 231 days
Farmland classification: All areas are prime farmland

Map Unit Composition
Birdsboro, sandy subsoil, and similar soils: 45 percent
Birdsboro, sandy subsoil, and similar soils: 40 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Birdsboro, Sandy Subsoil

Setting
Landform: Paleoterraces
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Old alluvium derived from sandstone and siltstone and/or shale
Typical profile
   Ap - 0 to 9 inches: loam
   Bt - 9 to 16 inches: fine sandy loam
   C - 16 to 34 inches: fine sandy loam
   2R - 34 to 80 inches: weathered bedrock

Properties and qualities
   Slope: 2 to 6 percent
   Depth to restrictive feature: 20 to 39 inches to lithic bedrock
   Natural drainage class: Well drained
   Runoff class: Medium
   Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
   Depth to water table: About 18 to 48 inches
   Frequency of flooding: None
   Frequency of ponding: None
   Available water storage in profile: Low (about 5.4 inches)

Interpretive groups
   Land capability classification (irrigated): None specified
   Land capability classification (nonirrigated): 2e
   Hydrologic Soil Group: B
   Hydric soil rating: No

Description of Birdsboro, Sandy Subsoil

Setting
   Landform: Paleoterraces
   Down-slope shape: Linear
   Across-slope shape: Linear
   Parent material: Old alluvium derived from sandstone and siltstone and/or shale

Typical profile
   Ap - 0 to 9 inches: sandy loam
   Bt - 9 to 16 inches: fine sandy loam
   C - 16 to 34 inches: fine sandy loam
   2R - 34 to 80 inches: weathered bedrock

Properties and qualities
   Slope: 2 to 6 percent
   Depth to restrictive feature: 20 to 39 inches to lithic bedrock
   Natural drainage class: Well drained
   Runoff class: Medium
   Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
   Depth to water table: About 18 to 48 inches
   Frequency of flooding: None
   Frequency of ponding: None
   Available water storage in profile: Low (about 4.8 inches)

Interpretive groups
   Land capability classification (irrigated): None specified
   Land capability classification (nonirrigated): 2e
   Hydrologic Soil Group: B
   Hydric soil rating: No
Minor Components

Rowland, frequently flooded
Percent of map unit: 5 percent
Landform: Flood plains
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Penn
Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslop
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Bucks
Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslop
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

BHRSC—Birdsboro sandy subsoil variant soils, 6 to 12 percent slopes

Map Unit Setting
National map unit symbol: 1kj0q
Elevation: 250 to 950 feet
Mean annual precipitation: 28 to 59 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 161 to 231 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Birdsboro, sandy subsoil, and similar soils: 45 percent
Birdsboro, sandy subsoil, and similar soils: 40 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Birdsboro, Sandy Subsoil
Setting
Landform: Paleoterraces
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Old alluvium derived from sandstone and siltstone and/or shale

Typical profile
- Ap - 0 to 6 inches: loam
- Bt - 6 to 16 inches: fine sandy loam
- C - 16 to 34 inches: fine sandy loam
- 2R - 34 to 80 inches: weathered bedrock

Properties and qualities
- Slope: 6 to 12 percent
- Depth to restrictive feature: 20 to 39 inches to lithic bedrock
- Natural drainage class: Well drained
- Runoff class: High
- Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
- Depth to water table: About 18 to 48 inches
- Frequency of flooding: None
- Frequency of ponding: None
- Available water storage in profile: Low (about 5.3 inches)

Interpretive groups
- Land capability classification (irrigated): None specified
- Land capability classification (nonirrigated): 3e
- Hydrologic Soil Group: B
- Hydric soil rating: No

Description of Birdsboro, Sandy Subsoil

Setting
- Landform: Paleoterraces
- Down-slope shape: Linear
- Across-slope shape: Linear
- Parent material: Old alluvium derived from sandstone and siltstone and/or shale

Typical profile
- Ap - 0 to 6 inches: sandy loam
- Bt - 6 to 16 inches: fine sandy loam
- C - 16 to 34 inches: fine sandy loam
- 2R - 34 to 80 inches: weathered bedrock

Properties and qualities
- Slope: 6 to 12 percent
- Depth to restrictive feature: 20 to 39 inches to lithic bedrock
- Natural drainage class: Well drained
- Runoff class: High
- Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
- Depth to water table: About 18 to 48 inches
- Frequency of flooding: None
- Frequency of ponding: None
- Available water storage in profile: Low (about 4.9 inches)

Interpretive groups
- Land capability classification (irrigated): None specified
- Land capability classification (nonirrigated): 3e
- Hydrologic Soil Group: B
- Hydric soil rating: No
Minor Components

Penn
- Percent of map unit: 5 percent
- Landform: Hills
- Landform position (two-dimensional): Backslope
- Landform position (three-dimensional): Side slope
- Down-slope shape: Linear
- Across-slope shape: Linear
- Hydric soil rating: No

Bucks
- Percent of map unit: 5 percent
- Landform: Hills
- Landform position (two-dimensional): Backslope
- Landform position (three-dimensional): Side slope
- Down-slope shape: Linear
- Across-slope shape: Convex
- Hydric soil rating: No

Rowland, frequently flooded
- Percent of map unit: 5 percent
- Landform: Flood plains
- Down-slope shape: Concave
- Across-slope shape: Linear
- Hydric soil rating: No

BoyAt—Bowmansville silt loam, 0 to 2 percent slopes, frequently flooded

Map Unit Setting
- National map unit symbol: 1hxs0
- Elevation: 200 to 1,000 feet
- Mean annual precipitation: 30 to 64 inches
- Mean annual air temperature: 46 to 79 degrees F
- Frost-free period: 131 to 178 days
- Farmland classification: Farmland of statewide importance, if drained

Map Unit Composition
- Bowmansville, frequently flooded, and similar soils: 85 percent
- Minor components: 15 percent
- Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bowmansville, Frequently Flooded

Setting
- Landform: Flood plains
- Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Recent deposits of loamy alluvium

Typical profile
Ap - 0 to 9 inches: silt loam
Ag - 9 to 17 inches: silt loam
Bg1 - 17 to 26 inches: clay loam
Bg2 - 26 to 38 inches: sandy clay loam
Cg - 38 to 47 inches: fine sandy loam
2C - 47 to 60 inches: stratified gravel to sand

Properties and qualities
Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: Frequent
Frequency of ponding: Frequent
Available water storage in profile: Moderate (about 8.9 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: B/D
Hydric soil rating: Yes

Minor Components
Fluvaquents, loamy, frequently flooded
Percent of map unit: 5 percent
Landform: Flood plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Rowland, frequently flooded
Percent of map unit: 5 percent
Landform: Flood plains
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Raritan, rarely flooded
Percent of map unit: 5 percent
Landform: Stream terraces
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No
BucB—Bucks silt loam, 2 to 6 percent slopes

Map Unit Setting
National map unit symbol: 1kj1
Elevation: 250 to 1,000 feet
Mean annual precipitation: 30 to 64 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 131 to 178 days
Farmland classification: All areas are prime farmland

Map Unit Composition
Bucks and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bucks

Setting
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Silty noncalcareous loess over residuum weathered from sandstone and shale

Typical profile
Ap - 0 to 8 inches: silt loam
E - 8 to 13 inches: silt loam
BE - 13 to 18 inches: silt loam
Bt - 18 to 27 inches: silt loam
2C - 27 to 48 inches: very channery silt loam
2R - 48 to 80 inches: weathered bedrock

Properties and qualities
Slope: 2 to 6 percent
Depth to restrictive feature: 39 to 59 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.3 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Readington
Percent of map unit: 5 percent
Landform: Hillsides
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Abbottstown
Percent of map unit: 5 percent
Landform: Drainageways
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

Penn
Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

BucB2—Bucks silt loam, 2 to 6 percent slopes, eroded

Map Unit Setting
National map unit symbol: 1lrjs
Elevation: 250 to 1,000 feet
Mean annual precipitation: 28 to 59 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 161 to 231 days
Farmland classification: All areas are prime farmland

Map Unit Composition
Bucks, eroded, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bucks, Eroded
Setting
Landform: Hills
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Silty noncalcareous loess over residuum weathered from sandstone and shale

Typical profile
Ap - 0 to 7 inches: silt loam
E - 7 to 13 inches: silt loam
BE - 13 to 18 inches: silt loam
Bt - 18 to 27 inches: silt loam
2C - 27 to 48 inches: very channery silt loam
2R - 48 to 80 inches: weathered bedrock

Properties and qualities
Slope: 2 to 6 percent
Depth to restrictive feature: 39 to 59 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.3 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydric Soil Group: B
Hydric soil rating: No

Minor Components
Reaville
Percent of map unit: 5 percent
Landform: Interfluves
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Readington
Percent of map unit: 5 percent
Landform: Hillsides
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Penn
Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

BucC—Bucks silt loam, 6 to 12 percent slopes

Map Unit Setting

National map unit symbol: 1lrjr
Elevation: 250 to 1,000 feet
Mean annual precipitation: 28 to 59 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 161 to 231 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Bucks and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bucks

Setting

Landform: Hills
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Silty noncalcareous loess over residuum weathered from sandstone and shale

Typical profile

Ap - 0 to 8 inches: silt loam
E - 8 to 11 inches: silt loam
BE - 11 to 18 inches: silt loam
Bt - 18 to 27 inches: silt loam
2C - 27 to 48 inches: very channery silt loam
2R - 48 to 80 inches: weathered bedrock

Properties and qualities

Slope: 6 to 12 percent
Depth to restrictive feature: 39 to 59 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B

Hydric soil rating: No

Minor Components

Reaville

Percent of map unit: 5 percent
Landform: Interfluves
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Readington

Percent of map unit: 5 percent
Landform: Hillsides
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Penn

Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

BucC2—Bucks silt loam, 6 to 12 percent slopes, eroded

Map Unit Setting

National map unit symbol: 1lrjt
Elevation: 250 to 1,300 feet
Mean annual precipitation: 30 to 64 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 131 to 178 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Bucks, eroded, and similar soils: 85 percent
Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the map unit.

Description of Bucks, Eroded

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Silty noncalcareous loess over residuum weathered from sandstone and shale

Typical profile
Ap - 0 to 8 inches: silt loam
BA - 8 to 12 inches: silt loam
Bw - 12 to 21 inches: silt loam
BC - 21 to 32 inches: silt loam
C - 32 to 44 inches: channery loam
R - 44 to 80 inches: weathered bedrock

Properties and qualities
Slope: 6 to 12 percent
Depth to restrictive feature: 39 to 59 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.0 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components
Readington
Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Penn
Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Klinesville
Percent of map unit: 5 percent
Landform: Hills
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

ChcA—Chalfont silt loam, 0 to 2 percent slopes

Map Unit Setting
- National map unit symbol: 1lrjv
- Elevation: 0 to 1,000 feet
- Mean annual precipitation: 30 to 64 inches
- Mean annual air temperature: 46 to 79 degrees F
- Frost-free period: 131 to 178 days
- Farmland classification: Farmland of statewide importance

Map Unit Composition
- Chalfont and similar soils: 85 percent
- Minor components: 15 percent
- Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Chalfont

Setting
- Landform: Flats
- Landform position (three-dimensional): Base slope
- Down-slope shape: Linear
- Across-slope shape: Linear
- Parent material: Silty noncalcareous loess over residuum weathered from sandstone and shale

Typical profile
- A - 0 to 4 inches: silt loam
- E - 4 to 9 inches: silt loam
- Bt - 9 to 26 inches: silty clay loam
- Bx - 26 to 42 inches: silty clay loam
- C - 42 to 50 inches: very channery silt loam
- R - 50 to 80 inches: weathered bedrock

Properties and qualities
- Slope: 0 to 2 percent
- Depth to restrictive feature: 15 to 30 inches to fragipan; 42 to 60 inches to lithic bedrock
- Natural drainage class: Somewhat poorly drained
- Runoff class: Very high
- Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
- Depth to water table: About 6 to 18 inches
- Frequency of flooding: None
- Frequency of ponding: None
- Available water storage in profile: Low (about 5.7 inches)

Interpretive groups
- Land capability classification (irrigated): None specified
- Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Reaville
Percent of map unit: 3 percent
Landform: Hills
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Quakertown
Percent of map unit: 3 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Croton
Percent of map unit: 3 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Humaquepts, frequently flooded
Percent of map unit: 2 percent
Landform: Flood plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Fallsington
Percent of map unit: 2 percent
Landform: Flats
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Reaville, poorly drained
Percent of map unit: 2 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes
ChcB—Chalfont silt loam, 2 to 6 percent slopes

Map Unit Setting
National map unit symbol: 1lrjw
Elevation: 250 to 950 feet
Mean annual precipitation: 30 to 64 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 131 to 178 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Chalfont and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Chalfont

Setting
Landform: Flats
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Silty noncalcareous loess over residuum weathered from sandstone and shale

Typical profile
A - 0 to 4 inches: silt loam
E - 4 to 9 inches: silt loam
Bt - 9 to 26 inches: silty clay loam
Bx - 26 to 42 inches: silty clay loam
C - 42 to 50 inches: very channery silt loam
R - 50 to 80 inches: weathered bedrock

Properties and qualities
Slope: 2 to 6 percent
Depth to restrictive feature: 15 to 30 inches to fragipan; 42 to 60 inches to lithic bedrock
Natural drainage class: Somewhat poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 5.7 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Penn
Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Croton
Percent of map unit: 5 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Quakertown
Percent of map unit: 5 percent
Landform: Hills
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

DOZA—Doylestown and Reaville variant silt loams, 0 to 2 percent slopes

Map Unit Setting
National map unit symbol: 1lrdr
Mean annual precipitation: 28 to 59 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 161 to 231 days
Farmland classification: Farmland of local importance

Map Unit Composition
Doylestown and similar soils: 80 percent
Reaville, very wet, and similar soils: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Doylestown
Setting
Landform: Depressions, flats
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Parent material: Silty eolian deposits over shale

Typical profile
A - 0 to 7 inches: silt loam
E - 7 to 11 inches: silt loam
Btg - 11 to 28 inches: silt loam
BCg - 28 to 39 inches: silt loam
C1 - 39 to 47 inches: silt loam
C2 - 47 to 60 inches: silt loam

Properties and qualities
Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.1 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: D
Hydric soil rating: Yes

Description of Reaville, Very Wet

Setting
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Interbedded fine-grained fine-loamy residuum weathered from sandstone and siltstone and/or shale

Typical profile
Ap - 0 to 7 inches: silt loam
BA - 7 to 12 inches: silt loam
Bt - 12 to 20 inches: silt loam
C - 20 to 28 inches: channery silt loam
R - 28 to 80 inches: weathered bedrock

Properties and qualities
Slope: 0 to 2 percent
Depth to restrictive feature: 20 to 39 inches to lithic bedrock
Natural drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 3.4 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: D
Hydric soil rating: Yes

EkbA—Elkton silt loam, 0 to 2 percent slopes

Map Unit Setting
National map unit symbol: 4jmh
Elevation: 0 to 200 feet
Mean annual precipitation: 30 to 64 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 131 to 178 days
Farmland classification: Farmland of statewide importance, if drained

Map Unit Composition
Elkton and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Elkton
Setting
Landform: Marine terraces
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Silty eolian deposits over loamy alluvium and/or loamy marine deposits

Typical profile
Ap - 0 to 6 inches: silt loam
BAg - 6 to 10 inches: silty clay
Btg - 10 to 25 inches: clay
Cg - 25 to 60 inches: silty clay

Properties and qualities
Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 9.9 inches)
Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydric Soil Group: C/D
Hydric soil rating: Yes

Minor Components

Keyport

Percent of map unit: 5 percent
Landform: Depressions, flats
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Hydric soil rating: No

Woodstown

Percent of map unit: 5 percent
Landform: Drainageways, flats
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave, linear
Hydric soil rating: No

Fallsington

Percent of map unit: 5 percent
Landform: Depressions, flats
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Hydric soil rating: Yes

KkoE—Klinesville channery loam, 18 to 35 percent slopes

Map Unit Setting

National map unit symbol: 1kj17
Elevation: 250 to 1,300 feet
Mean annual precipitation: 30 to 64 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 131 to 178 days
Farmland classification: Not prime farmland

Map Unit Composition

Klinesville and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the map unit.
Description of Klinesville

Setting
Landform: Hills
Landform position (two-dimensional): Shoulder
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Fine-loamy residuum weathered from shale

Typical profile
Ap - 0 to 3 inches: channery loam
B - 3 to 10 inches: channery loam
C - 10 to 14 inches: very channery loam
R - 14 to 80 inches: weathered bedrock

Properties and qualities
Slope: 18 to 35 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Natural drainage class: Somewhat excessively drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Very low (about 1.1 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydric Soil Group: D
Hydric soil rating: No

Minor Components
Abbottstown
Percent of map unit: 4 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Readington
Percent of map unit: 4 percent
Landform: Hillsides
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Nixon
Percent of map unit: 4 percent
Landform: Flats
Down-slope shape: Linear
**Across-slope shape:** Linear  
**Hydric soil rating:** No

**Penn**  
**Percent of map unit:** 3 percent  
**Landform:** Hills  
**Landform position (two-dimensional):** Summit  
**Landform position (three-dimensional):** Interfluve  
**Down-slope shape:** Linear  
**Across-slope shape:** Convex  
**Hydric soil rating:** No

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**MbB—Matapeake loam, 2 to 5 percent slopes**

**Map Unit Setting**  
*National map unit symbol:* 4jng  
*Elevation:* 10 to 120 feet  
*Mean annual precipitation:* 28 to 59 inches  
*Mean annual air temperature:* 46 to 79 degrees F  
*Frost-free period:* 161 to 231 days  
*Farmland classification:* All areas are prime farmland

**Map Unit Composition**  
**Matapeake and similar soils:** 90 percent  
**Minor components:** 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Matapeake**

**Setting**  
**Landform:** Interfluves  
**Down-slope shape:** Convex  
**Across-slope shape:** Linear  
**Parent material:** Silty eolian deposits over marine deposits and/or coarse fluvio marine deposits

**Typical profile**  
**Ap - 0 to 8 inches:** loam  
**AB - 8 to 15 inches:** loam  
**BA - 15 to 19 inches:** loam  
**Bt - 19 to 27 inches:** clay loam  
**BC - 27 to 41 inches:** loam  
**2C - 41 to 60 inches:** stratified sand to silty clay

**Properties and qualities**  
**Slope:** 2 to 5 percent  
**Depth to restrictive feature:** More than 80 inches  
**Natural drainage class:** Well drained  
**Runoff class:** Low  
**Capacity of the most limiting layer to transmit water (Ksat):** Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: About 48 to 122 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 10.9 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components
Woodstown
  Percent of map unit: 5 percent
  Landform: Low hills
  Down-slope shape: Linear
  Across-slope shape: Linear
  Hydric soil rating: No

Mattapex
  Percent of map unit: 5 percent
  Landform: Terraces, flats
  Down-slope shape: Linear
  Across-slope shape: Linear
  Hydric soil rating: No

MBYB—Mattapex and Bertie loams, 0 to 5 percent slopes

Map Unit Setting
  National map unit symbol: 1rq6
  Elevation: 0 to 120 feet
  Mean annual precipitation: 28 to 59 inches
  Mean annual air temperature: 46 to 79 degrees F
  Frost-free period: 161 to 231 days
  Farmland classification: Farmland of statewide importance

Map Unit Composition
  Mattapex and similar soils: 50 percent
  Bertie and similar soils: 40 percent
  Minor components: 10 percent
  Estimates are based on observations, descriptions, and transects of the map unit.

Description of Mattapex

Setting
  Landform: Marine terraces
  Down-slope shape: Linear
  Across-slope shape: Linear
  Parent material: Silty eolian deposits over marine deposits and/or coarse fluvio marine deposits
Typical profile

A - 0 to 10 inches: loam
AB - 10 to 13 inches: loam
BA - 13 to 19 inches: loam
Bt - 19 to 33 inches: silt loam
2C - 33 to 41 inches: sandy loam
2C - 41 to 60 inches: stratified sand to silty clay

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: About 18 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Bertie

Setting

Landform: Marine terraces
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy marine deposits

Typical profile

Ap - 0 to 12 inches: loam
BA - 12 to 16 inches: silt loam
Btg - 16 to 27 inches: silt loam
BCg - 27 to 32 inches: silt loam
Cg - 32 to 60 inches: stratified sand to fine sandy loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 6.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Keyport
Percent of map unit: 5 percent
Landform: Knolls
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Othello
Percent of map unit: 5 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

PeoB—Penn channery silt loam, 2 to 6 percent slopes

Map Unit Setting
National map unit symbol: 4jnw
Elevation: 250 to 1,300 feet
Mean annual precipitation: 30 to 64 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 131 to 178 days
Farmland classification: All areas are prime farmland

Map Unit Composition
Penn and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Penn

Setting
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Fine-loamy residuum weathered from acid reddish shale, siltstone, and fine-grain sandstone

Typical profile
Ap - 0 to 9 inches: channery silt loam
Bt - 9 to 22 inches: channery silt loam
Properties and qualities
Slope: 2 to 6 percent
Depth to restrictive feature: 20 to 39 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.2 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components
Klinesville
Percent of map unit: 5 percent
Landform: Hills
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Bucks
Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Reaville
Percent of map unit: 5 percent
Landform: Interfluves
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

PeoC—Penn channery silt loam, 6 to 12 percent slopes

Map Unit Setting
National map unit symbol: 4jnx
Elevation: 250 to 1,300 feet
Mean annual precipitation: 30 to 64 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 131 to 178 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Penn and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Penn

Setting
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Fine-loamy residuum weathered from acid reddish shale, siltstone, and fine-grain sandstone

Typical profile
Ap - 0 to 8 inches: channery silt loam
Bt - 8 to 20 inches: channery silt loam
C - 20 to 25 inches: very channery silt loam
R - 25 to 80 inches: weathered bedrock

Properties and qualities
Slope: 6 to 12 percent
Depth to restrictive feature: 20 to 39 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 3.5 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Klinesville
Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Shoulder
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Reaville
Percent of map unit: 5 percent
Landform: Interfluvess
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Readington
Percent of map unit: 5 percent
Landform: Hillsides
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

PeoD—Penn channery silt loam, 12 to 18 percent slopes

Map Unit Setting
National map unit symbol: 4jny
Elevation: 250 to 1,300 feet
Mean annual precipitation: 30 to 64 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 131 to 178 days
Farmland classification: Not prime farmland

Map Unit Composition
Penn and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Penn
Setting
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Fine-loamy residuum weathered from acid reddish shale, siltstone, and fine-grain sandstone

Typical profile
Ap - 0 to 9 inches: channery silt loam
Bt - 9 to 22 inches: channery silt loam
C - 22 to 30 inches: very channery loam
R - 30 to 80 inches: weathered bedrock

Properties and qualities
Slope: 12 to 18 percent
Depth to restrictive feature: 20 to 39 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.2 inches)

Interpretive groups
  Land capability classification (irrigated): None specified
  Land capability classification (nonirrigated): 4e
  Hydrologic Soil Group: C
  Hydric soil rating: No

Minor Components
  Klinesville
    Percent of map unit: 5 percent
    Landform: Hills
    Down-slope shape: Linear
    Across-slope shape: Convex
    Hydric soil rating: No

  Bucks
    Percent of map unit: 5 percent
    Landform: Hills
    Landform position (two-dimensional): Backslope
    Landform position (three-dimensional): Side slope
    Down-slope shape: Linear
    Across-slope shape: Convex
    Hydric soil rating: No

  Reaville
    Percent of map unit: 5 percent
    Landform: Interfluves
    Down-slope shape: Convex
    Across-slope shape: Linear
    Hydric soil rating: No

QukB—Quakertown silt loam, 2 to 6 percent slopes

Map Unit Setting
  National map unit symbol: 4jp3
  Elevation: 300 to 1,000 feet
  Mean annual precipitation: 30 to 64 inches
  Mean annual air temperature: 46 to 79 degrees F
  Frost-free period: 131 to 178 days
  Farmland classification: All areas are prime farmland

Map Unit Composition
  Quakertown and similar soils: 85 percent
  Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Quakertown

Setting
- Landform: Hills
- Landform position (two-dimensional): Summit
- Landform position (three-dimensional): Side slope
- Down-slope shape: Linear
- Across-slope shape: Convex
- Parent material: Fine-grained fine-loamy residuum weathered from sandstone and siltstone

Typical profile
- Ap - 0 to 8 inches: silt loam
- E - 8 to 12 inches: silt loam
- BE - 12 to 20 inches: silt loam
- Bt - 20 to 36 inches: silty clay loam
- C - 36 to 56 inches: channery clay loam
- R - 56 to 80 inches: unweathered bedrock

Properties and qualities
- Slope: 2 to 6 percent
- Depth to restrictive feature: 39 to 59 inches to lithic bedrock
- Natural drainage class: Well drained
- Runoff class: Low
- Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
- Depth to water table: More than 80 inches
- Frequency of flooding: None
- Frequency of ponding: None
- Available water storage in profile: High (about 9.7 inches)

Interpretive groups
- Land capability classification (irrigated): None specified
- Land capability classification (nonirrigated): 2e
- Hydrologic Soil Group: C
- Hydric soil rating: No

Minor Components

Lehigh
- Percent of map unit: 5 percent
- Landform: Hills
- Landform position (two-dimensional): Backslope
- Landform position (three-dimensional): Side slope
- Down-slope shape: Linear
- Across-slope shape: Concave
- Hydric soil rating: No

Chalfont
- Percent of map unit: 5 percent
- Landform: Flats
- Landform position (three-dimensional): Base slope
- Down-slope shape: Linear
- Across-slope shape: Linear
- Hydric soil rating: No
Bucks

Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

QukB2—Quakertown silt loam, 2 to 6 percent slopes, eroded

Map Unit Setting
National map unit symbol: 4jks
Mean annual precipitation: 28 to 59 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 161 to 231 days
Farmland classification: All areas are prime farmland

Map Unit Composition
Quakertown, eroded, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Quakertown, Eroded

Setting
Landform: Hills
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Fine-grained fine-loamy residuum weathered from sandstone and siltstone

Typical profile
Ap - 0 to 8 inches: silt loam
AB - 8 to 10 inches: silt loam
Bt - 10 to 29 inches: silt loam
C - 29 to 42 inches: silt loam
R - 42 to 80 inches: unweathered bedrock

Properties and qualities
Slope: 2 to 6 percent
Depth to restrictive feature: 39 to 59 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.8 inches)

Interpretive groups
- Land capability classification (irrigated): None specified
- Land capability classification (nonirrigated): 2e
- Hydrologic Soil Group: C
- Hydric soil rating: No

Minor Components

Chalfont
- Percent of map unit: 5 percent
- Landform: Flats
- Landform position (three-dimensional): Base slope
- Down-slope shape: Linear
- Across-slope shape: Linear
- Hydric soil rating: No

Bucks
- Percent of map unit: 5 percent
- Landform: Hills
- Landform position (two-dimensional): Backslope
- Landform position (three-dimensional): Side slope
- Down-slope shape: Linear
- Across-slope shape: Convex
- Hydric soil rating: No

QukC—Quakertown silt loam, 6 to 12 percent slopes

Map Unit Setting
- National map unit symbol: 4jp4
- Mean annual precipitation: 30 to 64 inches
- Mean annual air temperature: 46 to 79 degrees F
- Frost-free period: 131 to 178 days
- Farmland classification: Farmland of statewide importance

Map Unit Composition
- Quakertown and similar soils: 85 percent
- Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Quakertown

Setting
- Landform: Hills
- Landform position (two-dimensional): Shoulder
- Landform position (three-dimensional): Side slope
- Down-slope shape: Linear
- Across-slope shape: Convex
Parent material: Fine-grained fine-loamy residuum weathered from sandstone and siltstone

Typical profile
- **Ap - 0 to 8 inches:** silt loam
- **AB - 8 to 10 inches:** silt loam
- **Bt - 10 to 29 inches:** silt loam
- **C - 29 to 42 inches:** silt loam
- **R - 42 to 80 inches:** unweathered bedrock

Properties and qualities
- **Slope:** 6 to 12 percent
- **Depth to restrictive feature:** 39 to 59 inches to lithic bedrock
- **Natural drainage class:** Well drained
- **Runoff class:** Medium
- **Capacity of the most limiting layer to transmit water (Ksat):** Moderately high (0.20 to 0.60 in/hr)
- **Depth to water table:** More than 80 inches
- **Frequency of flooding:** None
- **Frequency of ponding:** None
- **Available water storage in profile:** Moderate (about 7.8 inches)

Interpretive groups
- **Land capability classification (irrigated):** None specified
- **Land capability classification (nonirrigated):** 3e
- **Hydrologic Soil Group:** C
- **Hydric soil rating:** No

Minor Components

**Chalfont, stony**
- **Percent of map unit:** 5 percent
- **Landform:** Flats
- **Landform position (three-dimensional):** Base slope
- **Down-slope shape:** Linear
- **Across-slope shape:** Linear
- **Hydric soil rating:** No

**Croton**
- **Percent of map unit:** 5 percent
- **Landform:** Depressions
- **Landform position (two-dimensional):** Toeslope
- **Landform position (three-dimensional):** Base slope
- **Down-slope shape:** Concave
- **Across-slope shape:** Concave
- **Hydric soil rating:** Yes

**Lawrenceville**
- **Percent of map unit:** 5 percent
- **Landform:** Flats
- **Down-slope shape:** Linear
- **Across-slope shape:** Linear
- **Hydric soil rating:** No
QukC2—Quakertown silt loam, 6 to 12 percent slopes, eroded

Map Unit Setting
National map unit symbol: 4jp5
Elevation: 250 to 950 feet
Mean annual precipitation: 30 to 64 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 131 to 178 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Quakertown, eroded, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Quakertown, Eroded

Setting
Landform: Hills
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Fine-grained fine-loamy residuum weathered from sandstone and siltstone

Typical profile
Ap - 0 to 8 inches: silt loam
E - 8 to 12 inches: silt loam
BE - 12 to 20 inches: silt loam
Bt - 20 to 36 inches: silty clay loam
C - 36 to 56 inches: channery clay loam
R - 56 to 80 inches: unweathered bedrock

Properties and qualities
Slope: 6 to 12 percent
Depth to restrictive feature: 39 to 59 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 9.7 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Chalfont
Percent of map unit: 5 percent
Landform: Flats
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Penn
Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Lansdale
Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

QumD2—Quakertown channery silt loam, 12 to 18 percent slopes, eroded

Map Unit Setting
National map unit symbol: 4jp9
Mean annual precipitation: 28 to 59 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 161 to 231 days
Farmland classification: Not prime farmland

Map Unit Composition
Quakertown, eroded, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Quakertown, Eroded

Setting
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Fine-grained fine-loamy residuum weathered from sandstone and siltstone

Typical profile
Ap - 0 to 8 inches: channery silt loam
Bt - 8 to 29 inches: silt loam
C - 29 to 42 inches: silt loam
R - 42 to 80 inches: unweathered bedrock

Properties and qualities
Slope: 12 to 18 percent
Depth to restrictive feature: 39 to 59 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.6 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components
Bucks, eroded
Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Chalfont
Percent of map unit: 5 percent
Landform: Flats
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No
REFA—Readington and Abbottstown silt loams, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 4jp
Elevation: 300 to 2,000 feet
Mean annual precipitation: 28 to 59 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 161 to 231 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Readington and similar soils: 45 percent
Abbottstown and similar soils: 35 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Readington

Setting

Landform: Hillsides
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fine-loamy residuum weathered from acid red shale, siltstone, and fine-grain sandstone

Typical profile

Ap - 0 to 7 inches: silt loam
BA - 7 to 15 inches: silt loam
Bt - 15 to 24 inches: silt loam
C - 24 to 28 inches: silt loam
2C - 28 to 40 inches: very channery silt loam
2R - 40 to 80 inches: weathered bedrock

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 39 to 60 inches to lithic bedrock
Natural drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Abbottstown

Setting

Landform: Depressions, flats
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Parent material: Fine-loamy residuum weathered from acid red shale, siltstone, and fine-grain sandstone

Typical profile

Ap - 0 to 7 inches: silt loam
Bt - 7 to 25 inches: silt loam
Cg - 25 to 33 inches: silt loam
2Cg - 33 to 40 inches: very channery silt loam
2R - 40 to 80 inches: weathered bedrock

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 39 to 60 inches to lithic bedrock
Natural drainage class: Somewhat poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 7 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 6.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Doylestown

Percent of map unit: 10 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Lawrenceville

Percent of map unit: 5 percent
Landform: Flats
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No
Watchung
Percent of map unit: 5 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

REFB—Readington and Abbottstown silt loams, 2 to 6 percent slopes

Map Unit Setting
National map unit symbol: 4jpc
Elevation: 300 to 2,000 feet
Mean annual precipitation: 28 to 59 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 161 to 231 days
Farmland classification: All areas are prime farmland

Map Unit Composition
Readington and similar soils: 45 percent
Abbottstown and similar soils: 35 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Readington

Setting
Landform: Hillsides
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fine-loamy residuum weathered from acid red shale, siltstone, and fine-grain sandstone

Typical profile
Ap - 0 to 7 inches: silt loam
BA - 7 to 15 inches: silt loam
Bt - 15 to 24 inches: silt loam
C - 24 to 28 inches: silt loam
2C - 28 to 40 inches: very channery silt loam
2R - 40 to 80 inches: weathered bedrock

Properties and qualities
Slope: 2 to 6 percent
Depth to restrictive feature: 39 to 60 inches to lithic bedrock
Natural drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.8 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Abbottstown
Setting
Landform: Drainageways
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Fine-loamy residuum weathered from acid red shale, siltstone, and fine-grain sandstone

Typical profile
Ap - 0 to 7 inches: silt loam
Bt - 7 to 25 inches: silt loam
Cg - 25 to 33 inches: silt loam
2Cg - 33 to 40 inches: very channery silt loam
R - 40 to 80 inches: weathered bedrock

Properties and qualities
Slope: 2 to 6 percent
Depth to restrictive feature: 39 to 60 inches to lithic bedrock
Natural drainage class: Somewhat poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 7 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 6.7 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components
Doylestown
Percent of map unit: 10 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Watchung
Percent of map unit: 5 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Lawrenceville
Percent of map unit: 5 percent
Landform: Flats
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

REFB2—Readington and Abbottstown silt loams, 2 to 6 percent slopes, eroded

Map Unit Setting
National map unit symbol: 4jpd
Elevation: 300 to 2,000 feet
Mean annual precipitation: 28 to 59 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 161 to 231 days
Farmland classification: All areas are prime farmland

Map Unit Composition
Readington, eroded, and similar soils: 45 percent
Abbottstown, eroded, and similar soils: 35 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Readington, Eroded
Setting
Landform: Hillside
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fine-loamy residuum weathered from acid red shale, siltstone, and fine-grain sandstone

Typical profile
A - 0 to 6 inches: silt loam
BA - 6 to 15 inches: silt loam
B - 15 to 24 inches: silt loam
C - 24 to 28 inches: silt loam
2C - 28 to 40 inches: very channery silt loam
2R - 40 to 80 inches: weathered bedrock

Properties and qualities
Slope: 2 to 6 percent
Depth to restrictive feature: 39 to 60 inches to lithic bedrock
Natural drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.6 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Abbottstown, Eroded
Setting
Landform: Drainageways
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Fine-loamy residuum weathered from acid red shale, siltstone, and fine-grain sandstone

Typical profile
Ap - 0 to 6 inches: silt loam
Bt - 6 to 25 inches: silt loam
Cg - 25 to 33 inches: silt loam
2Cg - 33 to 40 inches: very channery silt loam
R - 40 to 80 inches: weathered bedrock

Properties and qualities
Slope: 2 to 6 percent
Depth to restrictive feature: 39 to 60 inches to lithic bedrock
Natural drainage class: Somewhat poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 7 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 6.6 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Doylestown
Percent of map unit: 10 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Watchung
Percent of map unit: 5 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Lawrenceville, eroded
Percent of map unit: 5 percent
Landform: Flats
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

REFC2—Readington and Abbottstown silt loams, 6 to 12 percent slopes, eroded

Map Unit Setting
National map unit symbol: 4jpf
Elevation: 300 to 1,000 feet
Mean annual precipitation: 28 to 59 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 161 to 231 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Readington, eroded, and similar soils: 60 percent
Abbottstown, eroded, and similar soils: 40 percent
Estimates are based on observations, descriptions, and transects of the mapunit.
Description of Readington, Eroded

Setting
Landform: Hillsides
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fine-loamy residuum weathered from acid red shale, siltstone, and fine-grain sandstone

Typical profile
Ap - 0 to 5 inches: silt loam
BA - 5 to 15 inches: silt loam
Bt - 15 to 24 inches: silt loam
C - 24 to 28 inches: silt loam
2C - 28 to 40 inches: channery silt loam
2R - 40 to 80 inches: weathered bedrock

Properties and qualities
Slope: 6 to 12 percent
Depth to restrictive feature: 39 to 60 inches to lithic bedrock
Natural drainage class: Moderately well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.6 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Abbottstown, Eroded

Setting
Landform: Drainageways
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Fine-loamy residuum weathered from acid red shale, siltstone, and fine-grain sandstone

Typical profile
Ap - 0 to 5 inches: silt loam
Bt - 5 to 25 inches: silt loam
Cg - 25 to 33 inches: silt loam
2Cg - 33 to 40 inches: very channery silt loam
R - 40 to 80 inches: weathered bedrock

Properties and qualities
Slope: 6 to 12 percent
Depth to restrictive feature: 39 to 60 inches to lithic bedrock
Natural drainage class: Somewhat poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 7 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 6.6 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Hydric soil rating: No

RehA—Reaville silt loam, 0 to 2 percent slopes

Map Unit Setting
National map unit symbol: 4jpg
Elevation: 300 to 1,000 feet
Mean annual precipitation: 30 to 64 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 131 to 178 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Reaville and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Reaville
Setting
Landform: Interfluvues
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Interbedded fine-grained fine-loamy residuum weathered from sandstone and siltstone and/or shale

Typical profile
A - 0 to 10 inches: silt loam
BA - 10 to 15 inches: channery silt loam
Bt - 15 to 22 inches: channery silt loam
C - 22 to 28 inches: very channery silt loam
R - 28 to 80 inches: weathered bedrock

Properties and qualities
Slope: 0 to 2 percent
Depth to restrictive feature: 20 to 39 inches to lithic bedrock
Natural drainage class: Somewhat poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 3.6 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components
Readington
Percent of map unit: 4 percent
Landform: Hillsides
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Reaville, poorly drained
Percent of map unit: 4 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Bucks
Percent of map unit: 4 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Croton
Percent of map unit: 3 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes
RehB—Reaville silt loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 4jph
Elevation: 300 to 1,300 feet
Mean annual precipitation: 30 to 64 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 131 to 178 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Reaville and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Reaville

Setting

Landform: Interfluves
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Interbedded fine-grained fine-loamy residuum weathered from sandstone and siltstone and/or shale

Typical profile

Ap - 0 to 8 inches: silt loam
BA - 8 to 13 inches: silt loam
Bt - 13 to 19 inches: silt loam
C - 19 to 23 inches: channery silt loam
R - 23 to 80 inches: weathered bedrock

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: 20 to 39 inches to lithic bedrock
Natural drainage class: Somewhat poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 2.00 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C
Hydric soil rating: No
Minor Components

Readington
Percent of map unit: 4 percent
Landform: Hillsides
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Bucks
Percent of map unit: 4 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Klinesville
Percent of map unit: 4 percent
Landform: Hills
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Croton
Percent of map unit: 3 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

RorAt—Rowland silt loam, 0 to 2 percent slopes, frequently flooded

Map Unit Setting
National map unit symbol: 4jpl
Elevation: 200 to 1,000 feet
Mean annual precipitation: 30 to 64 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 131 to 178 days
Farmland classification: Not prime farmland

Map Unit Composition
Rowland, frequently flooded, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the map unit.
Description of Rowland, Frequently Flooded

Setting
Landform: Flood plains
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Red and brown fine-loamy alluvium derived from sandstone and shale and/or conglomerate

Typical profile
A1 - 0 to 3 inches: silt loam
A2 - 3 to 10 inches: silt loam
B - 10 to 40 inches: silt loam
2C - 40 to 65 inches: Error

Properties and qualities
Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: About 12 to 36 inches
Frequency of flooding: Frequent
Frequency of ponding: Frequent
Available water storage in profile: Moderate (about 7.6 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components
Bowmansville, frequently flooded
Percent of map unit: 5 percent
Landform: Flood plains
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: Yes

Birdsboro
Percent of map unit: 5 percent
Landform: Stream terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Raritan, rarely flooded
Percent of map unit: 5 percent
Landform: Stream terraces
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No
SacB—Sassafras sandy loam, 2 to 5 percent slopes, Northern Coastal Plain

Map Unit Setting

- National map unit symbol: 2thxd
- Elevation: 0 to 470 feet
- Mean annual precipitation: 41 to 49 inches
- Mean annual air temperature: 53 to 58 degrees F
- Frost-free period: 190 to 250 days
- Farmland classification: All areas are prime farmland

Map Unit Composition

- Sassafras and similar soils: 80 percent
- Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sassafras

Setting

- Landform: Flats, fluviomarine terraces
- Landform position (three-dimensional): Riser, rise
- Down-slope shape: Linear
- Across-slope shape: Linear
- Parent material: Loamy fluviomarine deposits

Typical profile

- Ap - 0 to 12 inches: sandy loam
- Bt1 - 12 to 18 inches: sandy loam
- Bt2 - 18 to 28 inches: sandy clay loam
- BC - 28 to 40 inches: loamy sand
- C1 - 40 to 58 inches: sand
- C2 - 58 to 80 inches: sand

Properties and qualities

- Slope: 2 to 5 percent
- Depth to restrictive feature: More than 80 inches
- Natural drainage class: Well drained
- Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
- Depth to water table: More than 80 inches
- Frequency of flooding: None
- Frequency of ponding: None
- Available water storage in profile: Moderate (about 7.1 inches)

Interpretive groups

- Land capability classification (irrigated): 2e
- Land capability classification (nonirrigated): 2e
- Hydrologic Soil Group: B
- Hydric soil rating: No
Minor Components

Aura
Percent of map unit: 4 percent
Landform: Low hills, fluviomarine terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope, nose slope, riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Downer
Percent of map unit: 4 percent
Landform: Knolls, flats, fluviomarine terraces
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve, riser, rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Hydric soil rating: No

Woodstown
Percent of map unit: 4 percent
Landform: Depressions, flats, broad interstream divides, fluviomarine terraces
Landform position (two-dimensional): Footslope, summit
Landform position (three-dimensional): Tread, dip, talf
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Hydric soil rating: No

Ingleside
Percent of map unit: 4 percent
Landform: Flats
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Fallsington, drained
Percent of map unit: 4 percent
Landform: Depressions, swales, flats
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Dip, talf
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Hydric soil rating: Yes
UdbB—Udorthents, bedrock substratum, 0 to 8 percent slopes

Map Unit Setting
- National map unit symbol: 1hxvr
- Elevation: 300 to 1,300 feet
- Mean annual precipitation: 28 to 59 inches
- Mean annual air temperature: 46 to 79 degrees F
- Frost-free period: 161 to 231 days
- Farmland classification: Not prime farmland

Map Unit Composition
- Udorthents, bedrock substratum, and similar soils: 85 percent
- Minor components: 15 percent
- Estimates are based on observations, descriptions, and transects of the map unit.

Description of Udorthents, Bedrock Substratum

Setting
- Landform: Low hills
- Down-slope shape: Linear
- Across-slope shape: Linear
- Parent material: Loamy lateral spread deposits

Typical profile
- C - 0 to 30 inches: loam
- R - 30 to 80 inches: unweathered bedrock

Properties and qualities
- Slope: 0 to 8 percent
- Depth to restrictive feature: 20 to 39 inches to lithic bedrock
- Natural drainage class: Moderately well drained
- Runoff class: Medium
- Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
- Depth to water table: About 18 to 42 inches
- Frequency of flooding: None
- Frequency of ponding: None
- Available water storage in profile: Low (about 4.2 inches)

Interpretive groups
- Land capability classification (irrigated): None specified
- Land capability classification (nonirrigated): 3w
- Hydrologic Soil Group: D
- Hydric soil rating: No

Minor Components
- Klinesville
  - Percent of map unit: 4 percent
  - Landform: Hills
**UdstB—Udorthents, stratified substratum, 0 to 8 percent slopes**

**Map Unit Setting**
- National map unit symbol: 4jq2
- Elevation: 400 to 1,500 feet
- Mean annual precipitation: 28 to 59 inches
- Mean annual air temperature: 46 to 79 degrees F
- Frost-free period: 161 to 231 days
- Farmland classification: Not prime farmland

**Map Unit Composition**
- Udorthents, stratified substratum, and similar soils: 95 percent
- Minor components: 5 percent

*Estimates are based on observations, descriptions, and transects of the map unit.*

**Description of Udorthents, Stratified Substratum**

**Setting**
- Landform: Low hills
- Down-slope shape: Linear
- Across-slope shape: Linear
- Parent material: Loamy lateral spread deposits over gravelly lateral spread deposits
Typical profile

A - 0 to 10 inches: sand
C - 10 to 72 inches: gravelly coarse sand

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Very low (about 2.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Urban land

Percent of map unit: 5 percent
Landform: Low hills
Landform position (three-dimensional): Lower third of mountainflank
Down-slope shape: Linear, convex
Across-slope shape: Linear
Hydric soil rating: Unranked

WATER—Water

Map Unit Setting

National map unit symbol: 4jq7
Mean annual precipitation: 30 to 64 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 131 to 178 days
Farmland classification: Not prime farmland

Map Unit Composition

Water: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.
References


