

APPENDIX H

SOILS REPORT



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Alexandria City, Virginia, and Fairfax County, Virginia**

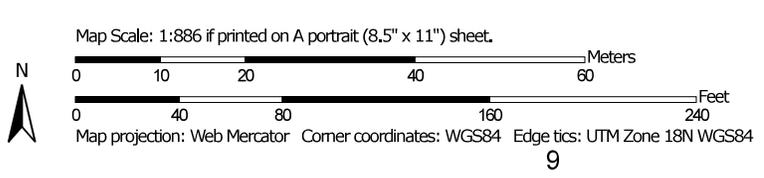
000109 Holmes Run



Custom Soil Resource Report Soil Map



Soil Map may not be valid at this scale.



Alexandria City, Virginia

30A—Codorus and Hatboro soils, 0 to 2 percent slopes, occasionally flooded

Map Unit Setting

National map unit symbol: 226ln
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Codorus and similar soils: 55 percent
Hatboro and similar soils: 35 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Codorus

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous, metamorphic and sedimentary rock

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 50 inches: loam
H3 - 50 to 62 inches: stratified very gravelly sand to loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 10 to 24 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.7 inches)

Interpretive groups

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

Description of Hatboro

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous and metamorphic rock

Typical profile

H1 - 0 to 6 inches: silt loam
H2 - 6 to 23 inches: loam
H3 - 23 to 60 inches: clay loam

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 to high (0.57 to 1.98 in/hr)
Depth to water table: About 0 to 18 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.6 inches)

Interpretive groups

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

104B—Wheaton-Fairfax complex, 2 to 7 percent slopes

Map Unit Setting

National map unit symbol: 226md
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Wheaton and similar soils: 45 percent
Fairfax and similar soils: 40 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wheaton

Setting

Landform: Interfluves
Landform position (two-dimensional): Shoulder, summit, backslope
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Mine spoil or earthy fill derived from phyllite

Typical profile

H1 - 0 to 9 inches: loam
H2 - 9 to 60 inches: loam

Custom Soil Resource Report

Properties and qualities

Slope: 2 to 15 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 10.5 inches)

Interpretive groups

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

Description of Fairfax

Setting

Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluvio-marine deposits over residuum

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 22 inches: clay loam
H3 - 22 to 60 inches: clay
H4 - 60 to 75 inches: clay loam

Properties and qualities

Slope: 2 to 7 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 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 9.2 inches)

Interpretive groups

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

104C—Wheaton-Fairfax complex, 7 to 15 percent slopes

Map Unit Setting

National map unit symbol: 226mf
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Wheaton and similar soils: 45 percent
Fairfax and similar soils: 40 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wheaton

Setting

Landform: Interfluves
Landform position (two-dimensional): Shoulder, summit, backslope
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Mine spoil or earthy fill derived from phyllite

Typical profile

H1 - 0 to 9 inches: loam
H2 - 9 to 60 inches: loam

Properties and qualities

Slope: 2 to 25 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 10.5 inches)

Interpretive groups

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

Description of Fairfax

Setting

Landform: Hillslopes

Custom Soil Resource Report

Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits over residuum

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 22 inches: clay loam
H3 - 22 to 60 inches: clay
H4 - 60 to 75 inches: clay loam

Properties and qualities

Slope: 7 to 15 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 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 9.2 inches)

Interpretive groups

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

104E—Wheaton-Fairfax complex, 25 to 45 percent slopes

Map Unit Setting

National map unit symbol: 226mg
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Wheaton and similar soils: 45 percent
Fairfax and similar soils: 40 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wheaton

Setting

Landform: Interfluves
Landform position (two-dimensional): Shoulder, summit, backslope
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex

Custom Soil Resource Report

Across-slope shape: Convex

Parent material: Mine spoil or earthy fill derived from phyllite

Typical profile

H1 - 0 to 9 inches: loam

H2 - 9 to 60 inches: loam

Properties and qualities

Slope: 2 to 25 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well 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: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: High (about 10.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: C

Hydric soil rating: No

Description of Fairfax

Setting

Landform: Hillslopes

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Fluvio-marine deposits over residuum

Typical profile

H1 - 0 to 8 inches: loam

H2 - 8 to 22 inches: clay loam

H3 - 22 to 60 inches: clay

H4 - 60 to 75 inches: clay loam

Properties and qualities

Slope: 25 to 45 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 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 9.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: B

Hydric soil rating: No

Custom Soil Resource Report

Fairfax County, Virginia

30A—Codorus and Hatboro soils, 0 to 2 percent slopes, occasionally flooded

Map Unit Setting

National map unit symbol: 2fjmy
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Codorus and similar soils: 55 percent
Hatboro and similar soils: 35 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Codorus

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous, metamorphic and sedimentary rock

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 50 inches: loam
H3 - 50 to 62 inches: stratified very gravelly sand to loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 10 to 24 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.7 inches)

Interpretive groups

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

Description of Hatboro

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous and metamorphic rock

Typical profile

H1 - 0 to 6 inches: silt loam
H2 - 6 to 23 inches: loam
H3 - 23 to 60 inches: clay loam

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 to high (0.57 to 1.98 in/hr)
Depth to water table: About 0 to 18 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.6 inches)

Interpretive groups

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

38E—Fairfax loam, 25 to 45 percent slopes

Map Unit Setting

National map unit symbol: 2fjnt
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Fairfax and similar soils: 80 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Fairfax

Setting

Landform: Hillslopes
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits over residuum

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 22 inches: clay loam
H3 - 22 to 60 inches: clay

Custom Soil Resource Report

H4 - 60 to 75 inches: clay loam

Properties and qualities

Slope: 25 to 45 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 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 9.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: B

Hydric soil rating: No

71C—Kingstowne-Sassafras-Marumsco complex, 7 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2fjsp

Mean annual precipitation: 37 to 49 inches

Mean annual air temperature: 45 to 67 degrees F

Frost-free period: 185 to 212 days

Farmland classification: Not prime farmland

Map Unit Composition

Kingstowne and similar soils: 45 percent

Sassafras and similar soils: 23 percent

Marumsco and similar soils: 22 percent

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

Description of Kingstowne

Setting

Landform: Marine terraces

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Earthy fill of fluvio-marine deposits

Typical profile

H1 - 0 to 4 inches: sandy clay loam

H2 - 4 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 20 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Custom Soil Resource Report

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 24 to 79 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

Description of Sassafras

Setting

Landform: Terraces
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 9 inches: sandy loam
H2 - 9 to 40 inches: sandy clay loam
H3 - 40 to 70 inches: gravelly sandy loam

Properties and qualities

Slope: 7 to 15 percent
Depth to restrictive feature: More than 80 inches
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 1.98 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

Description of Marumsco

Setting

Landform: Terraces
Landform position (two-dimensional): Shoulder, backslope, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Custom Soil Resource Report

Typical profile

H1 - 0 to 7 inches: loam
H2 - 7 to 29 inches: clay
H3 - 29 to 47 inches: sandy clay loam
H4 - 47 to 75 inches: sandy clay loam

Properties and qualities

Slope: 7 to 15 percent
Depth to restrictive feature: More than 80 inches
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 12 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.7 inches)

Interpretive groups

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

104E—Wheaton-Fairfax complex, 25 to 45 percent slopes

Map Unit Setting

National map unit symbol: 2fjwk
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Wheaton and similar soils: 45 percent
Fairfax and similar soils: 40 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wheaton

Setting

Landform: Interfluves
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Mine spoil or earthy fill derived from phyllite

Custom Soil Resource Report

Typical profile

H1 - 0 to 9 inches: loam
H2 - 9 to 60 inches: loam

Properties and qualities

Slope: 2 to 25 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 10.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Fairfax

Setting

Landform: Hillslopes
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits over residuum

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 22 inches: clay loam
H3 - 22 to 60 inches: clay
H4 - 60 to 75 inches: clay loam

Properties and qualities

Slope: 25 to 45 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 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 9.2 inches)

Interpretive groups

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



United States
Department of
Agriculture

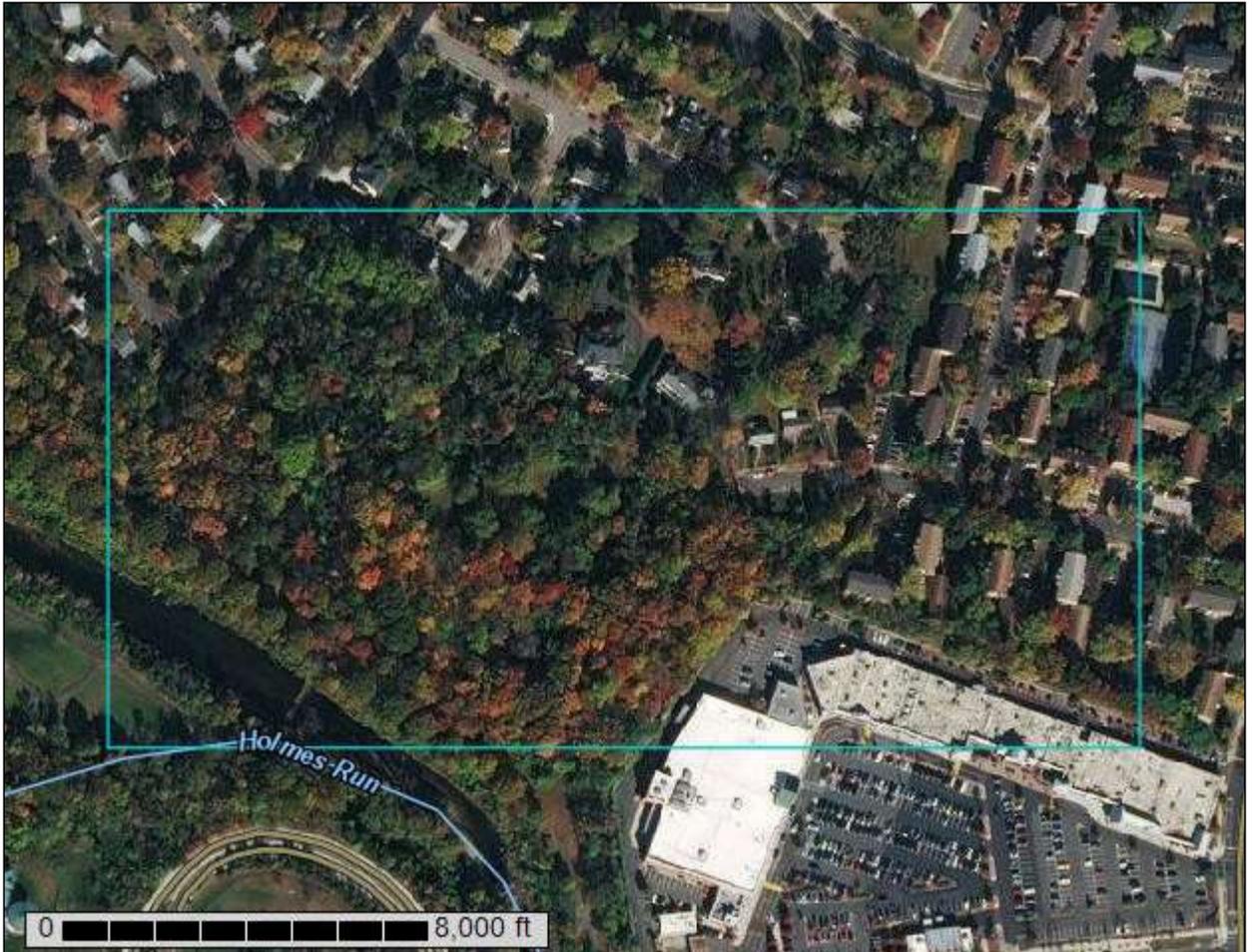
NRCS

Natural
Resources
Conservation
Service

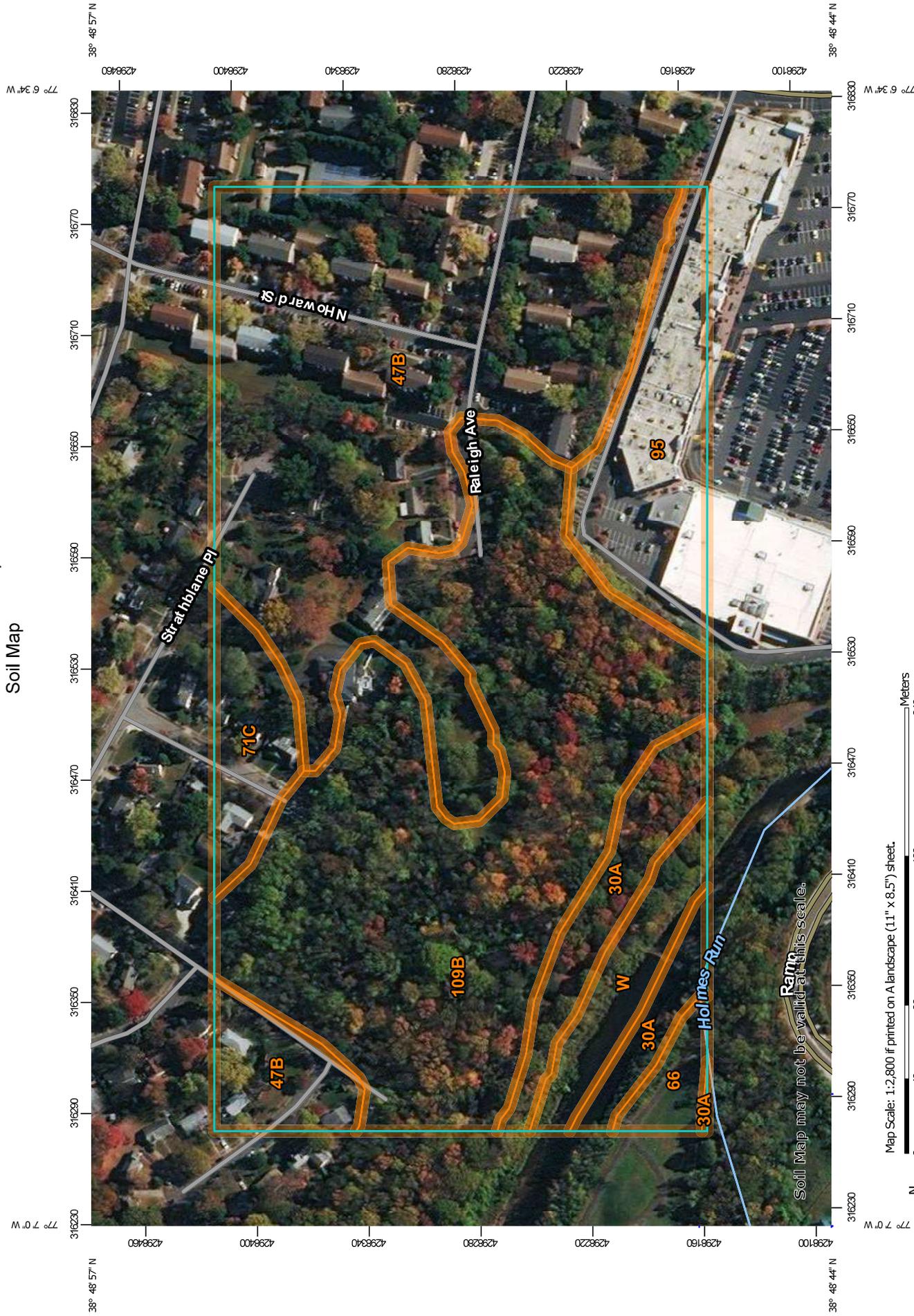
A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Alexandria City, Virginia**

000166 Holmes Run



Custom Soil Resource Report Soil Map



Alexandria City, Virginia

30A—Codorus and Hatboro soils, 0 to 2 percent slopes, occasionally flooded

Map Unit Setting

National map unit symbol: 226In
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Codorus and similar soils: 55 percent
Hatboro and similar soils: 35 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Codorus

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous, metamorphic and sedimentary rock

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 50 inches: loam
H3 - 50 to 62 inches: stratified very gravelly sand to loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 10 to 24 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.7 inches)

Interpretive groups

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

Description of Hatboro

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous and metamorphic rock

Custom Soil Resource Report

Typical profile

H1 - 0 to 6 inches: silt loam
H2 - 6 to 23 inches: loam
H3 - 23 to 60 inches: clay loam

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 to high (0.57 to 1.98 in/hr)
Depth to water table: About 0 to 18 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.6 inches)

Interpretive groups

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

47B—Grist Mill-Woodstown complex, 2 to 7 percent slopes

Map Unit Setting

National map unit symbol: 226ls
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Grist mill and similar soils: 45 percent
Woodstown and similar soils: 40 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Grist Mill

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluviomarine deposits

Typical profile

H1 - 0 to 6 inches: sandy loam
H2 - 6 to 60 inches: sandy clay loam

Custom Soil Resource Report

Properties and qualities

Slope: 0 to 20 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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 24 to 79 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

Description of Woodstown

Setting

Landform: Terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluvio-marine deposits

Typical profile

H1 - 0 to 11 inches: sandy loam
H2 - 11 to 29 inches: sandy clay loam
H3 - 29 to 70 inches: sandy loam

Properties and qualities

Slope: 2 to 7 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 (0.20 to 5.95 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 6.7 inches)

Interpretive groups

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

66—Kingstowne sandy clay loam, 0 to 45 percent slopes

Map Unit Setting

National map unit symbol: 226lt
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Kingstowne and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kingstowne

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluviomarine deposits

Typical profile

H1 - 0 to 4 inches: sandy clay loam
H2 - 4 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 45 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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 24 to 79 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

71C—Kingstowne-Sassafras-Marumsco complex, 7 to 15 percent slopes

Map Unit Setting

National map unit symbol: 226lx
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Kingstowne and similar soils: 45 percent
Sassafras and similar soils: 23 percent
Marumsco and similar soils: 22 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kingstowne

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluviomarine deposits

Typical profile

H1 - 0 to 4 inches: sandy clay loam
H2 - 4 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 20 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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 24 to 79 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

Description of Sassafras

Setting

Landform: Terraces
Landform position (two-dimensional): Summit, shoulder

Custom Soil Resource Report

Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 9 inches: sandy loam
H2 - 9 to 40 inches: sandy clay loam
H3 - 40 to 70 inches: gravelly sandy loam

Properties and qualities

Slope: 7 to 15 percent
Depth to restrictive feature: More than 80 inches
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 1.98 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

Description of Marumsco

Setting

Landform: Terraces
Landform position (two-dimensional): Summit, backslope, shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 7 inches: loam
H2 - 7 to 29 inches: clay
H3 - 29 to 47 inches: sandy clay loam
H4 - 47 to 75 inches: sandy clay loam

Properties and qualities

Slope: 7 to 15 percent
Depth to restrictive feature: More than 80 inches
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 12 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Custom Soil Resource Report

Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Hydric soil rating: No

95—Urban land

Map Unit Setting

National map unit symbol: 226m7
Mean annual precipitation: 28 to 58 inches
Mean annual air temperature: 87 to 89 degrees F
Frost-free period: 175 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 95 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s

109B—Woodstown sandy loam, 2 to 7 percent slopes

Map Unit Setting

National map unit symbol: 226mk
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Woodstown and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Woodstown

Setting

Landform: Terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluvio-marine deposits

Custom Soil Resource Report

Typical profile

H1 - 0 to 11 inches: sandy loam
H2 - 11 to 29 inches: sandy clay loam
H3 - 29 to 70 inches: sandy loam

Properties and qualities

Slope: 2 to 7 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 (0.20 to 5.95 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 6.7 inches)

Interpretive groups

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

W—Water

Map Unit Composition

Water: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.



United States
Department of
Agriculture

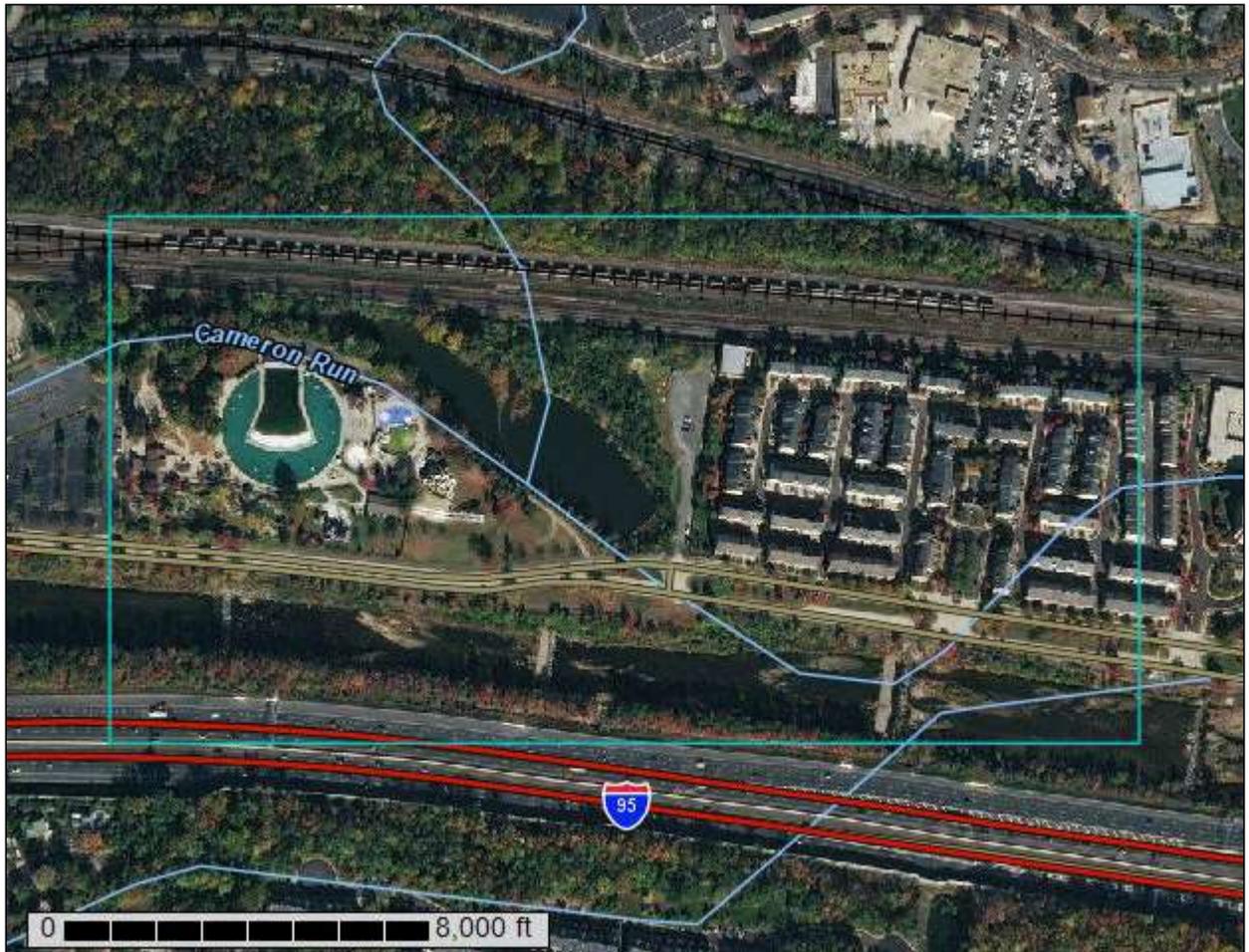
NRCS

Natural
Resources
Conservation
Service

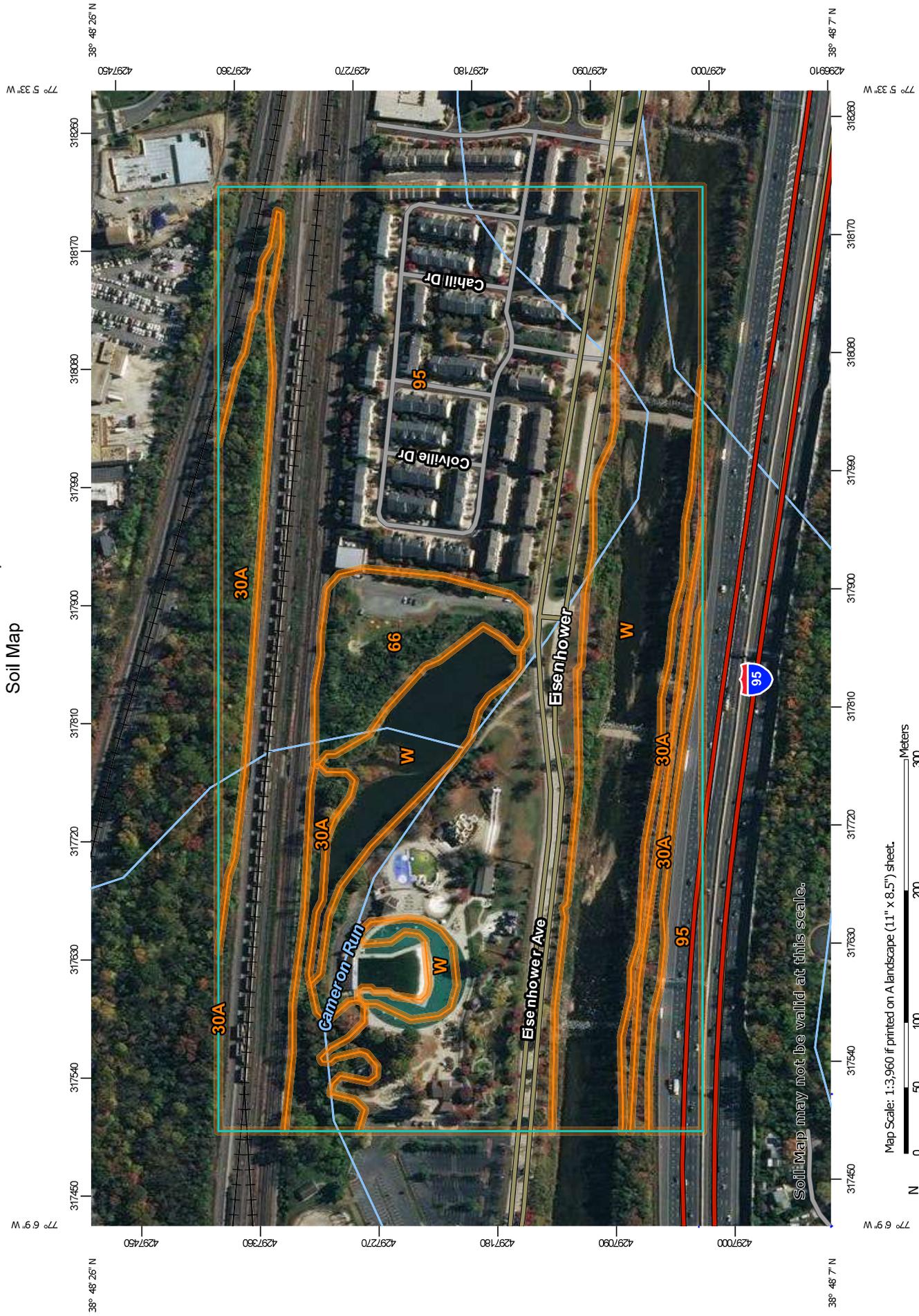
A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Alexandria City, Virginia, and Fairfax County, Virginia

Dual 90 in. Cameron Run



Custom Soil Resource Report Soil Map



Map Scale: 1:3,960 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

Alexandria City, Virginia

30A—Codorus and Hatboro soils, 0 to 2 percent slopes, occasionally flooded

Map Unit Setting

National map unit symbol: 226In
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Codorus and similar soils: 55 percent
Hatboro and similar soils: 35 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Codorus

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous, metamorphic and sedimentary rock

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 50 inches: loam
H3 - 50 to 62 inches: stratified very gravelly sand to loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 10 to 24 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.7 inches)

Interpretive groups

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

Description of Hatboro

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous and metamorphic rock

Typical profile

H1 - 0 to 6 inches: silt loam
H2 - 6 to 23 inches: loam
H3 - 23 to 60 inches: clay loam

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 to high (0.57 to 1.98 in/hr)
Depth to water table: About 0 to 18 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.6 inches)

Interpretive groups

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

66—Kingstowne sandy clay loam, 0 to 45 percent slopes

Map Unit Setting

National map unit symbol: 226lt
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Kingstowne and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kingstowne

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluviomarine deposits

Typical profile

H1 - 0 to 4 inches: sandy clay loam
H2 - 4 to 60 inches: clay loam

Custom Soil Resource Report

Properties and qualities

Slope: 0 to 45 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well 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 24 to 79 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

95—Urban land

Map Unit Setting

National map unit symbol: 226m7

Mean annual precipitation: 28 to 58 inches

Mean annual air temperature: 87 to 89 degrees F

Frost-free period: 175 to 200 days

Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 95 percent

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

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

W—Water

Map Unit Composition

Water: 100 percent

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

Fairfax County, Virginia

30A—Codorus and Hatboro soils, 0 to 2 percent slopes, occasionally flooded

Map Unit Setting

National map unit symbol: 2fjmy
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Codorus and similar soils: 55 percent
Hatboro and similar soils: 35 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Codorus

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous, metamorphic and sedimentary rock

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 50 inches: loam
H3 - 50 to 62 inches: stratified very gravelly sand to loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 10 to 24 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.7 inches)

Interpretive groups

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

Description of Hatboro

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous and metamorphic rock



United States
Department of
Agriculture

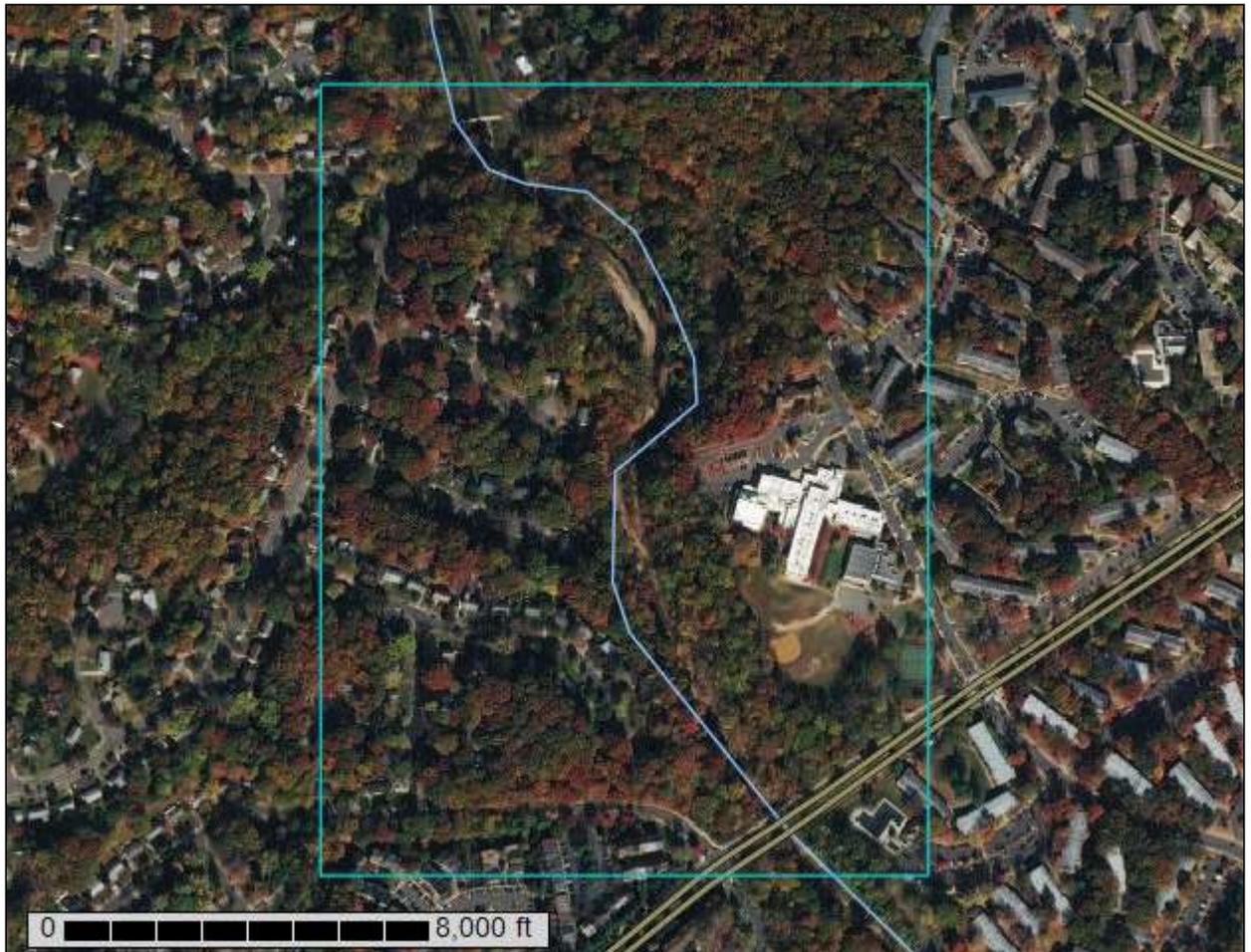
NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Alexandria City, Virginia, and Fairfax County, Virginia**

Holmes Run



Custom Soil Resource Report Soil Map



Map Scale: 1:4,240 if printed on A portrait (8.5" x 11") sheet.



Alexandria City, Virginia

30A—Codorus and Hatboro soils, 0 to 2 percent slopes, occasionally flooded

Map Unit Setting

National map unit symbol: 226In
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Codorus and similar soils: 55 percent
Hatboro and similar soils: 35 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Codorus

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous, metamorphic and sedimentary rock

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 50 inches: loam
H3 - 50 to 62 inches: stratified very gravelly sand to loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 10 to 24 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.7 inches)

Interpretive groups

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

Description of Hatboro

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous and metamorphic rock

Typical profile

H1 - 0 to 6 inches: silt loam
H2 - 6 to 23 inches: loam
H3 - 23 to 60 inches: clay loam

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 to high (0.57 to 1.98 in/hr)
Depth to water table: About 0 to 18 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.6 inches)

Interpretive groups

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

38B—Fairfax loam, 2 to 7 percent slopes

Map Unit Setting

National map unit symbol: 226lp
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Fairfax and similar soils: 80 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Fairfax

Setting

Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits over residuum

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 22 inches: clay loam
H3 - 22 to 60 inches: clay

Custom Soil Resource Report

H4 - 60 to 75 inches: clay loam

Properties and qualities

Slope: 2 to 7 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 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 9.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: B

Hydric soil rating: No

38E—Fairfax loam, 25 to 45 percent slopes

Map Unit Setting

National map unit symbol: 226lq

Mean annual precipitation: 37 to 49 inches

Mean annual air temperature: 45 to 67 degrees F

Frost-free period: 185 to 212 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Fairfax and similar soils: 80 percent

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

Description of Fairfax

Setting

Landform: Hillslopes

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Interfluvium

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Fluvio-marine deposits over residuum

Typical profile

H1 - 0 to 8 inches: loam

H2 - 8 to 22 inches: clay loam

H3 - 22 to 60 inches: clay

H4 - 60 to 75 inches: clay loam

Properties and qualities

Slope: 25 to 45 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Custom Soil Resource Report

Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 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 9.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: B
Hydric soil rating: No

66—Kingstowne sandy clay loam, 0 to 45 percent slopes

Map Unit Setting

National map unit symbol: 226lt
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Kingstowne and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kingstowne

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluvio-marine deposits

Typical profile

H1 - 0 to 4 inches: sandy clay loam
H2 - 4 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 45 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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 24 to 79 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

71C—Kingstowne-Sassafras-Marumsco complex, 7 to 15 percent slopes

Map Unit Setting

National map unit symbol: 226lx
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Kingstowne and similar soils: 45 percent
Sassafras and similar soils: 23 percent
Marumsco and similar soils: 22 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kingstowne

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluviomarine deposits

Typical profile

H1 - 0 to 4 inches: sandy clay loam
H2 - 4 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 20 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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 24 to 79 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

Description of Sassafras

Setting

Landform: Terraces
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 9 inches: sandy loam
H2 - 9 to 40 inches: sandy clay loam
H3 - 40 to 70 inches: gravelly sandy loam

Properties and qualities

Slope: 7 to 15 percent
Depth to restrictive feature: More than 80 inches
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 1.98 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

Description of Marumsco

Setting

Landform: Terraces
Landform position (two-dimensional): Summit, backslope, shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 7 inches: loam
H2 - 7 to 29 inches: clay
H3 - 29 to 47 inches: sandy clay loam
H4 - 47 to 75 inches: sandy clay loam

Properties and qualities

Slope: 7 to 15 percent
Depth to restrictive feature: More than 80 inches
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 12 to 18 inches

Custom Soil Resource Report

Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.7 inches)

Interpretive groups

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

71D—Kingstowne-Sassafras-Marumsco complex, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: 226ly
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Kingstowne and similar soils: 45 percent
Sassafras and similar soils: 23 percent
Marumsco and similar soils: 22 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kingstowne

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluviomarine deposits

Typical profile

H1 - 0 to 4 inches: sandy clay loam
H2 - 4 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 45 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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 24 to 79 inches
Frequency of flooding: None

Custom Soil Resource Report

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

Description of Sassafras

Setting

Landform: Terraces

Landform position (two-dimensional): Summit, shoulder

Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 9 inches: sandy loam

H2 - 9 to 40 inches: sandy clay loam

H3 - 40 to 70 inches: gravelly sandy loam

Properties and qualities

Slope: 15 to 25 percent

Depth to restrictive feature: More than 80 inches

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 1.98 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): 6e

Hydrologic Soil Group: B

Hydric soil rating: No

Description of Marumsco

Setting

Landform: Terraces

Landform position (two-dimensional): Summit, backslope, shoulder

Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 7 inches: loam

H2 - 7 to 29 inches: clay

H3 - 29 to 47 inches: sandy clay loam

H4 - 47 to 75 inches: sandy clay loam

Custom Soil Resource Report

Properties and qualities

Slope: 15 to 25 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 low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 12 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: C/D
Hydric soil rating: No

91C—Sassafras-Marumsco complex, 7 to 15 percent slopes

Map Unit Setting

National map unit symbol: 226m2
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Sassafras and similar soils: 50 percent
Marumsco and similar soils: 35 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sassafras

Setting

Landform: Terraces
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluvio-marine deposits

Typical profile

H1 - 0 to 9 inches: sandy loam
H2 - 9 to 40 inches: sandy clay loam
H3 - 40 to 70 inches: gravelly sandy loam

Properties and qualities

Slope: 7 to 15 percent

Custom Soil Resource Report

Depth to restrictive feature: More than 80 inches
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 1.98 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

Description of Marumsco

Setting

Landform: Terraces
Landform position (two-dimensional): Summit, backslope, shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 7 inches: loam
H2 - 7 to 29 inches: clay
H3 - 29 to 47 inches: sandy clay loam
H4 - 47 to 75 inches: sandy clay loam

Properties and qualities

Slope: 7 to 15 percent
Depth to restrictive feature: More than 80 inches
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 12 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.7 inches)

Interpretive groups

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

91D—Sassafras-Marumsco complex, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: 226m3

Mean annual precipitation: 37 to 49 inches

Mean annual air temperature: 45 to 67 degrees F

Frost-free period: 185 to 212 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Sassafras and similar soils: 50 percent

Marumsco and similar soils: 35 percent

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

Description of Sassafras

Setting

Landform: Terraces

Landform position (two-dimensional): Summit, shoulder

Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 9 inches: sandy loam

H2 - 9 to 40 inches: sandy clay loam

H3 - 40 to 70 inches: gravelly sandy loam

Properties and qualities

Slope: 15 to 25 percent

Depth to restrictive feature: More than 80 inches

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 1.98 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): 6e

Hydrologic Soil Group: B

Hydric soil rating: No

Description of Marumsco

Setting

Landform: Terraces

Landform position (two-dimensional): Summit, backslope, shoulder

Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 7 inches: loam

H2 - 7 to 29 inches: clay

H3 - 29 to 47 inches: sandy clay loam

H4 - 47 to 75 inches: sandy clay loam

Properties and qualities

Slope: 15 to 25 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 low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 12 to 18 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Moderate (about 7.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6w

Hydrologic Soil Group: C/D

Hydric soil rating: No

91E—Sassafras-Marumsco complex, 25 to 45 percent slopes

Map Unit Setting

National map unit symbol: 226m4

Mean annual precipitation: 37 to 49 inches

Mean annual air temperature: 45 to 67 degrees F

Frost-free period: 185 to 212 days

Farmland classification: Not prime farmland

Map Unit Composition

Sassafras and similar soils: 50 percent

Marumsco and similar soils: 35 percent

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

Description of Sassafras

Setting

Landform: Terraces
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 9 inches: sandy loam
H2 - 9 to 40 inches: sandy clay loam
H3 - 40 to 70 inches: gravelly sandy loam

Properties and qualities

Slope: 25 to 45 percent
Depth to restrictive feature: More than 80 inches
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 1.98 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): 6e
Hydrologic Soil Group: B
Hydric soil rating: No

Description of Marumsco

Setting

Landform: Terraces
Landform position (two-dimensional): Summit, backslope, shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 7 inches: loam
H2 - 7 to 29 inches: clay
H3 - 29 to 47 inches: sandy clay loam
H4 - 47 to 75 inches: sandy clay loam

Properties and qualities

Slope: 25 to 45 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 low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 12 to 18 inches

Custom Soil Resource Report

Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: C/D
Hydric soil rating: No

95—Urban land

Map Unit Setting

National map unit symbol: 226m7
Mean annual precipitation: 28 to 58 inches
Mean annual air temperature: 87 to 89 degrees F
Frost-free period: 175 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 95 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s

98—Urban land-Grist Mill

Map Unit Setting

National map unit symbol: 226m9
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 50 percent
Grist mill and similar soils: 49 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Description of Grist Mill

Setting

Landform: Marine terraces

Landform position (two-dimensional): Backslope, shoulder, summit

Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Earthy fill of fluvio-marine deposits

Typical profile

H1 - 0 to 6 inches: sandy loam

H2 - 6 to 60 inches: sandy clay loam

Properties and qualities

Slope: 0 to 25 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well 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 24 to 79 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

100—Urban land-Kingstowne complex

Map Unit Setting

National map unit symbol: 226mb

Mean annual precipitation: 37 to 49 inches

Mean annual air temperature: 45 to 67 degrees F

Frost-free period: 185 to 212 days

Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 50 percent

Kingstowne and similar soils: 49 percent

Custom Soil Resource Report

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

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Description of Kingstowne

Setting

Landform: Marine terraces

Landform position (two-dimensional): Backslope, shoulder, summit

Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Earthy fill of fluvio-marine deposits

Typical profile

H1 - 0 to 4 inches: sandy clay loam

H2 - 4 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 45 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well 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 24 to 79 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

104B—Wheaton-Fairfax complex, 2 to 7 percent slopes

Map Unit Setting

National map unit symbol: 226md

Mean annual precipitation: 37 to 49 inches

Mean annual air temperature: 45 to 67 degrees F

Frost-free period: 185 to 212 days

Farmland classification: Not prime farmland

Map Unit Composition

Wheaton and similar soils: 45 percent

Custom Soil Resource Report

Fairfax and similar soils: 40 percent

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

Description of Wheaton

Setting

Landform: Interfluves

Landform position (two-dimensional): Shoulder, summit, backslope

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Mine spoil or earthy fill derived from phyllite

Typical profile

H1 - 0 to 9 inches: loam

H2 - 9 to 60 inches: loam

Properties and qualities

Slope: 2 to 15 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well 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: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: High (about 10.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C

Hydric soil rating: No

Description of Fairfax

Setting

Landform: Hillslopes

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Fluvio-marine deposits over residuum

Typical profile

H1 - 0 to 8 inches: loam

H2 - 8 to 22 inches: clay loam

H3 - 22 to 60 inches: clay

H4 - 60 to 75 inches: clay loam

Properties and qualities

Slope: 2 to 7 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)

Custom Soil Resource Report

Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 9.2 inches)

Interpretive groups

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

104C—Wheaton-Fairfax complex, 7 to 15 percent slopes

Map Unit Setting

National map unit symbol: 226mf
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Wheaton and similar soils: 45 percent
Fairfax and similar soils: 40 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wheaton

Setting

Landform: Interfluves
Landform position (two-dimensional): Shoulder, summit, backslope
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Mine spoil or earthy fill derived from phyllite

Typical profile

H1 - 0 to 9 inches: loam
H2 - 9 to 60 inches: loam

Properties and qualities

Slope: 2 to 25 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 10.5 inches)

Custom Soil Resource Report

Interpretive groups

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

Description of Fairfax

Setting

Landform: Hillslopes
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits over residuum

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 22 inches: clay loam
H3 - 22 to 60 inches: clay
H4 - 60 to 75 inches: clay loam

Properties and qualities

Slope: 7 to 15 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 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 9.2 inches)

Interpretive groups

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

104E—Wheaton-Fairfax complex, 25 to 45 percent slopes

Map Unit Setting

National map unit symbol: 226mg
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Wheaton and similar soils: 45 percent

Fairfax and similar soils: 40 percent

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

Description of Wheaton

Setting

Landform: Interfluves

Landform position (two-dimensional): Shoulder, summit, backslope

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Mine spoil or earthy fill derived from phyllite

Typical profile

H1 - 0 to 9 inches: loam

H2 - 9 to 60 inches: loam

Properties and qualities

Slope: 2 to 25 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well 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: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: High (about 10.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: C

Hydric soil rating: No

Description of Fairfax

Setting

Landform: Hillslopes

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Fluviomarine deposits over residuum

Typical profile

H1 - 0 to 8 inches: loam

H2 - 8 to 22 inches: clay loam

H3 - 22 to 60 inches: clay

H4 - 60 to 75 inches: clay loam

Properties and qualities

Slope: 25 to 45 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Custom Soil Resource Report

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 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 9.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: B

Hydric soil rating: No

107B—Wheaton-Meadowville complex, 2 to 7 percent slopes

Map Unit Setting

National map unit symbol: 226mh

Mean annual precipitation: 37 to 49 inches

Mean annual air temperature: 45 to 67 degrees F

Frost-free period: 185 to 212 days

Farmland classification: Not prime farmland

Map Unit Composition

Wheaton and similar soils: 46 percent

Meadowville and similar soils: 44 percent

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

Description of Wheaton

Setting

Landform: Interfluves

Landform position (two-dimensional): Shoulder, summit, backslope

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Mine spoil or earthy fill derived from phyllite

Typical profile

H1 - 0 to 9 inches: loam

H2 - 9 to 60 inches: loam

Properties and qualities

Slope: 2 to 15 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well 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: More than 80 inches

Frequency of flooding: None

Custom Soil Resource Report

Frequency of ponding: None

Available water storage in profile: High (about 10.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C

Hydric soil rating: No

Description of Meadowville

Setting

Landform: Drainageways

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Head slope

Down-slope shape: Linear

Across-slope shape: Concave

Parent material: Local alluvium over residuum weathered from schist

Typical profile

H1 - 0 to 12 inches: loam

H2 - 12 to 31 inches: clay loam

H3 - 31 to 39 inches: gravelly loam

H4 - 39 to 72 inches: sandy loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 5.95 in/hr)

Depth to water table: About 41 to 79 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: High (about 9.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: A

Hydric soil rating: No

108B—Wheaton-Sumerduck complex, 2 to 7 percent slopes

Map Unit Setting

National map unit symbol: 226mj

Mean annual precipitation: 37 to 49 inches

Mean annual air temperature: 45 to 67 degrees F

Frost-free period: 185 to 212 days

Farmland classification: Not prime farmland

Map Unit Composition

Wheaton and similar soils: 45 percent

Sumerduck and similar soils: 40 percent

Minor components: 2 percent

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

Description of Wheaton

Setting

Landform: Interfluves

Landform position (two-dimensional): Shoulder, summit, backslope

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Mine spoil or earthy fill derived from phyllite

Typical profile

H1 - 0 to 9 inches: loam

H2 - 9 to 60 inches: loam

Properties and qualities

Slope: 2 to 15 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well 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: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: High (about 10.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C

Hydric soil rating: No

Description of Sumerduck

Setting

Landform: Drainageways

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Convex

Parent material: Alluvium derived from schist and/or alluvium derived from phyllite

Typical profile

H1 - 0 to 4 inches: loam

H2 - 4 to 31 inches: silty clay loam

H3 - 31 to 100 inches: silt loam

Properties and qualities

Slope: 2 to 7 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Moderately well drained

Custom Soil Resource Report

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: About 24 to 40 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Hatboro

Percent of map unit: 2 percent

Landform: Flood plains

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: Yes

Fairfax County, Virginia

30A—Codorus and Hatboro soils, 0 to 2 percent slopes, occasionally flooded

Map Unit Setting

National map unit symbol: 2fjmy
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Codorus and similar soils: 55 percent
Hatboro and similar soils: 35 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Codorus

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous, metamorphic and sedimentary rock

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 50 inches: loam
H3 - 50 to 62 inches: stratified very gravelly sand to loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 10 to 24 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.7 inches)

Interpretive groups

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

Description of Hatboro

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous and metamorphic rock

Typical profile

H1 - 0 to 6 inches: silt loam
H2 - 6 to 23 inches: loam
H3 - 23 to 60 inches: clay loam

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 to high (0.57 to 1.98 in/hr)
Depth to water table: About 0 to 18 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.6 inches)

Interpretive groups

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

38E—Fairfax loam, 25 to 45 percent slopes

Map Unit Setting

National map unit symbol: 2fjnt
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Fairfax and similar soils: 80 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Fairfax

Setting

Landform: Hillslopes
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interflue
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits over residuum

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 22 inches: clay loam
H3 - 22 to 60 inches: clay

Custom Soil Resource Report

H4 - 60 to 75 inches: clay loam

Properties and qualities

Slope: 25 to 45 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 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 9.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: B

Hydric soil rating: No

71C—Kingstowne-Sassafras-Marumsco complex, 7 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2fjsp

Mean annual precipitation: 37 to 49 inches

Mean annual air temperature: 45 to 67 degrees F

Frost-free period: 185 to 212 days

Farmland classification: Not prime farmland

Map Unit Composition

Kingstowne and similar soils: 45 percent

Sassafras and similar soils: 23 percent

Marumsco and similar soils: 22 percent

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

Description of Kingstowne

Setting

Landform: Marine terraces

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Earthy fill of fluvio-marine deposits

Typical profile

H1 - 0 to 4 inches: sandy clay loam

H2 - 4 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 20 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Custom Soil Resource Report

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 24 to 79 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

Description of Sassafras

Setting

Landform: Terraces
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 9 inches: sandy loam
H2 - 9 to 40 inches: sandy clay loam
H3 - 40 to 70 inches: gravelly sandy loam

Properties and qualities

Slope: 7 to 15 percent
Depth to restrictive feature: More than 80 inches
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 1.98 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

Description of Marumsco

Setting

Landform: Terraces
Landform position (two-dimensional): Shoulder, backslope, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Custom Soil Resource Report

Typical profile

H1 - 0 to 7 inches: loam
H2 - 7 to 29 inches: clay
H3 - 29 to 47 inches: sandy clay loam
H4 - 47 to 75 inches: sandy clay loam

Properties and qualities

Slope: 7 to 15 percent
Depth to restrictive feature: More than 80 inches
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 12 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.7 inches)

Interpretive groups

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

104E—Wheaton-Fairfax complex, 25 to 45 percent slopes

Map Unit Setting

National map unit symbol: 2fjwk
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Wheaton and similar soils: 45 percent
Fairfax and similar soils: 40 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wheaton

Setting

Landform: Interfluves
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Mine spoil or earthy fill derived from phyllite

Custom Soil Resource Report

Typical profile

H1 - 0 to 9 inches: loam
H2 - 9 to 60 inches: loam

Properties and qualities

Slope: 2 to 25 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 10.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Fairfax

Setting

Landform: Hillslopes
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits over residuum

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 22 inches: clay loam
H3 - 22 to 60 inches: clay
H4 - 60 to 75 inches: clay loam

Properties and qualities

Slope: 25 to 45 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 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 9.2 inches)

Interpretive groups

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



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Alexandria City, Virginia**

JBFNC Holmes Run



Custom Soil Resource Report Soil Map



Alexandria City, Virginia

30A—Codorus and Hatboro soils, 0 to 2 percent slopes, occasionally flooded

Map Unit Setting

National map unit symbol: 226ln
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Codorus and similar soils: 55 percent
Hatboro and similar soils: 35 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Codorus

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous, metamorphic and sedimentary rock

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 50 inches: loam
H3 - 50 to 62 inches: stratified very gravelly sand to loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 10 to 24 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.7 inches)

Interpretive groups

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

Description of Hatboro

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous and metamorphic rock

Typical profile

H1 - 0 to 6 inches: silt loam
H2 - 6 to 23 inches: loam
H3 - 23 to 60 inches: clay loam

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 to high (0.57 to 1.98 in/hr)
Depth to water table: About 0 to 18 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.6 inches)

Interpretive groups

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

38E—Fairfax loam, 25 to 45 percent slopes

Map Unit Setting

National map unit symbol: 226lq
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Fairfax and similar soils: 80 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Fairfax

Setting

Landform: Hillslopes
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interflue
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits over residuum

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 22 inches: clay loam
H3 - 22 to 60 inches: clay

Custom Soil Resource Report

H4 - 60 to 75 inches: clay loam

Properties and qualities

Slope: 25 to 45 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 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 9.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: B

Hydric soil rating: No

91E—Sassafras-Marumsc complex, 25 to 45 percent slopes

Map Unit Setting

National map unit symbol: 226m4

Mean annual precipitation: 37 to 49 inches

Mean annual air temperature: 45 to 67 degrees F

Frost-free period: 185 to 212 days

Farmland classification: Not prime farmland

Map Unit Composition

Sassafras and similar soils: 50 percent

Marumsc and similar soils: 35 percent

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

Description of Sassafras

Setting

Landform: Terraces

Landform position (two-dimensional): Summit, shoulder

Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 9 inches: sandy loam

H2 - 9 to 40 inches: sandy clay loam

H3 - 40 to 70 inches: gravelly sandy loam

Properties and qualities

Slope: 25 to 45 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Custom Soil Resource Report

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 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): 6e

Hydrologic Soil Group: B

Hydric soil rating: No

Description of Marumsco

Setting

Landform: Terraces

Landform position (two-dimensional): Summit, backslope, shoulder

Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 7 inches: loam

H2 - 7 to 29 inches: clay

H3 - 29 to 47 inches: sandy clay loam

H4 - 47 to 75 inches: sandy clay loam

Properties and qualities

Slope: 25 to 45 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 low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 12 to 18 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Moderate (about 7.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7w

Hydrologic Soil Group: C/D

Hydric soil rating: No

98—Urban land-Grist Mill

Map Unit Setting

National map unit symbol: 226m9
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 50 percent
Grist mill and similar soils: 49 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s

Description of Grist Mill

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluviomarine deposits

Typical profile

H1 - 0 to 6 inches: sandy loam
H2 - 6 to 60 inches: sandy clay loam

Properties and qualities

Slope: 0 to 25 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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 24 to 79 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

Custom Soil Resource Report

Hydric soil rating: No

104E—Wheaton-Fairfax complex, 25 to 45 percent slopes

Map Unit Setting

National map unit symbol: 226mg
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Wheaton and similar soils: 45 percent
Fairfax and similar soils: 40 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wheaton

Setting

Landform: Interfluves
Landform position (two-dimensional): Shoulder, summit, backslope
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Mine spoil or earthy fill derived from phyllite

Typical profile

H1 - 0 to 9 inches: loam
H2 - 9 to 60 inches: loam

Properties and qualities

Slope: 2 to 25 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 10.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Fairfax

Setting

Landform: Hillslopes
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluvio-marine deposits over residuum

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 22 inches: clay loam
H3 - 22 to 60 inches: clay
H4 - 60 to 75 inches: clay loam

Properties and qualities

Slope: 25 to 45 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 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 9.2 inches)

Interpretive groups

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



United States
Department of
Agriculture

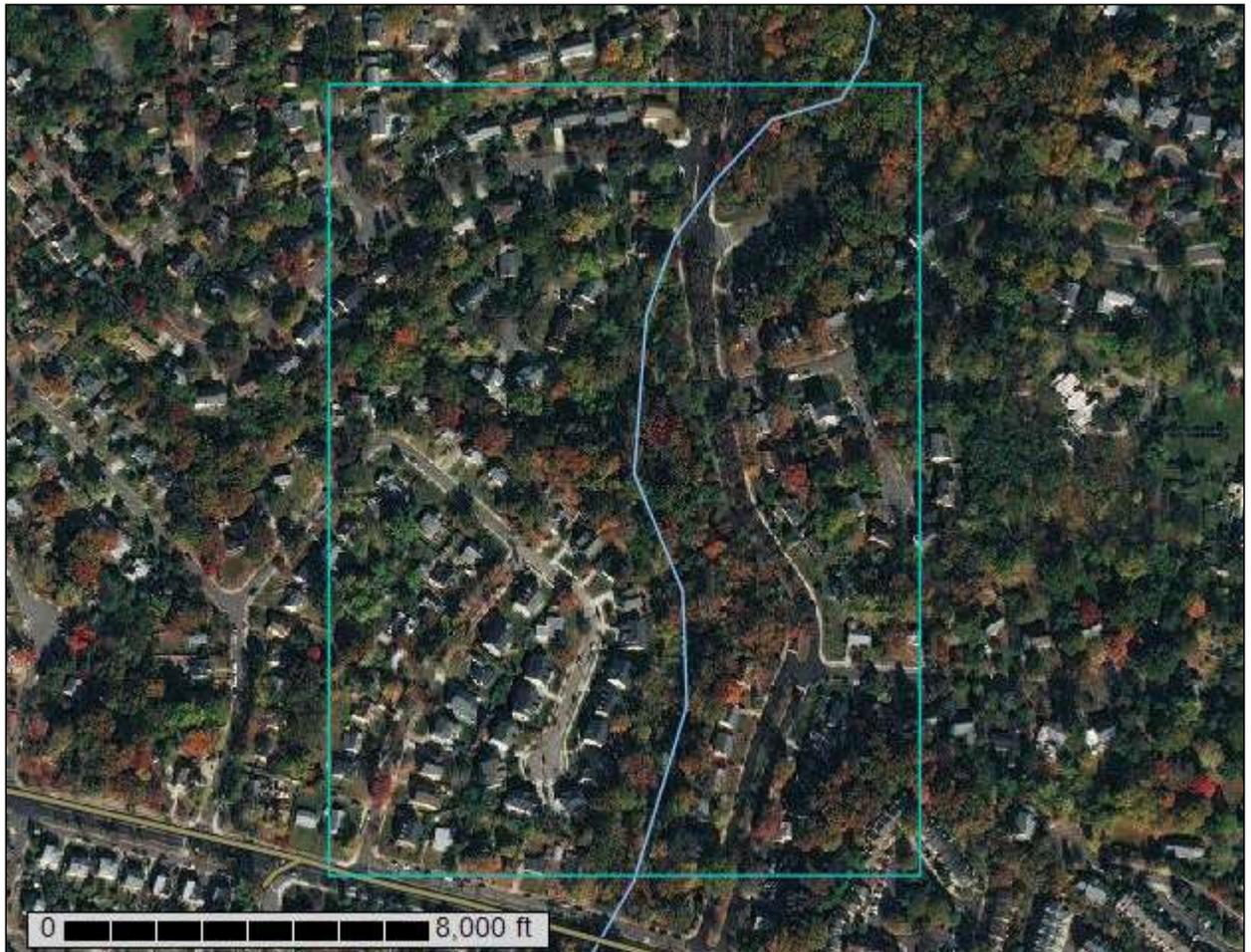
NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Alexandria City, Virginia**

Strawberry Run



Custom Soil Resource Report Soil Map



Map Scale: 1:2,890 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

Alexandria City, Virginia

30A—Codorus and Hatboro soils, 0 to 2 percent slopes, occasionally flooded

Map Unit Setting

National map unit symbol: 226In
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Codorus and similar soils: 55 percent
Hatboro and similar soils: 35 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Codorus

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous, metamorphic and sedimentary rock

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 50 inches: loam
H3 - 50 to 62 inches: stratified very gravelly sand to loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 10 to 24 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.7 inches)

Interpretive groups

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

Description of Hatboro

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous and metamorphic rock

Custom Soil Resource Report

Typical profile

H1 - 0 to 6 inches: silt loam
H2 - 6 to 23 inches: loam
H3 - 23 to 60 inches: clay loam

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 to high (0.57 to 1.98 in/hr)
Depth to water table: About 0 to 18 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.6 inches)

Interpretive groups

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

47B—Grist Mill-Woodstown complex, 2 to 7 percent slopes

Map Unit Setting

National map unit symbol: 226ls
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Grist mill and similar soils: 45 percent
Woodstown and similar soils: 40 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Grist Mill

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluviomarine deposits

Typical profile

H1 - 0 to 6 inches: sandy loam
H2 - 6 to 60 inches: sandy clay loam

Custom Soil Resource Report

Properties and qualities

Slope: 0 to 20 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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 24 to 79 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

Description of Woodstown

Setting

Landform: Terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 11 inches: sandy loam
H2 - 11 to 29 inches: sandy clay loam
H3 - 29 to 70 inches: sandy loam

Properties and qualities

Slope: 2 to 7 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 (0.20 to 5.95 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 6.7 inches)

Interpretive groups

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

71C—Kingstowne-Sassafras-Marumsko complex, 7 to 15 percent slopes

Map Unit Setting

National map unit symbol: 226lx
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Kingstowne and similar soils: 45 percent
Sassafras and similar soils: 23 percent
Marumsko and similar soils: 22 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kingstowne

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluviomarine deposits

Typical profile

H1 - 0 to 4 inches: sandy clay loam
H2 - 4 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 20 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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 24 to 79 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

Description of Sassafras

Setting

Landform: Terraces
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 9 inches: sandy loam
H2 - 9 to 40 inches: sandy clay loam
H3 - 40 to 70 inches: gravelly sandy loam

Properties and qualities

Slope: 7 to 15 percent
Depth to restrictive feature: More than 80 inches
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 1.98 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

Description of Marumsco

Setting

Landform: Terraces
Landform position (two-dimensional): Summit, backslope, shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 7 inches: loam
H2 - 7 to 29 inches: clay
H3 - 29 to 47 inches: sandy clay loam
H4 - 47 to 75 inches: sandy clay loam

Properties and qualities

Slope: 7 to 15 percent
Depth to restrictive feature: More than 80 inches
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 12 to 18 inches

Custom Soil Resource Report

Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.7 inches)

Interpretive groups

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

71D—Kingstowne-Sassafras-Marumsco complex, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: 226ly
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Kingstowne and similar soils: 45 percent
Sassafras and similar soils: 23 percent
Marumsco and similar soils: 22 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kingstowne

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluviomarine deposits

Typical profile

H1 - 0 to 4 inches: sandy clay loam
H2 - 4 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 45 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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 24 to 79 inches
Frequency of flooding: None

Custom Soil Resource Report

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

Description of Sassafras

Setting

Landform: Terraces

Landform position (two-dimensional): Summit, shoulder

Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 9 inches: sandy loam

H2 - 9 to 40 inches: sandy clay loam

H3 - 40 to 70 inches: gravelly sandy loam

Properties and qualities

Slope: 15 to 25 percent

Depth to restrictive feature: More than 80 inches

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 1.98 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): 6e

Hydrologic Soil Group: B

Hydric soil rating: No

Description of Marumsco

Setting

Landform: Terraces

Landform position (two-dimensional): Summit, backslope, shoulder

Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 7 inches: loam

H2 - 7 to 29 inches: clay

H3 - 29 to 47 inches: sandy clay loam

H4 - 47 to 75 inches: sandy clay loam

Custom Soil Resource Report

Properties and qualities

Slope: 15 to 25 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 low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 12 to 18 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Moderate (about 7.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6w

Hydrologic Soil Group: C/D

Hydric soil rating: No

95—Urban land

Map Unit Setting

National map unit symbol: 226m7

Mean annual precipitation: 28 to 58 inches

Mean annual air temperature: 87 to 89 degrees F

Frost-free period: 175 to 200 days

Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 95 percent

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

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s



United States
Department of
Agriculture

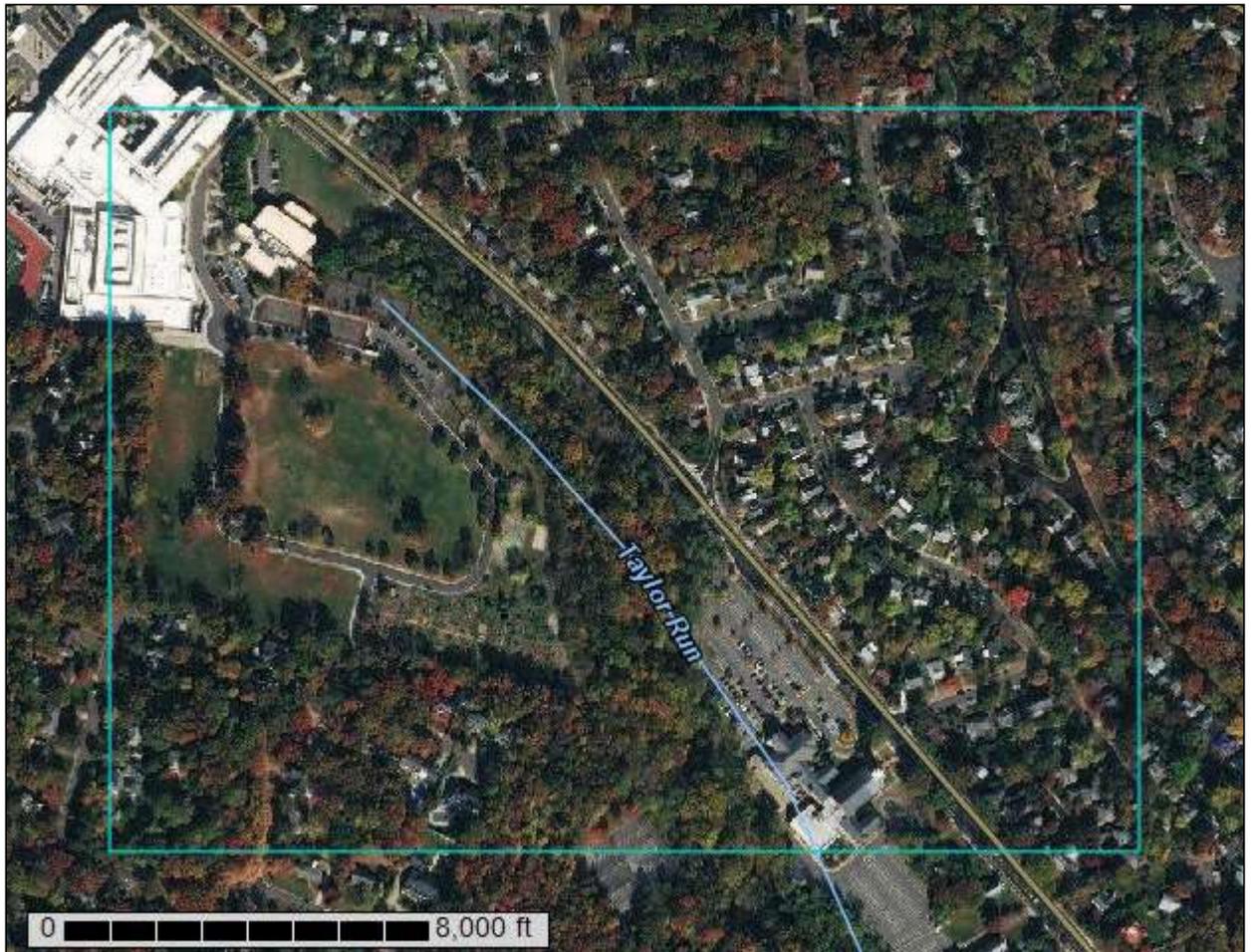
NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Alexandria City, Virginia**

Taylor Run



Custom Soil Resource Report Soil Map



Alexandria City, Virginia

47B—Grist Mill-Woodstown complex, 2 to 7 percent slopes

Map Unit Setting

National map unit symbol: 226ls
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Grist mill and similar soils: 45 percent
Woodstown and similar soils: 40 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Grist Mill

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluviomarine deposits

Typical profile

H1 - 0 to 6 inches: sandy loam
H2 - 6 to 60 inches: sandy clay loam

Properties and qualities

Slope: 0 to 20 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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 24 to 79 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

Description of Woodstown

Setting

Landform: Terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex

Custom Soil Resource Report

Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 11 inches: sandy loam
H2 - 11 to 29 inches: sandy clay loam
H3 - 29 to 70 inches: sandy loam

Properties and qualities

Slope: 2 to 7 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 (0.20 to 5.95 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 6.7 inches)

Interpretive groups

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

66—Kingstowne sandy clay loam, 0 to 45 percent slopes

Map Unit Setting

National map unit symbol: 226lt
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Kingstowne and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kingstowne

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluviomarine deposits

Typical profile

H1 - 0 to 4 inches: sandy clay loam
H2 - 4 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 45 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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 24 to 79 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

71C—Kingstowne-Sassafras-Marumsco complex, 7 to 15 percent slopes

Map Unit Setting

National map unit symbol: 226lx
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Kingstowne and similar soils: 45 percent
Sassafras and similar soils: 23 percent
Marumsco and similar soils: 22 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kingstowne

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluviomarine deposits

Typical profile

H1 - 0 to 4 inches: sandy clay loam
H2 - 4 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 20 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Very high

Custom Soil Resource Report

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 24 to 79 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

Description of Sassafras

Setting

Landform: Terraces
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 9 inches: sandy loam
H2 - 9 to 40 inches: sandy clay loam
H3 - 40 to 70 inches: gravelly sandy loam

Properties and qualities

Slope: 7 to 15 percent
Depth to restrictive feature: More than 80 inches
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 1.98 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

Description of Marumsco

Setting

Landform: Terraces
Landform position (two-dimensional): Summit, backslope, shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 7 inches: loam

Custom Soil Resource Report

H2 - 7 to 29 inches: clay
H3 - 29 to 47 inches: sandy clay loam
H4 - 47 to 75 inches: sandy clay loam

Properties and qualities

Slope: 7 to 15 percent
Depth to restrictive feature: More than 80 inches
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 12 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.7 inches)

Interpretive groups

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

71D—Kingstowne-Sassafras-Marumsco complex, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: 226ly
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Kingstowne and similar soils: 45 percent
Sassafras and similar soils: 23 percent
Marumsco and similar soils: 22 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kingstowne

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluviomarine deposits

Custom Soil Resource Report

Typical profile

H1 - 0 to 4 inches: sandy clay loam
H2 - 4 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 45 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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 24 to 79 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

Description of Sassafras

Setting

Landform: Terraces
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 9 inches: sandy loam
H2 - 9 to 40 inches: sandy clay loam
H3 - 40 to 70 inches: gravelly sandy loam

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: More than 80 inches
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 1.98 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): 6e
Hydrologic Soil Group: B
Hydric soil rating: No

Description of Marumsco

Setting

Landform: Terraces
Landform position (two-dimensional): Summit, backslope, shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 7 inches: loam
H2 - 7 to 29 inches: clay
H3 - 29 to 47 inches: sandy clay loam
H4 - 47 to 75 inches: sandy clay loam

Properties and qualities

Slope: 15 to 25 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 low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 12 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: C/D
Hydric soil rating: No

72B—Kingstowne-Sassafras-Neabsco complex, 2 to 7 percent slopes

Map Unit Setting

National map unit symbol: 226m0
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Kingstowne and similar soils: 45 percent
Sassafras and similar soils: 20 percent
Neabsco and similar soils: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kingstowne

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluviomarine deposits

Typical profile

H1 - 0 to 4 inches: sandy clay loam
H2 - 4 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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 24 to 79 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

Description of Neabsco

Setting

Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 17 inches: clay loam
H3 - 17 to 36 inches: loam
H4 - 36 to 52 inches: clay loam
H5 - 52 to 72 inches: very gravelly sandy loam

Properties and qualities

Slope: 0 to 7 percent
Depth to restrictive feature: 14 to 30 inches to fragipan
Natural drainage class: Moderately well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 14 to 30 inches

Custom Soil Resource Report

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): 2e
Hydrologic Soil Group: D
Hydric soil rating: No

Description of Sassafras

Setting

Landform: Terraces
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 9 inches: sandy loam
H2 - 9 to 40 inches: sandy clay loam
H3 - 40 to 70 inches: gravelly sandy loam

Properties and qualities

Slope: 2 to 7 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): Moderately high to high (0.20 to 1.98 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): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

92B—Sassafras-Neabsco complex, 2 to 7 percent slopes

Map Unit Setting

National map unit symbol: 226m5
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days

Custom Soil Resource Report

Farmland classification: All areas are prime farmland

Map Unit Composition

Sassafras and similar soils: 50 percent

Neabsco and similar soils: 30 percent

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

Description of Sassafras

Setting

Landform: Terraces

Landform position (two-dimensional): Summit, shoulder

Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 9 inches: sandy loam

H2 - 9 to 40 inches: sandy clay loam

H3 - 40 to 70 inches: gravelly sandy loam

Properties and qualities

Slope: 2 to 7 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): Moderately high to high (0.20 to 1.98 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): 2e

Hydrologic Soil Group: B

Hydric soil rating: No

Description of Neabsco

Setting

Landform: Hillslopes

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 8 inches: loam

H2 - 8 to 17 inches: clay loam

H3 - 17 to 36 inches: loam

H4 - 36 to 52 inches: clay loam

H5 - 52 to 72 inches: very gravelly sandy loam

Custom Soil Resource Report

Properties and qualities

Slope: 2 to 7 percent

Depth to restrictive feature: 14 to 30 inches to fragipan

Natural drainage class: Moderately well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: About 14 to 30 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): 2e

Hydrologic Soil Group: D

Hydric soil rating: No

95—Urban land

Map Unit Setting

National map unit symbol: 226m7

Mean annual precipitation: 28 to 58 inches

Mean annual air temperature: 87 to 89 degrees F

Frost-free period: 175 to 200 days

Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 95 percent

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

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s



United States
Department of
Agriculture

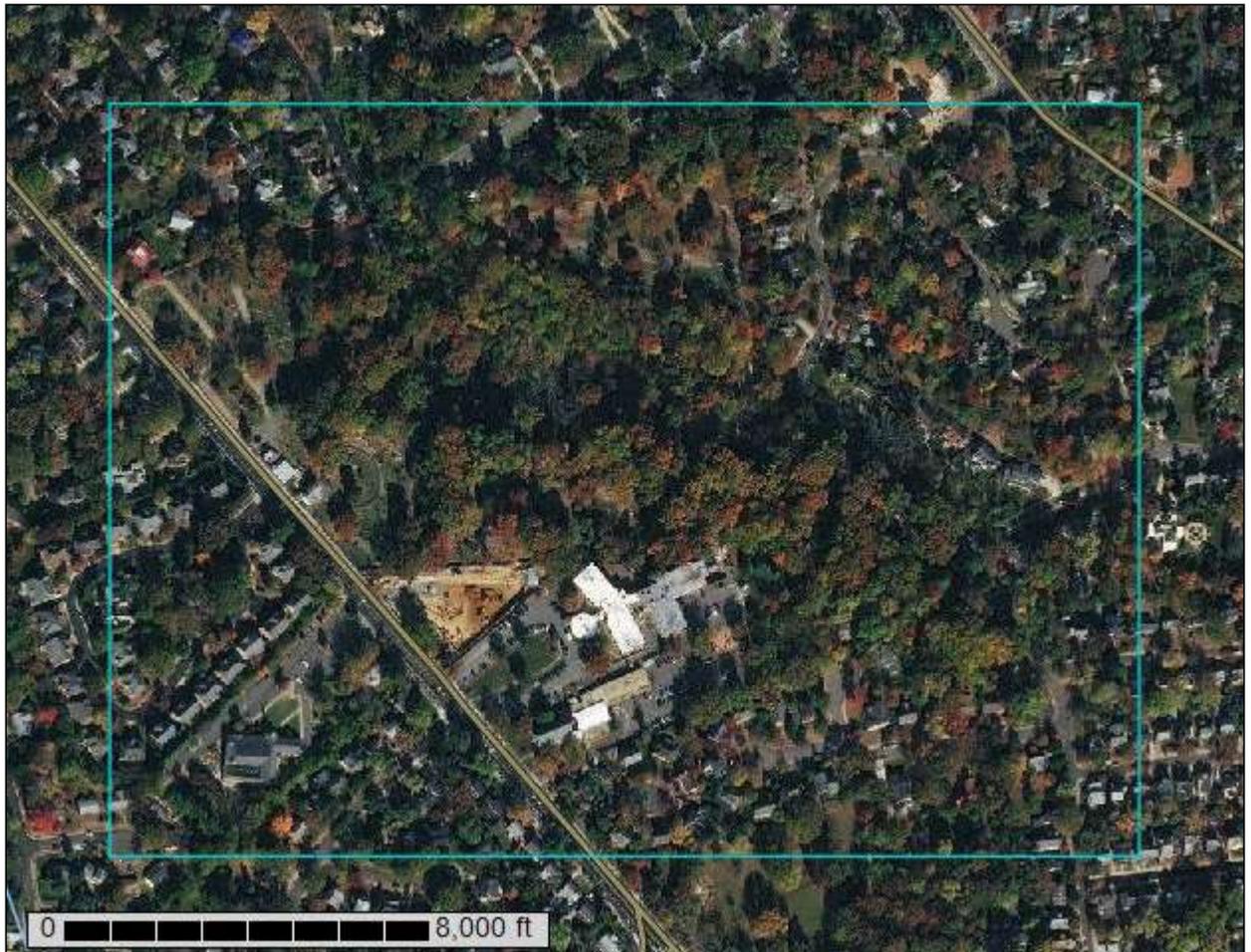
NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Alexandria City, Virginia**

Timber Branch



Custom Soil Resource Report Soil Map



Map Scale: 1:4,320 if printed on A landscape (11" x 8.5") sheet.

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

Alexandria City, Virginia

47B—Grist Mill-Woodstown complex, 2 to 7 percent slopes

Map Unit Setting

National map unit symbol: 226ls
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Grist mill and similar soils: 45 percent
Woodstown and similar soils: 40 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Grist Mill

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluviomarine deposits

Typical profile

H1 - 0 to 6 inches: sandy loam
H2 - 6 to 60 inches: sandy clay loam

Properties and qualities

Slope: 0 to 20 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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 24 to 79 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

Description of Woodstown

Setting

Landform: Terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex

Custom Soil Resource Report

Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 11 inches: sandy loam

H2 - 11 to 29 inches: sandy clay loam

H3 - 29 to 70 inches: sandy loam

Properties and qualities

Slope: 2 to 7 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 (0.20 to 5.95 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 6.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: B

Hydric soil rating: No

71C—Kingstowne-Sassafras-Marumsco complex, 7 to 15 percent slopes

Map Unit Setting

National map unit symbol: 226lx

Mean annual precipitation: 37 to 49 inches

Mean annual air temperature: 45 to 67 degrees F

Frost-free period: 185 to 212 days

Farmland classification: Not prime farmland

Map Unit Composition

Kingstowne and similar soils: 45 percent

Sassafras and similar soils: 23 percent

Marumsco and similar soils: 22 percent

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

Description of Kingstowne

Setting

Landform: Marine terraces

Landform position (two-dimensional): Backslope, shoulder, summit

Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Earthy fill of fluviomarine deposits

Custom Soil Resource Report

Typical profile

H1 - 0 to 4 inches: sandy clay loam
H2 - 4 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 20 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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 24 to 79 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

Description of Sassafras

Setting

Landform: Terraces
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 9 inches: sandy loam
H2 - 9 to 40 inches: sandy clay loam
H3 - 40 to 70 inches: gravelly sandy loam

Properties and qualities

Slope: 7 to 15 percent
Depth to restrictive feature: More than 80 inches
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 1.98 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

Description of Marumsco

Setting

Landform: Terraces

Landform position (two-dimensional): Summit, backslope, shoulder

Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 7 inches: loam

H2 - 7 to 29 inches: clay

H3 - 29 to 47 inches: sandy clay loam

H4 - 47 to 75 inches: sandy clay loam

Properties and qualities

Slope: 7 to 15 percent

Depth to restrictive feature: More than 80 inches

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 12 to 18 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Moderate (about 7.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: C/D

Hydric soil rating: No

71D—Kingstowne-Sassafras-Marumsco complex, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: 226ly

Mean annual precipitation: 37 to 49 inches

Mean annual air temperature: 45 to 67 degrees F

Frost-free period: 185 to 212 days

Farmland classification: Not prime farmland

Map Unit Composition

Kingstowne and similar soils: 45 percent

Sassafras and similar soils: 23 percent

Marumsco and similar soils: 22 percent

Custom Soil Resource Report

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

Description of Kingstowne

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluviomarine deposits

Typical profile

H1 - 0 to 4 inches: sandy clay loam
H2 - 4 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 45 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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 24 to 79 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

Description of Sassafra

Setting

Landform: Terraces
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 9 inches: sandy loam
H2 - 9 to 40 inches: sandy clay loam
H3 - 40 to 70 inches: gravelly sandy loam

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: More than 80 inches
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 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None

Custom Soil Resource Report

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): 6e

Hydrologic Soil Group: B

Hydric soil rating: No

Description of Marumsco

Setting

Landform: Terraces

Landform position (two-dimensional): Summit, backslope, shoulder

Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 7 inches: loam

H2 - 7 to 29 inches: clay

H3 - 29 to 47 inches: sandy clay loam

H4 - 47 to 75 inches: sandy clay loam

Properties and qualities

Slope: 15 to 25 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 low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 12 to 18 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Moderate (about 7.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6w

Hydrologic Soil Group: C/D

Hydric soil rating: No

72B—Kingstowne-Sassafras-Neabsco complex, 2 to 7 percent slopes

Map Unit Setting

National map unit symbol: 226m0

Mean annual precipitation: 37 to 49 inches

Mean annual air temperature: 45 to 67 degrees F

Frost-free period: 185 to 212 days

Custom Soil Resource Report

Farmland classification: Not prime farmland

Map Unit Composition

Kingstowne and similar soils: 45 percent

Sassafras and similar soils: 20 percent

Neabsco and similar soils: 20 percent

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

Description of Kingstowne

Setting

Landform: Marine terraces

Landform position (two-dimensional): Backslope, shoulder, summit

Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Earthy fill of fluviomarine deposits

Typical profile

H1 - 0 to 4 inches: sandy clay loam

H2 - 4 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 15 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well 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 24 to 79 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

Description of Neabsco

Setting

Landform: Hillslopes

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Interfluvium

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 8 inches: loam

H2 - 8 to 17 inches: clay loam

H3 - 17 to 36 inches: loam

H4 - 36 to 52 inches: clay loam

H5 - 52 to 72 inches: very gravelly sandy loam

Custom Soil Resource Report

Properties and qualities

Slope: 0 to 7 percent
Depth to restrictive feature: 14 to 30 inches to fragipan
Natural drainage class: Moderately well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 14 to 30 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): 2e
Hydrologic Soil Group: D
Hydric soil rating: No

Description of Sassafras

Setting

Landform: Terraces
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 9 inches: sandy loam
H2 - 9 to 40 inches: sandy clay loam
H3 - 40 to 70 inches: gravelly sandy loam

Properties and qualities

Slope: 2 to 7 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): Moderately high to high (0.20 to 1.98 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): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

92B—Sassafras-Neabsco complex, 2 to 7 percent slopes

Map Unit Setting

National map unit symbol: 226m5
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Sassafras and similar soils: 50 percent
Neabsco and similar soils: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sassafras

Setting

Landform: Terraces
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 9 inches: sandy loam
H2 - 9 to 40 inches: sandy clay loam
H3 - 40 to 70 inches: gravelly sandy loam

Properties and qualities

Slope: 2 to 7 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): Moderately high to high (0.20 to 1.98 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): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

Description of Neabsco

Setting

Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluvio-marine deposits

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 17 inches: clay loam
H3 - 17 to 36 inches: loam
H4 - 36 to 52 inches: clay loam
H5 - 52 to 72 inches: very gravelly sandy loam

Properties and qualities

Slope: 2 to 7 percent
Depth to restrictive feature: 14 to 30 inches to fragipan
Natural drainage class: Moderately well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 14 to 30 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): 2e
Hydrologic Soil Group: D
Hydric soil rating: No

95—Urban land

Map Unit Setting

National map unit symbol: 226m7
Mean annual precipitation: 28 to 58 inches
Mean annual air temperature: 87 to 89 degrees F
Frost-free period: 175 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 95 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s

100—Urban land-Kingstowne complex

Map Unit Setting

National map unit symbol: 226mb
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 50 percent
Kingstowne and similar soils: 49 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s

Description of Kingstowne

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluvio-marine deposits

Typical profile

H1 - 0 to 4 inches: sandy clay loam
H2 - 4 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 45 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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 24 to 79 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.8 inches)

Custom Soil Resource Report

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C

Hydric soil rating: No



United States
Department of
Agriculture

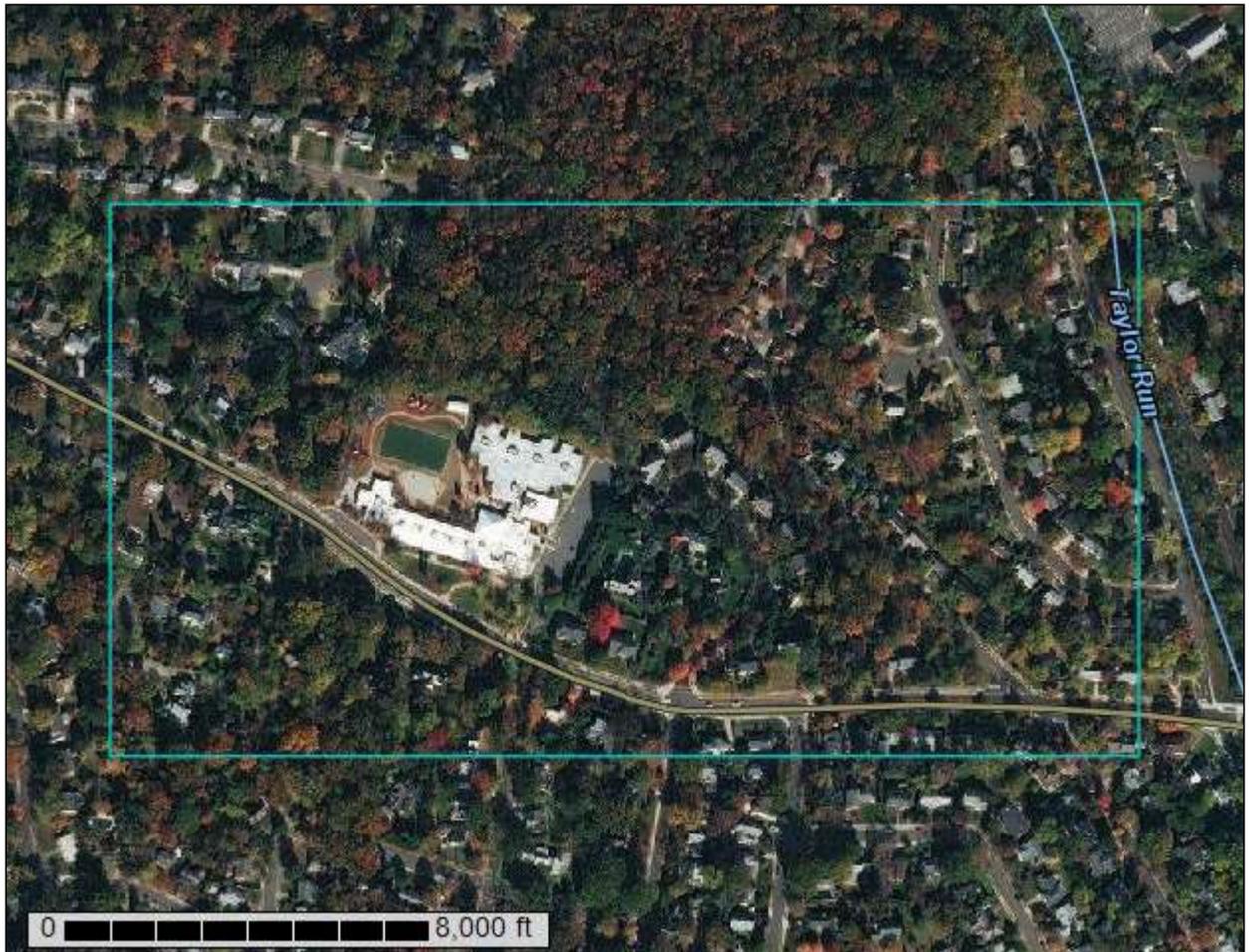
NRCS

Natural
Resources
Conservation
Service

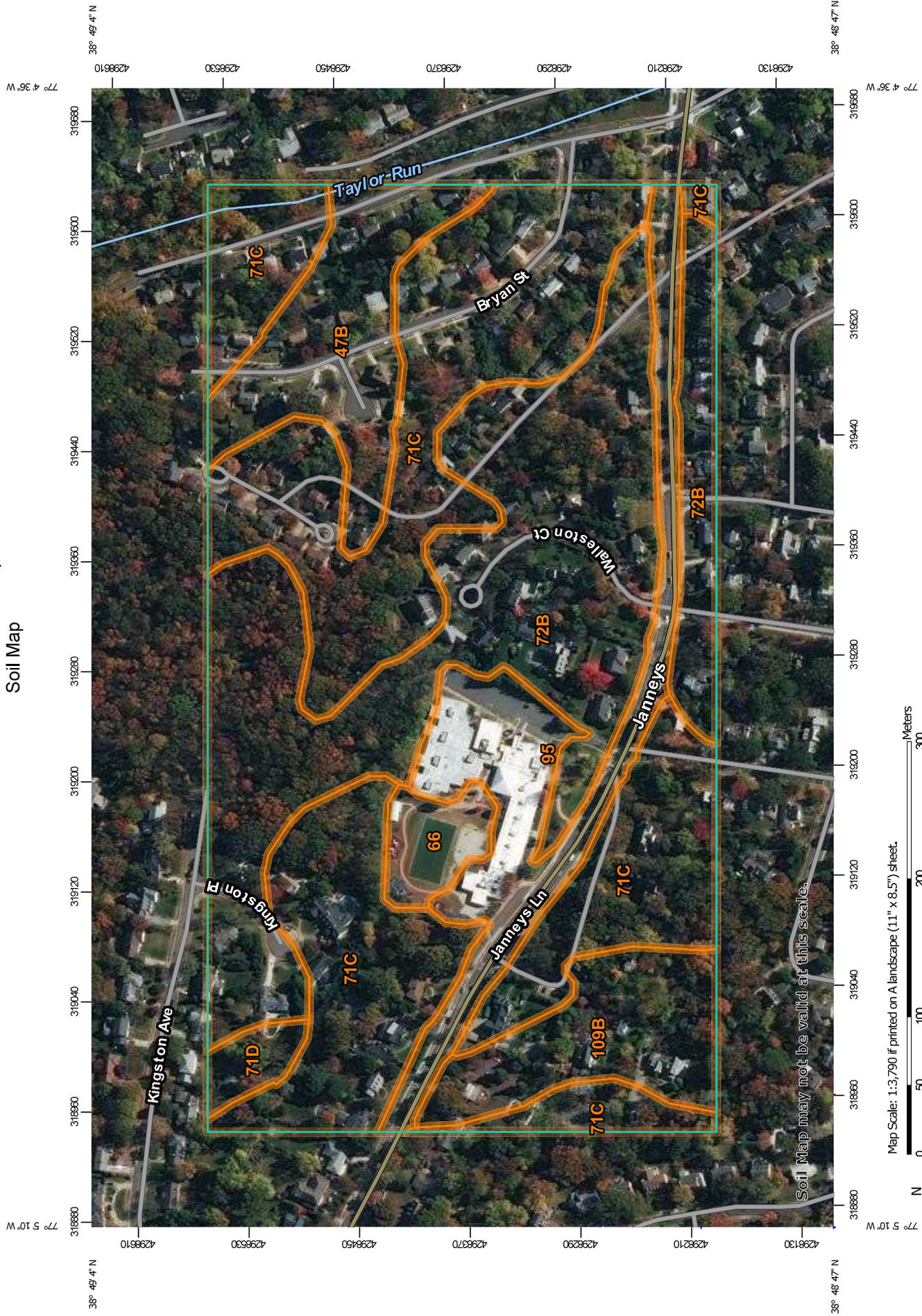
A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Alexandria City, Virginia**

Unnamed Trib to Walleston



Custom Soil Resource Report Soil Map



Map Scale: 1:3,790 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

Alexandria City, Virginia

47B—Grist Mill-Woodstown complex, 2 to 7 percent slopes

Map Unit Setting

National map unit symbol: 226ls
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Grist mill and similar soils: 45 percent
Woodstown and similar soils: 40 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Grist Mill

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluviomarine deposits

Typical profile

H1 - 0 to 6 inches: sandy loam
H2 - 6 to 60 inches: sandy clay loam

Properties and qualities

Slope: 0 to 20 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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 24 to 79 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

Description of Woodstown

Setting

Landform: Terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex

Custom Soil Resource Report

Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 11 inches: sandy loam
H2 - 11 to 29 inches: sandy clay loam
H3 - 29 to 70 inches: sandy loam

Properties and qualities

Slope: 2 to 7 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 (0.20 to 5.95 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 6.7 inches)

Interpretive groups

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

66—Kingstowne sandy clay loam, 0 to 45 percent slopes

Map Unit Setting

National map unit symbol: 226lt
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Kingstowne and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kingstowne

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluviomarine deposits

Typical profile

H1 - 0 to 4 inches: sandy clay loam
H2 - 4 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 45 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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 24 to 79 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

71C—Kingstowne-Sassafras-Marumsco complex, 7 to 15 percent slopes

Map Unit Setting

National map unit symbol: 226lx
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Kingstowne and similar soils: 45 percent
Sassafras and similar soils: 23 percent
Marumsco and similar soils: 22 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kingstowne

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluvio-marine deposits

Typical profile

H1 - 0 to 4 inches: sandy clay loam
H2 - 4 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 20 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Very high

Custom Soil Resource Report

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 24 to 79 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

Description of Sassafras

Setting

Landform: Terraces
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 9 inches: sandy loam
H2 - 9 to 40 inches: sandy clay loam
H3 - 40 to 70 inches: gravelly sandy loam

Properties and qualities

Slope: 7 to 15 percent
Depth to restrictive feature: More than 80 inches
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 1.98 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

Description of Marumsco

Setting

Landform: Terraces
Landform position (two-dimensional): Summit, backslope, shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 7 inches: loam

Custom Soil Resource Report

H2 - 7 to 29 inches: clay
H3 - 29 to 47 inches: sandy clay loam
H4 - 47 to 75 inches: sandy clay loam

Properties and qualities

Slope: 7 to 15 percent
Depth to restrictive feature: More than 80 inches
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 12 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.7 inches)

Interpretive groups

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

71D—Kingstowne-Sassafras-Marumsco complex, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: 226ly
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition

Kingstowne and similar soils: 45 percent
Sassafras and similar soils: 23 percent
Marumsco and similar soils: 22 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kingstowne

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluviomarine deposits

Custom Soil Resource Report

Typical profile

H1 - 0 to 4 inches: sandy clay loam
H2 - 4 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 45 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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 24 to 79 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

Description of Sassafras

Setting

Landform: Terraces
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 9 inches: sandy loam
H2 - 9 to 40 inches: sandy clay loam
H3 - 40 to 70 inches: gravelly sandy loam

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: More than 80 inches
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 1.98 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): 6e
Hydrologic Soil Group: B
Hydric soil rating: No

Description of Marumsco

Setting

Landform: Terraces

Landform position (two-dimensional): Summit, backslope, shoulder

Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 7 inches: loam

H2 - 7 to 29 inches: clay

H3 - 29 to 47 inches: sandy clay loam

H4 - 47 to 75 inches: sandy clay loam

Properties and qualities

Slope: 15 to 25 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 low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 12 to 18 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Moderate (about 7.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6w

Hydrologic Soil Group: C/D

Hydric soil rating: No

72B—Kingstowne-Sassafras-Neabsco complex, 2 to 7 percent slopes

Map Unit Setting

National map unit symbol: 226m0

Mean annual precipitation: 37 to 49 inches

Mean annual air temperature: 45 to 67 degrees F

Frost-free period: 185 to 212 days

Farmland classification: Not prime farmland

Map Unit Composition

Kingstowne and similar soils: 45 percent

Sassafras and similar soils: 20 percent

Neabsco and similar soils: 20 percent

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

Description of Kingstowne

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Earthy fill of fluviomarine deposits

Typical profile

H1 - 0 to 4 inches: sandy clay loam
H2 - 4 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well 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 24 to 79 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

Description of Neabsco

Setting

Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 17 inches: clay loam
H3 - 17 to 36 inches: loam
H4 - 36 to 52 inches: clay loam
H5 - 52 to 72 inches: very gravelly sandy loam

Properties and qualities

Slope: 0 to 7 percent
Depth to restrictive feature: 14 to 30 inches to fragipan
Natural drainage class: Moderately well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 14 to 30 inches

Custom Soil Resource Report

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): 2e
Hydrologic Soil Group: D
Hydric soil rating: No

Description of Sassafras

Setting

Landform: Terraces
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 9 inches: sandy loam
H2 - 9 to 40 inches: sandy clay loam
H3 - 40 to 70 inches: gravelly sandy loam

Properties and qualities

Slope: 2 to 7 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): Moderately high to high (0.20 to 1.98 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): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

95—Urban land

Map Unit Setting

National map unit symbol: 226m7
Mean annual precipitation: 28 to 58 inches
Mean annual air temperature: 87 to 89 degrees F
Frost-free period: 175 to 200 days

Custom Soil Resource Report

Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 95 percent

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

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

109B—Woodstown sandy loam, 2 to 7 percent slopes

Map Unit Setting

National map unit symbol: 226mk

Mean annual precipitation: 37 to 49 inches

Mean annual air temperature: 45 to 67 degrees F

Frost-free period: 185 to 212 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Woodstown and similar soils: 85 percent

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

Description of Woodstown

Setting

Landform: Terraces

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Fluviomarine deposits

Typical profile

H1 - 0 to 11 inches: sandy loam

H2 - 11 to 29 inches: sandy clay loam

H3 - 29 to 70 inches: sandy loam

Properties and qualities

Slope: 2 to 7 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 (0.20 to 5.95 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 6.7 inches)

Custom Soil Resource Report

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: B

Hydric soil rating: No