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

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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.
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: Interfluvies
Landform position (two-dimensional): Shoulder, summit, backslope
Landform position (three-dimensional): Interflue
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: Fluvial 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: Interfluvies
- 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
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Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fluvimarine 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: Fluvimarine 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
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

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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
**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

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**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 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
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Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksatu): 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 (Ksatu): 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
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
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
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

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 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 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: Fluvioferric 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 Marumso

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: Fluvioferric 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

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
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.
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

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 fluvimarine 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

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 map unit.

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 for Alexandria City, Virginia, and Fairfax County, Virginia

Holmes Run

April 11, 2018
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

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: 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

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):** Interfluve
- **Down-slope shape:** Convex
- **Across-slope shape:** Convex
- **Parent material:** Fluvimarine 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: 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 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)
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

**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 fluvimarine 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: 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
- 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 Marumscro

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: Fluvio marine 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
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 fluvimarine 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  
*Hydrich 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:* 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:* 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  
*Hydrich 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:* Fluvio marine 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

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
Downslope shape: Convex
Across-slope shape: Convex
Parent material: Fluvimarine 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: Fluvial or marine 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: 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: 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: Fluvio-marine 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

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 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
- 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 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

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:** Interflues
- **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:** 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:** 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: Interfluvies
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*
*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: 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: 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: Interfluvies
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): 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
Hydrick 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 fluvimarine 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): Shoulder, summit  
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  
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 Marumscoc

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: Fluvio-marine 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

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: Interfluvies
- 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
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: Fluvimarine 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 for
Alexandria City, Virginia
JBFNC Holmes Run

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.
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): 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
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-Marumso 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
- Marumso 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: 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: Fluvio marine 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
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: Interfluvies
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: Fluvimarine 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 for Alexandria City, Virginia

Strawberry Run

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.
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

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 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 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
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:** 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
- **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:** Fluvio marine 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  
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 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: Fluvimarine 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: Fluvimarine 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

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
Custom Soil Resource Report for Alexandria City, Virginia

Taylor Run

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.
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
Parent material: Fluvimarine 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 fluvimarine 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: 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
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: Fluvio marine 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

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71D—Kingstowne-Sassafras-Marumscoc 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
Marumscoc 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 fluvimarine 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 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: Fluvimarine 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
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: 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: 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
Custom Soil Resource Report for Alexandria City, Virginia

Timber Branch

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

April 11, 2018
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 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 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

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
- 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: Fluvimarine 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:** Fluvio marine 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
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 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: Fluvimarine 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

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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

Kingstowe 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 Kingstowe

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
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**: Fluvimarine 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 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
Custom Soil Resource Report for
Alexandria City, Virginia
Unnamed Trib to Walleston

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
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
Parent material: Fluvimarine 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 fluvimarine 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 map unit.

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: 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
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: Fluvio-marine 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-Marumscio 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
Marumscio 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 fluvimarine 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: 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: 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 Marumso

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: Fluvio marine 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
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
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

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