

Soil Descriptions - Non Technical

D1B--Anoka And Zimmerman Soils, Terrace, 2 To 6 Percent Slopes

Component Description

Anoka, terrace and similar soils

Extent: 30 to 60 percent of the unit

Geomorphic description:

Hill on stream terrace

Position on landform:

Summit

Shoulder

Backslope

Slope range: 2 to 6 percent

Surface layer texture: Loamy fine sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 6.0 inches

Content of organic matter in the upper 10 inches: 2.0 percent

Typical profile:

Ap--0 to 10 inches; loamy fine sand

E,E&Bt--10 to 60 inches; fine sand

Zimmerman, terrace and similar soils

Extent: 30 to 60 percent of the unit

Geomorphic description:

Hill on stream terrace

Position on landform:

Backslope

Shoulder

Summit

Slope range: 2 to 4 percent

Surface layer texture: Fine sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.8 inches

Content of organic matter in the upper 10 inches: 0.9 percent

Typical profile:

Ap--0 to 9 inches; fine sand

E,E&Bt--9 to 60 inches; fine sand

Kost and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:
Hill on stream terrace
Position on landform:
Backslope
Slope range: 2 to 6 percent
Surface layer texture: Loamy fine sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.5 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap--0 to 14 inches; loamy fine sand
Bw--14 to 33 inches; fine sand
C--33 to 60 inches; sand

D1C--Anoka And Zimmerman Soils, Terrace, 6 To 12 Percent Slopes

Component Description

Anoka, terrace and similar soils

Extent: 35 to 65 percent of the unit
Geomorphic description:
Hill on stream terrace
Position on landform:
Backslope
Shoulder
Summit
Slope range: 6 to 12 percent
Surface layer texture: Loamy fine sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 6.0 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:
Ap--0 to 10 inches; loamy fine sand
E,E&Bt--10 to 60 inches; fine sand

Zimmerman, terrace and similar soils

Extent: 35 to 65 percent of the unit
Geomorphic description:
Hill on stream terrace
Position on landform:
Summit
Shoulder
Backslope
Slope range: 6 to 12 percent
Surface layer texture: Fine sand
Depth to restrictive feature:
Very deep (more than 60 inches)

Drainage class: Excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.8 inches
Content of organic matter in the upper 10 inches: 0.9 percent
Typical profile:
Ap--0 to 9 inches; fine sand
E,E&Bt--9 to 60 inches; fine sand

Kost and similar soils

Extent: 5 to 15 percent of the unit
Geomorphic description:
Hill on stream terrace
Position on landform:
Backslope
Slope range: 6 to 10 percent
Surface layer texture: Loamy fine sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.5 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap--0 to 14 inches; loamy fine sand
Bw--14 to 33 inches; fine sand
C--33 to 60 inches; sand

D2A--Elkriver Fine Sandy Loam, 0 To 2 Percent Slopes, Rarely Flooded

Component Description

Elkriver, rarely flooded and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic description:
Flood plain
Position on landform:
Flats
Slope range: 0 to 2 percent
Surface layer texture: Fine sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material:
Alluvium
Flooding does not occur (months):
January February July August September October November
December
Flooding is most likely (frequency, months):
Rare March April May June
Wet soil moisture status is highest (depth, months):
3.0 feet April
Wet soil moisture status is lowest (depth, months):
More than 6.7 feet September

Ponding: None

Available water capacity to a depth of 60 inches: 8.2 inches

Content of organic matter in the upper 10 inches: 4.5 percent

Typical profile:

Ap--0 to 10 inches; fine sandy loam

A1,A3--10 to 35 inches; fine sandy loam

Bw--35 to 39 inches; fine sandy loam

2C--39 to 80 inches; sand

Mosford, rarely flooded and similar soils

Extent: 0 to 15 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Slight rise

Slope range: 1 to 3 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Alluvium

Flooding does not occur (months):

January February July August September October November
December

Flooding is most likely (frequency, months):

Rare March April May June

Wet soil moisture status is highest (depth, months):

5.0 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February March June July
August September October
November December

Ponding: None

Available water capacity to a depth of 60 inches: 5.0 inches

Content of organic matter in the upper 10 inches: 4.5 percent

Typical profile:

Ap--0 to 11 inches; fine sandy loam

Bw1--11 to 16 inches; fine sandy loam

Bw2,C2--16 to 57 inches; fine sand

C3--57 to 80 inches; gravelly sand

Elkriver, occasionally flooded and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Flats

Slope range: 0 to 2 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Parent material:

Alluvium

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Occasional March April May June July August

Wet soil moisture status is highest (depth, months):

1.5 feet April

Wet soil moisture status is lowest (depth, months):

4.5 feet February

Ponding: None

Available water capacity to a depth of 60 inches: 7.4 inches

Content of organic matter in the upper 10 inches: 4.5 percent

Typical profile:

Ap--0 to 10 inches; fine sandy loam

A1,A3--10 to 26 inches; fine sandy loam

Bw--26 to 32 inches; very fine sandy loam

2C--32 to 80 inches; sand

D3A--Elkriver Fine Sandy Loam, 0 To 2 Percent Slopes, Occasionally Flooded

Component Description

Elkriver, occasionally flooded and similar soils

Extent: 75 to 95 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Flats

Slope range: 0 to 2 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Parent material:

Alluvium

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Occasional March April May June July August

Wet soil moisture status is highest (depth, months):

1.5 feet April

Wet soil moisture status is lowest (depth, months):

4.5 feet February

Ponding: None

Available water capacity to a depth of 60 inches: 7.4 inches

Content of organic matter in the upper 10 inches: 4.5 percent

Typical profile:

Ap--0 to 10 inches; fine sandy loam

A1,A3--10 to 26 inches; fine sandy loam

Bw--26 to 32 inches; very fine sandy loam

2C--32 to 80 inches; sand

Fordum, frequently flooded and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Concave drainageways

Slope range: 0 to 1 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Alluvium

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Frequent March April May June

Wet soil moisture status is highest (depth, months):
At the surface April May June
Wet soil moisture status is lowest (depth, months):
1.8 feet February
Ponding: None
Available water capacity to a depth of 60 inches: 6.6 inches
Content of organic matter in the upper 10 inches: 5.2 percent
Typical profile:
A--0 to 7 inches; fine sandy loam
Cg--7 to 28 inches; sandy loam
2Cg--28 to 80 inches; sand

Winterfield, occasionally flooded and similar soils

Extent: 0 to 10 percent of the unit
Geomorphic description:
Flood plain
Position on landform:
Slight rise
Slope range: 0 to 2 percent
Surface layer texture: Loamy fine sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material:
Alluvium
Flooding does not occur (months):
January February August September October November
December
Flooding is most likely (frequency, months):
Occasional March April May June July
Wet soil moisture status is highest (depth, months):
1.5 feet April
Wet soil moisture status is lowest (depth, months):
4.5 feet September
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 2.4 percent
Typical profile:
A--0 to 8 inches; loamy fine sand
C1,C2--8 to 20 inches; sand
C3,C5--20 to 80 inches; sand

D4A--Dorset Sandy Loam, 0 To 2 Percent Slopes

Component Description

Dorset and similar soils
Extent: 80 to 100 percent of the unit
Geomorphic description:
Outwash plain
Stream terrace
Position on landform:
Flats
Slope range: 0 to 2 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Outwash
Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.5 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A--0 to 12 inches; sandy loam

Bt--12 to 20 inches; coarse sandy loam

2BC--20 to 27 inches; gravelly coarse sand

2C--27 to 60 inches; gravelly coarse sand

Verndale, acid substratum and similar soils

Extent: 0 to 15 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Flats

Slope range: 0 to 2 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.8 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 19 inches; sandy loam

2Bw--19 to 28 inches; sand

2C--28 to 80 inches; sand

Almora and similar soils

Extent: 0 to 5 percent of the unit

Geomorphic description:

Stream terrace

Outwash plain

Position on landform:

Swales

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 7.7 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

Ap--0 to 10 inches; loam

BE--10 to 14 inches; fine sandy loam

Bt--14 to 36 inches; loam

2Bt--36 to 41 inches; loamy sand

2C--41 to 80 inches; gravelly coarse sand

D4B--Dorset Sandy Loam, 2 To 6 Percent Slopes

Component Description

Dorset and similar soils

Extent: 75 to 95 percent of the unit

Geomorphic description:

Hill on outwash plain

Hill on stream terrace

Position on landform:

Summit

Backslope

Shoulder

Slope range: 2 to 6 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.5 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A--0 to 12 inches; sandy loam

Bt--12 to 20 inches; coarse sandy loam

2BC--20 to 27 inches; gravelly coarse sand

2C--27 to 60 inches; gravelly coarse sand

Verndale, acid substratum and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Hill on stream terrace

Hill on outwash plain

Position on landform:

Footslope

Backslope

Slope range: 2 to 6 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.8 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 19 inches; sandy loam

2Bw--19 to 28 inches; sand

2C--28 to 80 inches; sand

Almora and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Swales

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 7.7 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

Ap--0 to 10 inches; loam

BE--10 to 14 inches; fine sandy loam

Bt--14 to 36 inches; loam

2Bt--36 to 41 inches; loamy sand

2C--41 to 80 inches; gravelly coarse sand

D4C--Dorset Sandy Loam, 6 To 12 Percent Slopes

Component Description

Dorset and similar soils

Extent: 70 to 85 percent of the unit

Geomorphic description:

Hill on stream terrace

Hill on outwash plain

Position on landform:

Backslope

Shoulder

Summit

Slope range: 6 to 12 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap,A--0 to 11 inches; sandy loam

Bt--11 to 19 inches; sandy loam

2BC--19 to 32 inches; gravelly loamy sand

2C--32 to 80 inches; gravelly coarse sand

Verndale, acid substratum and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Hill on stream terrace

Hill on outwash plain

Position on landform:

Backslope

Footslope

Slope range: 2 to 6 percent

Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.8 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap--0 to 10 inches; sandy loam
Bt--10 to 19 inches; sandy loam
2Bw--19 to 28 inches; sand
2C--28 to 80 inches; sand

Almora and similar soils

Extent: 0 to 15 percent of the unit
Geomorphic description:
Outwash plain
Stream terrace
Position on landform:
Swales
Slope range: 0 to 2 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 7.7 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
Ap--0 to 10 inches; loam
BE--10 to 14 inches; fine sandy loam
Bt--14 to 36 inches; loam
2Bt--36 to 41 inches; loamy sand
2C--41 to 80 inches; gravelly coarse sand

D5B--Dorset-Two Inlets Complex, 2 To 6 Percent Slopes

Component Description

Dorset and similar soils

Extent: 50 to 75 percent of the unit
Geomorphic description:
Hill on outwash plain
Hill on stream terrace
Position on landform:
Backslope
Shoulder
Slope range: 2 to 6 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A--0 to 11 inches; sandy loam

Bt--11 to 19 inches; sandy loam

2BC--19 to 32 inches; gravelly loamy sand

2C--32 to 80 inches; gravelly coarse sand

Two inlets and similar soils

Extent: 20 to 30 percent of the unit

Geomorphic description:

Hill on outwash plain

Hill on stream terrace

Position on landform:

Shoulder

Slope range: 2 to 6 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.2 inches

Content of organic matter in the upper 10 inches: 0.7 percent

Typical profile:

Ap--0 to 9 inches; loamy sand

Bt--9 to 19 inches; gravelly loamy sand

C--19 to 80 inches; gravelly sand

Verndale, acid substratum and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on outwash plain

Hill on stream terrace

Position on landform:

Footslope

Backslope

Slope range: 2 to 6 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.8 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 19 inches; sandy loam

2Bw--19 to 28 inches; sand

2C--28 to 80 inches; sand

Southhaven and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Stream terrace

Outwash plain

Position on landform:

Swales

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

3.5 feet April May

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet August September October

Ponding: None

Available water capacity to a depth of 60 inches: 11.0 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

Ap,A3--0 to 48 inches; loam

Bw--48 to 62 inches; loam

2Bw--62 to 66 inches; loamy sand

2C--66 to 80 inches; sand

D5C--Dorset-Two Inlets Complex, 6 To 12 Percent Slopes

Component Description

Dorset and similar soils

Extent: 50 to 65 percent of the unit

Geomorphic description:

Hill on stream terrace

Hill on outwash plain

Position on landform:

Summit

Backslope

Slope range: 6 to 12 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap,A--0 to 11 inches; sandy loam

Bt--11 to 19 inches; sandy loam

2BC--19 to 32 inches; gravelly loamy sand

2C--32 to 80 inches; gravelly coarse sand

Two inlets and similar soils

Extent: 20 to 40 percent of the unit

Geomorphic description:

Hill on outwash plain
Hill on stream terrace
Position on landform:
Shoulder
Slope range: 6 to 12 percent
Surface layer texture: Loamy sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.2 inches
Content of organic matter in the upper 10 inches: 0.7 percent
Typical profile:
Ap--0 to 9 inches; loamy sand
Bt--9 to 19 inches; gravelly loamy sand
C--19 to 80 inches; gravelly sand

Southhaven and similar soils

Extent: 5 to 15 percent of the unit
Geomorphic description:
Outwash plain
Stream terrace
Position on landform:
Swales
Slope range: 0 to 3 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Colluvium over outwash
Flooding: None
Wet soil moisture status is highest (depth, months):
3.5 feet April May
Wet soil moisture status is lowest (depth, months):
More than 6.7 feet August September October
Ponding: None
Available water capacity to a depth of 60 inches: 11.0 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
Ap,A3--0 to 48 inches; loam
Bw--48 to 62 inches; loam
2Bw--62 to 66 inches; loamy sand
2C--66 to 80 inches; sand

Verndale, acid substratum and similar soils

Extent: 0 to 10 percent of the unit
Geomorphic description:
Hill on outwash plain
Hill on stream terrace
Position on landform:
Backslope
Foothill
Slope range: 6 to 9 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.8 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 19 inches; sandy loam

2Bw--19 to 28 inches; sand

2C--28 to 80 inches; sand

D5D--Dorset-Two Inlets Complex, 12 To 18 Percent Slopes

Component Description

Dorset and similar soils

Extent: 45 to 60 percent of the unit

Geomorphic description:

Hill on stream terrace

Hill on outwash plain

Position on landform:

Backslope

Summit

Slope range: 12 to 18 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.0 inches

Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:

Ap--0 to 9 inches; sandy loam

Bt--9 to 14 inches; sandy loam

2Bt,2BC--14 to 25 inches; gravelly loamy sand

2C--25 to 80 inches; gravelly sand

Two inlets and similar soils

Extent: 25 to 40 percent of the unit

Geomorphic description:

Hill on stream terrace

Hill on outwash plain

Position on landform:

Shoulder

Slope range: 12 to 18 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.2 inches

Content of organic matter in the upper 10 inches: 0.7 percent

Typical profile:

Ap--0 to 9 inches; loamy sand

Bt--9 to 19 inches; gravelly loamy sand

C--19 to 80 inches; gravelly sand

Southhaven and similar soils

Extent: 5 to 15 percent of the unit

Geomorphic description:

Stream terrace

Outwash plain

Position on landform:

Swales

Slope range: 0 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

3.5 feet April May

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet August September October

Ponding: None

Available water capacity to a depth of 60 inches: 11.0 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

Ap,A3--0 to 48 inches; loam

Bw--48 to 62 inches; loam

2Bw--62 to 66 inches; loamy sand

2C--66 to 80 inches; sand

Verndale, acid substratum and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on outwash plain

Hill on stream terrace

Position on landform:

Footslope

Backslope

Slope range: 6 to 9 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.8 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 19 inches; sandy loam

2Bw--19 to 28 inches; sand

2C--28 to 80 inches; sand

D6A--Verndale Sandy Loam, Acid Substratum, 0 To 2 Percent Slopes

Component Description

Verndale, acid substratum and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Flats

Slope range: 0 to 2 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.8 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 19 inches; sandy loam

2Bw--19 to 28 inches; sand

2C--28 to 80 inches; sand

Dorset and similar soils

Extent: 0 to 15 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Flats

Slope range: 0 to 2 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.5 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A--0 to 12 inches; sandy loam

Bt--12 to 20 inches; coarse sandy loam

2BC--20 to 27 inches; gravelly coarse sand

2C--27 to 60 inches; gravelly coarse sand

Hubbard and similar soils

Extent: 0 to 5 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Flats

Slope range: 0 to 2 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.0 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,AB--0 to 20 inches; loamy sand

Bw--20 to 32 inches; loamy sand

BC,C--32 to 80 inches; sand

D6B--Verndale Sandy Loam, Acid Substratum, 2 To 6 Percent Slopes

Component Description

Verndale, acid substratum and similar soils

Extent: 75 to 100 percent of the unit

Geomorphic description:

Hill on stream terrace

Hill on outwash plain

Position on landform:

Summit

Backslope

Slope range: 2 to 6 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.8 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 19 inches; sandy loam

2Bw--19 to 28 inches; sand

2C--28 to 80 inches; sand

Dorset and similar soils

Extent: 0 to 15 percent of the unit

Geomorphic description:

Hill on stream terrace

Hill on outwash plain

Position on landform:

Summit

Backslope

Slope range: 2 to 6 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.5 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap,A--0 to 12 inches; sandy loam
Bt--12 to 20 inches; coarse sandy loam
2BC--20 to 27 inches; gravelly coarse sand
2C--27 to 60 inches; gravelly coarse sand

Hubbard and similar soils

Extent: 0 to 10 percent of the unit
Geomorphic description:
Hill on outwash plain
Hill on stream terrace
Position on landform:
Shoulder
Slope range: 2 to 6 percent
Surface layer texture: Loamy sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.9 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap,A--0 to 18 inches; loamy sand
Bw--18 to 23 inches; loamy sand
BC,C--23 to 80 inches; sand

D6C--Verndale Sandy Loam, Acid Substratum, 6 To 12 Percent Slopes

Component Description

Verndale, acid substratum and similar soils

Extent: 80 percent of the unit
Geomorphic description:
Hill on stream terrace
Hill on outwash plain
Position on landform:
Backslope
Summit
Slope range: 6 to 12 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.8 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap--0 to 10 inches; sandy loam
Bt--10 to 19 inches; sandy loam

2Bw--19 to 28 inches; sand

2C--28 to 80 inches; sand

Dorset and similar soils

Extent: 15 percent of the unit

Geomorphic description:

Hill on stream terrace

Hill on outwash plain

Position on landform:

Backslope

Summit

Slope range: 6 to 12 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap,A--0 to 11 inches; sandy loam

Bt--11 to 19 inches; sandy loam

2BC--19 to 32 inches; gravelly loamy sand

2C--32 to 80 inches; gravelly coarse sand

Hubbard and similar soils

Extent: 5 percent of the unit

Geomorphic description:

Hill on stream terrace

Hill on outwash plain

Position on landform:

Shoulder

Slope range: 6 to 12 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.6 inches

Content of organic matter in the upper 10 inches: 2.0 percent

Typical profile:

Ap,AB--0 to 12 inches; loamy sand

Bw--12 to 33 inches; coarse sand

C--33 to 80 inches; coarse sand

D7A--Hubbard Loamy Sand, 0 To 2 Percent Slopes

Component Description

Hubbard and similar soils

Extent: 85 to 100 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace
Position on landform:
Flats
Slope range: 0 to 2 percent
Surface layer texture: Loamy sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.0 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap,AB--0 to 20 inches; loamy sand
Bw--20 to 32 inches; loamy sand
BC,C--32 to 80 inches; sand

Mosford and similar soils

Extent: 0 to 10 percent of the unit
Geomorphic description:
Outwash plain
Stream terrace
Position on landform:
Swales
Slope range: 0 to 2 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.1 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap,A--0 to 13 inches; sandy loam
Bw--13 to 16 inches; coarse sandy loam
2Bw--16 to 35 inches; coarse sand
2C--35 to 80 inches; sand

D7B--Hubbard Loamy Sand, 2 To 6 Percent Slopes

Component Description

Hubbard and similar soils

Extent: 85 to 100 percent of the unit
Geomorphic description:
Hill on outwash plain
Hill on stream terrace
Position on landform:
Summit
Shoulder
Backslope
Slope range: 2 to 6 percent
Surface layer texture: Loamy sand
Depth to restrictive feature:

Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.9 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap,A--0 to 18 inches; loamy sand
Bw--18 to 23 inches; loamy sand
BC,C--23 to 80 inches; sand

Mosford and similar soils

Extent: 0 to 15 percent of the unit
Geomorphic description:
Outwash plain
Stream terrace
Position on landform:
Swales
Slope range: 1 to 3 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.1 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap,A--0 to 13 inches; sandy loam
Bw--13 to 16 inches; coarse sandy loam
2Bw--16 to 35 inches; coarse sand
2C--35 to 80 inches; sand

D7C--Hubbard Loamy Sand, 6 To 12 Percent Slopes

Component Description

Hubbard and similar soils

Extent: 75 to 100 percent of the unit
Geomorphic description:
Hill on stream terrace
Hill on outwash plain
Position on landform:
Backslope
Summit
Shoulder
Slope range: 6 to 12 percent
Surface layer texture: Loamy sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.6 inches

Content of organic matter in the upper 10 inches: 2.0 percent

Typical profile:

Ap,AB--0 to 12 inches; loamy sand

Bw--12 to 33 inches; coarse sand

C--33 to 80 inches; coarse sand

Sandberg and similar soils

Extent: 0 to 15 percent of the unit

Geomorphic description:

Hill on stream terrace

Hill on outwash plain

Position on landform:

Shoulder

Slope range: 6 to 12 percent

Surface layer texture: Loamy coarse sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.9 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap,A--0 to 14 inches; loamy coarse sand

Bw--14 to 32 inches; gravelly coarse sand

C--32 to 80 inches; sand

Mosford and similar soils

Extent: 0 to 15 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Swales

Slope range: 1 to 3 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.1 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A--0 to 13 inches; sandy loam

Bw--13 to 16 inches; coarse sandy loam

2Bw--16 to 35 inches; coarse sand

2C--35 to 80 inches; sand

D8B--Sandberg Loamy Coarse Sand, 2 To 6 Percent Slopes

Component Description

Sandberg and similar soils

Extent: 90 to 100 percent of the unit

Geomorphic description:

Hill on stream terrace

Position on landform:

Summit

Shoulder

Backslope

Slope range: 2 to 6 percent

Surface layer texture: Loamy coarse sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.9 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap,A--0 to 14 inches; loamy coarse sand

Bw--14 to 32 inches; gravelly coarse sand

C--32 to 80 inches; sand

Arvilla, map>25 and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Stream terrace

Position on landform:

Swales

Slope range: 0 to 2 percent

Surface layer texture: Coarse sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.1 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap,A--0 to 14 inches; coarse sandy loam

Bw--14 to 17 inches; coarse sandy loam

2Bw,2C--17 to 80 inches; gravelly coarse sand

D8C--Sandberg Loamy Coarse Sand, 6 To 12 Percent Slopes

Component Description

Sandberg and similar soils

Extent: 75 to 95 percent of the unit

Geomorphic description:

Hill on stream terrace

Position on landform:

Shoulder

Backslope

Slope range: 6 to 12 percent

Surface layer texture: Loamy coarse sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.9 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap,A--0 to 14 inches; loamy coarse sand

Bw--14 to 32 inches; gravelly coarse sand

C--32 to 80 inches; sand

Corliss and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Hill on stream terrace

Position on landform:

Summit

Backslope

Slope range: 6 to 12 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.5 inches

Content of organic matter in the upper 10 inches: 2.2 percent

Typical profile:

Ap--0 to 7 inches; loamy sand

Bw--7 to 28 inches; coarse sand

C--28 to 80 inches; coarse sand

Southhaven and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Stream terrace

Position on landform:

Swales

Slope range: 0 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

3.5 feet April May

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet August September October

Ponding: None

Available water capacity to a depth of 60 inches: 11.0 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

Ap,A3--0 to 48 inches; loam

Bw--48 to 62 inches; loam
2Bw--62 to 66 inches; loamy sand
2C--66 to 80 inches; sand

D8D--Sandberg Loamy Coarse Sand, 12 To 18 Percent Slopes

Component Description

Sandberg and similar soils

Extent: 75 to 90 percent of the unit

Geomorphic description:

Hill on stream terrace

Position on landform:

Shoulder

Backslope

Slope range: 12 to 18 percent

Surface layer texture: Loamy coarse sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.6 inches

Content of organic matter in the upper 10 inches: 2.0 percent

Typical profile:

Ap--0 to 11 inches; loamy coarse sand

Bw--11 to 27 inches; coarse sand

C--27 to 80 inches; gravelly coarse sand

Corliss and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Hill on stream terrace

Position on landform:

Backslope

Summit

Slope range: 12 to 18 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.5 inches

Content of organic matter in the upper 10 inches: 2.2 percent

Typical profile:

Ap--0 to 7 inches; loamy sand

Bw--7 to 28 inches; coarse sand

C--28 to 80 inches; coarse sand

Southaven and similar soils

Extent: 5 to 15 percent of the unit

Geomorphic description:

Stream terrace

Position on landform:

Swales

Slope range: 0 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

3.5 feet April May

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet August September October

Ponding: None

Available water capacity to a depth of 60 inches: 11.0 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

Ap,A3--0 to 48 inches; loam

Bw--48 to 62 inches; loam

2Bw--62 to 66 inches; loamy sand

2C--66 to 80 inches; sand

D8E--Sandberg Loamy Coarse Sand, 18 To 35 Percent Slopes

Component Description

Sandberg and similar soils

Extent: 70 to 90 percent of the unit

Geomorphic description:

Escarpment

Position on landform:

Backslope

Shoulder

Slope range: 18 to 35 percent

Surface layer texture: Loamy coarse sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.6 inches

Content of organic matter in the upper 10 inches: 2.0 percent

Typical profile:

A--0 to 11 inches; loamy coarse sand

Bw--11 to 27 inches; coarse sand

C--27 to 80 inches; gravelly coarse sand

Corliss and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Escarpment

Position on landform:

Backslope

Summit

Slope range: 18 to 35 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.5 inches
Content of organic matter in the upper 10 inches: 2.2 percent
Typical profile:
Ap--0 to 7 inches; loamy sand
Bw--7 to 28 inches; coarse sand
C--28 to 80 inches; coarse sand

Southhaven and similar soils

Extent: 5 to 20 percent of the unit
Geomorphic description:
Escarpment
Position on landform:
Toeslope
Footslope
Slope range: 0 to 3 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Colluvium over outwash
Flooding: None
Wet soil moisture status is highest (depth, months):
3.5 feet April May
Wet soil moisture status is lowest (depth, months):
More than 6.7 feet August September October
Ponding: None
Available water capacity to a depth of 60 inches: 11.0 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
Ap,A3--0 to 48 inches; loam
Bw--48 to 62 inches; loam
2Bw--62 to 66 inches; loamy sand
2C--66 to 80 inches; sand

D10A--Forada Sandy Loam, 0 To 2 Percent Slopes

Component Description

Forada and similar soils

Extent: 85 to 100 percent of the unit
Geomorphic description:
Stream terrace
Position on landform:
Swales
Slope range: 0 to 2 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Outwash
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 6.6 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bg--10 to 33 inches; loam

2Cg--33 to 60 inches; sand

Depressional soil and similar soils

Extent: 0 to 15 percent of the unit

Geomorphic description:

Stream terrace

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface April May June

Wet soil moisture status is lowest (depth, months):

1.5 feet February

Ponding does not occur (months):

January February July August September October November
December

Ponding is deepest (depth, months):

1.0 foot March April May

Available water capacity to a depth of 60 inches: 7.2 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

Ap,AB--0 to 19 inches; sandy loam

Bg--19 to 38 inches; loam

2Cg--38 to 60 inches; sand

D11A--Lindaas Silt Loam, 0 To 2 Percent Slopes

Component Description

Lindaas and similar soils

Extent: 75 to 100 percent of the unit

Geomorphic description:

Lake plain

Position on landform:

Flats and swales

Slope range: 0 to 2 percent

Surface layer texture: Silt loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Glaciolacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April May

Wet soil moisture status is lowest (depth, months):

2.5 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 8.9 inches
Content of organic matter in the upper 10 inches: 5.0 percent
Typical profile:
Ap,A--0 to 16 inches; silt loam
Btg--16 to 32 inches; silty clay
Cg--32 to 80 inches; silty clay loam

Lindaas, sandy substratum and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Lake plain

Position on landform:

Flats and swales

Slope range: 0 to 2 percent

Surface layer texture: Silt loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Glaciolacustrine sediments over outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April May

Wet soil moisture status is lowest (depth, months):

2.5 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 8.9 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

Ap--0 to 14 inches; silt loam

Btg--14 to 20 inches; silty clay

Cg--20 to 62 inches; silty clay loam

2Cg--62 to 80 inches; stratified very gravelly coarse sand to loamy sand

Depressional soil and similar soils

Extent: 0 to 15 percent of the unit

Geomorphic description:

Lake plain

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Silt loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Glaciolacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface April May June

Wet soil moisture status is lowest (depth, months):

1.5 feet February

Ponding does not occur (months):

January February July August September October November
December

Ponding is deepest (depth, months):

1.0 foot March April May

Available water capacity to a depth of 60 inches: 9.5 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

Ap,A--0 to 23 inches; silt loam
Btg--23 to 30 inches; silty clay
Cg--30 to 80 inches; silty clay loam

D12B--Bygland Silt Loam, Map >25, 2 To 6 Percent Slopes

Component Description

Bygland, map>25 and similar soils

Extent: 65 to 90 percent of the unit

Geomorphic description:

Hill on lake plain

Position on landform:

Summit

Backslope

Shoulder

Slope range: 2 to 6 percent

Surface layer texture: Silt loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Glaciolacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

3.0 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet July August September

Ponding: None

Available water capacity to a depth of 60 inches: 11.2 inches

Content of organic matter in the upper 10 inches: 2.8 percent

Typical profile:

Ap--0 to 9 inches; silt loam

Bt--9 to 23 inches; silty clay

BC--23 to 27 inches; silt loam

C--27 to 80 inches; stratified silt loam to silty clay loam

Bygland, sandy substratum and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Hill on lake plain

Position on landform:

Footslope

Backslope

Slope range: 2 to 6 percent

Surface layer texture: Silt loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Glaciolacustrine sediments over outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

2.3 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August
September December

Ponding: None

Available water capacity to a depth of 60 inches: 11.5 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A--0 to 14 inches; silt loam
Bt--14 to 26 inches; silty clay
BC--26 to 38 inches; silty clay loam
C--38 to 63 inches; stratified silt loam to silty clay loam
2C--63 to 80 inches; stratified very gravelly coarse sand to loamy sand

Lindaas and similar soils

Extent: 5 to 15 percent of the unit

Geomorphic description:

Lake plain

Position on landform:

Swales

Slope range: 0 to 2 percent

Surface layer texture: Silt loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Glaciolacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April May

Wet soil moisture status is lowest (depth, months):

2.5 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 8.9 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

Ap,A--0 to 16 inches; silt loam

Btg--16 to 32 inches; silty clay

Cg--32 to 80 inches; silty clay loam

Depressional soil and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Lake plain

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Silt loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Glaciolacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface April May June

Wet soil moisture status is lowest (depth, months):

1.5 feet February

Ponding does not occur (months):

January February July August September October November
December

Ponding is deepest (depth, months):

1.0 foot March April May

Available water capacity to a depth of 60 inches: 9.5 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

Ap,A--0 to 23 inches; silt loam

Btg--23 to 30 inches; silty clay

Cg--30 to 80 inches; silty clay loam

D12C2--Bygland Silt Loam, Map >25, 6 To 12 Percent Slopes, Eroded

Component Description

Bygland, map>25 and similar soils

Extent: 65 to 90 percent of the unit

Geomorphic description:

Hill on lake plain

Position on landform:

Backslope

Summit

Shoulder

Slope range: 6 to 12 percent

Surface layer texture: Silt loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Glaciolacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

3.0 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February March June July
August September October
November December

Ponding: None

Available water capacity to a depth of 60 inches: 11.1 inches

Content of organic matter in the upper 10 inches: 0.9 percent

Typical profile:

Ap--0 to 7 inches; silt loam

Bt--7 to 20 inches; silty clay

BC--20 to 26 inches; silt loam

C--26 to 80 inches; stratified silt loam to silty clay loam

Bygland, sandy substratum and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Hill on lake plain

Position on landform:

Footslope

Backslope

Slope range: 6 to 10 percent

Surface layer texture: Silt loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Glaciolacustrine sediments over outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

2.3 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August
September December

Ponding: None

Available water capacity to a depth of 60 inches: 11.5 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A--0 to 14 inches; silt loam
Bt--14 to 26 inches; silty clay
BC--26 to 38 inches; silty clay loam
C--38 to 63 inches; stratified silt loam to silty clay loam
2C--63 to 80 inches; stratified very gravelly coarse sand to loamy sand

Lindaas and similar soils

Extent: 0 to 15 percent of the unit

Geomorphic description:

Lake plain

Position on landform:

Swales

Slope range: 0 to 2 percent

Surface layer texture: Silt loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Glaciolacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April May

Wet soil moisture status is lowest (depth, months):

2.5 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 8.9 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

Ap,A--0 to 16 inches; silt loam

Btg--16 to 32 inches; silty clay

Cg--32 to 80 inches; silty clay loam

Depressional soil and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Lake plain

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Silt loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Glaciolacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface April May June

Wet soil moisture status is lowest (depth, months):

1.5 feet February

Ponding does not occur (months):

January February July August September October November
December

Ponding is deepest (depth, months):

1.0 foot March April May

Available water capacity to a depth of 60 inches: 9.5 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

Ap,A--0 to 23 inches; silt loam

Btg--23 to 30 inches; silty clay

Cg--30 to 80 inches; silty clay loam

D13A--Langola Loamy Fine Sand, Terrace, 0 To 2 Percent Slopes

Component Description

Langola, terrace and similar soils

Extent: 75 to 100 percent of the unit

Geomorphic description:

Stream terrace

Position on landform:

Flats

Slope range: 0 to 2 percent

Surface layer texture: Loamy fine sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Outwash over till

Flooding: None

Wet soil moisture status is highest (depth, months):

2.0 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 5.8 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,AB--0 to 15 inches; loamy fine sand

Bw--15 to 31 inches; loamy sand

2Bt--31 to 39 inches; sandy loam

2BC--39 to 43 inches; sandy loam

2Cd--43 to 60 inches; sandy loam

Duelm and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Stream terrace

Position on landform:

Swales

Slope range: 0 to 2 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April May

Wet soil moisture status is lowest (depth, months):

4.0 feet February August September

Ponding: None

Available water capacity to a depth of 60 inches: 4.4 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

Ap,AB--0 to 16 inches; loamy sand

Bw--16 to 30 inches; coarse sand

C--30 to 80 inches; coarse sand

Hubbard and similar soils

Extent: 0 to 10 percent of the unit
Geomorphic description:
Stream terrace
Position on landform:
Slight rise
Slope range: 1 to 3 percent
Surface layer texture: Loamy sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.0 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap,AB--0 to 20 inches; loamy sand
Bw--20 to 32 inches; loamy sand
BC,C--32 to 80 inches; sand

D13B--Langola Loamy Fine Sand, Terrace, 2 To 6 Percent Slopes

Component Description

Langola, terrace and similar soils
Extent: 80 to 100 percent of the unit
Geomorphic description:
Hill on stream terrace
Position on landform:
Shoulder
Summit
Backslope
Slope range: 2 to 6 percent
Surface layer texture: Loamy fine sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material:
Outwash over till
Flooding: None
Wet soil moisture status is highest (depth, months):
2.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August
September
Ponding: None
Available water capacity to a depth of 60 inches: 5.8 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap,AB--0 to 15 inches; loamy fine sand
Bw--15 to 31 inches; loamy sand
2Bt--31 to 39 inches; sandy loam
2BC--39 to 43 inches; sandy loam
2Cd--43 to 60 inches; sandy loam

Hubbard and similar soils
Extent: 5 to 20 percent of the unit
Geomorphic description:
Hill on stream terrace

Position on landform:

Backslope

Slope range: 2 to 6 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.9 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A--0 to 18 inches; loamy sand

Bw--18 to 23 inches; loamy sand

BC,C--23 to 80 inches; sand

Duelm and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Stream terrace

Position on landform:

Swales

Slope range: 0 to 2 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April May

Wet soil moisture status is lowest (depth, months):

4.0 feet February August September

Ponding: None

Available water capacity to a depth of 60 inches: 4.4 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

Ap,AB--0 to 16 inches; loamy sand

Bw--16 to 30 inches; coarse sand

C--30 to 80 inches; coarse sand

D15A--Seelyeville-Markey Complex, Depressional, 0 To 1 Percent Slopes

Component Description

Seelyeville, drained and similar soils

Extent: 50 to 100 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Organic material

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April

Wet soil moisture status is lowest (depth, months):

2.0 feet February August

Ponding does not occur (months):

January February May June July August September October
November December

Ponding is deepest (depth, months):

1.0 foot April

Available water capacity to a depth of 60 inches: 23.9 inches

Content of organic matter in the upper 10 inches: 75.0 percent

Typical profile:

Oap--0 to 10 inches; muck

Oa2,Oa5--10 to 60 inches; muck

Markey, drained and similar soils

Extent: 15 to 30 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Organic material over outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April

Wet soil moisture status is lowest (depth, months):

2.0 feet February August

Ponding does not occur (months):

January February May June July August September October
November December

Ponding is deepest (depth, months):

1.0 foot April

Available water capacity to a depth of 60 inches: 13.1 inches

Content of organic matter in the upper 10 inches: 75.0 percent

Typical profile:

Oap,Oa2,Oa3--0 to 28 inches; muck

A--28 to 32 inches; loamy sand

Cg--32 to 80 inches; sand

Mineral soil, drained and similar soils

Extent: 10 to 30 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Outwash
Flooding: None
Wet soil moisture status is highest (depth, months):
At the surface March April
Wet soil moisture status is lowest (depth, months):
2.0 feet February August
Ponding does not occur (months):
January February May June July August September October
November December
Ponding is deepest (depth, months):
1.0 foot April
Available water capacity to a depth of 60 inches: 4.8 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
Ap,A--0 to 18 inches; sandy loam
AB,Bg--18 to 29 inches; loamy sand
Cg--29 to 80 inches; coarse sand

D16A--Seelyeville And Markey Soils, Ponded, 0 To 1 Percent Slopes

Component Description

Seelyeville, ponded and similar soils
Extent: 0 to 100 percent of the unit
Geomorphic description:
Outwash plain
Stream terrace
Position on landform:
Depressions
Slope range: 0 to 1 percent
Surface layer texture: Muck
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material:
Organic material
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months):
0.5 foot August
Ponding is deepest (depth, months):
3.0 feet March April May
Available water capacity to a depth of 60 inches: 23.9 inches
Content of organic matter in the upper 10 inches: 75.0 percent
Typical profile:
Oa1--0 to 15 inches; muck
Oa2,Oa3--15 to 80 inches; muck

Markey, ponded and similar soils
Extent: 0 to 100 percent of the unit
Geomorphic description:
Stream terrace
Outwash plain
Position on landform:
Depressions
Slope range: 0 to 1 percent
Surface layer texture: Muck
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material:

Organic material over outwash
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months):
0.5 foot August
Ponding is deepest (depth, months):
3.0 feet March April May
Available water capacity to a depth of 60 inches: 12.8 inches
Content of organic matter in the upper 10 inches: 75.0 percent
Typical profile:
Oa--0 to 27 inches; muck
A--27 to 32 inches; loamy sand
Cg--32 to 80 inches; sand

Mineral soil, ponded and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Stream terrace

Outwash plain

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Outwash

Flooding: None

Wet soil moisture status: At the surface all year

Ponding is shallowest (depth, months):

0.5 foot August

Ponding is deepest (depth, months):

3.0 feet March April May

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

A--0 to 14 inches; sandy loam

AB,Bg--14 to 34 inches; loamy sand

Cg--34 to 80 inches; coarse sand

D17A--Duelm Loamy Sand, 0 To 2 Percent Slopes

Component Description

Duelm and similar soils

Extent: 85 to 100 percent of the unit

Geomorphic description:

Stream terrace

Position on landform:

Flats and slight rises

Slope range: 0 to 2 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April May

Wet soil moisture status is lowest (depth, months):
4.0 feet February August September

Ponding: None

Available water capacity to a depth of 60 inches: 4.4 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

Ap,AB--0 to 16 inches; loamy sand

Bw--16 to 30 inches; coarse sand

C--30 to 80 inches; coarse sand

Isan and similar soils

Extent: 0 to 15 percent of the unit

Geomorphic description:

Stream terrace

Position on landform:

Swales

Slope range: 0 to 2 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April May

Wet soil moisture status is lowest (depth, months):

2.0 feet August September

Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 6.5 percent

Typical profile:

A--0 to 14 inches; sandy loam

AB,Bg--14 to 34 inches; loamy sand

Cg--34 to 80 inches; coarse sand

Hubbard and similar soils

Extent: 0 to 5 percent of the unit

Geomorphic description:

Stream terrace

Position on landform:

Slight rise

Slope range: 2 to 4 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.9 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A--0 to 18 inches; loamy sand

Bw--18 to 23 inches; loamy sand

BC,C--23 to 80 inches; sand

D18B--Braham Loamy Fine Sand, Terrace, 2 To 5 Percent Slopes

Component Description

Braham, terrace and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic description:

Hill on stream terrace

Position on landform:

Summit

Shoulder

Backslope

Slope range: 2 to 5 percent

Surface layer texture: Loamy fine sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Outwash over till

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet January February June July
August September

Ponding: None

Available water capacity to a depth of 60 inches: 8.4 inches

Content of organic matter in the upper 10 inches: 1.7 percent

Typical profile:

Ap--0 to 8 inches; loamy fine sand

E--8 to 24 inches; loamy fine sand

2Bt--24 to 42 inches; sandy clay loam

2Bk--42 to 60 inches; loam

Duelm and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Stream terrace

Position on landform:

Flats and slight rises

Slope range: 0 to 2 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April May

Wet soil moisture status is lowest (depth, months):

4.0 feet February August September

Ponding: None

Available water capacity to a depth of 60 inches: 4.4 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

Ap,AB--0 to 16 inches; loamy sand

Bw--16 to 30 inches; coarse sand

C--30 to 80 inches; coarse sand

D19A--Fordum-Winterfield Complex, 0 To 2 Percent Slopes, Frequently Flooded

Component Description

Fordum, frequently flooded and similar soils

Extent: 50 to 100 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Concave drainageways

Slope range: 0 to 1 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Alluvium

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Frequent March April May June

Wet soil moisture status is highest (depth, months):

At the surface April May June

Wet soil moisture status is lowest (depth, months):

1.8 feet February

Ponding: None

Available water capacity to a depth of 60 inches: 6.6 inches

Content of organic matter in the upper 10 inches: 5.2 percent

Typical profile:

A--0 to 7 inches; fine sandy loam

Cg--7 to 28 inches; sandy loam

2Cg--28 to 80 inches; sand

Winterfield, frequently flooded and similar soils

Extent: 20 to 40 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Slight rises

Slope range: 0 to 2 percent

Surface layer texture: Loamy fine sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Parent material:

Alluvium

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Frequent March April

Wet soil moisture status is highest (depth, months):

1.5 feet April

Wet soil moisture status is lowest (depth, months):

4.5 feet September

Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 2.4 percent

Typical profile:

A--0 to 8 inches; loamy fine sand

C1,C2--8 to 20 inches; sand

C3,C5--20 to 80 inches; sand

Fordum, occasionally flooded and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Flood plain
 Position on landform:
 Flats
 Slope range: 0 to 2 percent
 Surface layer texture: Loam
 Depth to restrictive feature:
 Very deep (more than 60 inches)
 Drainage class: Poorly drained
 Parent material:
 Alluvium
 Flooding does not occur (months):
 January February September October November December
 Flooding is most likely (frequency, months):
 Occasional March April May June July August
 Wet soil moisture status is highest (depth, months):
 0.5 foot April
 Wet soil moisture status is lowest (depth, months):
 2.3 feet September
 Ponding: None
 Available water capacity to a depth of 60 inches: 8.7 inches
 Content of organic matter in the upper 10 inches: 7.0 percent
 Typical profile:
 Ap--0 to 9 inches; loam
 Cg--9 to 38 inches; loam
 2Cg--38 to 80 inches; stratified sand to silt loam

D20A--Isan Sandy Loam, 0 To 2 Percent Slopes

Component Description

Isan and similar soils

Extent: 80 to 100 percent of the unit
 Geomorphic description:
 Stream terrace
 Position on landform:
 Swales
 Slope range: 0 to 2 percent
 Surface layer texture: Sandy loam
 Depth to restrictive feature:
 Very deep (more than 60 inches)
 Drainage class: Poorly drained
 Parent material:
 Outwash
 Flooding: None
 Wet soil moisture status is highest (depth, months):
 0.5 foot April May
 Wet soil moisture status is lowest (depth, months):
 2.0 feet August September
 Ponding: None
 Available water capacity to a depth of 60 inches: 4.7 inches
 Content of organic matter in the upper 10 inches: 6.5 percent
 Typical profile:
 A--0 to 14 inches; sandy loam
 AB,Bg--14 to 34 inches; loamy sand
 Cg--34 to 80 inches; coarse sand

Isan, depressional and similar soils

Extent: 5 to 15 percent of the unit
 Geomorphic description:
 Stream terrace
 Position on landform:

Depressions
Slope range: 0 to 1 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material:
Outwash
Flooding: None
Wet soil moisture status is highest (depth, months):
At the surface April May June
Wet soil moisture status is lowest (depth, months):
1.5 feet February
Ponding does not occur (months):
January February July August September October November
December
Ponding is deepest (depth, months):
1.0 foot March April May
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 6.5 percent
Typical profile:
A--0 to 14 inches; sandy loam
AB,Bg--14 to 34 inches; loamy sand
Cg--34 to 80 inches; coarse sand

Duelm and similar soils

Extent: 0 to 10 percent of the unit
Geomorphic description:
Stream terrace
Position on landform:
Flats and slight rises
Slope range: 0 to 2 percent
Surface layer texture: Loamy sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material:
Outwash
Flooding: None
Wet soil moisture status is highest (depth, months):
2.5 feet April May
Wet soil moisture status is lowest (depth, months):
4.0 feet February August September
Ponding: None
Available water capacity to a depth of 60 inches: 4.4 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
Ap,AB--0 to 16 inches; loamy sand
Bw--16 to 30 inches; coarse sand
C--30 to 80 inches; coarse sand

D21A--Isan Sandy Loam, Depressional, 0 To 1 Percent Slopes

Component Description

Isan, depressional and similar soils
Extent: 80 to 100 percent of the unit
Geomorphic description:
Stream terrace
Position on landform:
Depressions

Slope range: 0 to 1 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material:
Outwash
Flooding: None
Wet soil moisture status is highest (depth, months):
At the surface April May June
Wet soil moisture status is lowest (depth, months):
1.5 feet February
Ponding does not occur (months):
January February July August September October November
December
Ponding is deepest (depth, months):
1.0 foot March April May
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 6.5 percent
Typical profile:
A--0 to 14 inches; sandy loam
AB,Bg--14 to 34 inches; loamy sand
Cg--34 to 80 inches; coarse sand

Isan and similar soils

Extent: 10 to 20 percent of the unit
Geomorphic description:
Stream terrace
Position on landform:
Rims of depressions
Slope range: 0 to 2 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Outwash
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April May
Wet soil moisture status is lowest (depth, months):
2.0 feet August September
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 6.5 percent
Typical profile:
A--0 to 14 inches; sandy loam
AB,Bg--14 to 34 inches; loamy sand
Cg--34 to 80 inches; coarse sand

D23A--Southaven Loam, 0 To 2 Percent Slopes

Component Description

Southaven and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic description:
Stream terrace
Outwash plain
Position on landform:
Swales

Slope range: 0 to 2 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Colluvium over outwash
Flooding: None
Wet soil moisture status is highest (depth, months):
3.5 feet April May
Wet soil moisture status is lowest (depth, months):
More than 6.7 feet August September October
Ponding: None
Available water capacity to a depth of 60 inches: 11.0 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
Ap,A3--0 to 48 inches; loam
Bw--48 to 62 inches; loam
2Bw--62 to 66 inches; loamy sand
2C--66 to 80 inches; sand

Dorset and similar soils

Extent: 0 to 10 percent of the unit
Geomorphic description:
Stream terrace
Outwash plain
Position on landform:
Slight rise
Slope range: 2 to 4 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap,A--0 to 11 inches; sandy loam
Bt--11 to 19 inches; sandy loam
2BC--19 to 32 inches; gravelly loamy sand
2C--32 to 80 inches; gravelly coarse sand

Mosford and similar soils

Extent: 0 to 10 percent of the unit
Geomorphic description:
Outwash plain
Stream terrace
Position on landform:
Swales
Slope range: 0 to 2 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.1 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A--0 to 13 inches; sandy loam

Bw--13 to 16 inches; coarse sandy loam

2Bw--16 to 35 inches; coarse sand

2C--35 to 80 inches; sand

D24A--Sedgeville Loam, 0 To 2 Percent Slopes, Occasionally Flooded

Component Description

Sedgeville, occasionally flooded and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Swales

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Alluvium

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Occasional March April May June July August

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 9.4 inches

Content of organic matter in the upper 10 inches: 7.0 percent

Typical profile:

Ap,A--0 to 15 inches; loam

Bg--15 to 45 inches; loam

2Cg--45 to 80 inches; sand

Elkriver, occasionally flooded and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Flats

Slope range: 0 to 2 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Parent material:

Alluvium

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Occasional March April May June July August

Wet soil moisture status is highest (depth, months):

1.5 feet April

Wet soil moisture status is lowest (depth, months):

4.5 feet February

Ponding: None

Available water capacity to a depth of 60 inches: 7.4 inches

Content of organic matter in the upper 10 inches: 4.5 percent

Typical profile:

Ap--0 to 10 inches; fine sandy loam

A1,A3--10 to 26 inches; fine sandy loam

Bw--26 to 32 inches; very fine sandy loam

2C--32 to 80 inches; sand

D25A--Soderville Loamy Fine Sand, Terrace, 0 To 3 Percent Slopes

Component Description

Soderville, terrace and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic description:

Stream terrace

Position on landform:

Slight concave swales

Slope range: 0 to 3 percent

Surface layer texture: Loamy fine sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

2.0 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet January February March June July
August September October
November December

Ponding: None

Available water capacity to a depth of 60 inches: 5.0 inches

Content of organic matter in the upper 10 inches: 1.4 percent

Typical profile:

Ap--0 to 9 inches; loamy fine sand

E--9 to 24 inches; loamy fine sand

Bt--24 to 31 inches; stratified loamy fine sand to fine sandy loam

C--31 to 60 inches; sand

Forada and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Stream terrace

Position on landform:

Swales

Slope range: 0 to 2 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 6.6 inches
Content of organic matter in the upper 10 inches: 5.0 percent
Typical profile:
Ap--0 to 10 inches; sandy loam
Bg--10 to 33 inches; loam
2Cg--33 to 60 inches; sand

D26A--Foldahl Loamy Sand, Map >25, 0 To 3 Percent Slopes

Component Description

Foldahl, map>25 and similar soils

Extent: 85 to 100 percent of the unit

Geomorphic description:

Stream terrace

Position on landform:

Slight rise

Slope range: 0 to 3 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Outwash over stratified sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 7.9 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A--0 to 16 inches; loamy sand

Bw--16 to 31 inches; loamy sand

2Bw--31 to 40 inches; stratified loamy sand to sandy clay loam

2Bk--40 to 60 inches; stratified loamy sand to sandy clay loam

Hubbard and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Stream terrace

Position on landform:

Slight rise

Slope range: 0 to 3 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.0 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,AB--0 to 20 inches; loamy sand
Bw--20 to 32 inches; loamy sand
BC,C--32 to 80 inches; sand

Isan and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Stream terrace

Position on landform:

Swales

Slope range: 0 to 2 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April May

Wet soil moisture status is lowest (depth, months):

2.0 feet August September

Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 6.5 percent

Typical profile:

A--0 to 14 inches; sandy loam

AB,Bg--14 to 34 inches; loamy sand

Cg--34 to 80 inches; coarse sand

D27A--Dorset Sandy Loam, Loamy Substratum, 0 To 2 Percent Slopes

Component Description

Dorset, loamy substratum and similar soils

Extent: 70 to 100 percent of the unit

Geomorphic description:

Stream terrace

Position on landform:

Flats

Slope range: 0 to 2 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Outwash over till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 6.2 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A--0 to 12 inches; sandy loam

Bt--12 to 20 inches; coarse sandy loam

2BC--20 to 60 inches; gravelly coarse sand

3C--60 to 80 inches; loam

Dorset and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Stream terrace
Position on landform:
Flats
Slope range: 0 to 2 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.5 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap,A--0 to 12 inches; sandy loam
Bt--12 to 20 inches; coarse sandy loam
2BC--20 to 27 inches; gravelly coarse sand
2C--27 to 60 inches; gravelly coarse sand

Southhaven and similar soils

Extent: 0 to 10 percent of the unit
Geomorphic description:
Stream terrace
Position on landform:
Swales
Slope range: 0 to 2 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Colluvium over outwash
Flooding: None
Wet soil moisture status is highest (depth, months):
3.5 feet April May
Wet soil moisture status is lowest (depth, months):
More than 6.7 feet August September October
Ponding: None
Available water capacity to a depth of 60 inches: 11.0 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
Ap,A3--0 to 48 inches; loam
Bw--48 to 62 inches; loam
2Bw--62 to 66 inches; loamy sand
2C--66 to 80 inches; gravelly sand

D28B--Urban Land-Bygland, Map >25, Complex, 1 To 6 Percent Slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit
Geomorphic description:
Lake plain
Slope range: 1 to 6 percent
Parent material:
Silty and clayey glaciolacustrine deposits
Flooding: None
Ponding: None

The Urban land component is mainly residential with 35 to 80 percent of the mapunit covered by impervious surfaces. The majority of the area has been disturbed to some degree by construction activity. Because of the variability of the Urban land component in this map unit, interpretations for specific uses are not available. Onsite investigation is needed.

Bygland, map>25 and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Hill on lake plain

Position on landform:

Backslope

Summit

Shoulder

Slope range: 1 to 6 percent

Surface layer texture: Silt loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Glaciolacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

3.0 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet July August September

Ponding: None

Available water capacity to a depth of 60 inches: 11.2 inches

Content of organic matter in the upper 10 inches: 2.8 percent

Typical profile:

Ap--0 to 9 inches; silt loam

Bt--9 to 23 inches; silty clay

BC--23 to 27 inches; silt loam

C--27 to 80 inches; stratified silt loam to silty clay loam

Bygland, sandy substratum and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on lake plain

Position on landform:

Backslope

Slope range: 1 to 6 percent

Surface layer texture: Silt loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Glaciolacustrine sediments over outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

2.3 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August
September December

Ponding: None

Available water capacity to a depth of 60 inches: 11.5 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A--0 to 14 inches; silt loam

Bt--14 to 26 inches; silty clay

BC--26 to 38 inches; silty clay loam
C--38 to 63 inches; stratified silt loam to silty clay loam
2C--63 to 80 inches; stratified very gravelly coarse sand to loamy sand

D29B--Urban Land-Hubbard, Bedrock Substratum Complex, 0 To 8 Percent Slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit

Geomorphic description:

Stream terrace

Slope range: 0 to 8 percent

Parent material:

Sandy outwash over bedrock

Flooding: None

Ponding: None

The Urban land component is mainly residential with 35 to 80 percent of the mapunit covered by impervious surfaces. The majority of the area has been disturbed to some degree by construction activity. Because of the variability of the component in this map unit, interpretations for specific uses are not available. On-site investigation is needed.

Hubbard, bedrock substratum and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Hill on stream terrace

Position on landform:

Shoulder

Summit

Slope range: 0 to 8 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Bedrock (lithic): 40 to 80 inches

Drainage class: Excessively drained

Parent material:

Outwash over limestone bedrock

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.9 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A--0 to 18 inches; loamy sand

Bw--18 to 23 inches; loamy sand

BC,C--23 to 60 inches; sand

2R--60 to 80 inches; unweathered bedrock

Hubbard and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on stream terrace

Position on landform:

Backslope

Slope range: 0 to 8 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained
Parent material:
 Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.9 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
 Ap,A--0 to 18 inches; loamy sand
 Bw--18 to 23 inches; loamy sand
 BC,C--23 to 80 inches; sand

Mosford and similar soils

Extent: 0 to 5 percent of the unit
Geomorphic description:
 Stream terrace
Position on landform:
 Swales
Slope range: 0 to 4 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material:
 Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.1 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
 Ap,A--0 to 13 inches; sandy loam
 Bw--13 to 16 inches; coarse sandy loam
 2Bw--16 to 35 inches; coarse sand
 2C--35 to 80 inches; sand

D30A--Seelyeville And Markey Soils, Depressional, 0 To 1 Percent Slopes

Component Description

Seelyeville, surface drained and similar soils

Extent: 0 to 100 percent of the unit
Geomorphic description:
 Outwash plain
 Stream terrace
Position on landform:
 Depressions
Slope range: 0 to 1 percent
Surface layer texture: Muck
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material:
 Organic material
Flooding: None
Wet soil moisture status is highest (depth, months):
 At the surface April May June
Wet soil moisture status is lowest (depth, months):
 1.5 feet February
Ponding does not occur (months):

January February July August September October November
December
Ponding is deepest (depth, months):
1.0 foot March April May
Available water capacity to a depth of 60 inches: 23.9 inches
Content of organic matter in the upper 10 inches: 75.0 percent
Typical profile:
Oa1--0 to 10 inches; muck
Oa2,Oa5--10 to 80 inches; muck

Markey, surface drained and similar soils

Extent: 0 to 100 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Organic material over outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface April May June

Wet soil moisture status is lowest (depth, months):

1.5 feet February

Ponding does not occur (months):

January February July August September October November
December

Ponding is deepest (depth, months):

1.0 foot March April May

Available water capacity to a depth of 60 inches: 15.8 inches

Content of organic matter in the upper 10 inches: 75.0 percent

Typical profile:

Oa--0 to 36 inches; muck

A--36 to 42 inches; loamy sand

Cg--42 to 80 inches; sand

Mineral soil, surface drained and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface April May June

Wet soil moisture status is lowest (depth, months):

1.5 feet February

Ponding does not occur (months):

January February July August September October November

Position on landform:

Slight rise

Slope range: 2 to 4 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.9 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A--0 to 18 inches; loamy sand

Bw--18 to 23 inches; loamy sand

BC,C--23 to 80 inches; sand

Isan and similar soils

Extent: 0 to 5 percent of the unit

Geomorphic description:

Stream terrace

Position on landform:

Swales

Slope range: 0 to 2 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April May

Wet soil moisture status is lowest (depth, months):

2.0 feet August September

Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 6.5 percent

Typical profile:

A--0 to 14 inches; sandy loam

AB,Bg--14 to 34 inches; loamy sand

Cg--34 to 80 inches; coarse sand

D33B--Urban Land-Dorset Complex, 0 To 8 Percent Slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit

Geomorphic description:

Stream terrace

Slope range: 0 to 8 percent

Parent material:

Outwash

Flooding: None

Ponding: None

The Urban land component is mainly residential with 35 to 80 percent of the mapunit covered by impervious surfaces. The

majority of the area has been disturbed to some degree by construction activity. Because of the variability of the component in this map unit, interpretations for specific uses are not available. Onsite investigation is needed.

Dorset and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Hill on stream terrace

Position on landform:

Summit

Shoulder

Backslope

Slope range: 0 to 8 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.5 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A--0 to 12 inches; sandy loam

Bt--12 to 20 inches; coarse sandy loam

2BC--20 to 27 inches; gravelly coarse sand

2C--27 to 60 inches; gravelly coarse sand

Verndale, acid substratum and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on stream terrace

Position on landform:

Footslope

Backslope

Slope range: 0 to 8 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.8 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 19 inches; sandy loam

2Bw--19 to 28 inches; sand

2C--28 to 80 inches; sand

Hubbard and similar soils

Extent: 0 to 5 percent of the unit

Geomorphic description:

Hill on stream terrace

Position on landform:

Shoulder

Slope range: 0 to 8 percent
Surface layer texture: Loamy sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.0 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap,AB--0 to 20 inches; loamy sand
Bw--20 to 32 inches; loamy sand
BC,C--32 to 80 inches; sand

D33C--Urban Land-Dorset Complex, 8 To 18 Percent Slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit
Geomorphologic description:
Stream terrace
Slope range: 8 to 18 percent
Parent material:
Outwash
Flooding: None
Ponding: None

The Urban land component is mainly residential with 35 to 80 percent of the mapunit covered by impervious surfaces. The majority of the area has been disturbed to some degree by construction activity. Because of the variability of the component in this map unit, interpretations for specific uses are not available. On-site investigation is needed.

Dorset and similar soils

Extent: 0 to 20 percent of the unit
Geomorphologic description:
Hill on stream terrace
Position on landform:
Shoulder
Summit
Backslope
Slope range: 8 to 18 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap,A--0 to 11 inches; sandy loam
Bt--11 to 19 inches; sandy loam

2BC--19 to 32 inches; gravelly loamy sand
2C--32 to 80 inches; gravelly coarse sand

Verndale, acid substratum and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on stream terrace

Position on landform:

Backslope

Footslope

Slope range: 8 to 18 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.8 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 19 inches; sandy loam

2Bw--19 to 28 inches; sand

2C--28 to 80 inches; sand

Hubbard and similar soils

Extent: 0 to 5 percent of the unit

Geomorphic description:

Hill on stream terrace

Position on landform:

Shoulder

Slope range: 8 to 18 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.6 inches

Content of organic matter in the upper 10 inches: 2.0 percent

Typical profile:

Ap,AB--0 to 12 inches; loamy sand

Bw--12 to 33 inches; coarse sand

C--33 to 80 inches; coarse sand

D34B--Urban Land-Hubbard Complex, 0 To 8 Percent Slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit

Geomorphic description:

Stream terrace

Slope range: 0 to 8 percent

Parent material:

Outwash
Flooding: None
Ponding: None

The Urban land component is mainly residential with 35 to 80 percent of the mapunit covered by impervious surfaces. The majority of the area has been disturbed to some degree by construction activity. Because of the variability of the component in this map unit, interpretations for specific uses are not available. Onsite investigation is needed.

Hubbard and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Hill on stream terrace

Position on landform:

Shoulder

Backslope

Summit

Slope range: 0 to 8 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.9 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A--0 to 18 inches; loamy sand

Bw--18 to 23 inches; loamy sand

BC,C--23 to 80 inches; sand

Mosford and similar soils

Extent: 0 to 5 percent of the unit

Geomorphic description:

Stream terrace

Position on landform:

Swales

Slope range: 0 to 4 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.1 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A--0 to 13 inches; sandy loam

Bw--13 to 16 inches; coarse sandy loam

2Bw--16 to 35 inches; coarse sand

2C--35 to 80 inches; sand

Component Description

Elkriver, occasionally flooded and similar soils

Extent: 70 to 100 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Flats

Slope range: 0 to 2 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Parent material:

Alluvium

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Occasional March April May June July August

Wet soil moisture status is highest (depth, months):

1.5 feet April

Wet soil moisture status is lowest (depth, months):

4.5 feet February

Ponding: None

Available water capacity to a depth of 60 inches: 7.4 inches

Content of organic matter in the upper 10 inches: 4.5 percent

Typical profile:

Ap--0 to 10 inches; fine sandy loam

A1,A3--10 to 26 inches; fine sandy loam

Bw--26 to 32 inches; very fine sandy loam

2C--32 to 80 inches; sand

Fordum, occasionally flooded and similar soils

Extent: 5 to 25 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Concave drainageways

Slope range: 0 to 1 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Alluvium

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Occasional March April May June July August

Wet soil moisture status is highest (depth, months):

At the surface April May June

Wet soil moisture status is lowest (depth, months):

1.8 feet February

Ponding: None

Available water capacity to a depth of 60 inches: 6.6 inches

Content of organic matter in the upper 10 inches: 6.2 percent

Typical profile:

A--0 to 7 inches; fine sandy loam

Cg--7 to 28 inches; sandy loam

2Cg--28 to 80 inches; sand

Udipsammments

Extent: 0 to 15 percent of the unit

Geomorphic description:

Flood plain

Slope range: 0 to 2 percent

Parent material:

Fill material over alluvium

Flooding: None

Ponding: None

The Udipsammments component comprises of fill material that was placed in the flood plain. Because of the variability of the component in this map unit, interpretations for specific uses are not available. On-site investigation is needed.

Winterfield, occasionally flooded and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Slight rise

Slope range: 0 to 2 percent

Surface layer texture: Loamy fine sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Parent material:

Alluvium

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Occasional March April May June July August

Wet soil moisture status is highest (depth, months):

1.5 feet April

Wet soil moisture status is lowest (depth, months):

4.5 feet September

Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 2.4 percent

Typical profile:

A--0 to 8 inches; loamy fine sand

C1,C2--8 to 20 inches; sand

C3,C5--20 to 80 inches; sand

D37F--Dorset, Bedrock Substratum-Rock Outcrop Complex, 25 To 65 Percent Slopes

Component Description

Dorset, bedrock substratum and similar soils

Extent: 65 to 95 percent of the unit

Geomorphic description:

Escarpment

Position on landform:

Summit

Slope range: 25 to 65 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Bedrock (lithic): 40 to 80 inches

Drainage class: Well drained

Parent material:

Outwash over limestone bedrock
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.5 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
A--0 to 12 inches; sandy loam
Bt--12 to 20 inches; coarse sandy loam
2BC--20 to 27 inches; gravelly coarse sand
2C--27 to 60 inches; gravelly coarse sand
3R--60 to 80 inches; unweathered bedrock

Rock outcrop
Extent: 10 to 35 percent of the unit
Geomorphic description:
Escarpment
Position on landform:
Summit
Shoulder
Slope range: 0 to 3 percent
Depth to restrictive feature:
Bedrock (lithic): 0 to 0 inches
Parent material:
Limestone bedrock

Hubbard, bedrock substratum and similar soils
Extent: 0 to 15 percent of the unit
Geomorphic description:
Escarpment
Position on landform:
Backslope
Slope range: 25 to 65 percent
Surface layer texture: Loamy sand
Depth to restrictive feature:
Bedrock (lithic): 40 to 80 inches
Drainage class: Excessively drained
Parent material:
Outwash over limestone bedrock
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.9 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
A--0 to 18 inches; loamy sand
Bw--18 to 23 inches; loamy sand
BC,C--23 to 60 inches; sand
2R--60 to 80 inches; unweathered bedrock

D40A--Kratka Loamy Fine Sand, Thick Solum, 0 To 2 Percent Slopes

Component Description

Kratka, thick solum and similar soils
Extent: 75 to 90 percent of the unit
Geomorphic description:
Stream terrace
Position on landform:
Flats and swales
Slope range: 0 to 2 percent

Surface layer texture: Loamy fine sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Outwash over till
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April May
Wet soil moisture status is lowest (depth, months):
2.0 feet August September
Ponding: None
Available water capacity to a depth of 60 inches: 7.4 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:
Ap--0 to 10 inches; loamy fine sand
Bg--10 to 30 inches; fine sand
2Bg,2Cg--30 to 60 inches; clay loam

Duelm and similar soils

Extent: 5 to 15 percent of the unit
Geomorphic description:
Stream terrace
Position on landform:
Flats and slight rises
Slope range: 0 to 2 percent
Surface layer texture: Loamy sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material:
Outwash
Flooding: None
Wet soil moisture status is highest (depth, months):
2.5 feet April May
Wet soil moisture status is lowest (depth, months):
4.0 feet February August September
Ponding: None
Available water capacity to a depth of 60 inches: 4.4 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
Ap,AB--0 to 16 inches; loamy sand
Bw--16 to 30 inches; coarse sand
C--30 to 80 inches; coarse sand

Foldahl, map>25 and similar soils

Extent: 5 to 15 percent of the unit
Geomorphic description:
Stream terrace
Position on landform:
Slight rise
Slope range: 0 to 3 percent
Surface layer texture: Loamy sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material:
Outwash over stratified sediments
Flooding: None
Wet soil moisture status is highest (depth, months):
2.5 feet April
Wet soil moisture status is lowest (depth, months):

More than 5.0 feet

January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 7.9 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A--0 to 16 inches; loamy sand

Bw--16 to 31 inches; loamy sand

2Bw--31 to 40 inches; stratified loamy sand to sandy clay loam

2Bk--40 to 60 inches; stratified loamy sand to sandy clay loam

D41C--Urban Land-Waukon Complex, 6 To 18 Percent Slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit

Geomorphic description:

Stream terrace

Slope range: 6 to 18 percent

Parent material:

Till

Flooding: None

Ponding: None

The Urban land component is mainly residential with 35 to 80 percent of the mapunit covered by impervious surfaces. The majority of the area has been disturbed to some degree by construction activity. Because of the variability of the Urban land component in this map unit, interpretations for specific uses are not available. On-site investigation is needed.

Waukon and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Hill on stream terrace

Position on landform:

Backslope

Summit

Shoulder

Slope range: 6 to 18 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 9.9 inches

Content of organic matter in the upper 10 inches: 2.8 percent

Typical profile:

Ap--0 to 8 inches; fine sandy loam

E,BE,Bt--8 to 43 inches; loam

Bk--43 to 80 inches; loam

Braham and similar soils

Extent: 0 to 5 percent of the unit

Geomorphic description:

Hill on stream terrace

Position on landform:

Shoulder
Backslope
Summit

Slope range: 2 to 5 percent

Surface layer texture: Loamy fine sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Outwash over till

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet January February June July
August September

Ponding: None

Available water capacity to a depth of 60 inches: 8.4 inches

Content of organic matter in the upper 10 inches: 1.7 percent

Typical profile:

Ap--0 to 8 inches; loamy fine sand

E--8 to 24 inches; loamy fine sand

2Bt--24 to 42 inches; sandy clay loam

2Bk--42 to 60 inches; loam

D43A--Gonvick Loam, Terrace, 1 To 3 Percent Slopes

Component Description

Gonvick, terrace and similar soils

Extent: 75 to 95 percent of the unit

Geomorphic description:

Stream terrace

Position on landform:

Slight rise

Slope range: 1 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

1.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet February July August September

Ponding: None

Available water capacity to a depth of 60 inches: 10.6 inches

Content of organic matter in the upper 10 inches: 3.5 percent

Typical profile:

Ap,A--0 to 12 inches; loam

Bt--12 to 30 inches; clay loam

Bk,C--30 to 60 inches; loam

Braham and similar soils

Extent: 5 to 25 percent of the unit

Geomorphic description:

Stream terrace

Position on landform:

Slight rise
Slope range: 2 to 4 percent
Surface layer texture: Loamy fine sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material:
Outwash over till
Flooding: None
Wet soil moisture status is highest (depth, months):
2.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February June July
August September
Ponding: None
Available water capacity to a depth of 60 inches: 8.4 inches
Content of organic matter in the upper 10 inches: 1.7 percent
Typical profile:
Ap--0 to 8 inches; loamy fine sand
E--8 to 24 inches; loamy fine sand
2Bt--24 to 42 inches; sandy clay loam
2Bk--42 to 60 inches; loam

GP--Pits, Gravel-Udipsamments Complex

Component Description

Pits, gravel

Extent: 50 to 100 percent of the unit

Geomorphic description:

Stream terrace

Outwash plain

Moraine

Parent material:

Sandy and gravelly outwash

Gravel pits are areas that have been mined for gravel or sand. This map unit is actively being mined or is an abandoned pit. Because of the variability of this component in this map unit, interpretation for specific uses are not available. Onsite investigation is needed.

Udipsamments

Extent: 15 to 30 percent of the unit

Geomorphic description:

Moraine

Outwash plain

Stream terrace

Parent material:

Outwash

Udipsamments are areas of soil that support plant growth and are areas of the pit that have been reclaimed or abandoned. Because of the variability of this component in this map unit, interpretations for specific uses are not available. Onsite investigation is needed.

L2B--Malardi-Hawick Complex, 1 To 6 Percent Slopes

Component Description

Malardi and similar soils

Extent: 60 to 80 percent of the unit

Geomorphic description:

Hill on stream terrace

Hill on outwash plain

Position on landform:

Backslope

Summit

Slope range: 1 to 6 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.3 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 15 inches; sandy loam

2Bt--15 to 29 inches; loamy coarse sand

2C--29 to 80 inches; gravelly sand

Hawick and similar soils

Extent: 10 to 30 percent of the unit

Geomorphic description:

Hill on outwash plain

Hill on stream terrace

Position on landform:

Shoulder

Slope range: 3 to 6 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.2 inches

Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:

Ap--0 to 7 inches; sandy loam

Bw--7 to 11 inches; gravelly loamy coarse sand

C--11 to 80 inches; gravelly coarse sand

Rasset and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Swales

Slope range: 1 to 3 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained
Parent material:
 Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 6.1 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
 Ap,A--0 to 15 inches; sandy loam
 Bt--15 to 28 inches; sandy loam
 2BC--28 to 36 inches; loamy sand
 2C--36 to 80 inches; sand

Eden prairie and similar soils

Extent: 0 to 10 percent of the unit
Geomorphic description:
 Hill on outwash plain
 Hill on stream terrace
Position on landform:
 Backslope
 Summit
Slope range: 1 to 6 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material:
 Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
 Ap--0 to 10 inches; sandy loam
 Bt--10 to 16 inches; sandy loam
 2Bt--16 to 26 inches; loamy sand
 2Bw,2C1,2C2--26 to 80 inches; sand

L2C--Malardi-Hawick Complex, 6 To 12 Percent Slopes

Component Description

Malardi and similar soils

Extent: 60 to 90 percent of the unit
Geomorphic description:
 Hill on outwash plain
 Hill on stream terrace
Position on landform:
 Backslope
 Summit
Slope range: 6 to 12 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material:
 Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.3 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 15 inches; sandy loam

2Bt--15 to 29 inches; loamy coarse sand

2C--29 to 80 inches; gravelly sand

Hawick and similar soils

Extent: 10 to 30 percent of the unit

Geomorphic description:

Hill on outwash plain

Hill on stream terrace

Position on landform:

Shoulder

Slope range: 6 to 12 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.2 inches

Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:

Ap--0 to 7 inches; sandy loam

Bw--7 to 11 inches; gravelly loamy coarse sand

C--11 to 80 inches; gravelly coarse sand

Tomall and similar soils

Extent: 5 to 15 percent of the unit

Geomorphic description:

Stream terrace

Outwash plain

Position on landform:

Swales

Slope range: 0 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

4.0 feet April May

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February March July

August September October

November December

Ponding: None

Available water capacity to a depth of 60 inches: 9.5 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

Ap,A,AB--0 to 33 inches; loam

Bw--33 to 42 inches; sandy loam

2Bw--42 to 47 inches; loamy coarse sand

2C--47 to 80 inches; gravelly loamy coarse sand

Crowfork and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on stream terrace

Hill on outwash plain

Position on landform:

Summit

Backslope

Slope range: 6 to 12 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.6 inches

Content of organic matter in the upper 10 inches: 2.0 percent

Typical profile:

Ap--0 to 11 inches; loamy sand

E--11 to 20 inches; loamy fine sand

E&Bt--20 to 76 inches; loamy sand

C--76 to 80 inches; sand

L2D--Malardi-Hawick Complex, 12 To 18 Percent Slopes

Component Description

Malardi and similar soils

Extent: 50 to 90 percent of the unit

Geomorphic description:

Hill on outwash plain

Hill on stream terrace

Position on landform:

Summit

Backslope

Slope range: 12 to 18 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.8 inches

Content of organic matter in the upper 10 inches: 2.8 percent

Typical profile:

Ap--0 to 9 inches; sandy loam

Bt--9 to 14 inches; sandy loam

2Bt--14 to 21 inches; gravelly loamy coarse sand

2C--21 to 80 inches; gravelly sand

Hawick and similar soils

Extent: 10 to 40 percent of the unit

Geomorphic description:

Hill on outwash plain

Hill on stream terrace
Position on landform:
Shoulder
Slope range: 12 to 18 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.2 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap--0 to 7 inches; sandy loam
Bw--7 to 11 inches; gravelly loamy coarse sand
C--11 to 80 inches; gravelly coarse sand

Tomall and similar soils

Extent: 5 to 15 percent of the unit
Geomorphic description:
Outwash plain
Stream terrace
Position on landform:
Swales
Slope range: 0 to 3 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Colluvium over outwash
Flooding: None
Wet soil moisture status is highest (depth, months):
4.0 feet April May
Wet soil moisture status is lowest (depth, months):
More than 6.7 feet January February March July
August September October
November December
Ponding: None
Available water capacity to a depth of 60 inches: 9.5 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
Ap,A,AB--0 to 33 inches; loam
Bw--33 to 42 inches; sandy loam
2Bw--42 to 47 inches; loamy coarse sand
2C--47 to 80 inches; gravelly loamy coarse sand

Crowfork and similar soils

Extent: 0 to 10 percent of the unit
Geomorphic description:
Hill on stream terrace
Hill on outwash plain
Position on landform:
Summit
Backslope
Slope range: 12 to 18 percent
Surface layer texture: Loamy sand
Depth to restrictive feature:
Very deep (more than 60 inches)

Drainage class: Excessively drained
Parent material:
 Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:
 Ap--0 to 11 inches; loamy sand
 E--11 to 20 inches; loamy fine sand
 E&Bt--20 to 76 inches; loamy sand
 C--76 to 80 inches; sand

L2E--Malardi-Hawick Complex, 18 To 35 Percent Slopes

Component Description

Malardi and similar soils

Extent: 50 to 90 percent of the unit
Geomorphic description:
 Hill on stream terrace
 Hill on outwash plain
Position on landform:
 Summit
 Backslope
Slope range: 18 to 35 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material:
 Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.8 inches
Content of organic matter in the upper 10 inches: 4.6 percent
Typical profile:
 A--0 to 9 inches; sandy loam
 Bt--9 to 14 inches; sandy loam
 2Bt--14 to 21 inches; gravelly loamy coarse sand
 2C--21 to 80 inches; gravelly sand

Hawick and similar soils

Extent: 10 to 40 percent of the unit
Geomorphic description:
 Hill on outwash plain
 Hill on stream terrace
Position on landform:
 Shoulder
Slope range: 18 to 35 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material:
 Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None

Available water capacity to a depth of 60 inches: 3.2 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:

A--0 to 7 inches; sandy loam
Bw--7 to 11 inches; gravelly loamy coarse sand
C--11 to 80 inches; gravelly coarse sand

Tomall and similar soils

Extent: 5 to 25 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Swales

Slope range: 0 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

4.0 feet April May

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February March July
August September October
November December

Ponding: None

Available water capacity to a depth of 60 inches: 9.5 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

A,AB--0 to 33 inches; loam

Bw--33 to 42 inches; sandy loam

2Bw--42 to 47 inches; loamy coarse sand

2C--47 to 80 inches; gravelly loamy coarse sand

L3A--Rasset Sandy Loam, 0 To 2 Percent Slopes

Component Description

Rasset and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Flats

Slope range: 0 to 2 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 6.1 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A--0 to 15 inches; sandy loam
Bt--15 to 28 inches; sandy loam
2BC--28 to 36 inches; loamy sand
2C--36 to 80 inches; sand

Malardi and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Slight rise

Slope range: 0 to 2 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.3 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 15 inches; sandy loam

2Bt--15 to 29 inches; loamy coarse sand

2C--29 to 80 inches; gravelly sand

Eden prairie and similar soils

Extent: 0 to 5 percent of the unit

Geomorphic description:

Stream terrace

Outwash plain

Position on landform:

Slight rise

Slope range: 0 to 2 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 16 inches; sandy loam

2Bt--16 to 26 inches; loamy sand

2Bw,2C1,2C2--26 to 80 inches; sand

L3B--Rasset Sandy Loam, 2 To 6 Percent Slopes

Component Description

Rasset and similar soils

Extent: 75 to 100 percent of the unit

Geomorphic description:

Hill on outwash plain
Hill on stream terrace

Position on landform:

Summit
Backslope

Slope range: 2 to 6 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 6.1 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A--0 to 15 inches; sandy loam
Bt--15 to 28 inches; sandy loam
2BC--28 to 36 inches; loamy sand
2C--36 to 80 inches; sand

Malardi and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Hill on stream terrace
Hill on outwash plain

Position on landform:

Backslope
Summit

Slope range: 2 to 6 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.3 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam
Bt--10 to 15 inches; sandy loam
2Bt--15 to 29 inches; loamy coarse sand
2C--29 to 80 inches; gravelly sand

Eden prairie and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on stream terrace
Hill on outwash plain

Position on landform:

Backslope
Summit

Slope range: 2 to 6 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained
Parent material:
 Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
 Ap--0 to 10 inches; sandy loam
 Bt--10 to 16 inches; sandy loam
 2Bt--16 to 26 inches; loamy sand
 2Bw,2C1,2C2--26 to 80 inches; sand

L3C--Rasset Sandy Loam, 6 To 12 Percent Slopes

Component Description

Rasset and similar soils

Extent: 70 to 100 percent of the unit
Geomorphic description:
 Hill on stream terrace
 Hill on outwash plain
Position on landform:
 Summit
 Backslope
Slope range: 6 to 12 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
 Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 6.1 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
 Ap,A--0 to 15 inches; sandy loam
 Bt--15 to 28 inches; sandy loam
 2BC--28 to 36 inches; loamy sand
 2C--36 to 80 inches; sand

Malardi and similar soils

Extent: 0 to 30 percent of the unit
Geomorphic description:
 Hill on stream terrace
 Hill on outwash plain
Position on landform:
 Summit
 Backslope
Slope range: 6 to 12 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material:
 Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.3 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 15 inches; sandy loam

2Bt--15 to 29 inches; loamy coarse sand

2C--29 to 80 inches; gravelly sand

Tomall and similar soils

Extent: 5 to 15 percent of the unit

Geomorphic description:

Stream terrace

Outwash plain

Position on landform:

Swales

Slope range: 0 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

4.0 feet April May

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February March July

August September October

November December

Ponding: None

Available water capacity to a depth of 60 inches: 9.5 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

Ap,A,AB--0 to 33 inches; loam

Bw--33 to 42 inches; sandy loam

2Bw--42 to 47 inches; loamy coarse sand

2C--47 to 80 inches; gravelly loamy coarse sand

Eden prairie and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on stream terrace

Hill on outwash plain

Position on landform:

Backslope

Summit

Slope range: 6 to 12 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 16 inches; sandy loam

2Bt--16 to 26 inches; loamy sand
2Bw,2C1,2C2--26 to 80 inches; sand

L4B--Crowfork Loamy Sand, 1 To 6 Percent Slopes

Component Description

Crowfork and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic description:

Hill on stream terrace

Hill on outwash plain

Position on landform:

Summit

Backslope

Slope range: 1 to 6 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.6 inches

Content of organic matter in the upper 10 inches: 2.0 percent

Typical profile:

Ap--0 to 11 inches; loamy sand

E--11 to 20 inches; loamy fine sand

E&Bt--20 to 76 inches; loamy sand

C--76 to 80 inches; sand

Eden prairie and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Stream terrace

Outwash plain

Position on landform:

Flats and swales

Slope range: 1 to 3 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 16 inches; sandy loam

2Bt--16 to 26 inches; loamy sand

2Bw,2C1,2C2--26 to 80 inches; sand

L4C--Crowfork Loamy Sand, 6 To 12 Percent Slopes

Component Description

Crowfork and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic description:

Hill on stream terrace

Hill on outwash plain

Position on landform:

Summit

Backslope

Slope range: 6 to 12 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.6 inches

Content of organic matter in the upper 10 inches: 2.0 percent

Typical profile:

Ap--0 to 11 inches; loamy sand

E--11 to 20 inches; loamy fine sand

E&Bt--20 to 76 inches; loamy sand

C--76 to 80 inches; sand

Eden prairie and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Stream terrace

Outwash plain

Position on landform:

Swales

Slope range: 1 to 3 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 16 inches; sandy loam

2Bt--16 to 26 inches; loamy sand

2Bw,2C1,2C2--26 to 80 inches; sand

L4D--Crowfork Loamy Sand, 12 To 18 Percent Slopes

Component Description

Crowfork and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic description:

Hill on outwash plain

Hill on stream terrace
Position on landform:
 Backslope
 Summit
Slope range: 12 to 18 percent
Surface layer texture: Loamy sand
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material:
 Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:
 Ap--0 to 11 inches; loamy sand
 E--11 to 20 inches; loamy fine sand
 E&Bt--20 to 76 inches; loamy sand
 C--76 to 80 inches; sand

Eden prairie and similar soils

Extent: 0 to 20 percent of the unit
Geomorphic description:
 Stream terrace
 Outwash plain
Position on landform:
 Swales
Slope range: 1 to 3 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material:
 Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
 Ap--0 to 10 inches; sandy loam
 Bt--10 to 16 inches; sandy loam
 2Bt--16 to 26 inches; loamy sand
 2Bw,2C1,2C2--26 to 80 inches; sand

L6A--Biscay Loam, 0 To 2 Percent Slopes

Component Description

Biscay and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic description:
 Outwash plain
 Stream terrace
Position on landform:
 Swales
Slope range: 0 to 2 percent
Surface layer texture: Loam
Depth to restrictive feature:

Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Outwash
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 7.5 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
Ap,A1,A2--0 to 20 inches; loam
Bg--20 to 28 inches; loam
2BCg--28 to 36 inches; gravelly loam
2Cg--36 to 60 inches; stratified very gravelly coarse sand to loamy sand

Biscay, depressional and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface April May June

Wet soil moisture status is lowest (depth, months):

1.5 feet February

Ponding does not occur (months):

January February July August September October November
December

Ponding is deepest (depth, months):

1.0 foot March April May

Available water capacity to a depth of 60 inches: 7.5 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

Ap,A1,A2--0 to 23 inches; loam

Bg--23 to 28 inches; loam

2BCg--28 to 36 inches; gravelly loam

2Cg--36 to 60 inches; stratified very gravelly coarse sand to loamy sand

Mayer and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Rims of depressions

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Outwash
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 7.3 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
Ap,A1,A2--0 to 18 inches; loam
Bg--18 to 33 inches; sandy clay loam
2C--33 to 80 inches; gravelly coarse sand

Cylinder and similar soils

Extent: 0 to 5 percent of the unit
Geomorphologic description:
Flat on stream terrace
Flat on outwash plain
Slope range: 0 to 2 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material:
Loamy sediments over sand and gravel
Flooding: None
Wet soil moisture status is highest (depth, months):
1.3 feet April
Wet soil moisture status is lowest (depth, months):
More than 6.7 feet August
Ponding: None
Available water capacity to a depth of 60 inches: 6.4 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
Ap,A1--0 to 14 inches; loam
A2--14 to 18 inches; clay loam, loam
Bg1,2--18 to 28 inches; loam
2BC,2C--28 to 80 inches; gravelly loamy sand, gravelly sand

L7A--Biscay Loam, Depressional, 0 To 1 Percent Slopes

Component Description

Biscay, depressional and similar soils
Extent: 80 to 100 percent of the unit
Geomorphologic description:
Stream terrace
Outwash plain
Position on landform:
Depressions
Slope range: 0 to 1 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material:
Outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface April May June

Wet soil moisture status is lowest (depth, months):

1.5 feet February

Ponding does not occur (months):

January February July August September October November
December

Ponding is deepest (depth, months):

1.0 foot March April May

Available water capacity to a depth of 60 inches: 7.5 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

Ap,A1,A2--0 to 23 inches; loam

Bg--23 to 28 inches; loam

2BCg--28 to 36 inches; gravelly loam

2Cg--36 to 60 inches; stratified very gravelly coarse sand to
loamy sand

Biscay and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Rims of depressions

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 7.5 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

Ap,A1,A2--0 to 20 inches; loam

Bg--20 to 28 inches; loam

2BCg--28 to 36 inches; gravelly loam

2Cg--36 to 60 inches; stratified very gravelly coarse sand to
loamy sand

Mayer and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Stream terrace

Outwash plain

Position on landform:

Rims of depressions

Slope range: 0 to 1 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Outwash

Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 7.3 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
Ap,A1,A2--0 to 18 inches; loam
Bg--18 to 33 inches; sandy clay loam
2C--33 to 80 inches; gravelly coarse sand

L8A--Darfur Sandy Loam, 0 To 2 Percent Slopes

Component Description

Darfur and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic description:

Stream terrace

Outwash plain

Position on landform:

Flats and swales

Slope range: 0 to 2 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 7.6 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

Ap,A--0 to 16 inches; sandy loam

Bg--16 to 32 inches; sandy clay loam

Cg--32 to 80 inches; stratified sand to loamy fine sand to fine sandy loam

Dassel and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface April May June
Wet soil moisture status is lowest (depth, months):
1.5 feet February
Ponding does not occur (months):
January February July August September October November
December
Ponding is deepest (depth, months):
1.0 foot March April May
Available water capacity to a depth of 60 inches: 7.7 inches
Content of organic matter in the upper 10 inches: 8.0 percent
Typical profile:
A1,A2--0 to 14 inches; fine sandy loam
Bg--14 to 31 inches; stratified loamy fine sand to fine sandy
loam
Cg--31 to 80 inches; stratified coarse sand to loamy sand

L9A--Minnetonka Silty Clay Loam, 0 To 2 Percent Slopes

Component Description

Minnetonka and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic description:

Moraine

Lake plain

Position on landform:

Flats and swales

Slope range: 0 to 2 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Lacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April May

Wet soil moisture status is lowest (depth, months):

2.5 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.8 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

Ap,A--0 to 13 inches; silty clay loam

Btg--13 to 35 inches; silty clay

Cg--35 to 60 inches; silty clay loam

Depressional soil and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Lake plain

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Lacustrine sediments

Flooding: None
Wet soil moisture status is highest (depth, months):
 At the surface April May June
Wet soil moisture status is lowest (depth, months):
 1.5 feet February
Ponding does not occur (months):
 January February July August September October November
 December
Ponding is deepest (depth, months):
 1.0 foot March April May
Available water capacity to a depth of 60 inches: 10.8 inches
Content of organic matter in the upper 10 inches: 5.0 percent
Typical profile:
 Ap,A--0 to 16 inches; silty clay loam
 Btg--16 to 42 inches; silty clay
 Cg--42 to 60 inches; silty clay loam

L10B--Kasota Silty Clay Loam, 1 To 6 Percent Slopes

Component Description

Kasota and similar soils

Extent: 70 to 90 percent of the unit
Geomorphic description:
 Hill on outwash plain
 Hill on stream terrace
Position on landform:
 Summit
 Backslope
Slope range: 1 to 6 percent
Surface layer texture: Silty clay loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
 Glaciolacustrine sediments over outwash
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.9 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
 Ap--0 to 10 inches; silty clay loam
 Bt--10 to 28 inches; silty clay
 2BC--28 to 32 inches; sand
 2C--32 to 60 inches; coarse sand

Eden prairie and similar soils

Extent: 0 to 15 percent of the unit
Geomorphic description:
 Hill on outwash plain
 Hill on stream terrace
Position on landform:
 Shoulder
Slope range: 2 to 6 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material:
 Outwash

Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap--0 to 10 inches; sandy loam
Bt--10 to 16 inches; sandy loam
2Bt--16 to 26 inches; loamy sand
2Bw,2C1,2C2--26 to 80 inches; sand

Wet swale soil and similar soils

Extent: 0 to 15 percent of the unit

Geomorphic description:

Stream terrace

Outwash plain

Position on landform:

Swales

Slope range: 0 to 2 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Glaciolacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April May

Wet soil moisture status is lowest (depth, months):

2.5 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.8 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

Ap,A--0 to 13 inches; silty clay loam

Btg--13 to 35 inches; silty clay

Cg--35 to 60 inches; silty clay loam

2Cg--60 to 80 inches; stratified very gravelly coarse sand to loamy sand

L11B--Grays Very Fine Sandy Loam, 2 To 8 Percent Slopes

Component Description

Grays and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic description:

Hill on outwash plain

Position on landform:

Backslope

Summit

Slope range: 2 to 8 percent

Surface layer texture: Very fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Glaciofluvial sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February March June July
 August September October
 November December

Ponding: None

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

Ap--0 to 7 inches; very fine sandy loam

Bt--7 to 25 inches; silty clay loam

C--25 to 60 inches; stratified very fine sandy loam to silt loam

Kasota and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on outwash plain

Position on landform:

Summit

Backslope

Slope range: 2 to 6 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Glaciolacustrine sediments over outwash

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.9 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

Ap--0 to 10 inches; silty clay loam

Bt--10 to 28 inches; silty clay

2BC--28 to 32 inches; sand

2C--32 to 60 inches; coarse sand

Crowfork and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on outwash plain

Position on landform:

Summit

Shoulder

Slope range: 2 to 6 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.6 inches

Content of organic matter in the upper 10 inches: 2.0 percent

Typical profile:

Ap--0 to 11 inches; loamy sand

E--11 to 20 inches; loamy fine sand

E&Bt--20 to 76 inches; loamy sand

C--76 to 80 inches; sand

L12A--Muskego, Blue Earth, And Houghton Soils, Pondered, 0 To 1 Percent Slopes, Frequently Flooded

Component Description

Muskego, frequently flooded and similar soils

Extent: 0 to 100 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Flats

Slope range: 0 to 1 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Organic material over coprogenous earth

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Frequent March April May June

Wet soil moisture status: At the surface all year

Ponding is shallowest (depth, months):

1.0 foot January February March August
September October

Ponding is deepest (depth, months):

2.0 feet May June

Available water capacity to a depth of 60 inches: 19.4 inches

Content of organic matter in the upper 10 inches: 75.0 percent

Typical profile:

Oa1--0 to 9 inches; muck

Oa2--9 to 36 inches; muck

Lco--36 to 60 inches; coprogenous earth

Blue earth, frequently flooded and similar soils

Extent: 0 to 100 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Flats

Slope range: 0 to 1 percent

Surface layer texture: Silt loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Coprogenous earth

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Frequent March April May June

Wet soil moisture status: At the surface all year

Ponding is shallowest (depth, months):

1.0 foot January February March August
September October

Ponding is deepest (depth, months):

2.0 feet May June

Available water capacity to a depth of 60 inches: 12.6 inches

Content of organic matter in the upper 10 inches: 17.5 percent

Typical profile:

A--0 to 50 inches; silt loam
Cg--50 to 60 inches; silt loam

Houghton, frequently flooded and similar soils

Extent: 0 to 100 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Flats

Slope range: 0 to 1 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Organic material

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Frequent March April May June

Wet soil moisture status: At the surface all year

Ponding is shallowest (depth, months):

1.0 foot January February March August
September October

Ponding is deepest (depth, months):

2.0 feet May June

Available water capacity to a depth of 60 inches: 23.9 inches

Content of organic matter in the upper 10 inches: 84.5 percent

Typical profile:

Oa--0 to 80 inches; muck

Oshawa, frequently flooded and similar soils

Extent: 0 to 15 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Oxbows

Slope range: 0 to 1 percent

Surface layer texture: Silt loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Alluvium

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Frequent March April May June

Wet soil moisture status: At the surface all year

Ponding is shallowest (depth, months):

1.0 foot January February March August
September October

Ponding is deepest (depth, months):

2.0 feet May June

Available water capacity to a depth of 60 inches: 11.1 inches

Content of organic matter in the upper 10 inches: 7.0 percent

Typical profile:

A--0 to 12 inches; silt loam

Cg--12 to 60 inches; silty clay loam

Component Description

Klossner, drained and similar soils

Extent: 65 to 85 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Organic material over till

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April

Wet soil moisture status is lowest (depth, months):

2.0 feet February August

Ponding does not occur (months):

January February May June July August September October
November December

Ponding is deepest (depth, months):

1.0 foot April

Available water capacity to a depth of 60 inches: 17.7 inches

Content of organic matter in the upper 10 inches: 50.0 percent

Typical profile:

Op,Oa--0 to 26 inches; muck

2A1--26 to 36 inches; mucky silty clay loam

2A2--36 to 48 inches; silty clay loam

2Cg--48 to 80 inches; loam

Mineral soil, drained and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April

Wet soil moisture status is lowest (depth, months):

2.0 feet February August

Ponding does not occur (months):

January February May June July August September October
November December

Ponding is deepest (depth, months):

1.0 foot April

Available water capacity to a depth of 60 inches: 11.1 inches

Content of organic matter in the upper 10 inches: 7.5 percent

Typical profile:

Ap--0 to 13 inches; loam

A2,Bg1--13 to 31 inches; clay loam

Bg2--31 to 45 inches; clay loam
Cg--45 to 80 inches; loam

Houghton, drained and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Organic material

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April

Wet soil moisture status is lowest (depth, months):

2.0 feet February August

Ponding does not occur (months):

January February May June July August September October
November December

Ponding is deepest (depth, months):

1.0 foot April

Available water capacity to a depth of 60 inches: 23.9 inches

Content of organic matter in the upper 10 inches: 75.0 percent

Typical profile:

Op--0 to 10 inches; muck

Oa--10 to 80 inches; muck

L14A--Houghton Muck, Depressional, 0 To 1 Percent Slopes

Component Description

Houghton, drained and similar soils

Extent: 65 to 85 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Organic material

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April

Wet soil moisture status is lowest (depth, months):

2.0 feet February August

Ponding does not occur (months):

January February May June July August September October
November December

Ponding is deepest (depth, months):

1.0 foot April

Available water capacity to a depth of 60 inches: 23.9 inches

Content of organic matter in the upper 10 inches: 75.0 percent

Typical profile:

Op--0 to 10 inches; muck
Oa--10 to 80 inches; muck

Klossner, drained and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Organic material over till

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April

Wet soil moisture status is lowest (depth, months):

2.0 feet February August

Ponding does not occur (months):

January February May June July August September October
November December

Ponding is deepest (depth, months):

1.0 foot April

Available water capacity to a depth of 60 inches: 17.7 inches

Content of organic matter in the upper 10 inches: 50.0 percent

Typical profile:

Op,Oa--0 to 26 inches; muck
2A1--26 to 36 inches; mucky silty clay loam
2A2--36 to 48 inches; silty clay loam
2Cg--48 to 80 inches; loam

Mineral soil, drained and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April

Wet soil moisture status is lowest (depth, months):

2.0 feet February August

Ponding does not occur (months):

January February May June July August September October
November December

Ponding is deepest (depth, months):

1.0 foot April

Available water capacity to a depth of 60 inches: 11.1 inches

Content of organic matter in the upper 10 inches: 7.5 percent

Typical profile:

Ap--0 to 13 inches; loam

A2,Bg1--13 to 31 inches; clay loam
Bg2--31 to 45 inches; clay loam
Cg--45 to 80 inches; loam

L15A--Klossner, Okoboji, And Glencoe Soils, Ponded, 0 To 1 Percent Slopes

Component Description

Klossner, ponded and similar soils

Extent: 0 to 100 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Organic material over till

Flooding: None

Wet soil moisture status: At the surface all year

Ponding is shallowest (depth, months):

0.5 foot August

Ponding is deepest (depth, months):

3.0 feet March April May

Available water capacity to a depth of 60 inches: 17.4 inches

Content of organic matter in the upper 10 inches: 42.5 percent

Typical profile:

Oa--0 to 26 inches; muck

2A1--26 to 33 inches; silt loam

2A2--33 to 40 inches; loam

2Cg--40 to 80 inches; loam

Okoboji, ponded and similar soils

Extent: 0 to 100 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Mucky silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Alluvium or lacustrine sediments over till

Flooding: None

Wet soil moisture status: At the surface all year

Ponding is shallowest (depth, months):

0.5 foot August

Ponding is deepest (depth, months):

3.0 feet March April May

Available water capacity to a depth of 60 inches: 11.9 inches

Content of organic matter in the upper 10 inches: 14.0 percent

Typical profile:

A1--0 to 10 inches; mucky silty clay loam

A2--10 to 52 inches; silty clay loam

Bg--52 to 60 inches; silty clay loam

Glencoe, ponded and similar soils

Extent: 0 to 100 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Till

Flooding: None

Wet soil moisture status: At the surface all year

Ponding is shallowest (depth, months):

0.5 foot August

Ponding is deepest (depth, months):

3.0 feet March April May

Available water capacity to a depth of 60 inches: 11.4 inches

Content of organic matter in the upper 10 inches: 7.0 percent

Typical profile:

A--0 to 42 inches; silty clay loam

Bg--42 to 50 inches; clay loam

Cg--50 to 60 inches; loam

Houghton, ponded and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Organic material

Flooding: None

Wet soil moisture status: At the surface all year

Ponding is shallowest (depth, months):

0.5 foot August

Ponding is deepest (depth, months):

3.0 feet March April May

Available water capacity to a depth of 60 inches: 23.9 inches

Content of organic matter in the upper 10 inches: 84.5 percent

Typical profile:

Oa--0 to 80 inches; muck

L16A--Muskego, Blue Earth, And Houghton Soils, Ponded, 0 To 1 Percent Slopes

Component Description

Muskego, ponded and similar soils

Extent: 0 to 100 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent
Surface layer texture: Muck
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material:
Organic material over coprogenous earth
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months):
0.5 foot August
Ponding is deepest (depth, months):
3.0 feet March April May
Available water capacity to a depth of 60 inches: 19.4 inches
Content of organic matter in the upper 10 inches: 75.0 percent
Typical profile:
Oa1--0 to 9 inches; muck
Oa2--9 to 36 inches; muck
Lco--36 to 60 inches; coprogenous earth

Blue earth, ponded and similar soils

Extent: 0 to 100 percent of the unit
Geomorphic description:
Moraine
Position on landform:
Depressions
Slope range: 0 to 1 percent
Surface layer texture: Silt loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material:
Coprogenous earth
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months):
0.5 foot August
Ponding is deepest (depth, months):
3.0 feet March April May
Available water capacity to a depth of 60 inches: 12.6 inches
Content of organic matter in the upper 10 inches: 17.5 percent
Typical profile:
A--0 to 50 inches; silt loam
Cg--50 to 60 inches; silt loam

Houghton, ponded and similar soils

Extent: 0 to 100 percent of the unit
Geomorphic description:
Moraine
Position on landform:
Depressions
Slope range: 0 to 1 percent
Surface layer texture: Muck
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material:
Organic material
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months):
0.5 foot August

Typical profile:

Ap--0 to 8 inches; loam
Bt--8 to 35 inches; clay loam
BC--35 to 40 inches; clay loam
C--40 to 80 inches; loam

Malardi and similar soils

Extent: 20 to 40 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Shoulder
Summit

Slope range: 2 to 6 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.3 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam
Bt--10 to 15 inches; sandy loam
2Bt--15 to 29 inches; loamy coarse sand
2C--29 to 80 inches; gravelly sand

Moon and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Summit

Slope range: 2 to 5 percent

Surface layer texture: Loamy fine sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Outwash over till

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet January February June July
August September

Ponding: None

Available water capacity to a depth of 60 inches: 8.4 inches

Content of organic matter in the upper 10 inches: 1.7 percent

Typical profile:

Ap--0 to 8 inches; loamy fine sand
E--8 to 24 inches; loamy fine sand
2Bt--24 to 46 inches; sandy clay loam
2C--46 to 60 inches; loam

Cordova and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Moraine
Position on landform:
Flats and swales
Slope range: 0 to 2 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Till
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April May
Wet soil moisture status is lowest (depth, months):
2.5 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.6 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap,AB--0 to 13 inches; loam
Btg--13 to 33 inches; clay loam
Cg--33 to 80 inches; loam

L18A--Shields Silty Clay Loam, 0 To 3 Percent Slopes

Component Description

Shields and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic description:
Moraine
Position on landform:
Flats and slight rises
Slope range: 0 to 3 percent
Surface layer texture: Silty clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material:
Glaciofluvial and reworked till over till
Flooding: None
Wet soil moisture status is highest (depth, months):
1.0 foot April
Wet soil moisture status is lowest (depth, months):
More than 6.7 feet January February July August
September
Ponding: None
Available water capacity to a depth of 60 inches: 8.7 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
Ap--0 to 8 inches; silty clay loam
BE,Btg--8 to 41 inches; silty clay
2Bk--41 to 80 inches; silty clay loam

Lerdal and similar soils

Extent: 0 to 20 percent of the unit
Geomorphic description:
Moraine
Position on landform:
Flats and slight rises
Slope range: 1 to 3 percent

Surface layer texture: Silty clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material:
Glaciofluvial and reworked till over till
Flooding: None
Wet soil moisture status is highest (depth, months):
1.6 feet November
Wet soil moisture status is lowest (depth, months):
4.9 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.1 inches
Content of organic matter in the upper 10 inches: 5.1 percent
Typical profile:
Ap--0 to 9 inches; silty clay loam
Bt,Btg--9 to 42 inches; silty clay
Bw,Bk--42 to 60 inches; loam

Mazaska and similar soils

Extent: 0 to 10 percent of the unit
Geomorphic description:
Moraine
Position on landform:
Swales
Slope range: 0 to 2 percent
Surface layer texture: Silty clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Glaciofluvial and reworked till over till
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April May
Wet soil moisture status is lowest (depth, months):
2.6 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 9.5 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap,A--0 to 15 inches; silty clay loam
Btg--15 to 42 inches; clay
Bkg--42 to 80 inches; loam

L19B--Moon Loamy Fine Sand, 2 To 5 Percent Slopes

Component Description

Moon and similar soils

Extent: 75 to 95 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Shoulder
Summit
Slope range: 2 to 5 percent
Surface layer texture: Loamy fine sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained

Parent material:

Outwash over till

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet January February June July
August September

Ponding: None

Available water capacity to a depth of 60 inches: 8.4 inches

Content of organic matter in the upper 10 inches: 1.7 percent

Typical profile:

Ap--0 to 8 inches; loamy fine sand

E--8 to 24 inches; loamy fine sand

2Bt--24 to 46 inches; sandy clay loam

2C--46 to 60 inches; loam

Finchford and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Footslope

Backslope

Slope range: 3 to 5 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.5 inches

Content of organic matter in the upper 10 inches: 2.0 percent

Typical profile:

Ap,A--0 to 18 inches; loamy sand

Bw--18 to 30 inches; sand

C--30 to 60 inches; sand

L20B--Fedji Loamy Fine Sand, Silty Substratum, 2 To 8 Percent Slopes

Component Description

Fedji, silty substratum and similar soils

Extent: 75 to 95 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Summit

Backslope

Slope range: 2 to 8 percent

Surface layer texture: Loamy fine sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Outwash over glaciolacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

Available water capacity to a depth of 60 inches: 10.3 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:

Ap,A--0 to 17 inches; loam
Bkg--17 to 36 inches; clay loam
Cg--36 to 80 inches; loam

Cordova and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Flats and swales

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April May

Wet soil moisture status is lowest (depth, months):

2.5 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.6 inches

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

Ap,AB--0 to 13 inches; loam
Btg--13 to 33 inches; clay loam
Cg--33 to 80 inches; loam

Glencoe and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface April May June

Wet soil moisture status is lowest (depth, months):

1.5 feet February

Ponding does not occur (months):

January February July August September October November
December

Ponding is deepest (depth, months):

1.0 foot March April May

Available water capacity to a depth of 60 inches: 11.1 inches

Content of organic matter in the upper 10 inches: 7.5 percent

Typical profile:

Ap--0 to 13 inches; loam
A2,Bg1--13 to 31 inches; clay loam
Bg2--31 to 45 inches; loam

Cg--45 to 80 inches; loam

L22C2--Lester Loam, Morainic, 6 To 12 Percent Slopes, Eroded

Component Description

Lester, eroded and similar soils

Extent: 60 to 80 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Backslope

Shoulder

Slope range: 6 to 12 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 10.5 inches

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

Ap--0 to 7 inches; loam

Bt--7 to 38 inches; clay loam

Bk--38 to 60 inches; loam

C--60 to 80 inches; loam

Angus and similar soils

Extent: 10 to 20 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Backslope

Summit

Slope range: 2 to 5 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 10.5 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap--0 to 8 inches; loam

Bt--8 to 35 inches; clay loam

BC--35 to 40 inches; clay loam

C--40 to 80 inches; loam

Terril and similar soils

Extent: 5 to 20 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Foothills
Slope range: 0 to 4 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material:
Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 6.7 feet January February July August
September
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
Ap,A1--0 to 27 inches; loam
A2,BA--27 to 40 inches; loam
Bw--40 to 63 inches; loam
C--63 to 80 inches; loam

Hamel and similar soils

Extent: 0 to 5 percent of the unit
Geomorphic description:
Moraine
Position on landform:
Swales and drainageways
Slope range: 1 to 3 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.6 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
Ap,A,AB--0 to 24 inches; loam
Btg--24 to 46 inches; clay loam
Cg--46 to 80 inches; loam

L22D2--Lester Loam, Morainic, 12 To 18 Percent Slopes, Eroded

Component Description

Lester, eroded and similar soils

Extent: 70 to 90 percent of the unit
Geomorphic description:
Hill on moraine

Position on landform:

Shoulder
Backslope

Slope range: 12 to 18 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 10.5 inches

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

Ap--0 to 7 inches; loam

Bt--7 to 38 inches; clay loam

Bk--38 to 60 inches; loam

C--60 to 80 inches; loam

Terril and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Footslope

Slope range: 2 to 6 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 11.4 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

Ap,A1--0 to 27 inches; loam

A2,BA--27 to 40 inches; loam

Bw--40 to 63 inches; loam

C--63 to 80 inches; loam

Hamel and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Swales and drainageways

Slope range: 1 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Colluvium over till

Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.6 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
Ap,A,AB--0 to 24 inches; loam
Btg--24 to 46 inches; clay loam
Cg--46 to 80 inches; loam

Ridgeton and similar soils

Extent: 0 to 10 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Foothills
Backslope
Slope range: 8 to 14 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Colluvium over till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.2 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
Ap,A1--0 to 23 inches; loam
A2,AB--23 to 38 inches; loam
Bw--38 to 50 inches; loam
C--50 to 80 inches; loam

L22E--Lester Loam, Morainic, 18 To 25 Percent Slopes

Component Description

Lester, morainic and similar soils

Extent: 70 to 90 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Backslope
Shoulder
Slope range: 18 to 25 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

A--0 to 5 inches; loam
BE,Bt--5 to 34 inches; clay loam
Bk--34 to 60 inches; loam
C--60 to 80 inches; loam

Terril and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Footslope

Slope range: 2 to 6 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

A1,A2--0 to 24 inches; loam

AB--24 to 37 inches; loam

Bw--37 to 57 inches; loam

C--57 to 80 inches; loam

Hamel and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Swales and drainageways

Slope range: 1 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 11.5 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

A1,A2--0 to 22 inches; loam

Btg--22 to 41 inches; clay loam

Cg--41 to 80 inches; loam

Ridgeton and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:
Hill on moraine
Position on landform:
Foothslope
Backslope
Slope range: 10 to 20 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Colluvium over till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 5.0 percent
Typical profile:
A1,A2,A3--0 to 32 inches; loam
Bw--32 to 40 inches; loam
C1,C2--40 to 80 inches; loam

L22F--Lester Loam, Morainic, 25 To 35 Percent Slopes

Component Description

Lester, morainic and similar soils
Extent: 70 to 90 percent of the unit
Geomorphic description:
Escarpment on moraine
Position on landform:
Backslope
Shoulder
Slope range: 25 to 35 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
A--0 to 5 inches; loam
BE,Bt--5 to 34 inches; clay loam
Bk--34 to 60 inches; loam
C--60 to 80 inches; loam

Terril and similar soils
Extent: 5 to 20 percent of the unit
Geomorphic description:
Escarpment on moraine
Position on landform:
Foothslope
Slope range: 2 to 6 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

A1,A2--0 to 24 inches; loam

AB--24 to 37 inches; loam

Bw--37 to 57 inches; loam

C--57 to 80 inches; loam

Ridgeton and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Escarpment on moraine

Position on landform:

Backslope

Footslope

Slope range: 18 to 25 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Colluvium over till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 11.4 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

A1,A2,A3--0 to 32 inches; loam

Bw--32 to 40 inches; loam

C1,C2--40 to 80 inches; loam

Hamel and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Escarpment on moraine

Position on landform:

Toeslope

Slope range: 1 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 11.5 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

A1,A2--0 to 22 inches; loam
Btg--22 to 41 inches; clay loam
Cg--41 to 80 inches; loam

L23A--Cordova Loam, 0 To 2 Percent Slopes

Component Description

Cordova and similar soils

Extent: 80 to 95 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Flats and swales

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April May

Wet soil moisture status is lowest (depth, months):

2.5 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.6 inches

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

Ap,AB--0 to 13 inches; loam
Btg--13 to 33 inches; clay loam
Cg--33 to 80 inches; loam

Glencoe and similar soils

Extent: 5 to 15 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface April May June

Wet soil moisture status is lowest (depth, months):

1.5 feet February

Ponding does not occur (months):

January February July August September October November
December

Ponding is deepest (depth, months):

1.0 foot March April May

Available water capacity to a depth of 60 inches: 11.1 inches

Content of organic matter in the upper 10 inches: 7.5 percent

Typical profile:

Ap--0 to 13 inches; loam
A2,Bg1--13 to 31 inches; clay loam
Bg2--31 to 45 inches; loam
Cg--45 to 80 inches; loam

Nessel and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Flats and slight rises

Slope range: 1 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 10.4 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

Ap--0 to 6 inches; loam
Bt--6 to 38 inches; clay loam
C--38 to 80 inches; loam

L24A--Glencoe Loam, Depressional, 0 To 1 Percent Slopes

Component Description

Glencoe, depressional and similar soils

Extent: 85 to 100 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April

Wet soil moisture status is lowest (depth, months):

2.0 feet February August

Ponding does not occur (months):

January February May June July August September October
November December

Ponding is deepest (depth, months):

1.0 foot April

Available water capacity to a depth of 60 inches: 11.1 inches

Content of organic matter in the upper 10 inches: 7.5 percent

Typical profile:

Ap--0 to 13 inches; loam
A2,Bg1--13 to 31 inches; clay loam
Bg2--31 to 45 inches; loam
Cg--45 to 80 inches; loam

Cordova and similar soils

Extent: 5 to 15 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Rims of depressions

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April May

Wet soil moisture status is lowest (depth, months):

2.5 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.6 inches

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

Ap,AB--0 to 13 inches; loam
Btg--13 to 33 inches; clay loam
Cg--33 to 80 inches; loam

L25A--Le Sueur Loam, 1 To 3 Percent Slopes

Component Description

Le sueur and similar soils

Extent: 75 to 90 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Flats and slight rises

Slope range: 1 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

1.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 11.0 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

A1,A2,AB--0 to 17 inches; loam
Bt--17 to 36 inches; clay loam

Bk--36 to 46 inches; loam

C--46 to 80 inches; loam

Cordova and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Flats and swales

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April May

Wet soil moisture status is lowest (depth, months):

2.5 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.6 inches

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

Ap,AB--0 to 13 inches; loam

Btg--13 to 33 inches; clay loam

Cg--33 to 80 inches; loam

Angus and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Summit

Backslope

Slope range: 2 to 5 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 10.5 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap--0 to 8 inches; loam

Bt--8 to 35 inches; clay loam

BC--35 to 40 inches; clay loam

C--40 to 80 inches; loam

L26A--Shorewood Silty Clay Loam, 0 To 3 Percent Slopes

Component Description

Shorewood and similar soils

Extent: 70 to 90 percent of the unit

Geomorphic description:

Moraine

Lake plain

Position on landform:

Slight rise

Slope range: 0 to 3 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Parent material:

Lacustrine sediments over till

Flooding: None

Wet soil moisture status is highest (depth, months):

1.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.2 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

Ap,A,AB--0 to 17 inches; silty clay loam

Bt--17 to 39 inches; silty clay

2BCg,2Cg--39 to 60 inches; loam

Minnetonka and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Lake plain

Moraine

Position on landform:

Flats and swales

Slope range: 0 to 2 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Lacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April May

Wet soil moisture status is lowest (depth, months):

2.5 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.8 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

Ap,A--0 to 13 inches; silty clay loam

Btg--13 to 35 inches; silty clay

Cg--35 to 60 inches; silty clay loam

Good thunder and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Lake plain

Moraine

Position on landform:

Slight rises

Slope range: 0 to 3 percent
Surface layer texture: Silty clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material:
Lacustrine sediments
Flooding: None
Wet soil moisture status is highest (depth, months):
2.5 feet April May
Wet soil moisture status is lowest (depth, months):
5.6 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.6 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap,A--0 to 15 inches; silty clay loam
Bt--15 to 32 inches; silty clay
C--32 to 80 inches; silt loam

L26B--Shorewood Silty Clay Loam, 3 To 6 Percent Slopes

Component Description

Shorewood and similar soils

Extent: 85 to 95 percent of the unit

Geomorphic description:

Hill on moraine

Hill on lake plain

Position on landform:

Summit

Backslope

Slope range: 3 to 6 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Lacustrine sediments over till

Flooding: None

Wet soil moisture status is highest (depth, months):

1.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet January February July August
September October

Ponding: None

Available water capacity to a depth of 60 inches: 10.2 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

Ap,A,AB--0 to 17 inches; silty clay loam

Bt--17 to 39 inches; silty clay

2BCg,2Cg--39 to 60 inches; loam

Good thunder and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Moraine

Lake plain

Position on landform:

Flats and slight rises

Slope range: 0 to 3 percent

Surface layer texture: Silty clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material:
Lacustrine sediments
Flooding: None
Wet soil moisture status is highest (depth, months):
2.5 feet April May
Wet soil moisture status is lowest (depth, months):
5.6 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.6 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap,A--0 to 15 inches; silty clay loam
Bt--15 to 32 inches; silty clay
C--32 to 80 inches; silt loam

Minnetonka and similar soils

Extent: 0 to 10 percent of the unit
Geomorphic description:
Lake plain
Moraine
Position on landform:
Flats and swales
Slope range: 0 to 2 percent
Surface layer texture: Silty clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Lacustrine sediments
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April May
Wet soil moisture status is lowest (depth, months):
2.5 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.8 inches
Content of organic matter in the upper 10 inches: 5.0 percent
Typical profile:
Ap,A--0 to 13 inches; silty clay loam
Btg--13 to 35 inches; silty clay
Cg--35 to 60 inches; silty clay loam

L26C2--Shorewood Silty Clay Loam, 6 To 12 Percent Slopes, Eroded

Component Description

Shorewood, eroded and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic description:
Hill on lake plain
Hill on moraine
Position on landform:
Summit
Backslope
Slope range: 6 to 12 percent
Surface layer texture: Silty clay loam
Depth to restrictive feature:

Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material:
 Lacustrine sediments over till
Flooding: None
Wet soil moisture status is highest (depth, months):
 1.5 feet April
Wet soil moisture status is lowest (depth, months):
 More than 5.0 feet January February March June July
 August September October
 November December
Ponding: None
Available water capacity to a depth of 60 inches: 10.2 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
 Ap,A,AB--0 to 17 inches; silty clay loam
 Bt--17 to 39 inches; silty clay
 2BCg,2Cg--39 to 60 inches; loam

Minnetonka and similar soils

Extent: 0 to 10 percent of the unit
Geomorphic description:
 Lake plain
 Moraine
Position on landform:
 Flats and swales
Slope range: 0 to 2 percent
Surface layer texture: Silty clay loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
 Lacustrine sediments
Flooding: None
Wet soil moisture status is highest (depth, months):
 0.5 foot April May
Wet soil moisture status is lowest (depth, months):
 2.5 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.8 inches
Content of organic matter in the upper 10 inches: 5.0 percent
Typical profile:
 Ap,A--0 to 13 inches; silty clay loam
 Btg--13 to 35 inches; silty clay
 Cg--35 to 60 inches; silty clay loam

L27A--Suckercreek Loam, 0 To 2 Percent Slopes, Frequently Flooded

Component Description

Suckercreek, frequently flooded and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic description:
 Flood plain
Position on landform:
 Concave drainageways
Slope range: 0 to 2 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Very poorly drained

Parent material:

Alluvium

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Frequent March April May June

Wet soil moisture status is highest (depth, months):

At the surface April May June

Wet soil moisture status is lowest (depth, months):

1.8 feet February

Ponding: None

Available water capacity to a depth of 60 inches: 9.9 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

A--0 to 22 inches; loam

Cg--22 to 80 inches; loamy fine sand

Suckercreek, occasionally flooded and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Flats

Slope range: 0 to 2 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Alluvium

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Occasional March April May June July August

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

2.3 feet September

Ponding: None

Available water capacity to a depth of 60 inches: 9.2 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

A--0 to 12 inches; fine sandy loam

Cg--12 to 80 inches; fine sandy loam

Hanlon, occasionally flooded and similar soils

Extent: 0 to 5 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Flats and slight rises

Slope range: 0 to 2 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Alluvium

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Occasional March April May June July August

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

3.9 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.2 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

A1,A2--0 to 40 inches; fine sandy loam

A3--40 to 63 inches; fine sandy loam

Bw--63 to 70 inches; sandy loam

Cg--70 to 80 inches; stratified sand to loamy fine sand to fine sandy loam

L28A--Suckercreek Fine Sandy Loam, 0 To 2 Percent Slopes, Occasionally Flooded

Component Description

Suckercreek, occasionally flooded and similar soils

Extent: 70 to 100 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Flats

Slope range: 0 to 2 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Alluvium

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Occasional March April May June July August

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

2.3 feet September

Ponding: None

Available water capacity to a depth of 60 inches: 9.2 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

A--0 to 12 inches; fine sandy loam

Cg--12 to 80 inches; fine sandy loam

Suckercreek, frequently flooded and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Concave drainageways

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Alluvium

Flooding does not occur (months):

January February September October November December
Flooding is most likely (frequency, months):
Frequent March April May June
Wet soil moisture status is highest (depth, months):
At the surface April May June
Wet soil moisture status is lowest (depth, months):
1.8 feet February
Ponding: None
Available water capacity to a depth of 60 inches: 9.9 inches
Content of organic matter in the upper 10 inches: 5.0 percent
Typical profile:
A--0 to 22 inches; loam
Cg--22 to 80 inches; loamy fine sand

Hanlon, occasionally flooded and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Flats and slight rises

Slope range: 0 to 2 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Alluvium

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Occasional March April May June July August

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

3.9 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.2 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

A1,A2--0 to 40 inches; fine sandy loam

A3--40 to 63 inches; fine sandy loam

Bw--63 to 70 inches; sandy loam

Cg--70 to 80 inches; stratified sand to loamy fine sand to fine sandy loam

L29A--Hanlon Fine Sandy Loam, 0 To 2 Percent Slopes, Occasionally Flooded

Component Description

Hanlon, occasionally flooded and similar soils

Extent: 75 to 100 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Flats and slight rises

Slope range: 0 to 2 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Alluvium
Flooding does not occur (months):
January February September October November December
Flooding is most likely (frequency, months):
Occasional March April May June July August
Wet soil moisture status is highest (depth, months):
2.5 feet April
Wet soil moisture status is lowest (depth, months):
3.9 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.2 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
A1,A2--0 to 40 inches; fine sandy loam
A3--40 to 63 inches; fine sandy loam
Bw--63 to 70 inches; sandy loam
Cg--70 to 80 inches; stratified sand to loamy fine sand to fine sandy loam

Suckercreek, occasionally flooded and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Flats

Slope range: 0 to 2 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Alluvium

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Occasional March April May June July August

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

2.3 feet September

Ponding: None

Available water capacity to a depth of 60 inches: 9.2 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

A--0 to 12 inches; fine sandy loam

Cg--12 to 80 inches; fine sandy loam

Suckercreek, frequently flooded and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Concave drainageways

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Alluvium

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):
Frequent March April May June
Wet soil moisture status is highest (depth, months):
At the surface April May June
Wet soil moisture status is lowest (depth, months):
1.8 feet February
Ponding: None
Available water capacity to a depth of 60 inches: 9.9 inches
Content of organic matter in the upper 10 inches: 5.0 percent
Typical profile:
A--0 to 22 inches; loam
Cg--22 to 80 inches; loamy fine sand

L30A--Medo Soils, Depressional, 0 To 1 Percent Slopes

Component Description

Medo, surface drained and similar soils
Extent: 50 to 100 percent of the unit
Geomorphic description:
Stream terrace
Outwash plain
Position on landform:
Depressions
Slope range: 0 to 1 percent
Surface layer texture: Muck
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material:
Organic material over outwash
Flooding: None
Wet soil moisture status is highest (depth, months):
At the surface April May June
Wet soil moisture status is lowest (depth, months):
1.5 feet February
Ponding does not occur (months):
January February July August September October November
December
Ponding is deepest (depth, months):
1.0 foot March April May
Available water capacity to a depth of 60 inches: 14.3 inches
Content of organic matter in the upper 10 inches: 70.0 percent
Typical profile:
Oa--0 to 27 inches; muck
2A--27 to 35 inches; mucky loam
2Bg--35 to 39 inches; sandy clay loam
2Cg--39 to 80 inches; gravelly loamy coarse sand

Medo, drained and similar soils
Extent: 0 to 40 percent of the unit
Geomorphic description:
Stream terrace
Outwash plain
Position on landform:
Depressions
Slope range: 0 to 1 percent
Surface layer texture: Muck
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained

Parent material:

Organic material over outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April

Wet soil moisture status is lowest (depth, months):

2.0 feet February August

Ponding does not occur (months):

January February May June July August September October
November December

Ponding is deepest (depth, months):

1.0 foot April

Available water capacity to a depth of 60 inches: 14.3 inches

Content of organic matter in the upper 10 inches: 70.0 percent

Typical profile:

Op, Oa--0 to 27 inches; muck

2A--27 to 35 inches; mucky loam

2Bg--35 to 39 inches; sandy clay loam

2Cg--39 to 80 inches; gravelly loamy coarse sand

Mineral soil, drained and similar soils

Extent: 5 to 25 percent of the unit

Geomorphic description:

Stream terrace

Outwash plain

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April

Wet soil moisture status is lowest (depth, months):

2.0 feet February August

Ponding does not occur (months):

January February May June July August September October
November December

Ponding is deepest (depth, months):

1.0 foot April

Available water capacity to a depth of 60 inches: 6.8 inches

Content of organic matter in the upper 10 inches: 8.0 percent

Typical profile:

Ap, A3--0 to 23 inches; fine sandy loam

Bg--23 to 31 inches; stratified loamy fine sand to fine sandy
loam

2Cg--31 to 60 inches; stratified coarse sand to loamy sand

L31A--Medo, Dassel, And Biscay Soils, Ponded, 0 To 1 Percent Slopes

Component Description

Medo, ponded and similar soils

Extent: 0 to 100 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Organic material over outwash

Flooding: None

Wet soil moisture status: At the surface all year

Ponding is shallowest (depth, months):

0.5 foot August

Ponding is deepest (depth, months):

3.0 feet March April May

Available water capacity to a depth of 60 inches: 12.2 inches

Content of organic matter in the upper 10 inches: 70.0 percent

Typical profile:

Oa--0 to 20 inches; muck

2A--20 to 34 inches; loam

2AC,2Cg--34 to 60 inches; sand

Dassel, ponded and similar soils

Extent: 0 to 100 percent of the unit

Geomorphic description:

Stream terrace

Outwash plain

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Outwash

Flooding: None

Wet soil moisture status: At the surface all year

Ponding is shallowest (depth, months):

0.5 foot August

Ponding is deepest (depth, months):

3.0 feet March April May

Available water capacity to a depth of 60 inches: 6.8 inches

Content of organic matter in the upper 10 inches: 8.0 percent

Typical profile:

A1,A3--0 to 23 inches; fine sandy loam

Bg--23 to 31 inches; stratified loamy fine sand to fine sandy loam

2Cg--31 to 60 inches; stratified coarse sand to loamy sand

Biscay, ponded and similar soils

Extent: 0 to 100 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Outwash

Flooding: None

Wet soil moisture status: At the surface all year

Ponding is shallowest (depth, months):

0.5 foot August

Ponding is deepest (depth, months):

3.0 feet March April May

Available water capacity to a depth of 60 inches: 6.9 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

A1,AB--0 to 24 inches; loam

Bg--24 to 29 inches; loam

2BCg,2Cg--29 to 60 inches; stratified very gravelly coarse sand to loamy sand

Houghton, ponded and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Stream terrace

Outwash plain

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Organic material

Flooding: None

Wet soil moisture status: At the surface all year

Ponding is shallowest (depth, months):

0.5 foot August

Ponding is deepest (depth, months):

3.0 feet March April May

Available water capacity to a depth of 60 inches: 23.9 inches

Content of organic matter in the upper 10 inches: 84.5 percent

Typical profile:

Oa--0 to 80 inches; muck

Muskego, ponded and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Organic material over coprogenous earth

Flooding: None

Wet soil moisture status: At the surface all year

Ponding is shallowest (depth, months):

0.5 foot August

Ponding is deepest (depth, months):

3.0 feet March April May

Available water capacity to a depth of 60 inches: 19.4 inches

Content of organic matter in the upper 10 inches: 75.0 percent

Typical profile:

Oa1--0 to 9 inches; muck

Oa2--9 to 36 inches; muck

Lco--36 to 60 inches; coprogenous earth

L32D--Hawick Loamy Sand, 12 To 18 Percent Slopes

Component Description

Hawick and similar soils

Extent: 70 to 100 percent of the unit

Geomorphic description:

Escarpment

Position on landform:

Backslope

Shoulder

Summit

Slope range: 12 to 18 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.3 inches

Content of organic matter in the upper 10 inches: 2.0 percent

Typical profile:

A--0 to 11 inches; loamy sand

Bw--11 to 15 inches; loamy sand

C--15 to 80 inches; stratified gravelly coarse sand to sand

Crowfork and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Escarpment

Position on landform:

Backslope

Summit

Shoulder

Slope range: 12 to 18 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.4 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

A--0 to 11 inches; loamy sand

E--11 to 19 inches; loamy fine sand

E&Bt--19 to 54 inches; loamy sand

C--54 to 60 inches; sand

Tomall and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Escarpment

Position on landform:

Footslope

Toeslope

Slope range: 0 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

4.0 feet April May

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February March July

August September October

November December

Ponding: None

Available water capacity to a depth of 60 inches: 9.5 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

A,AB--0 to 33 inches; loam

Bw--33 to 42 inches; sandy loam

2Bw--42 to 47 inches; loamy coarse sand

2C--47 to 80 inches; gravelly loamy coarse sand

L32F--Hawick Loamy Sand, 18 To 40 Percent Slopes

Component Description

Hawick and similar soils

Extent: 70 to 100 percent of the unit

Geomorphic description:

Escarpment

Position on landform:

Summit

Shoulder

Backslope

Slope range: 18 to 40 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.3 inches

Content of organic matter in the upper 10 inches: 2.0 percent

Typical profile:

A--0 to 11 inches; loamy sand

Bw--11 to 15 inches; loamy sand

C--15 to 80 inches; stratified gravelly coarse sand to sand

Crowfork and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Escarpment
Position on landform:
Shoulder
Summit
Backslope
Slope range: 18 to 40 percent
Surface layer texture: Loamy sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.4 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
A--0 to 11 inches; loamy sand
E--11 to 19 inches; loamy fine sand
E&Bt--19 to 54 inches; loamy sand
C--54 to 60 inches; sand

Tomall and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Escarpment
Position on landform:
Footslope
Toeslope
Slope range: 0 to 3 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Colluvium over outwash
Flooding: None
Wet soil moisture status is highest (depth, months):
4.0 feet April May
Wet soil moisture status is lowest (depth, months):
More than 6.7 feet January February March July
August September October
November December
Ponding: None
Available water capacity to a depth of 60 inches: 9.5 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
A,AB--0 to 33 inches; loam
Bw--33 to 42 inches; sandy loam
2Bw--42 to 47 inches; loamy coarse sand
2C--47 to 80 inches; gravelly loamy coarse sand

L35A--Lerdal Loam, 1 To 3 Percent Slopes

Component Description

Lerdal and similar soils

Extent: 75 to 85 percent of the unit

Geomorphic description:

Moraine
Position on landform:
Flats and slight rises
Slope range: 1 to 3 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material:
Glaciofluvial and reworked till over till
Flooding: None
Wet soil moisture status is highest (depth, months):
1.6 feet November
Wet soil moisture status is lowest (depth, months):
4.9 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.2 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap--0 to 13 inches; loam
Bt,Btg--13 to 47 inches; clay loam
Bk--47 to 60 inches; loam

Mazaska and similar soils

Extent: 5 to 15 percent of the unit
Geomorphic description:
Moraine
Position on landform:
Swales
Slope range: 0 to 2 percent
Surface layer texture: Silty clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Glaciofluvial and reworked till over till
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April May
Wet soil moisture status is lowest (depth, months):
2.6 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 9.5 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap,A--0 to 15 inches; silty clay loam
Btg--15 to 42 inches; clay
Bkg--42 to 80 inches; loam

Cordova and similar soils

Extent: 0 to 10 percent of the unit
Geomorphic description:
Moraine
Position on landform:
Flats and swales
Slope range: 0 to 2 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Till

Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April May
Wet soil moisture status is lowest (depth, months):
2.5 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.6 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap,AB--0 to 13 inches; loam
Btg--13 to 33 inches; clay loam
Cg--33 to 80 inches; loam

Le sueur and similar soils
Extent: 0 to 10 percent of the unit
Geomorphic description:
Moraine
Position on landform:
Flats and slight rises
Slope range: 1 to 3 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material:

Till
Flooding: None
Wet soil moisture status is highest (depth, months):
1.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 6.7 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.0 inches
Content of organic matter in the upper 10 inches: 5.0 percent
Typical profile:
A1,A2,AB--0 to 17 inches; loam
Bt--17 to 36 inches; clay loam
Bk--36 to 46 inches; loam
C--46 to 80 inches; loam

L36A--Hamel, Overwash-Hamel Complex, 1 To 4 Percent Slopes

Component Description

Hamel, overwash and similar soils
Extent: 40 to 60 percent of the unit
Geomorphic description:
Moraine
Position on landform:
Drainageways and swales
Slope range: 1 to 4 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material:
Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months):
1.5 feet April
Wet soil moisture status is lowest (depth, months):

4.5 feet August

Ponding: None

Available water capacity to a depth of 60 inches: 11.8 inches

Content of organic matter in the upper 10 inches: 3.5 percent

Typical profile:

Ap--0 to 13 inches; loam

A--13 to 29 inches; clay loam

Btg--29 to 50 inches; clay loam

Cg--50 to 80 inches; loam

Hamel and similar soils

Extent: 30 to 55 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Drainageways and swales

Slope range: 1 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 11.6 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

Ap,A,AB--0 to 24 inches; loam

Btg--24 to 46 inches; clay loam

Cg--46 to 80 inches; loam

Terril and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Footslope

Slope range: 2 to 5 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 11.4 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

Ap,A1--0 to 27 inches; loam

A2,BA--27 to 40 inches; loam

Bw--40 to 63 inches; loam

C--63 to 80 inches; loam

Glencoe and similar soils

Extent: 0 to 5 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April

Wet soil moisture status is lowest (depth, months):

2.0 feet February August

Ponding does not occur (months):

January February May June July August September October
November December

Ponding is deepest (depth, months):

1.0 foot April

Available water capacity to a depth of 60 inches: 11.1 inches

Content of organic matter in the upper 10 inches: 7.5 percent

Typical profile:

Ap--0 to 13 inches; loam

A2,Bg1--13 to 31 inches; clay loam

Bg2--31 to 45 inches; loam

Cg--45 to 80 inches; loam

L37B--Angus Loam, Morainic, 2 To 5 Percent Slopes

Component Description

Angus, morainic and similar soils

Extent: 50 to 90 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Backslope

Summit

Slope range: 2 to 5 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 10.5 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap--0 to 8 inches; loam
Bt--8 to 35 inches; clay loam
BC--35 to 40 inches; clay loam
C--40 to 80 inches; loam

Angus, eroded and similar soils

Extent: 5 to 40 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Shoulder

Slope range: 2 to 5 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 10.5 inches

Content of organic matter in the upper 10 inches: 1.8 percent

Typical profile:

Ap--0 to 8 inches; loam

Bt--8 to 35 inches; clay loam

Bk--35 to 58 inches; loam

C--58 to 80 inches; loam

Le sueur and similar soils

Extent: 5 to 15 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Flats and slight rises

Slope range: 1 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

1.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 11.0 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

A1,A2,AB--0 to 17 inches; loam

Bt--17 to 36 inches; clay loam

Bk--36 to 46 inches; loam

C--46 to 80 inches; loam

Cordova and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:
Moraine
Position on landform:
Flats and swales
Slope range: 0 to 2 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Till
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April May
Wet soil moisture status is lowest (depth, months):
2.5 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.6 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap,AB--0 to 13 inches; loam
Btg--13 to 33 inches; clay loam
Cg--33 to 80 inches; loam

L38A--Rushriver Very Fine Sandy Loam, 0 To 2 Percent Slopes, Occasionally Flooded

Component Description

Rushriver, occasionally flooded and similar soils
Extent: 70 to 85 percent of the unit
Geomorphic description:
Flood plain
Position on landform:
Flats and swales
Slope range: 0 to 2 percent
Surface layer texture: Very fine sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Alluvium
Flooding does not occur (months):
January February September October November December
Flooding is most likely (frequency, months):
Occasional March April May June July August
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
2.3 feet September
Ponding: None
Available water capacity to a depth of 60 inches: 8.0 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
A--0 to 46 inches; very fine sandy loam
C--46 to 80 inches; stratified coarse sand to silt loam

Oshawa, frequently flooded and similar soils
Extent: 10 to 20 percent of the unit
Geomorphic description:
Flood plain

Position on landform:

Oxbows and swales
Slope range: 0 to 1 percent
Surface layer texture: Silt loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material:

Alluvium
Flooding does not occur (months):
January February September October November December
Flooding is most likely (frequency, months):
Frequent March April May June
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months):
1.0 foot January February March August
September October
Ponding is deepest (depth, months):
2.0 feet May June
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 7.0 percent
Typical profile:
A--0 to 12 inches; silt loam
Cg--12 to 60 inches; silty clay loam

Minneiska, occasionally flooded and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Flood plain
Position on landform:
Slight rise
Slope range: 0 to 2 percent
Surface layer texture: Fine sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material:

Alluvium
Flooding does not occur (months):
January February September October November December
Flooding is most likely (frequency, months):
Occasional March April May June July August
Wet soil moisture status is highest (depth, months):
2.5 feet April
Wet soil moisture status is lowest (depth, months):
4.5 feet February
Ponding: None
Available water capacity to a depth of 60 inches: 9.7 inches
Content of organic matter in the upper 10 inches: 3.5 percent
Typical profile:
Ap--0 to 10 inches; fine sandy loam
C--10 to 60 inches; stratified sand to silt loam

Alganssee, occasionally flooded and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Flood plain
Position on landform:
Slight rise
Slope range: 0 to 2 percent
Surface layer texture: Loamy sand
Depth to restrictive feature:

Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material:
Alluvium
Flooding does not occur (months):
January February September October November December
Flooding is most likely (frequency, months):
Occasional March April May June July August
Wet soil moisture status is highest (depth, months):
1.5 feet April
Wet soil moisture status is lowest (depth, months):
4.5 feet September
Ponding: None
Available water capacity to a depth of 60 inches: 5.0 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
A--0 to 6 inches; loamy sand
C--6 to 60 inches; stratified sand to loam

L39A--Minneiska Fine Sandy Loam, 0 To 2 Percent Slopes, Occasionally Flooded

Component Description

Minneiska, occasionally flooded and similar soils

Extent: 65 to 80 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Slight rise

Slope range: 0 to 2 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Alluvium

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Occasional March April May June July August

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

4.5 feet February

Ponding: None

Available water capacity to a depth of 60 inches: 9.7 inches

Content of organic matter in the upper 10 inches: 3.5 percent

Typical profile:

Ap--0 to 10 inches; fine sandy loam

C--10 to 60 inches; stratified sand to silt loam

Rushriver, occasionally flooded and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Flats and swales

Slope range: 0 to 2 percent

Surface layer texture: Very fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Alluvium
Flooding does not occur (months):
January February September October November December
Flooding is most likely (frequency, months):
Occasional March April May June July August
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
2.3 feet September
Ponding: None
Available water capacity to a depth of 60 inches: 8.0 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
A--0 to 46 inches; very fine sandy loam
C--46 to 80 inches; stratified coarse sand to silt loam

Oshawa, frequently flooded and similar soils

Extent: 5 to 15 percent of the unit
Geomorphic description:
Flood plain
Position on landform:
Oxbows and swales
Slope range: 0 to 1 percent
Surface layer texture: Silt loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material:
Alluvium
Flooding does not occur (months):
January February September October November December
Flooding is most likely (frequency, months):
Frequent March April May June
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months):
1.0 foot January February March August
September October
Ponding is deepest (depth, months):
2.0 feet May June
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 7.0 percent
Typical profile:
A--0 to 12 inches; silt loam
Cg--12 to 60 inches; silty clay loam

Alganssee, occasionally flooded and similar soils

Extent: 0 to 10 percent of the unit
Geomorphic description:
Flood plain
Position on landform:
Slight rise
Slope range: 0 to 2 percent
Surface layer texture: Loamy sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material:
Alluvium
Flooding does not occur (months):

January February September October November December
Flooding is most likely (frequency, months):
Occasional March April May June July August
Wet soil moisture status is highest (depth, months):
1.5 feet April
Wet soil moisture status is lowest (depth, months):
4.5 feet September
Ponding: None
Available water capacity to a depth of 60 inches: 5.0 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
A--0 to 6 inches; loamy sand
C--6 to 60 inches; stratified sand to loam

L40B--Angus-Kilkenny Complex, 2 To 6 Percent Slopes

Component Description

Angus and similar soils

Extent: 35 to 55 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Backslope
Summit
Slope range: 2 to 5 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Till
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 6.7 feet January February July August
September
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap--0 to 8 inches; loam
Bt--8 to 35 inches; clay loam
BC--35 to 40 inches; clay loam
C--40 to 80 inches; loam

Kilkenny and similar soils

Extent: 30 to 50 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Summit
Shoulder
Slope range: 2 to 6 percent
Surface layer texture: Clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material:
Glaciofluvial sediments and reworked till over till

Flooding: None

Wet soil moisture status is highest (depth, months):

1.7 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet February July August September

Ponding: None

Available water capacity to a depth of 60 inches: 10.3 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 11 inches; clay loam

Bt--11 to 35 inches; clay loam

2Bk,2C--35 to 80 inches; loam

Lerdal and similar soils

Extent: 5 to 15 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Flats and slight rises

Slope range: 1 to 3 percent

Surface layer texture: Clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Parent material:

Glaciofluvial and reworked till over till

Flooding: None

Wet soil moisture status is highest (depth, months):

1.6 feet November

Wet soil moisture status is lowest (depth, months):

4.9 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.2 inches

Content of organic matter in the upper 10 inches: 4.6 percent

Typical profile:

Ap--0 to 8 inches; clay loam

E--8 to 12 inches; clay loam

Bt,Btg--12 to 41 inches; silty clay loam

Bk--41 to 80 inches; loam

Mazaska and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Swales

Slope range: 0 to 2 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Glaciofluvial and reworked till over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April May

Wet soil moisture status is lowest (depth, months):

2.6 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 9.5 inches

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

Ap,A--0 to 15 inches; silty clay loam
Btg--15 to 42 inches; clay
Bkg--42 to 80 inches; loam

L41C2--Lester-Kilkenny Complex, 6 To 12 Percent Slopes, Eroded

Component Description

Lester, eroded and similar soils

Extent: 40 to 50 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Shoulder

Backslope

Slope range: 6 to 12 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 10.5 inches

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

Ap--0 to 7 inches; loam

Bt--7 to 38 inches; clay loam

Bk--38 to 60 inches; loam

C--60 to 80 inches; loam

Kilkenny, eroded and similar soils

Extent: 35 to 45 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Shoulder

Summit

Slope range: 6 to 12 percent

Surface layer texture: Clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Glaciofluvial sediments and reworked till over till

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February March June July
August September October
November December

Ponding: None

Available water capacity to a depth of 60 inches: 10.3 inches

Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:

Ap--0 to 9 inches; clay loam

Bt--9 to 53 inches; clay loam

2BC,2C--53 to 80 inches; loam

Terril and similar soils

Extent: 5 to 15 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Footslope

Slope range: 0 to 4 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 11.4 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

Ap,A1--0 to 27 inches; loam

A2,BA--27 to 40 inches; loam

Bw--40 to 63 inches; loam

C--63 to 80 inches; loam

Derrynane and similar soils

Extent: 2 to 10 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Drainageways and swales

Slope range: 1 to 3 percent

Surface layer texture: Clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Colluvium or glaciofluvial sediments over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April May

Wet soil moisture status is lowest (depth, months):

2.6 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.0 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

Ap,A1--0 to 19 inches; clay loam

A2--19 to 39 inches; silty clay

Bg,2Bg--39 to 65 inches; clay loam

2Cg--65 to 80 inches; loam

L41D2--Lester-Kilkenny Complex, 12 To 18 Percent Slopes, Eroded

Component Description

Lester, eroded and similar soils

Extent: 40 to 50 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Shoulder

Backslope

Slope range: 12 to 18 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 10.5 inches

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

Ap--0 to 7 inches; loam

Bt--7 to 38 inches; clay loam

Bk--38 to 60 inches; loam

C--60 to 80 inches; loam

Kilkenny, eroded and similar soils

Extent: 25 to 45 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Summit

Shoulder

Slope range: 12 to 18 percent

Surface layer texture: Clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Glaciofluvial sediments and reworked till over till

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February March June July

August September October

November December

Ponding: None

Available water capacity to a depth of 60 inches: 10.3 inches

Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:

Ap--0 to 9 inches; clay loam

Bt--9 to 53 inches; clay loam

2BC,2C--53 to 80 inches; loam

Terril and similar soils

Extent: 5 to 15 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Footslope

Slope range: 0 to 4 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material:
Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 6.7 feet January February July August
September
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
Ap,A1--0 to 27 inches; loam
A2,BA--27 to 40 inches; loam
Bw--40 to 63 inches; loam
C--63 to 80 inches; loam

Derrynane and similar soils

Extent: 2 to 10 percent of the unit
Geomorphic description:
Moraine
Position on landform:
Drainageways and swales
Slope range: 1 to 3 percent
Surface layer texture: Clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Colluvium or glaciofluvial sediments over till
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April May
Wet soil moisture status is lowest (depth, months):
2.6 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.0 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
Ap,A1--0 to 19 inches; clay loam
A2--19 to 39 inches; silty clay
Bg,2Bg--39 to 65 inches; clay loam
2Cg--65 to 80 inches; loam

Ridgeton and similar soils

Extent: 0 to 10 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Foothills
Backslope
Slope range: 8 to 14 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Colluvium over till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 11.2 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

Ap,A1--0 to 23 inches; loam

A2,AB--23 to 38 inches; loam

Bw--38 to 50 inches; loam

C--50 to 80 inches; loam

L41E--Lester-Kilkenny Complex, 18 To 25 Percent Slopes

Component Description

Lester and similar soils

Extent: 40 to 50 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Backslope

Shoulder

Slope range: 18 to 25 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 10.4 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

A--0 to 5 inches; loam

BE,Bt--5 to 34 inches; clay loam

Bk--34 to 60 inches; loam

C--60 to 80 inches; loam

Kilkenny and similar soils

Extent: 35 to 45 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Summit

Shoulder

Slope range: 18 to 25 percent

Surface layer texture: Clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Glaciofluvial sediments and reworked till over till

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February March June July

August September October

November December

Ponding: None

Available water capacity to a depth of 60 inches: 10.2 inches

Content of organic matter in the upper 10 inches: 2.7 percent

Typical profile:

A--0 to 7 inches; clay loam
Bt--7 to 31 inches; clay loam
2Bk,2C--31 to 80 inches; loam

Terril and similar soils

Extent: 5 to 15 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Footslope

Slope range: 0 to 4 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

A1,A2--0 to 24 inches; loam
AB--24 to 37 inches; loam
Bw--37 to 57 inches; loam
C--57 to 80 inches; loam

Derrynane and similar soils

Extent: 2 to 10 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Drainageways and swales

Slope range: 1 to 3 percent

Surface layer texture: Clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Colluvium or glaciofluvial sediments over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April May

Wet soil moisture status is lowest (depth, months):

2.6 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.0 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

A1--0 to 20 inches; clay loam
A2--20 to 40 inches; clay loam
Btg--40 to 54 inches; clay loam
2Cg--54 to 80 inches; loam

Ridgeton and similar soils

Extent: 0 to 10 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Foothslopes
Backslopes
Slope range: 10 to 20 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Colluvium over till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 5.0 percent
Typical profile:
A1,A2,A3--0 to 32 inches; loam
Bw--32 to 40 inches; loam
C1,C2--40 to 80 inches; loam

L41F--Lester-Kilkenny Complex, 25 To 35 Percent Slopes

Component Description

Lester and similar soils

Extent: 40 to 50 percent of the unit
Geomorphic description:
Escarpment on moraine
Position on landform:
Backslopes
Shoulders
Slope range: 25 to 35 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
A--0 to 5 inches; loam
BE,Bt--5 to 34 inches; clay loam
Bk--34 to 60 inches; loam
C--60 to 80 inches; loam

Kilkenny and similar soils

Extent: 25 to 45 percent of the unit
Geomorphic description:
Escarpment on moraine
Position on landform:
Shoulders
Summits
Slope range: 25 to 35 percent
Surface layer texture: Clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Glaciofluvial sediments and reworked till over till

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February March June July
August September October
November December

Ponding: None

Available water capacity to a depth of 60 inches: 10.2 inches

Content of organic matter in the upper 10 inches: 3.7 percent

Typical profile:

A--0 to 7 inches; clay loam

Bt--7 to 31 inches; clay loam

2Bk,2C--31 to 80 inches; loam

Ridgeton and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Escarpment on moraine

Position on landform:

Backslope

Footslope

Slope range: 18 to 25 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Colluvium over till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 11.4 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

A1,A2,A3--0 to 32 inches; loam

Bw--32 to 40 inches; loam

C1,C2--40 to 80 inches; loam

Terril and similar soils

Extent: 5 to 15 percent of the unit

Geomorphic description:

Escarpment on moraine

Position on landform:

Footslope

Slope range: 0 to 4 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August

September

Ponding: None

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

A1,A2--0 to 24 inches; loam

AB--24 to 37 inches; loam

Bw--37 to 57 inches; loam

C--57 to 80 inches; loam

Derrynane and similar soils

Extent: 2 to 10 percent of the unit

Geomorphic description:

Escarpment on moraine

Position on landform:

Toeslope

Slope range: 1 to 3 percent

Surface layer texture: Clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Colluvium or glaciofluvial sediments over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April May

Wet soil moisture status is lowest (depth, months):

2.6 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.0 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

A1--0 to 20 inches; clay loam

A2--20 to 40 inches; clay loam

Btg--40 to 54 inches; clay loam

2Cg--54 to 80 inches; loam

L42B--Kingsley-Gotham Complex, 2 To 6 Percent Slopes

Component Description

Kingsley and similar soils

Extent: 60 to 85 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Summit

Backslope

Slope range: 2 to 6 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2 inches

Content of organic matter in the upper 10 inches: 2.2 percent

Typical profile:

A--0 to 7 inches; sandy loam
E--7 to 14 inches; sandy loam
Bt--14 to 34 inches; sandy loam
C--34 to 60 inches; sandy loam

Gotham and similar soils

Extent: 20 to 35 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Summit

Shoulder

Slope range: 2 to 6 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Glaciofluvial sediments

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.6 inches

Content of organic matter in the upper 10 inches: 1.0 percent

Typical profile:

A--0 to 9 inches; loamy sand

Bt--9 to 18 inches; loamy sand

Bw,BC--18 to 40 inches; sand

C--40 to 80 inches; sand

Grays and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Footslope

Backslope

Slope range: 2 to 6 percent

Surface layer texture: Very fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Glaciofluvial sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet January February June July
August September

Ponding: None

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

A--0 to 7 inches; very fine sandy loam

Bt--7 to 25 inches; silt loam

C--25 to 60 inches; stratified very fine sandy loam to silt loam

L42C--Kingsley-Gotham Complex, 6 To 12 Percent Slopes

Component Description

Kingsley and similar soils

Extent: 60 to 85 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Backslope

Summit

Slope range: 6 to 12 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2 inches

Content of organic matter in the upper 10 inches: 2.2 percent

Typical profile:

A--0 to 7 inches; sandy loam

E--7 to 14 inches; sandy loam

Bt--14 to 34 inches; sandy loam

C--34 to 60 inches; sandy loam

Gotham and similar soils

Extent: 20 to 35 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Shoulder

Summit

Slope range: 6 to 12 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Glaciofluvial sediments

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.6 inches

Content of organic matter in the upper 10 inches: 1.0 percent

Typical profile:

A--0 to 9 inches; loamy sand

Bt--9 to 18 inches; loamy sand

Bw,BC--18 to 40 inches; sand

C--40 to 80 inches; sand

Grays and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Footslope

Slope range: 2 to 6 percent

Surface layer texture: Very fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Glaciofluvial sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet January February June July
August September

Ponding: None

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

A--0 to 7 inches; very fine sandy loam

Bt--7 to 25 inches; silt loam

C--25 to 60 inches; stratified very fine sandy loam to silt loam

L42D--Kingsley-Gotham Complex, 12 To 18 Percent Slopes

Component Description

Kingsley and similar soils

Extent: 60 to 85 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Summit

Backslope

Slope range: 12 to 18 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2 inches

Content of organic matter in the upper 10 inches: 2.2 percent

Typical profile:

A--0 to 7 inches; sandy loam

E--7 to 14 inches; sandy loam

Bt--14 to 34 inches; sandy loam

C--34 to 60 inches; sandy loam

Gotham and similar soils

Extent: 20 to 35 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Summit

Shoulder

Slope range: 12 to 18 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Glaciofluvial sediments

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.6 inches

Content of organic matter in the upper 10 inches: 1.0 percent

Typical profile:

A--0 to 9 inches; loamy sand

Bt--9 to 18 inches; loamy sand

Bw,BC--18 to 40 inches; sand

C--40 to 80 inches; sand

Grays and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Footslope

Slope range: 2 to 6 percent

Surface layer texture: Very fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Glaciofluvial sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet January February June July
August September

Ponding: None

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

A--0 to 7 inches; very fine sandy loam

Bt--7 to 25 inches; silt loam

C--25 to 60 inches; stratified very fine sandy loam to silt loam

L42E--Kingsley-Gotham Complex, 18 To 25 Percent Slopes

Component Description

Kingsley and similar soils

Extent: 60 to 85 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Summit

Backslope

Slope range: 18 to 25 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2 inches

Content of organic matter in the upper 10 inches: 3.7 percent

Typical profile:

A--0 to 7 inches; sandy loam

E--7 to 14 inches; sandy loam
Bt--14 to 34 inches; sandy loam
C--34 to 60 inches; sandy loam

Gotham and similar soils

Extent: 20 to 35 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Shoulder

Summit

Slope range: 18 to 25 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Glaciofluvial sediments

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.6 inches

Content of organic matter in the upper 10 inches: 1.0 percent

Typical profile:

A--0 to 9 inches; loamy sand

Bt--9 to 18 inches; loamy sand

Bw,BC--18 to 40 inches; sand

C--40 to 80 inches; sand

Grays and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Footslope

Slope range: 2 to 6 percent

Surface layer texture: Very fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Glaciofluvial sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet January February June July
August September

Ponding: None

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

A--0 to 7 inches; very fine sandy loam

Bt--7 to 25 inches; silt loam

C--25 to 60 inches; stratified very fine sandy loam to silt loam

L42F--Kingsley-Gotham Complex, 25 To 35 Percent Slopes

Component Description

Kingsley and similar soils

Extent: 60 to 85 percent of the unit

Geomorphic description:

Escarpment

Position on landform:

Backslope

Shoulder

Slope range: 25 to 35 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2 inches

Content of organic matter in the upper 10 inches: 3.7 percent

Typical profile:

A--0 to 7 inches; sandy loam

E--7 to 14 inches; sandy loam

Bt--14 to 34 inches; sandy loam

C--34 to 60 inches; sandy loam

Gotham and similar soils

Extent: 20 to 35 percent of the unit

Geomorphic description:

Escarpment

Position on landform:

Shoulder

Summit

Slope range: 25 to 35 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Glaciofluvial sediments

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.6 inches

Content of organic matter in the upper 10 inches: 1.0 percent

Typical profile:

A--0 to 9 inches; loamy sand

Bt--9 to 18 inches; loamy sand

Bw,BC--18 to 40 inches; sand

C--40 to 80 inches; sand

Grays and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Escarpment

Position on landform:

Footslope

Slope range: 2 to 6 percent

Surface layer texture: Very fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Glaciofluvial sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet January February June July
August September

Ponding: None

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

A--0 to 7 inches; very fine sandy loam

Bt--7 to 25 inches; silt loam

C--25 to 60 inches; stratified very fine sandy loam to silt loam

L43A--Brouillett Loam, 0 To 2 Percent Slopes, Occasionally Flooded

Component Description

Brouillett, occasionally flooded and similar soils

Extent: 70 to 90 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Flats

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Parent material:

Alluvium

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Occasional March April May June July August

Wet soil moisture status is highest (depth, months):

1.5 feet April

Wet soil moisture status is lowest (depth, months):

4.5 feet February

Ponding: None

Available water capacity to a depth of 60 inches: 10.6 inches

Content of organic matter in the upper 10 inches: 4.5 percent

Typical profile:

Ap--0 to 14 inches; loam

A--14 to 36 inches; loam

Bg--36 to 44 inches; loam

Cg--44 to 60 inches; stratified loamy very fine sand to silt loam

Minneiska, occasionally flooded and similar soils

Extent: 5 to 15 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Slight rise

Slope range: 0 to 2 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Alluvium

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Occasional March April May June July August

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

4.5 feet February

Ponding: None

Available water capacity to a depth of 60 inches: 9.7 inches

Content of organic matter in the upper 10 inches: 3.5 percent

Typical profile:

Ap--0 to 10 inches; fine sandy loam

C--10 to 60 inches; stratified sand to silt loam

Rushriver, occasionally flooded and similar soils

Extent: 5 to 10 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Flats and swales

Slope range: 0 to 2 percent

Surface layer texture: Very fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Alluvium

Flooding does not occur (months):

January February September October November December

Flooding is most likely (frequency, months):

Occasional March April May June July August

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

2.3 feet September

Ponding: None

Available water capacity to a depth of 60 inches: 8.0 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

A--0 to 46 inches; very fine sandy loam

C--46 to 80 inches; stratified coarse sand to silt loam

L44A--Nessel Loam, 1 To 3 Percent Slopes

Component Description

Nessel and similar soils

Extent: 75 to 90 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Flats and slight rises

Slope range: 1 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 10.4 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

Ap--0 to 6 inches; loam

Bt--6 to 38 inches; clay loam

C--38 to 80 inches; loam

Cordova and similar soils

Extent: 5 to 15 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Flats and swales

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April May

Wet soil moisture status is lowest (depth, months):

2.5 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.6 inches

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

Ap,AB--0 to 13 inches; loam

Btg--13 to 33 inches; clay loam

Cg--33 to 80 inches; loam

Angus and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Summit

Backslope

Slope range: 2 to 5 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 10.5 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap--0 to 8 inches; loam
Bt--8 to 35 inches; clay loam
BC--35 to 40 inches; clay loam
C--40 to 80 inches; loam

L45A--Dundas-Cordova Complex, 0 To 3 Percent Slopes

Component Description

Dundas and similar soils

Extent: 50 to 75 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Flats

Slope range: 1 to 3 percent

Surface layer texture: Silt loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

1.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet August

Ponding: None

Available water capacity to a depth of 60 inches: 10.7 inches

Content of organic matter in the upper 10 inches: 2.8 percent

Typical profile:

Ap--0 to 9 inches; silt loam

E--9 to 15 inches; loam

Btg--15 to 40 inches; clay loam

Cg--40 to 80 inches; loam

Cordova and similar soils

Extent: 15 to 30 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Flats and swales

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April May

Wet soil moisture status is lowest (depth, months):

2.5 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.6 inches

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

Ap,AB--0 to 13 inches; loam

Btg--13 to 33 inches; clay loam

Cg--33 to 80 inches; loam

Nessel and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Slight rise

Slope range: 1 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 10.4 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

Ap--0 to 6 inches; loam

Bt--6 to 38 inches; clay loam

C--38 to 80 inches; loam

Glencoe and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface April May June

Wet soil moisture status is lowest (depth, months):

1.5 feet February

Ponding does not occur (months):

January February July August September October November
December

Ponding is deepest (depth, months):

1.0 foot March April May

Available water capacity to a depth of 60 inches: 11.1 inches

Content of organic matter in the upper 10 inches: 7.5 percent

Typical profile:

Ap--0 to 13 inches; loam

A2,Bg1--13 to 31 inches; clay loam

Bg2--31 to 45 inches; loam

Cg--45 to 80 inches; loam

Component Description

Tomall and similar soils

Extent: 70 to 100 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Swales

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

4.0 feet April May

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February March July
August September October

November December

Ponding: None

Available water capacity to a depth of 60 inches: 9.5 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

Ap,A,AB--0 to 33 inches; loam

Bw--33 to 42 inches; sandy loam

2Bw--42 to 47 inches; loamy coarse sand

2C--47 to 80 inches; gravelly loamy coarse sand

Rasset and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Stream terrace

Outwash plain

Position on landform:

Swales

Slope range: 0 to 3 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 6.1 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A--0 to 15 inches; sandy loam

Bt--15 to 28 inches; sandy loam

2BC--28 to 36 inches; loamy sand

2C--36 to 80 inches; sand

Malardi and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace
Position on landform:
Swales
Slope range: 0 to 3 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap--0 to 10 inches; sandy loam
Bt--10 to 15 inches; sandy loam
2Bt--15 to 29 inches; loamy coarse sand
2C--29 to 80 inches; gravelly sand

L47A--Eden Prairie Sandy Loam, 0 To 2 Percent Slopes

Component Description

Eden prairie and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic description:
Stream terrace
Outwash plain
Position on landform:
Flats
Slope range: 0 to 2 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap--0 to 10 inches; sandy loam
Bt--10 to 16 inches; sandy loam
2Bt--16 to 26 inches; loamy sand
2Bw,2C1,2C2--26 to 80 inches; sand

Malardi and similar soils

Extent: 0 to 20 percent of the unit
Geomorphic description:
Outwash plain
Stream terrace
Position on landform:
Flats
Slope range: 0 to 2 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained
Parent material:
 Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
 Ap--0 to 10 inches; sandy loam
 Bt--10 to 15 inches; sandy loam
 2Bt--15 to 29 inches; loamy coarse sand
 2C--29 to 80 inches; gravelly sand

Rasset and similar soils

Extent: 0 to 10 percent of the unit
Geomorphic description:
 Outwash plain
 Stream terrace
Position on landform:
 Swales
Slope range: 0 to 2 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
 Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 6.1 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
 Ap,A--0 to 15 inches; sandy loam
 Bt--15 to 28 inches; sandy loam
 2BC--28 to 36 inches; loamy sand
 2C--36 to 80 inches; sand

L47B--Eden Prairie Sandy Loam, 2 To 6 Percent Slopes

Component Description

Eden prairie and similar soils

Extent: 75 to 95 percent of the unit
Geomorphic description:
 Hill on stream terrace
 Hill on outwash plain
Position on landform:
 Summit
 Backslope
Slope range: 2 to 6 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material:
 Outwash
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:

Ap--0 to 10 inches; sandy loam
Bt--10 to 16 inches; sandy loam
2Bt--16 to 26 inches; loamy sand
2Bw,2C1,2C2--26 to 80 inches; sand

Malardi and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Hill on outwash plain
Hill on stream terrace

Position on landform:

Backslope
Summit

Slope range: 2 to 6 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.3 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam
Bt--10 to 15 inches; sandy loam
2Bt--15 to 29 inches; loamy coarse sand
2C--29 to 80 inches; gravelly sand

Rasset and similar soils

Extent: 5 to 15 percent of the unit

Geomorphic description:

Outwash plain
Stream terrace

Position on landform:

Swales

Slope range: 1 to 3 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 6.1 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A--0 to 15 inches; sandy loam
Bt--15 to 28 inches; sandy loam
2BC--28 to 36 inches; loamy sand
2C--36 to 80 inches; sand

L47C--Eden Prairie Sandy Loam, 6 To 12 Percent Slopes

Component Description

Eden prairie and similar soils

Extent: 60 to 85 percent of the unit

Geomorphic description:

Hill on stream terrace

Hill on outwash plain

Position on landform:

Backslope

Summit

Slope range: 6 to 12 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 16 inches; sandy loam

2Bt--16 to 26 inches; loamy sand

2Bw,2C1,2C2--26 to 80 inches; sand

Malardi and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Hill on outwash plain

Hill on stream terrace

Position on landform:

Summit

Backslope

Slope range: 6 to 12 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.3 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 15 inches; sandy loam

2Bt--15 to 29 inches; loamy coarse sand

2C--29 to 80 inches; gravelly sand

Rasset and similar soils

Extent: 5 to 15 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Swales

Slope range: 1 to 3 percent

Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 6.1 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap,A--0 to 15 inches; sandy loam
Bt--15 to 28 inches; sandy loam
2BC--28 to 36 inches; loamy sand
2C--36 to 80 inches; sand

Hawick and similar soils

Extent: 0 to 20 percent of the unit
Geomorphic description:
Hill on stream terrace
Hill on outwash plain
Position on landform:
Backslope
Summit
Slope range: 6 to 12 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.2 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap--0 to 7 inches; sandy loam
Bw--7 to 11 inches; gravelly loamy coarse sand
C--11 to 80 inches; gravelly coarse sand

L49A--Klossner Soils, Depressional, 0 To 1 Percent Slopes

Component Description

Klossner, surface drained and similar soils

Extent: 50 to 100 percent of the unit
Geomorphic description:
Moraine
Position on landform:
Depressions
Slope range: 0 to 1 percent
Surface layer texture: Muck
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material:
Organic material over till
Flooding: None
Wet soil moisture status is highest (depth, months):

At the surface April May June
Wet soil moisture status is lowest (depth, months):
1.5 feet February
Ponding does not occur (months):
January February July August September October November
December
Ponding is deepest (depth, months):
1.0 foot March April May
Available water capacity to a depth of 60 inches: 17.4 inches
Content of organic matter in the upper 10 inches: 42.5 percent
Typical profile:
Oa--0 to 26 inches; muck
2A1--26 to 33 inches; silt loam
2A2--33 to 40 inches; loam
2Cg--40 to 80 inches; loam

Klossner, drained and similar soils

Extent: 0 to 40 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Organic material over till

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April

Wet soil moisture status is lowest (depth, months):

2.0 feet February August

Ponding does not occur (months):

January February May June July August September October
November December

Ponding is deepest (depth, months):

1.0 foot April

Available water capacity to a depth of 60 inches: 17.7 inches

Content of organic matter in the upper 10 inches: 50.0 percent

Typical profile:

Op,Oa--0 to 26 inches; muck

2A1--26 to 36 inches; mucky silty clay loam

2A2--36 to 48 inches; silty clay loam

2Cg--48 to 80 inches; loam

Mineral soil, drained and similar soils

Extent: 5 to 25 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April
Wet soil moisture status is lowest (depth, months):
2.0 feet February August
Ponding does not occur (months):
January February May June July August September October
November December
Ponding is deepest (depth, months):
1.0 foot April
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 7.5 percent
Typical profile:
Ap--0 to 13 inches; loam
A2,Bg1--13 to 31 inches; clay loam
Bg2--31 to 45 inches; clay loam
Cg--45 to 80 inches; loam

L50A--Houghton And Muskego Soils, Depressional, 0 To 1 Percent Slopes

Component Description

Houghton, surface drained and similar soils

Extent: 20 to 60 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Organic material

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface April May June

Wet soil moisture status is lowest (depth, months):

1.5 feet February

Ponding does not occur (months):

January February July August September October November
December

Ponding is deepest (depth, months):

1.0 foot March April May

Available water capacity to a depth of 60 inches: 23.9 inches

Content of organic matter in the upper 10 inches: 84.5 percent

Typical profile:

Oa--0 to 80 inches; muck

Muskego, surface drained and similar soils

Extent: 20 to 60 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Organic material over coprogenous earth

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface April May June

Wet soil moisture status is lowest (depth, months):

1.5 feet February

Ponding does not occur (months):

January February July August September October November
December

Ponding is deepest (depth, months):

1.0 foot March April May

Available water capacity to a depth of 60 inches: 19.4 inches

Content of organic matter in the upper 10 inches: 75.0 percent

Typical profile:

Oa1--0 to 9 inches; muck

Oa2--9 to 36 inches; muck

Lco--36 to 60 inches; coprogenous earth

Klossner, drained and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Organic material over till

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April

Wet soil moisture status is lowest (depth, months):

2.0 feet February August

Ponding does not occur (months):

January February May June July August September October
November December

Ponding is deepest (depth, months):

1.0 foot April

Available water capacity to a depth of 60 inches: 17.7 inches

Content of organic matter in the upper 10 inches: 50.0 percent

Typical profile:

Op,Oa--0 to 26 inches; muck

2A1--26 to 36 inches; mucky silty clay loam

2A2--36 to 48 inches; silty clay loam

2Cg--48 to 80 inches; loam

Mineral soil, drained and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):
At the surface March April
Wet soil moisture status is lowest (depth, months):
2.0 feet February August
Ponding does not occur (months):
January February May June July August September October
November December
Ponding is deepest (depth, months):
1.0 foot April
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 7.5 percent
Typical profile:
Ap--0 to 13 inches; loam
A2,Bg1--13 to 31 inches; clay loam
Bg2--31 to 45 inches; clay loam
Cg--45 to 80 inches; loam

L52C--Urban Land-Lester Complex, 2 To 18 Percent Slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit
Geomorphic description:
Moraine
Slope range: 2 to 18 percent
Parent material:
Loamy till
Flooding: None
Ponding: None

The Urban land component is mainly residential with 35 to 80 percent of the mapunit covered by impervious surfaces. The majority of the area has been disturbed to some degree by construction activity. Because of the variability of the component in this map unit, interpretations for specific uses are not available. Onsite investigation is needed.

Lester and similar soils

Extent: 0 to 20 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Backslope
Shoulder
Slope range: 6 to 18 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
Ap--0 to 7 inches; loam
Bt--7 to 38 inches; clay loam
Bk--38 to 60 inches; loam

C--60 to 80 inches; loam

Kingsley and similar soils

Extent: 0 to 5 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Backslope

Summit

Slope range: 5 to 18 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2 inches

Content of organic matter in the upper 10 inches: 2.2 percent

Typical profile:

A--0 to 7 inches; sandy loam

E--7 to 14 inches; sandy loam

Bt--14 to 34 inches; sandy loam

C--34 to 60 inches; sandy loam

L52E--Urban Land-Lester Complex, 18 To 35 Percent Slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit

Geomorphic description:

Moraine

Slope range: 18 to 35 percent

Parent material:

Loamy till

Flooding: None

Ponding: None

The Urban land component is mainly residential with 35 to 80 percent of the mapunit covered by impervious surfaces. The majority of the area has been disturbed to some degree by construction activity. Because of the variability of the component in this map unit, interpretations for specific uses are not available. Onsite investigation is needed.

Lester and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Shoulder

Backslope

Slope range: 18 to 35 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 10.4 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

A--0 to 5 inches; loam

BE,Bt--5 to 34 inches; clay loam

Bk--34 to 60 inches; loam

C--60 to 80 inches; loam

Kingsley and similar soils

Extent: 0 to 5 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Backslope

Summit

Slope range: 18 to 35 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2 inches

Content of organic matter in the upper 10 inches: 3.7 percent

Typical profile:

A--0 to 7 inches; sandy loam

E--7 to 14 inches; sandy loam

Bt--14 to 34 inches; sandy loam

C--34 to 60 inches; sandy loam

L53B--Urban Land-Moon Complex, 2 To 8 Percent Slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit

Geomorphic description:

Moraine

Slope range: 2 to 8 percent

Parent material:

Loamy till

Flooding: None

Ponding: None

The Urban land component is mainly residential with 35 to 80 percent of the mapunit covered by impervious surfaces. The majority of the area has been disturbed to some degree by construction activity. Because of the variability of the component in this map unit, interpretations for specific uses are not available. Onsite investigation is needed.

Moon and similar soils

Extent: 15 to 25 percent of the unit

Geomorphic description:

Hill on moraine
Position on landform:
Shoulder
Summit
Slope range: 2 to 5 percent
Surface layer texture: Loamy fine sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material:
Outwash over till
Flooding: None
Wet soil moisture status is highest (depth, months):
2.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February June July
August September
Ponding: None
Available water capacity to a depth of 60 inches: 8.4 inches
Content of organic matter in the upper 10 inches: 1.7 percent
Typical profile:
Ap--0 to 8 inches; loamy fine sand
E--8 to 24 inches; loamy fine sand
2Bt--24 to 46 inches; sandy clay loam
2C--46 to 60 inches; loam

Lester and similar soils

Extent: 0 to 15 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Backslope
Shoulder
Slope range: 6 to 8 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
Ap--0 to 7 inches; loam
Bt--7 to 38 inches; clay loam
Bk--38 to 60 inches; loam
C--60 to 80 inches; loam

L54A--Urban Land-Dundas Complex, 0 To 3 Percent Slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit
Geomorphic description:
Moraine
Slope range: 0 to 3 percent
Parent material:

Loamy till
Flooding: None
Ponding: None

The Urban land component is mainly residential with 35 to 80 percent of the mapunit covered by impervious surfaces. The majority of the area has been disturbed to some degree by construction activity. Because of the variability of the component in this map unit, interpretations for specific uses are not available. Onsite investigation is needed.

Dundas and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Flats

Slope range: 0 to 3 percent

Surface layer texture: Silt loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

1.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet August

Ponding: None

Available water capacity to a depth of 60 inches: 10.7 inches

Content of organic matter in the upper 10 inches: 2.8 percent

Typical profile:

Ap--0 to 9 inches; silt loam

E--9 to 15 inches; loam

Btg--15 to 40 inches; clay loam

Cg--40 to 80 inches; loam

Nessel and similar soils

Extent: 0 to 15 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Flats and slight rises

Slope range: 1 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 10.4 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

Ap--0 to 6 inches; loam

Bt--6 to 38 inches; clay loam
C--38 to 80 inches; loam

L55B--Urban Land-Malardi Complex, 0 To 8 Percent Slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit

Geomorphic description:

Stream terrace

Outwash plain

Slope range: 0 to 8 percent

Parent material:

Sandy and gravelly outwash

Flooding: None

Ponding: None

The Urban land component is mainly residential with 35 to 80 percent of the mapunit covered by impervious surfaces. The majority of the area has been disturbed to some degree by construction activity. Because of the variability of the component in this map unit, interpretations for specific uses are not available. Onsite investigation is needed.

Malardi and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Hill on outwash plain

Hill on stream terrace

Position on landform:

Summit

Backslope

Slope range: 2 to 8 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.3 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 15 inches; sandy loam

2Bt--15 to 29 inches; loamy coarse sand

2C--29 to 80 inches; gravelly sand

Rasset and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Outwash plain

Stream terrace

Position on landform:

Swales

Slope range: 1 to 3 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 6.1 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap,A--0 to 15 inches; sandy loam
Bt--15 to 28 inches; sandy loam
2BC--28 to 36 inches; loamy sand
2C--36 to 80 inches; sand

Eden prairie and similar soils

Extent: 0 to 5 percent of the unit
Geomorphic description:
Hill on stream terrace
Hill on outwash plain
Position on landform:
Backslope
Summit
Slope range: 0 to 8 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap--0 to 10 inches; sandy loam
Bt--10 to 16 inches; sandy loam
2Bt--16 to 26 inches; loamy sand
2Bw,2C1,2C2--26 to 80 inches; sand

L55C--Urban Land-Malardi Complex, 8 To 18 Percent Slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit
Geomorphic description:
Stream terrace
Outwash plain
Slope range: 8 to 18 percent
Parent material:
Sandy and gravelly outwash
Flooding: None
Ponding: None

The Urban land component is mainly residential with 35 to 80 percent of the mapunit covered by impervious surfaces. The majority of the area has been disturbed to some degree by construction activity. Because of the variability of the component in this map unit, interpretations for specific uses are

not available. Onsite investigation is needed.

Malardi and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Hill on stream terrace

Hill on outwash plain

Position on landform:

Backslope

Summit

Slope range: 8 to 18 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.3 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 15 inches; sandy loam

2Bt--15 to 29 inches; loamy coarse sand

2C--29 to 80 inches; gravelly sand

Hawick and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on outwash plain

Hill on stream terrace

Position on landform:

Shoulder

Slope range: 8 to 18 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.2 inches

Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:

Ap--0 to 7 inches; sandy loam

Bw--7 to 11 inches; gravelly loamy coarse sand

C--11 to 80 inches; gravelly coarse sand

Crowfork and similar soils

Extent: 0 to 5 percent of the unit

Geomorphic description:

Hill on stream terrace

Hill on outwash plain

Position on landform:

Summit

Backslope

Slope range: 8 to 18 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.6 inches

Content of organic matter in the upper 10 inches: 2.0 percent

Typical profile:

Ap--0 to 11 inches; loamy sand

E--11 to 20 inches; loamy fine sand

E&Bt--20 to 76 inches; loamy sand

C--76 to 80 inches; sand

L56A--Muskego And Klossner Soils, 0 To 1 Percent Slopes, Frequently Flooded

Component Description

Muskego, frequently flooded and similar soils

Extent: 30 to 100 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Flats

Slope range: 0 to 1 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Organic material over coprogenous earth

Flooding does not occur (months):

January February August September October November
December

Flooding is most likely (frequency, months):

Frequent March April May June

Wet soil moisture status is highest (depth, months):

At the surface April May June

Wet soil moisture status is lowest (depth, months):

1.5 feet February

Ponding does not occur (months):

January February July August September October November
December

Ponding is deepest (depth, months):

1.0 foot March April May

Available water capacity to a depth of 60 inches: 19.4 inches

Content of organic matter in the upper 10 inches: 75.0 percent

Typical profile:

Oa1--0 to 9 inches; muck

Oa2--9 to 36 inches; muck

Lco--36 to 60 inches; coprogenous earth

Klossner, frequently flooded and similar soils

Extent: 30 to 100 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Flats

Slope range: 0 to 1 percent

Surface layer texture: Muck
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material:
Organic material over till
Flooding does not occur (months):
January February August September October November
December
Flooding is most likely (frequency, months):
Frequent March April May June
Wet soil moisture status is highest (depth, months):
At the surface April May June
Wet soil moisture status is lowest (depth, months):
1.5 feet February
Ponding does not occur (months):
January February July August September October November
December
Ponding is deepest (depth, months):
1.0 foot March April May
Available water capacity to a depth of 60 inches: 17.4 inches
Content of organic matter in the upper 10 inches: 42.5 percent
Typical profile:
Oa--0 to 26 inches; muck
2A1--26 to 33 inches; silt loam
2A2--33 to 40 inches; loam
2Cg--40 to 80 inches; loam

Suckercreek, frequently flooded and similar soils

Extent: 0 to 40 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Flats

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Alluvium

Flooding does not occur (months):

January February August September October November
December

Flooding is most likely (frequency, months):

Frequent March April May June

Wet soil moisture status is highest (depth, months):

At the surface April May June

Wet soil moisture status is lowest (depth, months):

1.8 feet February

Ponding: None

Available water capacity to a depth of 60 inches: 9.9 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

A--0 to 22 inches; loam

Cg--22 to 80 inches; loamy fine sand

L58B--Koronis-Kingsley Complex, 2 To 6 Percent Slopes

Component Description

Koronis and similar soils

Extent: 50 to 85 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Summit

Backslope

Slope range: 2 to 6 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 9.7 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 30 inches; sandy clay loam

Bk--30 to 60 inches; loam

Kingsley and similar soils

Extent: 20 to 35 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Summit

Backslope

Slope range: 2 to 6 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2 inches

Content of organic matter in the upper 10 inches: 2.2 percent

Typical profile:

Ap--0 to 7 inches; sandy loam

E--7 to 14 inches; sandy loam

Bt--14 to 34 inches; sandy loam

C--34 to 60 inches; sandy loam

Forestcity and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Swales and drainageways

Slope range: 0 to 2 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Colluvium over till

Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 8.9 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
Ap,A1--0 to 22 inches; fine sandy loam
A2,AB--22 to 36 inches; loam
2Btg--36 to 60 inches; sandy clay loam
2Cg--60 to 80 inches; sandy loam

Gotham and similar soils

Extent: 0 to 10 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Summit
Shoulder
Slope range: 2 to 6 percent
Surface layer texture: Loamy sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material:
Glaciofluvial sediments
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 1.0 percent
Typical profile:
Ap--0 to 9 inches; loamy sand
Bt--9 to 18 inches; loamy sand
Bw,BC--18 to 40 inches; sand
C--40 to 80 inches; sand

L58C2--Koronis-Kingsley Complex, 6 To 12 Percent Slopes, Eroded

Component Description

Koronis, eroded and similar soils

Extent: 50 to 85 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Summit
Backslope
Slope range: 6 to 12 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Till
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.7 inches

Content of organic matter in the upper 10 inches: 2.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 30 inches; sandy clay loam

Bk--30 to 60 inches; loam

Kingsley, eroded and similar soils

Extent: 20 to 35 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Summit

Backslope

Slope range: 6 to 12 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

Ap--0 to 7 inches; sandy loam

E--7 to 14 inches; sandy loam

Bt--14 to 34 inches; sandy loam

C--34 to 60 inches; sandy loam

Forestcity and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Swales and drainageways

Slope range: 0 to 2 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 8.9 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

Ap,A1--0 to 22 inches; fine sandy loam

A2,AB--22 to 36 inches; loam

2Btg--36 to 60 inches; sandy clay loam

2Cg--60 to 80 inches; sandy loam

Gotham and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Summit

Shoulder

Slope range: 6 to 12 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Glaciofluvial sediments

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.6 inches

Content of organic matter in the upper 10 inches: 1.0 percent

Typical profile:

Ap--0 to 9 inches; loamy sand

Bt--9 to 18 inches; loamy sand

Bw,BC--18 to 40 inches; sand

C--40 to 80 inches; sand

L58D2--Koronis-Kingsley Complex, 12 To 18 Percent Slopes, Eroded

Component Description

Koronis, eroded and similar soils

Extent: 50 to 85 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Backslope

Summit

Slope range: 12 to 18 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 9.7 inches

Content of organic matter in the upper 10 inches: 2.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 30 inches; sandy clay loam

Bk--30 to 60 inches; loam

Kingsley, eroded and similar soils

Extent: 20 to 35 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Summit

Backslope

Slope range: 12 to 18 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

Ap--0 to 7 inches; sandy loam

E--7 to 14 inches; sandy loam

Bt--14 to 34 inches; sandy loam

C--34 to 60 inches; sandy loam

Forestcity and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Swales and drainageways

Slope range: 0 to 2 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 8.9 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

Ap,A1--0 to 22 inches; fine sandy loam

A2,AB--22 to 36 inches; loam

2Btg--36 to 60 inches; sandy clay loam

2Cg--60 to 80 inches; sandy loam

Gotham and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Summit

Shoulder

Slope range: 12 to 18 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material:

Glaciofluvial sediments

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.6 inches

Content of organic matter in the upper 10 inches: 1.0 percent

Typical profile:

Ap--0 to 9 inches; loamy sand

Bt--9 to 18 inches; loamy sand

Bw,BC--18 to 40 inches; sand
C--40 to 80 inches; sand

L58E--Koronis-Kingsley Complex, 18 To 25 Percent Slopes

Component Description

Koronis and similar soils

Extent: 50 to 85 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Summit

Backslope

Slope range: 18 to 25 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 9.7 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

A--0 to 10 inches; sandy loam

Bt--10 to 30 inches; sandy clay loam

Bk--30 to 60 inches; loam

Kingsley and similar soils

Extent: 20 to 35 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Backslope

Summit

Slope range: 18 to 25 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2 inches

Content of organic matter in the upper 10 inches: 3.7 percent

Typical profile:

A--0 to 7 inches; sandy loam

E--7 to 14 inches; sandy loam

Bt--14 to 34 inches; sandy loam

C--34 to 60 inches; sandy loam

Forestcity and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Swales and drainageways
Slope range: 0 to 2 percent
Surface layer texture: Fine sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 8.9 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
A1--0 to 22 inches; fine sandy loam
A2,AB--22 to 36 inches; loam
2Btg--36 to 60 inches; sandy clay loam
2Cg--60 to 80 inches; sandy loam

Gotham and similar soils

Extent: 0 to 10 percent of the unit
Geomorphologic description:
Hill on moraine
Position on landform:
Shoulder
Summit
Slope range: 18 to 25 percent
Surface layer texture: Loamy sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material:
Glaciofluvial sediments
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 1.0 percent
Typical profile:
A--0 to 9 inches; loamy sand
Bt--9 to 18 inches; loamy sand
Bw,BC--18 to 40 inches; sand
C--40 to 80 inches; sand

L59A--Forestcity-Lundlake, Depressional, Complex, 0 To 3 Percent Slopes

Component Description

Forestcity and similar soils

Extent: 60 to 90 percent of the unit
Geomorphologic description:
Moraine
Position on landform:
Swales and drainageways
Slope range: 0 to 3 percent
Surface layer texture: Fine sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 9.0 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

Ap,A1--0 to 22 inches; fine sandy loam

A2,AB--22 to 43 inches; loam

2Btg--43 to 60 inches; sandy clay loam

2BCg--60 to 80 inches; sandy loam

Lundlake, depressional and similar soils

Extent: 10 to 40 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April

Wet soil moisture status is lowest (depth, months):

2.0 feet February August

Ponding does not occur (months):

January February May June July August September October

November December

Ponding is deepest (depth, months):

1.0 foot April

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

Ap,A1--0 to 20 inches; loam

A2,A3,AB--20 to 46 inches; loam

Bg--46 to 54 inches; sandy loam

Cg--54 to 60 inches; sandy loam

Marcellon and similar soils

Extent: 0 to 15 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Flats and slight rises

Slope range: 0 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):
1.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet August
Ponding: None
Available water capacity to a depth of 60 inches: 9.2 inches
Content of organic matter in the upper 10 inches: 5.0 percent
Typical profile:
Ap,A--0 to 13 inches; loam
Bt--13 to 32 inches; loam
Bk--32 to 60 inches; sandy loam

L60B--Angus-Moon Complex, 2 To 5 Percent Slopes

Component Description

Angus and similar soils

Extent: 60 to 80 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Summit
Backslope
Slope range: 2 to 5 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Till
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 6.7 feet January February July August
September
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap--0 to 8 inches; loam
Bt--8 to 35 inches; clay loam
BC--35 to 40 inches; clay loam
C--40 to 80 inches; loam

Moon and similar soils

Extent: 20 to 40 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Summit
Shoulder
Slope range: 2 to 5 percent
Surface layer texture: Loamy fine sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material:
Outwash over till
Flooding: None
Wet soil moisture status is highest (depth, months):

2.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February June July
August September

Ponding: None

Available water capacity to a depth of 60 inches: 8.4 inches

Content of organic matter in the upper 10 inches: 1.7 percent

Typical profile:

Ap--0 to 8 inches; loamy fine sand

E--8 to 24 inches; loamy fine sand

2Bt--24 to 46 inches; sandy clay loam

2C--46 to 60 inches; loam

Hamel and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Drainageways and swales

Slope range: 1 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 11.6 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

Ap,A,AB--0 to 24 inches; loam

Btg--24 to 46 inches; clay loam

Cg--46 to 80 inches; loam

L61C2--Lester-Metea Complex, 6 To 12 Percent Slopes, Eroded

Component Description

Lester, eroded and similar soils

Extent: 50 to 80 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Shoulder

Backslope

Slope range: 6 to 12 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 10.5 inches

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

Ap--0 to 7 inches; loam
Bt--7 to 38 inches; clay loam
Bk--38 to 60 inches; loam
C--60 to 80 inches; loam

Metea, eroded and similar soils

Extent: 20 to 40 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Shoulder

Summit

Slope range: 6 to 12 percent

Surface layer texture: Loamy fine sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Outwash over till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 8.4 inches

Content of organic matter in the upper 10 inches: 1.2 percent

Typical profile:

Ap--0 to 8 inches; loamy fine sand
E--8 to 24 inches; loamy fine sand
2Bt--24 to 46 inches; sandy clay loam
2C--46 to 60 inches; loam

Terril and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Footslope

Slope range: 0 to 4 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 11.4 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

Ap,A1--0 to 27 inches; loam
A2,BA--27 to 40 inches; loam
Bw--40 to 63 inches; loam
C--63 to 80 inches; loam

Hamel and similar soils

Extent: 0 to 5 percent of the unit

Geomorphic description:
Moraine
Position on landform:
Swales and drainageways
Slope range: 1 to 3 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.6 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
Ap,A,AB--0 to 24 inches; loam
Btg--24 to 46 inches; clay loam
Cg--46 to 80 inches; loam

L61D2--Lester-Metea Complex, 12 To 18 Percent Slopes, Eroded

Component Description

Lester, eroded and similar soils
Extent: 50 to 80 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Backslope
Shoulder
Slope range: 12 to 18 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
Ap--0 to 7 inches; loam
Bt--7 to 38 inches; clay loam
Bk--38 to 60 inches; loam
C--60 to 80 inches; loam

Metea, eroded and similar soils
Extent: 20 to 40 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Shoulder
Summit
Slope range: 12 to 18 percent

Surface layer texture: Loamy fine sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Outwash over till
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 8.4 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
Ap--0 to 8 inches; loamy fine sand
E--8 to 24 inches; loamy fine sand
2Bt--24 to 46 inches; sandy clay loam
2C--46 to 60 inches; loam

Terril and similar soils

Extent: 5 to 20 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Footslope
Slope range: 2 to 6 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material:
Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 6.7 feet January February July August
September
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
Ap,A1--0 to 27 inches; loam
A2,BA--27 to 40 inches; loam
Bw--40 to 63 inches; loam
C--63 to 80 inches; loam

Ridgeton and similar soils

Extent: 0 to 10 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Footslope
Backslope
Slope range: 8 to 14 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Colluvium over till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None

Available water capacity to a depth of 60 inches: 11.2 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:

Ap,A1--0 to 23 inches; loam
A2,AB--23 to 38 inches; loam
Bw--38 to 50 inches; loam
C--50 to 80 inches; loam

Hamel and similar soils

Extent: 0 to 5 percent of the unit
Geomorphic description:

Moraine

Position on landform:

Swales and drainageways

Slope range: 1 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 11.6 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

Ap,A,AB--0 to 24 inches; loam
Btg--24 to 46 inches; clay loam
Cg--46 to 80 inches; loam

L61E--Lester-Metea Complex, 18 To 25 Percent Slopes

Component Description

Lester and similar soils

Extent: 50 to 80 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Shoulder

Backslope

Slope range: 18 to 25 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 10.4 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

A--0 to 5 inches; loam
BE,Bt--5 to 34 inches; clay loam
Bk--34 to 60 inches; loam

C--60 to 80 inches; loam

Metea and similar soils

Extent: 20 to 40 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Shoulder

Summit

Slope range: 18 to 25 percent

Surface layer texture: Loamy fine sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Outwash over till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 8.4 inches

Content of organic matter in the upper 10 inches: 3.2 percent

Typical profile:

A--0 to 8 inches; loamy fine sand

E--8 to 24 inches; loamy fine sand

2Bt--24 to 46 inches; sandy clay loam

2C--46 to 60 inches; loam

Terril and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Footslope

Slope range: 2 to 6 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

A1,A2--0 to 24 inches; loam

AB--24 to 37 inches; loam

Bw--37 to 57 inches; loam

C--57 to 80 inches; loam

Hamel and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Swales and drainageways

Slope range: 1 to 3 percent

Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.5 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
A1,A2--0 to 22 inches; loam
Btg--22 to 41 inches; clay loam
Cg--41 to 80 inches; loam

Ridgeton and similar soils

Extent: 0 to 10 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Foothslope
Backslope
Slope range: 10 to 20 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Colluvium over till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 5.0 percent
Typical profile:
A1,A2,A3--0 to 32 inches; loam
Bw--32 to 40 inches; loam
C1,C2--40 to 80 inches; loam

L62B--Koronis-Kingsley-Malardi Complex, 2 To 6 Percent Slopes

Component Description

Koronis and similar soils

Extent: 30 to 70 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Summit
Backslope
Slope range: 2 to 6 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 9.7 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 30 inches; sandy clay loam

Bk--30 to 60 inches; loam

Kingsley and similar soils

Extent: 10 to 40 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Summit

Backslope

Slope range: 2 to 6 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2 inches

Content of organic matter in the upper 10 inches: 2.2 percent

Typical profile:

Ap--0 to 7 inches; sandy loam

E--7 to 14 inches; sandy loam

Bt--14 to 34 inches; sandy loam

C--34 to 60 inches; sandy loam

Malardi and similar soils

Extent: 10 to 40 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Backslope

Summit

Slope range: 2 to 6 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.8 inches

Content of organic matter in the upper 10 inches: 2.3 percent

Typical profile:

Ap--0 to 9 inches; sandy loam

Bt--9 to 14 inches; sandy loam

2Bt--14 to 21 inches; gravelly loamy coarse sand

2C--21 to 80 inches; gravelly sand

Forestcity and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:
Moraine
Position on landform:
Swales and drainageways
Slope range: 0 to 2 percent
Surface layer texture: Fine sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 8.9 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
Ap,A1--0 to 22 inches; fine sandy loam
A2,AB--22 to 36 inches; loam
2Btg--36 to 60 inches; sandy clay loam
2Cg--60 to 80 inches; sandy loam

L62C2--Koronis-Kingsley-Malardi Complex, 6 To 12 Percent Slopes, Eroded

Component Description

Koronis, eroded and similar soils
Extent: 30 to 70 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Summit
Backslope
Slope range: 6 to 12 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Till
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.7 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:
Ap--0 to 10 inches; sandy loam
Bt--10 to 30 inches; sandy clay loam
Bk--30 to 60 inches; loam

Kingsley, eroded and similar soils
Extent: 10 to 40 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Backslope
Summit
Slope range: 6 to 12 percent

Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Till
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 8.2 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
Ap--0 to 7 inches; sandy loam
E--7 to 14 inches; sandy loam
Bt--14 to 34 inches; sandy loam
C--34 to 60 inches; sandy loam

Malardi, eroded and similar soils

Extent: 10 to 40 percent of the unit
Geomorphologic description:
Hill on moraine
Position on landform:
Shoulder
Summit
Slope range: 6 to 12 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.8 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap--0 to 9 inches; sandy loam
Bt--9 to 14 inches; sandy loam
2Bt--14 to 21 inches; gravelly loamy coarse sand
2C--21 to 80 inches; gravelly sand

Forestcity and similar soils

Extent: 5 to 20 percent of the unit
Geomorphologic description:
Moraine
Position on landform:
Swales and drainageways
Slope range: 0 to 2 percent
Surface layer texture: Fine sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 8.9 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

Ap,A1--0 to 22 inches; fine sandy loam

A2,AB--22 to 36 inches; loam

2Btg--36 to 60 inches; sandy clay loam

2Cg--60 to 80 inches; sandy loam

L62D2--Koronis-Kingsley-Malardi Complex, 12 To 18 Percent Slopes, Eroded

Component Description

Koronis, eroded and similar soils

Extent: 30 to 70 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Summit

Backslope

Slope range: 12 to 18 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 9.7 inches

Content of organic matter in the upper 10 inches: 2.0 percent

Typical profile:

Ap--0 to 10 inches; sandy loam

Bt--10 to 30 inches; sandy clay loam

Bk--30 to 60 inches; loam

Kingsley, eroded and similar soils

Extent: 10 to 40 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Summit

Backslope

Slope range: 12 to 18 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

Ap--0 to 7 inches; sandy loam

E--7 to 14 inches; sandy loam

Bt--14 to 34 inches; sandy loam

C--34 to 60 inches; sandy loam

Malardi, eroded and similar soils

Extent: 10 to 40 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Shoulder

Summit

Slope range: 12 to 18 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.8 inches

Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:

Ap--0 to 9 inches; sandy loam

Bt--9 to 14 inches; sandy loam

2Bt--14 to 21 inches; gravelly loamy coarse sand

2C--21 to 80 inches; gravelly sand

Forestcity and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Swales and drainageways

Slope range: 0 to 2 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 8.9 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

Ap,A1--0 to 22 inches; fine sandy loam

A2,AB--22 to 36 inches; loam

2Btg--36 to 60 inches; sandy clay loam

2Cg--60 to 80 inches; sandy loam

L62E--Koronis-Kingsley-Malardi Complex, 18 To 35 Percent Slopes

Component Description

Koronis and similar soils

Extent: 30 to 70 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Backslope

Summit

Slope range: 18 to 35 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 9.7 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

A--0 to 10 inches; sandy loam

Bt--10 to 30 inches; sandy clay loam

Bk--30 to 60 inches; loam

Kingsley and similar soils

Extent: 10 to 40 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Backslope

Summit

Slope range: 18 to 35 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2 inches

Content of organic matter in the upper 10 inches: 3.7 percent

Typical profile:

A--0 to 7 inches; sandy loam

E--7 to 14 inches; sandy loam

Bt--14 to 34 inches; sandy loam

C--34 to 60 inches; sandy loam

Malardi and similar soils

Extent: 10 to 40 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Summit

Shoulder

Slope range: 18 to 35 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.8 inches

Content of organic matter in the upper 10 inches: 4.6 percent

Typical profile:

A--0 to 9 inches; sandy loam
Bt--9 to 14 inches; sandy loam
2Bt--14 to 21 inches; gravelly loamy coarse sand
2C--21 to 80 inches; gravelly sand

Forestcity and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Swales and drainageways

Slope range: 0 to 2 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 8.9 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

A1--0 to 22 inches; fine sandy loam

A2,AB--22 to 36 inches; loam

2Btg--36 to 60 inches; sandy clay loam

2Cg--60 to 80 inches; sandy loam

L64A--Tadkee-Tadkee, Depressional, Complex, 0 To 2 Percent Slopes

Component Description

Tadkee and similar soils

Extent: 20 to 70 percent of the unit

Geomorphic description:

Beach on moraine

Position on landform:

Flats

Slope range: 0 to 2 percent

Surface layer texture: Loamy fine sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Beach sand over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 7.6 inches

Content of organic matter in the upper 10 inches: 4.3 percent

Typical profile:

A--0 to 6 inches; loamy fine sand

Bg--6 to 34 inches; sand

2Cg--34 to 80 inches; loam

Tadkee, depressional and similar soils

Extent: 20 to 70 percent of the unit

Geomorphic description:

Beach on moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Mucky loamy fine sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Beach sand over till

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April May June

Wet soil moisture status is lowest (depth, months):

2.0 feet February August

Ponding does not occur (months):

January February July August September October November
December

Ponding is deepest (depth, months):

1.0 foot March April May

Available water capacity to a depth of 60 inches: 9.8 inches

Content of organic matter in the upper 10 inches: 12.1 percent

Typical profile:

A--0 to 6 inches; mucky loamy fine sand

Bg--6 to 27 inches; sand

2Cg--27 to 80 inches; loam

Better drained soil and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic description:

Beach on moraine

Position on landform:

Slight rise

Slope range: 0 to 3 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Outwash over till

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 8.2 inches

Content of organic matter in the upper 10 inches: 2.1 percent

Typical profile:

A--0 to 6 inches; loamy sand

Bw--6 to 25 inches; loamy sand

2Cg--25 to 80 inches; loam

Granby and similar soils

Extent: 0 to 6 percent of the unit

Geomorphic description:

Beach on moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Loamy fine sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April May June

Wet soil moisture status is lowest (depth, months):

1.8 feet August

Ponding does not occur (months):

January February July August September October November
December

Ponding is deepest (depth, months):

1.0 foot March April May

Available water capacity to a depth of 60 inches: 4.9 inches

Content of organic matter in the upper 10 inches: 7.0 percent

Typical profile:

A--0 to 12 inches; loamy fine sand

AC--12 to 24 inches; loamy fine sand

C--24 to 60 inches; loamy fine sand

Less sandy soil and similar soils

Extent: 0 to 5 percent of the unit

Geomorphic description:

Beach on moraine

Position on landform:

Flats

Slope range: 0 to 2 percent

Surface layer texture: Loamy fine sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 9.9 inches

Content of organic matter in the upper 10 inches: 2.9 percent

Typical profile:

A--0 to 4 inches; loamy fine sand

Bg--4 to 20 inches; loam

Cg--20 to 80 inches; loam

L70C2--Lester-Malardi Complex, 6 To 12 Percent Slopes, Eroded

Component Description

Lester, eroded and similar soils

Extent: 50 to 80 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Shoulder
Backslope
Slope range: 6 to 12 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
Ap--0 to 7 inches; loam
Bt--7 to 38 inches; clay loam
Bk--38 to 60 inches; loam
C--60 to 80 inches; loam

Malardi, eroded and similar soils

Extent: 20 to 40 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Shoulder
Summit
Slope range: 6 to 12 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap--0 to 10 inches; sandy loam
Bt--10 to 15 inches; sandy loam
2Bt--15 to 29 inches; loamy coarse sand
2C--29 to 80 inches; gravelly sand

Terril and similar soils

Extent: 5 to 20 percent of the unit
Geomorphic description:
Hill on moraine
Position on landform:
Foothill
Slope range: 0 to 4 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material:
Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):

More than 6.7 feet

January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 11.4 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

Ap,A1--0 to 27 inches; loam

A2,BA--27 to 40 inches; loam

Bw--40 to 63 inches; loam

C--63 to 80 inches; loam

Hamel and similar soils

Extent: 0 to 5 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Swales and drainageways

Slope range: 1 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 11.6 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

Ap,A,AB--0 to 24 inches; loam

Btg--24 to 46 inches; clay loam

Cg--46 to 80 inches; loam

L70D2--Lester-Malardi Complex, 12 To 18 Percent Slopes, Eroded

Component Description

Lester, eroded and similar soils

Extent: 50 to 80 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Backslope

Shoulder

Slope range: 12 to 18 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 10.5 inches

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

Ap--0 to 7 inches; loam
Bt--7 to 38 inches; clay loam
Bk--38 to 60 inches; loam
C--60 to 80 inches; loam

Malardi, eroded and similar soils

Extent: 20 to 40 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Summit

Shoulder

Slope range: 12 to 18 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material:

Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.8 inches

Content of organic matter in the upper 10 inches: 2.8 percent

Typical profile:

Ap--0 to 9 inches; sandy loam

Bt--9 to 14 inches; sandy loam

2Bt--14 to 21 inches; gravelly loamy coarse sand

2C--21 to 80 inches; gravelly sand

Terril and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Footslope

Slope range: 2 to 6 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 11.4 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

Ap,A1--0 to 27 inches; loam

A2,BA--27 to 40 inches; loam

Bw--40 to 63 inches; loam

C--63 to 80 inches; loam

Ridgeton and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

 Footslope

 Backslope

Slope range: 8 to 14 percent

Surface layer texture: Loam

Depth to restrictive feature:

 Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

 Colluvium over till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 11.2 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

 Ap,A1--0 to 23 inches; loam

 A2,AB--23 to 38 inches; loam

 Bw--38 to 50 inches; loam

 C--50 to 80 inches; loam

Hamel and similar soils

Extent: 0 to 5 percent of the unit

Geomorphic description:

 Moraine

Position on landform:

 Swales and drainageways

Slope range: 1 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

 Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

 Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

 0.5 foot April

Wet soil moisture status is lowest (depth, months):

 3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 11.6 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

 Ap,A,AB--0 to 24 inches; loam

 Btg--24 to 46 inches; clay loam

 Cg--46 to 80 inches; loam

L70E--Lester-Malardi Complex, 18 To 35 Percent Slopes

Component Description

Lester and similar soils

Extent: 50 to 80 percent of the unit

Geomorphic description:

 Hill on moraine

Position on landform:

 Shoulder

 Backslope

Slope range: 18 to 35 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
A--0 to 5 inches; loam
BE,Bt--5 to 34 inches; clay loam
Bk--34 to 60 inches; loam
C--60 to 80 inches; loam

Malardi and similar soils

Extent: 20 to 40 percent of the unit
Geomorphologic description:
Hill on moraine
Position on landform:
Shoulder
Summit
Slope range: 18 to 35 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.8 inches
Content of organic matter in the upper 10 inches: 4.6 percent
Typical profile:
A--0 to 9 inches; sandy loam
Bt--9 to 14 inches; sandy loam
2Bt--14 to 21 inches; gravelly loamy coarse sand
2C--21 to 80 inches; gravelly sand

Terril and similar soils

Extent: 5 to 20 percent of the unit
Geomorphologic description:
Hill on moraine
Position on landform:
Foothill
Slope range: 2 to 6 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material:
Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 6.7 feet January February July August
September
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

A1,A2--0 to 24 inches; loam
AB--24 to 37 inches; loam
Bw--37 to 57 inches; loam
C--57 to 80 inches; loam

Hamel and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Swales and drainageways

Slope range: 1 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 11.5 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

A1,A2--0 to 22 inches; loam
Btg--22 to 41 inches; clay loam
Cg--41 to 80 inches; loam

Ridgeton and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Footslope

Backslope

Slope range: 10 to 20 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Colluvium over till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 11.4 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

A1,A2,A3--0 to 32 inches; loam
Bw--32 to 40 inches; loam
C1,C2--40 to 80 inches; loam

L71C--Metea Loamy Fine Sand, 6 To 12 Percent Slopes

Component Description

Metea and similar soils

Extent: 70 to 90 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Shoulder

Summit

Backslope

Slope range: 6 to 12 percent

Surface layer texture: Loamy fine sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Outwash over till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 8.4 inches

Content of organic matter in the upper 10 inches: 1.2 percent

Typical profile:

Ap--0 to 8 inches; loamy fine sand

E--8 to 24 inches; loamy fine sand

2Bt--24 to 46 inches; sandy clay loam

2C--46 to 60 inches; loam

Lester and similar soils

Extent: 5 to 20 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Shoulder

Backslope

Slope range: 6 to 12 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 10.5 inches

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

Ap--0 to 7 inches; loam

Bt--7 to 38 inches; clay loam

Bk--38 to 60 inches; loam

C--60 to 80 inches; loam

Moon and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Footslope

Backslope

Slope range: 2 to 5 percent

Surface layer texture: Loamy fine sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Outwash over till

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet January February June July
August September

Ponding: None

Available water capacity to a depth of 60 inches: 8.4 inches

Content of organic matter in the upper 10 inches: 1.7 percent

Typical profile:

Ap--0 to 8 inches; loamy fine sand

E--8 to 24 inches; loamy fine sand

2Bt--24 to 46 inches; sandy clay loam

2C--46 to 60 inches; loam

L72A--Lundlake Loam, Depressional, 0 To 1 Percent Slopes

Component Description

Lundlake, depressional and similar soils

Extent: 85 to 100 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Depressions

Slope range: 0 to 1 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April

Wet soil moisture status is lowest (depth, months):

2.0 feet February August

Ponding does not occur (months):

January February May June July August September October
November December

Ponding is deepest (depth, months):

1.0 foot April

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

Ap,A1--0 to 20 inches; loam

A2,A3,AB--20 to 46 inches; loam

Bg--46 to 54 inches; sandy loam

Cg--54 to 60 inches; sandy loam

Forestcity and similar soils

Extent: 5 to 15 percent of the unit

Geomorphic description:

Moraine

Position on landform:

Rims of depressions

Slope range: 0 to 2 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 9.0 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
Ap,A1--0 to 22 inches; fine sandy loam
A2,AB--22 to 43 inches; loam
2Btg--43 to 60 inches; sandy clay loam
2BCg--60 to 80 inches; sandy loam

L110E--Lester-Ridgeton Complex, 18 To 25 Percent Slopes

Component Description

Lester and similar soils

Extent: 45 to 65 percent of the unit
Geomorphic description:
Escarpment on moraine
Position on landform:
Shoulder
Backslope
Slope range: 18 to 25 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
A--0 to 5 inches; loam
BE,Bt--5 to 34 inches; clay loam
Bk--34 to 60 inches; loam
C--60 to 80 inches; loam

Ridgeton and similar soils

Extent: 20 to 40 percent of the unit
Geomorphic description:
Escarpment on moraine
Position on landform:
Backslope
Footslope
Slope range: 12 to 25 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Colluvium over till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 11.4 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

A1,A2,A3--0 to 32 inches; loam

Bw--32 to 40 inches; loam

C1,C2--40 to 80 inches; loam

Cokato and similar soils

Extent: 10 to 20 percent of the unit

Geomorphic description:

Escarpment on moraine

Position on landform:

Summit

Backslope

Slope range: 18 to 25 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 10.8 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

A--0 to 16 inches; loam

Bt--16 to 30 inches; clay loam

Bk--30 to 60 inches; loam

Belview and similar soils

Extent: 0 to 15 percent of the unit

Geomorphic description:

Escarpment on moraine

Position on landform:

Shoulder

Backslope

Slope range: 18 to 25 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 10.5 inches

Content of organic matter in the upper 10 inches: 3.7 percent

Typical profile:

A--0 to 9 inches; loam

Bk--9 to 50 inches; loam

C--50 to 60 inches; loam

Hamel and similar soils

Extent: 0 to 5 percent of the unit

Geomorphic description:

Escarpment on moraine

Position on landform:

Toeslope
Slope range: 1 to 4 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.5 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
A1,A2--0 to 22 inches; loam
Btg--22 to 41 inches; clay loam
Cg--41 to 80 inches; loam

Terril and similar soils

Extent: 1 to 5 percent of the unit
Geomorphic description:
Escarpment on moraine
Position on landform:
Foothslope
Slope range: 4 to 6 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material:
Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 6.7 feet January February July August
September
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
A1,A2--0 to 24 inches; loam
AB--24 to 37 inches; loam
Bw--37 to 57 inches; loam
C--57 to 80 inches; loam

L110F--Lester-Ridgeton Complex, 25 To 45 Percent Slopes

Component Description

Lester and similar soils

Extent: 45 to 65 percent of the unit
Geomorphic description:
Escarpment on moraine
Position on landform:
Shoulder
Backslope

Slope range: 25 to 45 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 3.3 percent
Typical profile:
A--0 to 6 inches; loam
Bt--6 to 25 inches; clay loam
C--25 to 60 inches; loam

Ridgeton and similar soils

Extent: 20 to 40 percent of the unit
Geomorphic description:
Escarpment on moraine
Position on landform:
Backslope
Footslope
Slope range: 18 to 25 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Colluvium over till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 5.0 percent
Typical profile:
A1,A2,A3--0 to 32 inches; loam
Bw--32 to 40 inches; loam
C1,C2--40 to 80 inches; loam

Cokato and similar soils

Extent: 0 to 20 percent of the unit
Geomorphic description:
Escarpment on moraine
Position on landform:
Summit
Backslope
Slope range: 25 to 40 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Parent material:
Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.8 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
A--0 to 16 inches; loam

Bt--16 to 30 inches; clay loam

Bk--30 to 60 inches; loam

Belview and similar soils

Extent: 2 to 15 percent of the unit

Geomorphic description:

Escarpment on moraine

Position on landform:

Backslope

Shoulder

Slope range: 25 to 45 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Parent material:

Till

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 10.5 inches

Content of organic matter in the upper 10 inches: 3.7 percent

Typical profile:

A--0 to 9 inches; loam

Bk--9 to 50 inches; loam

C--50 to 60 inches; loam

Terril and similar soils

Extent: 1 to 5 percent of the unit

Geomorphic description:

Escarpment on moraine

Position on landform:

Footslope

Slope range: 4 to 6 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

A1,A2--0 to 24 inches; loam

AB--24 to 37 inches; loam

Bw--37 to 57 inches; loam

C--57 to 80 inches; loam

Hamel and similar soils

Extent: 0 to 3 percent of the unit

Geomorphic description:

Escarpment on moraine

Position on landform:

Toeslope

Slope range: 1 to 4 percent

Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.5 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
A1,A2--0 to 22 inches; loam
Btg--22 to 41 inches; clay loam
Cg--41 to 80 inches; loam

L131A--Litchfield Loamy Fine Sand, 0 To 3 Percent Slopes

Component Description

Litchfield and similar soils

Extent: 75 to 95 percent of the unit
Geomorphic description:
Outwash plain
Stream terrace
Position on landform:
Flats and slight rises
Slope range: 0 to 3 percent
Surface layer texture: Loamy fine sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material:
Outwash
Flooding: None
Wet soil moisture status is highest (depth, months):
1.3 feet April
Wet soil moisture status is lowest (depth, months):
3.0 feet August
Ponding: None
Available water capacity to a depth of 60 inches: 7.2 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:
Ap,A,AB--0 to 20 inches; loamy fine sand
Bw--20 to 33 inches; fine sand
BC--33 to 40 inches; very fine sandy loam
C--40 to 80 inches; loamy fine sand

Darfur and similar soils

Extent: 5 to 20 percent of the unit
Geomorphic description:
Stream terrace
Outwash plain
Position on landform:
Flats and swales
Slope range: 0 to 2 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:

Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Outwash
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 7.6 inches
Content of organic matter in the upper 10 inches: 5.0 percent
Typical profile:
Ap,A--0 to 16 inches; sandy loam
Bg--16 to 32 inches; sandy clay loam
Cg--32 to 80 inches; stratified sand to loamy fine sand to fine sandy loam

Crowfork and similar soils

Extent: 0 to 10 percent of the unit
Geomorphologic description:
Outwash plain
Stream terrace
Position on landform:
Slight rise
Slope range: 3 to 6 percent
Surface layer texture: Loamy sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material:
Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:
Ap--0 to 11 inches; loamy sand
E--11 to 20 inches; loamy fine sand
E&Bt--20 to 76 inches; loamy sand
C--76 to 80 inches; sand

L132A--Hamel-Glencoe, Depressional, Complex, 0 To 3 Percent Slopes

Component Description

Hamel and similar soils

Extent: 40 to 80 percent of the unit
Geomorphologic description:
Moraine
Position on landform:
Drainageways and swales
Slope range: 1 to 3 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material:
Colluvium over till
Flooding: None

Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.6 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
Ap,A,AB--0 to 24 inches; loam
Btg--24 to 46 inches; clay loam
Cg--46 to 80 inches; loam

Glencoe, depressional and similar soils

Extent: 20 to 40 percent of the unit
Geomorphic description:

Moraine
Position on landform:
Depressions
Slope range: 0 to 1 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material:

Till
Flooding: None
Wet soil moisture status is highest (depth, months):
At the surface March April
Wet soil moisture status is lowest (depth, months):
2.0 feet February August
Ponding does not occur (months):
January February May June July August September October
November December
Ponding is deepest (depth, months):
1.0 foot April
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 7.5 percent
Typical profile:
Ap--0 to 13 inches; loam
A2,Bg1--13 to 31 inches; clay loam
Bg2--31 to 45 inches; loam
Cg--45 to 80 inches; loam

Hamel, overwash and similar soils

Extent: 5 to 25 percent of the unit
Geomorphic description:

Moraine
Position on landform:
Drainageways and swales
Slope range: 1 to 4 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material:

Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months):
1.5 feet April
Wet soil moisture status is lowest (depth, months):
4.5 feet August
Ponding: None

Available water capacity to a depth of 60 inches: 11.8 inches
Content of organic matter in the upper 10 inches: 3.5 percent
Typical profile:

Ap--0 to 13 inches; loam
A--13 to 29 inches; clay loam
Btg--29 to 50 inches; clay loam
Cg--50 to 80 inches; loam

Terril and similar soils

Extent: 0 to 10 percent of the unit

Geomorphic description:

Hill on moraine

Position on landform:

Footslope

Slope range: 2 to 5 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material:

Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet April

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet January February July August
September

Ponding: None

Available water capacity to a depth of 60 inches: 11.4 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

Ap,A1--0 to 27 inches; loam
A2,BA--27 to 40 inches; loam
Bw--40 to 63 inches; loam
C--63 to 80 inches; loam

M-W--Water, Miscellaneous

Component Description

Water, miscellaneous

Extent: 100 percent of the unit

Wet soil moisture status: At the surface all year

Miscellaneous water map units are not naturally occurring water areas. They are constructed and include; sewage lagoons, storm water sediment basins with a permanent pool of water, and aquaculture ponds. This map unit is not soil, no interpretations assigned.

U1A--Urban Land-Udorthents, Wet Substratum, Complex, 0 To 2 Percent Slopes

Component Description

Urban land

Extent: 65 to 90 percent of the unit

Geomorphic description:

Moraine

Stream terrace

Outwash plain

Slope range: 0 to 2 percent
Flooding: None
Ponding: None

The Urban land component is mainly commercial, industrial or residential areas with 65 to 100 percent of the mapunit covered by impervious surfaces. The majority of the area was originally occupied by wet depressional soils, mineral or organic.

Udorthents, wet substratum
Extent: 10 to 35 percent of the unit
Geomorphic description:
 Moraine
 Stream terrace
 Outwash plain
Position on landform:
 Fill placed in depressions
Slope range: 0 to 2 percent
Parent material:
 Variable soil material
Flooding: None
Ponding: None

The Udorthents, wet substratum component comprises of fill material placed in wet depressional areas to match the adjoining upland landscape. Because of the variability of the components in this map unit, interpretations for specific uses are not available. Onsite investigation is needed.

U2A--Udorthents, Wet Substratum, 0 To 2 Percent Slopes

Component Description

Udorthents, wet substratum
Extent: 100 percent of the unit
Geomorphic description:
 Stream terrace
 Moraine
 Outwash plain
Position on landform:
 Fill placed in depressions
Slope range: 0 to 2 percent
Parent material:
 Variable soil material
Flooding: None
Ponding: None

The Udorthents, wet substratum component comprises of fill material placed in these wet depressional areas to match the adjoining upland landscape. Because of the variability of the components in this map unit, interpretations for specific uses are not available. Onsite investigation is needed.

U3B--Udorthents (cut And Fill Land), 0 To 6 Percent Slopes

Component Description

Udorthents (cut and fill land)
Extent: 100 percent of the unit
Geomorphic description:

Moraine
Slope range: 0 to 6 percent
Parent material:
Variable loamy material
Flooding: None
Ponding: None

The Udorthents component, consists primarily of cut or fill operations to the landscape to level and or fill areas for development. The cut and or fill material is dominantly loamy soil material. Up to 30 percent of this map unit is covered by impervious surfaces. The majority of the area has been disturbed by construction activity. Because of the variability of the component in this map unit, interpretations for specific uses are not available. Onsite investigation is needed.

U4A--Urban Land-Udipsamments (cut And Fill Land) Complex, 0 To 2 Percent Slopes

Component Description

Urban land

Extent: 65 to 85 percent of the unit
Geomorphic description:
Outwash plain
Stream terrace
Slope range: 0 to 2 percent
Flooding: None
Ponding: None

The Urban land component is mainly industrial parks, office buildings, warehouses and railroad yards with 65 to 85 percent of the mapunit covered by impervious surfaces.

Udipsamments (cut and fill land)

Extent: 15 to 50 percent of the unit
Geomorphic description:
Outwash plain
Stream terrace
Slope range: 0 to 2 percent
Parent material:
Variable sandy material
Flooding: None
Ponding: None

The Udipsamments component, comprises of nearly level areas that had minimal grading and the cut and fill material is dominantly the sandy parent material. Because of the variability of the components in this map unit, interpretations for specific uses are not available. Onsite investigation is needed.

U5A--Urban Land-Udorthents, Wet Substratum, Complex, 0 To 2 Percent Slopes, Rarely Flooded

Component Description

Urban land

Extent: 35 to 85 percent of the unit
Geomorphic description:
Flood plain

Slope range: 0 to 2 percent

Flooding does not occur (months):

January February March July August September October
November December

Flooding is most likely (frequency, months):

Rare April May June

Ponding: None

The Urban land component is mainly commercial or residential with 35 to 80 percent of the mapunit covered by impervious surfaces. Because of the variability of the Urban land component in this map unit, interpretations for specific uses are not available. Onsite investigation is needed.

Udorthents, wet substratum

Extent: 15 to 50 percent of the unit

Geomorphic description:

Flood plain

Position on landform:

Fill placed in flood plains

Slope range: 0 to 2 percent

Parent material:

Variable soil material

Flooding does not occur (months):

January February March July August September October
November December

Flooding is most likely (frequency, months):

Rare April May June

Ponding: None

The Udorthents, wet substratum component comprises of fill material placed in wet flood plains to match the adjoining upland landscape. Because of the variability of the components in this map unit, interpretations for specific uses are not available. Onsite investigation is needed.

U6B--Urban Land-Udorthents (cut And Fill Land) Complex, 0 To 6 Percent Slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit

Geomorphic description:

Moraine

Slope range: 0 to 6 percent

Flooding: None

Ponding: None

The Urban land component is mainly residential, industrial parks, office buildings, warehouses, railroad yards and freeway interchange areas with 35 to 80 percent of the mapunit covered by impervious surfaces.

Udorthents (cut and fill land)

Extent: 20 to 65 percent of the unit

Geomorphic description:

Moraine

Slope range: 0 to 6 percent

Parent material:

Variable loamy material

Flooding: None

Ponding: None

The Udorthents component, consists primarily of cut or fill operations to the landscape to level and or fill areas for development. The cut and or fill material is dominatly loamy soil material. Up to 30 percent of this map unit is covered by impervious surfaces. The majority of the area has been disturbed by construction activity. Because of the variability of the component in this map unit, interpretations for specific uses are not available. Onsite investigation is needed.

W--Water

Component Description

Water

Extent: 100 percent of the unit

Wet soil moisture status: At the surface all year

This mapunit consists of natural occuring bodies of water or water that has been impounded by structures in natural waterways. They range in size from 1.5 acres to tens of thousands of acres. This map unit is not soil, no interpretations assigned.